

COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 1

by

Ernest W. Flick



NOYES PUBLICATIONS
Park Ridge, New Jersey, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN: 0-8155-1218-X

Printed in the United States

Published in the United States of America by

Noyes Publications

Mill Road, Park Ridge, New Jersey 07656

10 9 8 7 6 5 4

Library of Congress Cataloging-in-Publication Data

Flick, Ernest W.

Cosmetic and toiletry formulations / by Ernest W. Flick. -- 2nd ed.

p. cm.

ISBN 0-8155-1218-X

1. Cosmetics. 2. Toilet preparations. I. Title.

TP983.F55 1989

668'.55--dc20

89-39099

CIP

*To
the present Flick generation
Raymonde, Madeleine
and
Dwight (1919-1944), Floyd, Jack, Charles (1926-1984), Jeanne
and
Lucia*

Preface

More than 1800 cosmetic and toiletry formulations are detailed in this book, based on information received from numerous industrial companies and other organizations. The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials.

Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of utmost interest to readers concerned with raw material discontinuances.

Spurred by a strong economy, sales for the cosmetics and toiletry industry have been increasing at 6-7% annually, thus making the information in the book particularly interesting to anyone considering new products or process variations.

Each formulation in the book is identified by a description of end use. The formulations include the following: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula.

The formulations in the book are divided into the following 14 sections:

- I. Antiperspirants and Deodorants
- II. Baby Products
- III. Bath and Shower Products
- IV. Beauty Aids
- V. Creams
- VI. Fragrances and Perfumes
- VII. Hair Care Products
- VIII. Insect Repellents
- IX. Lotions
- X. Shampoos
- XI. Shaving Products
- XII. Soaps
- XIII. Sun Care Products
- XIV. Miscellaneous

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

XV. Trade-Named and Other Raw Materials Descriptions.

Each raw material is listed with a brief chemical description and the name of the raw material supplier.

XVI. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

October, 1989

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This industrial guide does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic in some circumstances, and therefore due caution should always be exercised in the use of potentially hazardous materials. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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SECTION XVI: SUPPLIERS' ADDRESSES 965

Section I
Antiperspirants and
Deodorants

AEROSOL ANTIPERSPIRANT

RAW MATERIALS	% By Weight
REACH	10.0
Isopropyl Myristate	13.4
Bentone 38	0.8
Alcohol SDA-40	0.8
Propellant A-46	75.0
(80% Isobutane/20% Propane)	100.0

Procedure for Formulation A:

1. Disperse Bentone in IPM using a homomixer or other suitable high-shear mixing apparatus. Mix 15 minutes.
2. Add SDA-40 and continue mixing at high speed for 30 minutes or until a thick gel forms.
3. Using low-shear overhead mixing, gradually blend in the REACH in small increments, making sure each addition is blended into the batch before making another addition. After all the active is in, continue mixing for 30 minutes.
4. Pass the concentrate through a 60 mesh screen to remove any large agglomerates, then homogenize at 6000 psi.
5. Fill epoxy-lined aerosol cans with suitable amount of concentrate, evacuate air from the can and charge with either A-46 or A-31 propellant.

AEROSOL ANTIPERSPIRANT

RAW MATERIALS	% By Weight
REACH	3.5
Dimethicone	5.9
Bentone 34	0.3
Alcohol SDA-40	0.3
Propellant 11	45.0
Propellant 12	45.0
	100.0

Procedure for Formulation B:

1. Disperse Bentone in Dimethicone using a homomixer or other suitable high-shear mixing apparatus. Mix 15 minutes.
2. Add SDA-40 and continue mixing at high speed for 30 minutes or until a thick gel forms.
3. Gradually blend in the REACH using low-shear overhead mixing. Add REACH in small increments, making sure each addition is blended into the batch before making another addition. After all of the active is in, continue mixing for 30 minutes.

SOURCE: Reheis Inc.: "REACH" for the future: Formulations
Table IV A, B

ANTIPERSPIRANT CREAM

RAW MATERIALS	% By Weight
A REZAL 36G REZAL 67 (soln.)	55.0
B PEG-8 Distearate	15.0
C Cetyl Alcohol	5.0
D Sorbitol 70% Solution	3.0
E Deionized Water	22.0

Procedure:

1. Combine B and C and heat to 75C.
2. Combine D and E and heat to 75C. Add to step 1 and cool to 35C while mixing with an overhead stirrer.
3. Add A and mix thoroughly.
4. Homogenize at 3000 psi.

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate Complexes Super Dry Actives: Formulation

ANTIPERSPIRANT CREAM

RAW MATERIALS	% W/W
A. Mineral Oil 65/75	23.0
Calcium Stearoyl-2-Lactylate (1)	3.2
PEG-8 Dioleate (2)	0.8
B. Glycerine	3.0
Deionized Water	20.0
Sodium Lactate (60%) (3)	10.0
C. Aluminum Chlorohydrate (50%) (4)	40.0
D. Perfume	q.s.
pH	5.1
Viscosity (Brookfield @ 75F)	1,000,000 cps

Procedure:

Combine ingredients of Part A, Part B, and Part C in respective vessels at 70C. Add Part B to Part C and immediately add mixture B/C to Part A. Stir with moderate agitation to 40C and add Part D. Continue stirring to room temperature.

- | | |
|-----------------------------|--------------------------|
| (1) Patco Cosmetic Products | PATONIC CSL |
| (2) Armak Company | Kessco PEG-400 Dioleate |
| (3) Patco Cosmetic Products | |
| (4) Reheis Chemical Company | Chlorhydrol 50% solution |

SOURCE: Patco Cosmetic Products: Formulary: PATCO Bulletin No. 143

ANTIPERSPIRANT GEL

RAW MATERIALS	Parts by Weight
Part A:	
SF-1228	10.00
SF-1204	14.00
Part B:	
Polysorbate 80	0.25
Aluminum Zirconium Tetrachlorohydrate-Gly (ZAG)	20.00
Water	55.75

Procedure:

- 1) Mix SF-1228 and SF-1204 (Part A).
- 2) Dissolve polysorbate 80 into warm water.
- 3) Add ZAG to the water and polysorbate 80 solution and mix (Part B).
- 4) Add Part B to Part A in a high shear mixer with constant agitation.
- 5) Homogenize this mixture with a high speed and high shear mixer (such as an Eppenbach mixer).

Formulation AP-102

ANTIPERSPIRANT EMULSION ROLL-ON

RAW MATERIALS	Parts by Weight
Part A:	
SF-1204	20.50
SF-1228	7.50
Part B:	
Polysorbate 80	0.11
Aluminum Zirconium Tetrachlorohydrate-Gly (ZAG)	20.00
Water	51.89

Procedure:

- 1) Mix SF-1228 and SF-1204 (Part A).
- 2) Dissolve polysorbate 80 into warm water.
- 3) Add ZAG to the water and polysorbate 80 solution and mix (Part B).
- 4) Add Part B to Part A in a high shear mixer with constant agitation.
- 5) Homogenize this mixture with a high speed and high shear mixer (such as an Eppenbach mixer).

Formulation AP-103

SOURCE: GE Silicones: Personal Care Formulary: Suggested Formulations

ANTIPERSPIRANT LOTION

FORMULA:	% By Weight
MAZER MAZOL GMS	2.0
MAZER MACOL CSA 20	1.0
MAZER MACOL P-500	7.0
EMCOL E-607L (Lapyrium Chloride)	0.2
Chlorhydrol 50% Solution	40.0
Water	49.8
Perfume	q.s.

Procedure:

Dissolve EMCOL E-607L and MACOL P-500 in water, add Chlorohydrol 50% Solution and heat to 70C-75C.

Add MACOL CSA 20 and MAZOL GMS; stir until completely melted and uniformly dispersed.

Maintain agitation while cooling to below 30C. Add perfume and package.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formula 1

ANTI-PERSPIRANT LOTION

PHASE A	% By Weight
TAGAT R1	10.6
Isopropyl myristate	3.2
Perfume	0.5
Water	52.3
Aluminum chlorhydroxide solution (50%)	21.2
PHASE B	
Irgasan DP 300	0.1
Ethanol (96%)	10.6
ABIL B 8851	1.0
Citric acid	0.5

Preparation:

Mix A and B in the given order at room temperature. Stir B into A. Adjust pH-value to 3-3,5.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formula
E 3.3

ANTIPERSPIRANT LOTION

RAW MATERIALS	Parts By Weight
WITCONOL MST (Glyceryl Stearate)	2.0
Cetareth 20	1.0
WITCONOL PPG-400 (PPG-9)	7.0
EMCOL E-607L (Lapyrium Chloride)	0.2
Chlorhydrol 50% Solution	40.0
Water	49.8
Perfume	q.s.

Dissolve EMCOL E-607L and WITCONOL PPG-400 in water, add Chlorhydrol 50% Solution and heat to 70 to 75C.

Add Cetareth 20 and WITCONOL MST; stir until completely melted and uniformly dispersed.

Maintain agitation while cooling to below 30C. Add fragrance and package.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 105A

ANTIPERSPIRANT PUMP-SPRAY

RAW MATERIALS	Parts by Weight
WITCONOL APM (PPG-3 Myristyl Ether)	1.0
WITCONOL APS (PPG-11 Stearyl Ether)	3.0
SDA Alcohol	72.5
Silicone 344 Fluid	8.0
Carnation White Mineral Oil	0.5
Chlorhydrol 50% solution	15.0

Since all components are mutually compatible, simple cold blending is sufficient. WITCONOL APM, WITCONOL APS and Carnation White Mineral oil add emolliency to this formulation. WITCONOL APM and WITCONOL APS allow the coupling of mineral oil, which helps prevent valve clogging.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 110A

ANTIPERSPIRANT ROLL-ON LOTION

FORMULA:	% By Weight
Part A:	
MAZER MAPEG S-40	4.0
MAZER T-MAZ 80	1.5
Cetyl Alcohol	2.5
Mineral Oil (70 Vis.)	2.0
Glycerin, USP	2.0
Propyl Paraben	0.1
Part B:	
Magnesium Aluminum Silicate	1.0
Glydant DM Hydantoin	0.2-0.4
Water, Deionized	49.9-50.1
Methyl Paraben	0.1
Part C:	
Aluminum Chlorohydrate (50%)	36.0
Part D:	
Perfume	q.s.

Procedure:

Dispense the Magnesium Aluminum Silicate thoroughly in the water using high speed agitation. Add the Glydant and paraben; heat to 75C. Weigh and heat Part A to 75C. Add Part A to Part B with good mixing. Mix and cool to 40C. Slowly add Part C, then Part D. Continue mixing and cool to 30C.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formula 3

ANTIPERSPIRANT STICK

RAW MATERIALS	% By Weight
WITCAMIDE 70 (Stearamide MEA)	28.0
WITCONOL APM (PPG-3 Myristyl Ether)	27.0
Silicone 344 Fluid	20.0
Micro Dry	25.0
Fragrance	q.s.

Disperse Micro Dry in Witconol APM and Silicone 344 Fluid; stir while heating to 85 to 90C and slowly add WITCAMIDE 70 at 85 to 90C until mixture is uniform. Add fragrance and package at 85 to 88C.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 103A

ANTIPERSPIRANT SOLID

RAW MATERIALS	Parts by Weight
SF-1202	50.0
Stearyl Alcohol	19.0
Castor Wax 70	3.0
Talc	4.0
Arlacel 165	2.0
Aluminum Zirconium Tetrachlorohydrate-Gly (ZAG)	22.0

Procedure:

- 1) Mix SF-1202 and stearyl alcohol.
- 2) Add ZAG, talc and Arlacel 165.
- 3) Heat to 75C and stir with moderate agitation until all wax is melted.
- 4) Pre-melt castor wax and add to mixture as a liquid and stir for 15 min.
- 5) Cool mixture to 55C with continued mixing and pour into container. Cool (avoid air entrapment due to excessive mixing speeds).

Formulation AP-100

ANTIPERSPIRANT SUSPENSION ROLL-ON FORMULATION

RAW MATERIALS	Parts by Weight
SF-1173	45.7
SF-1202	19.5
SF-96 (50)	5.0
Quaternium 18 Hectorite	2.5
Ethanol	2.0
Aluminum Zirconium Tetrachlorohydrate-Gly (ZAG)	25.0
Cabosil M-5	0.3

Procedure:

- 1) Mix SF-1173, SF-1202 and quaternium 18 Hectorite in a high-speed mixer.
- 2) Add SF-96 (50) and ethanol and continue mixing.
- 3) Add Cabosil M-5 and ZAG, and mix for an additional 15 minutes.
- 4) Transfer the material to a homogenizer (Eppenbach Homomixer) and homogenize for 3 minutes at high speed.
- 5) Check the viscosity; it should be approximately 3000 cps.

Formulation AP-101

SOURCE: GE Silicones: Personal Care Formulary: Suggested Formulations

ANTIPERSPIRANT STICK

FORMULA:	% By Weight
MAZER MASIL SF-V	46
Aluminum Chlorhydrate	26
Stearyl Alcohol	24
MAZER MAPEG 6000 DS	6
MAZER MACOL E-1000	2
MAZER MACOL E-1450	2

Procedure:

1. Heat the stearyl alcohol, MACOL E-1000, MACOL E-1450 and MAPEG 6000 DS to 80C.
2. When melted, add the aluminum chlorohydrate and mix thoroughly.
3. Cool to 70C, and rapidly mix in the MASIL SF-V.
4. When mixing is complete (15 to 30 seconds), pour mixture into a stick container.
5. Allow the mixture to cool undisturbed for 24 hours.

If an ultra fine grade of aluminum chlorohydrate is used, it may be necessary to change the order of mixing as follows:

1. Heat the MASIL SF-V to 65C.
2. Add the MACOL E-1000 and MACOL E-1450 to the hot MASIL SF-V with mixing.
3. Add the MAPEG 6000 DS and stearyl alcohol.
4. Add the aluminum chlorohydrate last.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formula 4

ANTIPERSPIRANT STICK

RAW MATERIALS	% By Weight
WITCAMIDE 70	28.5
WITCONOL APM	15.0
Propylene Glycol	30.0
Rehydrol	20.0
Water, Perfume	q.s.

Dissolve Rehydrol in water and propylene glycol at 25 to 30C; with good agitation. Add WITCONOL APM and heat to 80C.

Add WITCAMIDE 70 at 80 to 95C and stir until solution is clear. Cool to 77C with moderate agitation and add perfume.

Package at 72 to 74C.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 104A

ANTIPERSPIRANT STICK

RAW MATERIALS	Parts By Weight
WITCAMIDE 70 (Stearamide MEA)	26.5
Carnation White Mineral Oil	5.0
WITCONOL APM (PPG-3 Myristyl Ether)	25.5
Silicone 344 Fluid	19.0
Micro Dry	24.0
Fragrance	q.s.

Disperse Micro Dry in WITCONOL APM, Carnation White Mineral Oil and silicone fluid; heat to 85 to 90C with agitation.

Slowly add WITCAMIDE 70 while maintaining temperature at 85 to 90C. When all WITCAMIDE 70 is thoroughly melted and mixture is uniform, add fragrance while maintaining agitation.

Cool to approximately 75C and pour into molds

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 111A

A/P STICK

INGREDIENT	% By Weight
I:	
STARFOL OO	24.0
DC 344 Fluid	18.0
Arlacel 165	1.0
II:	
Carbowax 1000	7.0
ADOL 62	16.5
STARFOL Wax CG	4.0
STARFOL BB	3.0
III:	
Micro Dry	20.0
Talc	3.5
Cab-o-sil	3.0

Mixing Instructions:

Mix and heat Phase I to 65C. Maintaining heat, add Phase II ingredients. Add Phase III ingredients in order insuring complete mixing between additions. Pour into suitable container and cool.

Solids: 100%

SOURCE: Sherex Chemical Co.: Formulation Code 6.4.5

ANTIPERSPIRANT STICK

RAW MATERIALS	% By Weight
Rehydrol II Aluminum Chlorohydrate	20.0
Stearamide MEA	15.0
Propylene glycol	30.0
EMEREST 2486 Pentaerythrityl Tetrapelargonate	15.0
ETHOXYOL 1707 Emulsifying Acetate Ester	8.0
Deionized water	10.4
Cab-O-Sil Fumed Silica	1.0
EMERESSENCE 1150 Ethylene Brassylate	0.6

EMEREST 2486 reduces the dragging effect of the stick across the skin to make application smooth but not greasy.

Procedure:

Combine Rehydrol, propylene glycol, EMEREST 2486 and Cab-O-Sil with high speed stirring. Continue stirring and heat to 80C. Slowly add stearamide MEA at 80C and stir until dissolved. Heat water to 80C and add slowly to the mixture. Continue stirring for 30 minutes. Add ETHOXYOL 1707 and EMERESSENCE 1150, stirring until homogeneous. Pour into sticks at 60C.

SOURCE: Emery Chemicals: EMEREST 2486: Formulation 2743-001

DRY ANTIPERSPIRANT STICK

RAW MATERIALS	% By Weight
Cyclomethicone	39.7
Stearyl Alcohol	22.0
Arlacel 165	2.0
Titanium Dioxide 3328	0.2
BENTONE GEL VS-5 Rheological Additive	10.0
Aluminum Chlorohydrate (Micronized)	25.0
Talc	1.0
Fragrance	0.1

Manufacturing Directions:

- A. Heat the Cyclomethicone to 65C.
- B. With stirring, slowly add ingredient 2, maintaining at 65C thru step E.
- C. When all of ingredient 2 is melted, add ingredients 3 and 4. Mix for 15 minutes.
- D. Add BENTONE GEL VS-5 Rheological Additive and mix for 30 minutes.
- E. Add ingredients 6 and 7, mix for 30 minutes.
- F. Allow the batch to cool to 55C, add Fragrance, mix for 5 minutes and pour into suitable containers.

SOURCE: NL Chemicals: Suggested Formulation

CLEAR HYDRO-ALCOHOLIC ROLL-ON

RAW MATERIALS	% By Weight
A. REZAL 67 (soln.) or REZAL 36 (soln.)	37.5
B. Propylene Glycol	2.0
C. SDA 40, 95%	44.2
D. PPG-5-Ceteth-20 (Procetyl AWS)	2.0
E. Hydroxyethyl Cellulose (Cellobond HEC 5000A)	0.2
F. Deionized Water	14.1
G. Fragrance	q.s.

Procedure:

1. Combine E and F until clear
2. Combine A and D. Mix until dissolved.
3. Add B to step #2 with constant stirring.
4. Add step #1 with constant stirring.
5. Add C and stir until homogeneity is achieved.
6. Pour into clear glass roll-on containers.

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate
Complexes Super Dry Actives: Formulation

CLEAR HYDRO-ALCOHOLIC ROLL-ON

RAW MATERIALS	% By Weight
A. REZAL 36P or REZAL 67P	15.0
B. Propylene Glycol	2.0
C. SDA 40, 95%	44.2
D. PPG-5-Ceteth-20 (Procetyl AWS)	2.0
E. Hydroxyethyl Cellulose (Cellobond HEC 5000A)	0.2
F. Deionized Water	36.6
G. Fragrance	q.s.

Procedure:

1. Combine E and F. Mix until clear.
2. Slowly add A and mix until dissolved.
3. Add D, then B with constant stirring.
4. Add C slowly. Stir until homogeneity is achieved.

Note: If a higher pH is desired when formulating with REZAL 36P, a suitable buffering agent may be added in step 2. The pH of the finished formula should not exceed 4.3.

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate
Complexes Super Dry Actives: Formulation

CLEAR MICROEMULSION ROLL-ON ANTIPERSPIRANT LOTION - A

RAW MATERIALS	Parts by Weight
WITCONOL APEB (PPG-26-Buteth-26)	3.0
Cetareth 20	10.0
Oleth-5	4.0
WITCONOL APS (PPG-11 Stearyl Ether)	10.0
Rehydrol, 50% aqueous solution	40.0
Water	33.0

CLEAR MICROEMULSION ROLL-ON ANTIPERSPIRANT LOTION - B

RAW MATERIALS	Parts by Weight
WITCONOL APEB (PPG-26-Buteth-26)	3.0
Cetareth 20	10.0
Oleth-5	4.0
WITCONOL APM (PPG-3 Myristyl Ether)	10.0
Rehydrol, 50% aqueous solution	40.0
Water	33.0

CLEAR MICROEMULSION ROLL-ON ANTIPERSPIRANT LOTION - C

RAW MATERIALS	Parts by Weight
WITCONOL APEB (PPG-26-Buteth-26)	3.0
Cetareth 20	10.0
Oleth-5	4.0
WITCONOL PPG-400 (PPG-9)	10.0
WITCONOL APS (PPG-11 Stearyl Ether)	10.0
Rehydrol, 50% aqueous solution	40.0
Water	23.0

CLEAR MICROEMULSION ROLL-ON ANTIPERSPIRANT LOTION - D

RAW MATERIALS	Parts by Weight
WITCONOL APEB (PPG-26-Buteth-26)	5.0
Cetareth 20	8.0
WITCONOL PPG-400 (PPG-9)	10.0
WITCONOL APM (PPG-3 Myristyl Ether)	5.0
Rehydrol, 50% aqueous solution	40.0
Water	32.0

Heat all ingredients with agitation to 75 to 80C until uniform; cool with agitation (In some cases phase inversion temperature (PIT) is exceeded. When this occurs, a milky emulsion occurs which clears as the formulation cools below it's PIT.)

Viscosities from 500 cps to 5000 cps can be obtained easily by slight formula variations. Viscosity stability and clarity are excellent at elevated temperatures, room temperature and at refrigerated temperatures (4C). Any hazing or clouding effect that occurs at lower temperatures disappears as the formulation returns to room temperature.

Since "Shake before using" need not appear on the label, Witco believes that this factor, coupled with the more aesthetic appearance, offers a more commercially attractive approach to roll-on formulating.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 101A: A-D

DEO SPRAY

RAW MATERIALS	% By Weight
Irgasan DP 300	0.1
Ethanol (96%)	71.9
Perfume	8.0
ABIL AV 8853	20.0

Preparation:

Mix all ingredients in the given order.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 3.4

DEODORANT STICK

RAW MATERIALS	Parts By Weight
WITCONOL APM (PPG-3 Myristyl Ether)	79.0
Propylene Glycol	10.0
Witco Sodium Stearate C-1	8.0
Water	3.0
Antimicrobial	q.s. for desired effect

Dissolve Witco Sodium Stearate C-1 in WITCONOL APM, propylene glycol and water at 80 to 85C; stir until clear. Cool with stirring to 77C and add fragrance, if desired. Package at 73C.

This gel stick is clear to translucent. Various phenolic-type anti-microbials can be incorporated into this formulation. The high solvency characteristics of WITCONOL APM enhance the overall solubilizing properties of this formulation as well as impart desirable emollient properties.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formula 113A

QUICK DRYING ROLL-ON ANTIPERSPIRANT

RAW MATERIALS	% By Weight
BENTONE GEL VS-5 Rheological Additive	15.0
Cyclomethicone	54.0
SDA Alcohol 40	3.0
Isopropyl Myristate	2.0
Aluminum Chlorohydrate	25.0
Fragrance	1.0

Manufacturing Directions:

- A. Combine the BENTONE GEL VS-5 with ingredients 2 and 3 using vigorous agitation. Mix until uniform.
- B. Add ingredient 4, then ingredient 5, with constant agitation. Mix until the powder is uniformly distributed.
- C. Add ingredient 6.

TALC SPRAY ANTIPERSPIRANT

RAW MATERIALS	% By Weight
1. BENTONE GEL IPM rheological additive	8.0
2. SDA 40	2.0
3. Isopropyl Myristate	1.5
4. Cyclomethicone	5.0
5. Aluminum Chlorohydrate	6.0
6. Talc	2.0
7. Fragrance	0.5
8. Propellant A-46	75.00

Manufacturing Directions:

1. Combine ingredients 1 through 4 and thoroughly mix using medium shear equipment.
2. Add ingredients 5 and 6 at a slow rate and mix in thoroughly.
3. Add fragrance and mix.
4. Fill, vacuum crimp and gas aerosol units.

SOURCE: NL Chemicals: Suggested Formulations

ROLL-ON ANTIPERSPIRANT LOTION

RAW MATERIALS	% By Weight
A. Water	29.0
B. Veegum	1.0
C. PEG-8 Distearate	8.0
D. REZAL 36G or REZAL 67 (soln)	55.0
E. Volatile Silicone 7158	7.0
F. Perfume	q.s.

Procedure:

1. Add B to A slowly with continuous agitation using an Eppenbach Homomixer. Continue for 1.5 hours at ca. 4000 rpm. Discontinue agitation and allow suspension to stand for a prolonged period (preferably overnight) to ensure complete hydration. Heat to 70C.
2. Heat C to 75C and add to 1. Mix (using ordinary overhead stirrer) until mixture cools to 50C.
3. Heat D to 50C and add to 2. Mix until temperature decreases to ambient temperature. Add E and F and stir for 15 minutes
4. Homogenize and package.

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate Complexes Super Dry Actives: Formulation

ROLL-ON ANTIPERSPIRANT LOTION

RAW MATERIALS	% By Weight
A:	
VEEGUM HV	1
Water	49
B:	
Amerchol L-101	5
Solulan 98	2
Cetyl alcohol	1
Glycerin	2
Arlacel 165	4
C:	
Aluminum chlorhydrate 50%	36
Preservative	q.s.

Procedure:

Slowly add VEEGUM HV to the water, while agitating at maximum available shear. Continue mixing until smooth. Heat A to 85C. Heat B to 80C. Add A to B with mixing to 40C. Heat C to 40C and add to A/B slowly. Continue stirring and cool to room temperature

SOURCE: R.T. Vanderbilt, Inc.: Cosmetics and Toiletries Formulary: Formula No. 148

ROLL-ON ANTIPERSPIRANT LOTION

RAW MATERIALS	% By Weight
A:	
VEEGUM HV	1.0
Water	49.6
Methocel E4M	0.4
B:	
SD Alcohol 40	8.0
Volatile Silicone 7207	3.0
Arlamol E	1.0
Brij 97	1.0
C:	
Aluminum chlorhydrate 50%	36.0
Preservative	q.s.

Consistency: Low viscosity lotion

Procedure:

Slowly add VEEGUM HV to the water, while agitating at maximum available shear. Continue mixing until smooth. Add Methocel E4M slowly and mix until smooth. Avoid incorporation of air. Add B and C in order, mixing after each addition until smooth and uniform.

SOURCE: R.T. Vanderbilt, Inc.: Cosmetics and Toiletries
Formulary: Formula No. 326

ROLL-ON ANTIPERSPIRANT LOTION

RAW MATERIALS	% By Weight
A:	
VEEGUM	1
Water	51
B:	
Arlacel 165	8
C:	
Aluminum chlorhydrate 50%	40
Preservative	q.s.

Consistency: Medium viscosity lotion.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Heat A to 70C. Heat B to 75C. Add B to A and mix to 50C. Heat C to 50C and add to A/B. Mix until cool.

SOURCE: R.T. Vanderbilt, Inc.: Cosmetics and Toiletries
Formulary: Formula No. 76

ROLL-ON ANTIPERSPIRANT

INGREDIENTS:	% By Weight
A.	
Water	Q.S.
Veegum K	1.0
B.	
Propylene Glycol	2.0
Mineral Oil	5.0
Solulan 98	2.0
Stearyl Alcohol	1.5
Anacel 165	4.0
Butylparaben	0.05
C.	
Chlorohydrol 50%	36.0
D.	
Benzethonium Chloride	0.1
Benzyl Alcohol	1.0
E.	
ALOE VERAGEL 1:1	10.0
F.	
Fragrance	Q.S.

Procedure:

Heat water of Phase A to 90C. Disperse the Veegum. When completely hydrated, add Phase B to A at 85C. Mix until cooled to 50C, slowly add Phase C. Add Phase D, E and F in order, while slowing mixing.

SOURCE: Dr. Madis Laboratories Inc.: Formulating with Aloe Vera: Suggested Formulation

PRESSED POWDER DRY ANTIPERSPIRANT

RAW MATERIALS	% By Weight
SCHERCOMID AME-70	4.75
Zinc Ricinoleate	0.90
Aluminum Chlorohydrate	19.0
Avicel PH 105	75.35
Perfume	qs

Pre-mix all powders and then add the SCHERCOMID AME-70 and perfume with spinbar of PK blender. Then press.

SOURCE: Scher Chemicals, Inc.: Formulation SG-0209

SOFT STICK ANTIPERSPIRANT

INGREDIENTS	% By Weight
Stearic acid (Triple press)	15.0
Cetyl alcohol	15.0
Aluminum chlorohydrate	20.0
Dow 345 fluid (Polydimethylcyclosiloxane)	44.5
VELSAN P8-16 (Cetyl C12-15 Pareth-9-Carboxylate)	2.0
SANDOPAN KST (Sodium Ceteth-13-Carboxylate)	3.0
Orgasol 2002D (Nylon)	0.5

Soft, smooth non-greasy payoff of this stick is due to the property of VELSAN P8-16 to reduce the oily feel of silicone. Non-crystallizing SANDOPAN KST replaces the traditional sodium stearate.

Procedure:

Charge to vessel Stearic acid, Cetyl alcohol, VELSAN P816, SANDOPAN KST to 65-70C. Mix until homogeneous. Discontinue heating. Add Orgasol. Cool to 55C. Add Dow 345 fluid slowly; at 45-50C pour into containers. Allow to cool undisturbed.

Properties:

Appearance:	White stick
Congealing Point:	34.5C

SOURCE: Sandoz Chemicals Corp.: VELSAN: Formulation No. CSP-02

SOLID ANTIPERSPIRANT

FORMULA:	% By Weight
MAZER MASIL SF	50.0
Aluminum Zirconium Trichlorohydrate	25.0
Stearyl Alcohol	19.0
MAZER MAZOL 165C	4.0
MAZER MAZON 36	1.0
Talc	1.0

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formula 2

STICK DEODORANT

RAW MATERIALS	% By Weight
I:	
SD Alcohol 40	65.0
Propylene Glycol	20.0
Glycerine	5.0
Sodium Stearate	6.0
II.	
AROSURF 66-E2	2.0
Perfume	2.0

Mixing Instructions:

Mix and heat Phase I to 70-75C. When even, add pre-mixed Phase II. Pour into suitable containers and cool quickly.

SOURCE: Sherex Chemical Co.: Formula 6.4.5

WATER-IN-OIL STAY DRY STICK

RAW MATERIALS	% By Weight
A:	
VEEGUM HV	1
Water	20
Aluminum chlorhydrate, impalpable	18
B:	
Volatile Silicone 7207	26
Isopropyl myristate	5
Stearyl alcohol	24
Arlacel 85	5
Tween 85	1
Preservative	q.s.

Procedure:

Slowly add VEEGUM HV to the water, while agitating at maximum available shear. Continue mixing until smooth. Add aluminum chlorhydrate and mix until smooth. Heat A with stirring to 70C. Heat B with stirring to 65C. Heat A to B. Mix to 50C. Pour into molds and cool.

Consistency: Firm stick

Suggested Packaging: Push or twist-up dispenser.

Comments: This formula has a pleasant dry feel on application and is tack free.

SOURCE: R.T. Vanderbilt, Inc.: Cosmetics and Toiletries
Formulary: Formula No. 341

SUSPENSION ROLL-ON

RAW MATERIALS	% By Weight
REZAL 36GP or REZAL 67P	20.0
Bentone 38	2.7
SDA 40, 95%	2.7
Volatile Silicone 7158	74.6
Perfume	q.s.

Procedure:

1. Using an Eppenbach Homomixer at 2700 rpm, disperse the Bentone 38 in the Silicone for 20 minutes, keeping the temperature between 25-30C.
2. Add a premix of the Alcohol and Perfume and mix for 5 minutes.
3. Add the REZAL 36GP or 67P and mix until homogeneous (approx. 20 minutes).

SOURCE: Reheis Inc: REZAL Aluminum Zirconium Chlorohydrate
Complexes Super Dry Actives: Formula

SUSPENSION ROLL-ON

RAW MATERIALS	% By Weight
REZAL 36GP Superultrafine	20.0
Bentone 38	1.8
SDA 40, 95%	1.8
Volatile Silicone 7158	76.4
Fragrance	q.s.

Procedure:

1. Using an Eppenbach Homomixer at 2700 rpm, disperse the Bentone 38 in the Silicone for 20 minutes, keeping the temperature between 25-30C.
2. Add a premix of the Alcohol and Perfume and mix for 5 minutes.
3. Add the REZAL 36GP Superultrafine and mix until homogeneous (approximately 20 minutes).

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate
Complexes Super Dry Actives: Formula

SUSPENSOID STICK FORMULATION

INGREDIENTS	% By Weight
REACH AZP-701	25.0
Volatile Silicone 7158	49.5
Stearyl Alcohol	16.0
PPG-3 Promyristyl Ether	5.0
PEG-8 Distearate	3.0
Talc, 325 mesh	1.0
Cab-O-Sil M-5	0.5
Fragrance	q.s.

Procedure:

1. Add B to reaction vessel and heat to 65C.
2. Add D and E with moderate stirring.
3. Add C slowly, maintain 65C.
4. Increase stirring and add A. Mix for 5 minutes.
5. Add F, mix 5 minutes.
6. Add G, mix 5 minutes.
7. Slow to moderate stirring, cool to 55C and add H. Pour into stick casings.

SOURCE: Reheis Inc.: Suggested Formulation

SUSPENSOID TYPE ANTIPERSPIRANT STICK

RAW MATERIALS	% By Weight
REZAL 36GP Super Ultrafine or REZAL 36GP	20.0
Stearyl Alcohol	20.0
Arlacel 165	1.0
PEG-8 Distearate	2.0
Promyristyl Ether PM3	5.0
Talc, 325 mesh	1.0
Cab-O-Sil M5	1.5
Volatile Silicone 7158	49.5
Fragrance	q.s.

Procedure:

1. Add H to vessel and heat to 65C.
2. Add C, D, and E with moderate stirring.
3. Add B slowly, maintain 65C.
4. Increase stirring and add A. Mix 5 minutes.
5. Add F, mix 5 minutes.
6. Add G, mix 5 minutes.
7. Slow to moderate stirring, cool to 55C and add I.
Pour into stick casings.

SOURCE: Reheis Inc.: REZAL Aluminum Zirconium Chlorohydrate
Complexes Super Dry Actives: Formulation

Section II

Baby Products

BABY BATH

RAW MATERIALS	% By Weight
MIRATAINE CBS	13.0
CEDEPAL TD 407MF	8.0
Solulan 98	0.5
Water	78.5

Procedure:

Mix all ingredients together and adjust pH to 6.8 with citric acid.

Solids: 13.0%

Viscosity: 700 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulation

CHILD/BABY FOAM BATH

Ingredients:	%W/W
Water	q.s. to 100.00
TEXAPON ASV (Sodium Laureth Sulfate (and) Magnesium Laureth Sulfate (and) Sodium Laureth-8 Sulfate (and) Magnesium Laureth-8 Sulfate (and) Sodium Oleth Sulfate (and) Magnesium Oleth Sulfate)	50.00
CETIOL HE (PEG-7 Glyceryl Cocoate)	2.50
Sodium Chloride	3.50
BRONIDOX L (Propylene Glycol (and) 5-Bromo-5-Nitro-1,3 dioxane)	0.20
Fragrance	0.15

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust the pH to 7.0 +/- 0.5 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

Formula H-4860 is a fine cleanser for babies which also contains an ethoxylated ester for re-fattening.

SOURCE: Henkel Corp.: Personal Care Products Formulary: H-4860

BABY BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O2	2.0
Perfume	1.0
Sodium lauryl ether sulphate (28%)	25.0
Phase B:	
Water	54.0
TEGO-Betain L7	18.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 1.2.10

BABY BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	1.0
Perfume	1.0
Azulene (25%)	0.1
Extrapon 4-Spezial	3.0
Sodium lauryl ether sulphate (28%)	25.0
Phase B:	
Water	54.9
TEGO-Betain HS	15.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 1.2.11

BABY BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	0.5
TAGAT O2	2.0
Perfume	1.0
Sodium lauryl ether sulphate (28%)	30.0
Phase B:	
Water	51.5
TEGO-Betain HS	14.0
Extrapon Kamille Spezial	1.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 1.2.12

BABY CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	5.0
Glyceryl monostearate	4.0
Cetyl alcohol	4.0
Liquid paraffin	5.0
(+)-ALPHA-BISABOLOL	3.0
Allantoin	2.0
1,2-Propylene Glycol USP	5.0
Preservative	q.s.
Essential oil	q.s.
Water	72.5

SOURCE: BASF: CREMOPHOR A grades: Formulation 54/018

BABY CREAM

RAW MATERIALS	% By Weight
CREMOPHOR W07	5.0
(+)-ALPHA-BISABOLOL rac.	0.2
Vaseline	10.0
Wool Wax DAB 8	5.0
Liquid paraffin	5.0
Peanut oil	6.0
Lunacera MW	1.0
Super Hartolan	2.0
Glycerol	3.0
Zinc oxide	8.0
Preservative	q.s.
Essential oil	q.s.
Water	54.8

SOURCE: BASF: CREMOPHOR W07: Formulation 54/001

BABY CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	5.0
Paraffin oil	5.0
Cetyl alcohol	4.0
Glycerol monostearate	4.0
(+)-ALPHA-BISABOLOL	0.3
1,2-Propanediol-USP	5.0
Allantoin	0.2
Water	72.5

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

BABY CREAM

STANDARD FORMULA	% By Weight
A.	
IMWITOR 960	17.0
MIGLYOL 812 Neutral Oil	5.0
Avocado oil	3.0
Paraffin oil	4.0
SOFTIGEN 701	3.0
B.	
Glycerin	4.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 3.1.2

BABY CREAM(W/O)

RAW MATERIALS	% By Weight
Phase A:	
PROTEGIN	25.0
Zinc oxide	12.5
Hexyl laurate	3.0
Caprylic/capric acid triglyceride	2.0
Lanolin	2.5
Bees-wax	2.0
Phase B:	
Glycerol	3.0
Magnesium sulphate - 7 H ₂ O	0.5
Water	49.5
Perfume	q.s.
Preserving agent	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 2.2.6

BABY CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
Hydrogenated polyisobutylene, e.g. LUVITOL HP	5.0
Liquid paraffin	5.0
Glycerol monostearate	4.0
Cetyl alcohol	4.0
(+)-ALPHA-BISABOLOL rac.	0.5
Allantoin	0.2
1,2-Propylene Glycol USP	5.0
Water	72.3

BABY OIL

RAW MATERIALS	% By Weight
Liquid paraffin	60.0
LUVITOL EHO	30.0
(+)-ALPHA-BISABOLOL rac.	0.5
Isopropyl myristate	9.5

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulations

BABY OIL

RAW MATERIALS	% By Weight
LUVITOL EHO	30.0
Paraffin oil	69.8
(+)-ALPHA-BISABOLOL	0.2

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

BABY-CREAM

RECIPE:	% By Weight
A.	
HOSTACERIN WO	10.00
Microwax (= Lunacera MW)	2.00
Amerlate W	1.00
Petrolatum	25.00
Mineral oil, high viscosity	10.00
B.	
Talc	15.00
Zinc oxide	15.00
C.	
ALLANTOIN	0.20
Water, preservative	19.50
D.	
Perfume	0.30

Formulation A VI/5801

BABYMILK
Without perfume

RECIPE:	% By Weight
A.	
HOSTAPHAT KW340N	3.00
HOSTACERIN DGS	4.00
Mineral oil, high viscosity	10.00
Cetiol SN	8.00
Calendula oil	1.00
Camomile oil	0.50
B.	
HOSTACERIN PN 73*	0.20
C.	
Extrapon Hamamelis	2.00
ALLANTOIN	0.20
Water, preservative	71.10

* Alternative thickeners could also be used.

Formulation A VI/5100

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

BABY-CREAM
One-vessel-method

RECIPE:	% By Weight
A.	
HOSTACERIN WO	10.00
Microwax	3.00
Lanolin Superfine	5.00
Petrolatum	20.00
Castor Oil	5.00
Water, preserving agent	36.80
Zincoxide	20.00
B.	
Perfume	0.20

Procedure:

- I. Melt A at 80C.
- II. Stir until cool.
- III. Add B at 40C to II.
- IV. Homogenize if necessary.

Formulation No. A VI/5803

BABY SHAMPOO
10% active detergent

RECIPE:	% By Weight
A.	
GENAPOL AMS	25.00
B.	
Perfume	0.30
Water	71.60
Extrapon Chanomile Special	2.00
Preserving agent	q.s.
C.	
TYLOSE H 10,000	1.10

Procedure:

- I One after another the components of B are added to A.
- II C, which is added in small portions by continuing stirring, should swell until a homogeneous shampoo free of lumps have been obtained. The swelling of C can be accelerated by frequent or intensive stirring.

Formulation No. B I/4021

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

BABY LOTION

RAW MATERIALS	% By Weight
Part A:	
BLANDOL White Mineral Oil	35.00
Lanolin	1.00
Cetyl alcohol	1.00
Sorbitan mono-oleate	2.10
Polyoxyethylene sorbitan mono-oleate	4.90
Velvasil Silicone Fluid 1000	5.00
Propylparaben	0.15
Part B:	
Methylparaben	0.15
Water	50.60
Perfume	0.10

Melt Part A. Heat Part B to same temperature. Blend together and allow to cool.

BABY CREAM

RAW MATERIALS	% By Weight
Part A:	
BLANDOL White Mineral Oil	30.00
Beeswax	3.00
Spermaceti	3.00
Glyceryl monostearate, pure	12.00
Propylparaben	0.15
Part B:	
Methylparaben	0.15
Glycerol	8.00
Water	43.60
Perfume	0.10

Melt Part A. Heat Part B to same temperature. Blend together. Allow to cool while stirring. Continue stirring until blend has desired consistency.

SOURCE: Witco Chemical: SONNEBORN Products for the Drug and Pharmaceutical Industry: Suggested Formulations

BABY LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
LUVITOL EHO	10.0
Paraffin oil	10.0
(+)-ALPHA-BISABOLOL	0.3
1,2-Propanediol USP	3.0
Carbopol 934/1% in water	20.0
Triethanolamine	0.3
Water	54.4

BABY LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	3.0
CREMOPHOR A25	1.0
LUVITOL EHO	10.0
Glycerol monostearate	3.0
Paraffin oil	10.0
(+)-ALPHA-BISABOLOL	0.3
1,2-Propanediol USP	2.0
Water	70.7

SOURCE: BASF: LUVITOL EHO: Formulations 1, 2

BABY LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
Liquid paraffin	20.0
Carbopol 934/1% in water	20.0
(+)-ALPHA-BISABOLOL rac.	0.5
1,2-Propylene Glycol USP	3.0
Triethanolamine Pure C	0.3
Water	54.2

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

BABY LOTION(O/W)

RAW MATERIALS	% w/w
a) GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Monomyristate)	5.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	2.00
Hydrogenated peanut oil (CTFA: Hydrogenated Peanut Oil)	2.00
Cetiol A (CTFA: Hexyl Laurate)	10.00
b) AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.50
c) Urea (CTFA: Urea)	5.00
d-PANTHENOL (CTFA: Panthenol)	1.00
Sorbitol (70%) (CTFA: Sorbitol)	5.00
Deionized water	64.50
d) Perfume, preservatives, deionized water	q.s. to 100

PROTECTIVE MOISTURIZING BABY LOTION(O/W)

RAW MATERIALS	% w/w
a) PARSOL MCX (CTFA: Octyl Methoxycinnamate)	4.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
DELTYL EXTRA (CTFA: Isopropyl Myristate)	5.00
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Myristate)	2.00
Hydrogenated peanut oil (CTFA: Hydrogenated Peanut Oil)	2.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	2.00
b) AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.50
c) Urea (CTFA: Urea)	5.00
Propylene Glycol (CTFA: Propylene Glycol)	3.00
Sequestrene Na ₂ (CTFA: Disodium EDTA)	0.10
Deionized water	70.90
d) Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulas

BABY LOTION

Standard Formula	% By Weight
A.	
IMWITOR 960	8.0
MIGYOL 812 Neutral Oil	5.0
Hostaphat KL 340 N	5.0
B.	
Glycerin	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the lotion.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Baby Lotion 3.2.1

BABY OIL

Standard Formula	% By Weight
A.	
SOFTIGEN 701	7.0
MIGLYOL 818	35.5
MIGLYOL 840	35.0
Hostaphat KL 340 N	2.0
Paraffin oil	20.0
B.	
Perfume	q.s.

Preparation:

A is dissolved with slight heat, and then the perfume is added.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 3.3.1

BABY OIL

INGREDIENTS:	% W/W
Mineral Oil, NF	60.00
CETIOL SN (Cetearyl Isononanoate)	35.00
Lantrol	5.00
Fragrance, dyes and preservatives	q.s.

Procedure:

Blend ingredients at room temperature in the order given, under agitation. Stir until homogeneous. Fill off.

Comments:

This baby oil formulation features CETIOL SN used for its pleasant feel and waterproofing properties.

Suggested Formulation H-4807

BATH OIL FOR CHILDREN

INGREDIENTS	% W/W
DEHYDROL LS-2 (Laureth-2)	10.00
AETHOXAL B (PPG-5-Laureth-5)	40.00
CETIOL A (Hexyl Laurate)	30.00
MYRITOL 318 (Caprylic/Capric Triglyceride)	15.00
Fragrance	5.00
	100.00

Procedure:

Add ingredients, one at a time, under agitation. Continue stirring until product is homogeneous. Fill off.

Comments:

Due to the presence of the AETHOXAL B, Formula H-4858 is not only mild but also non-greasy on the skin.

Suggested Formulation H-4858

SOURCE: Henkel: Personal Care Products Formulary: Suggested Formulations

BABY SHAMPOO

INGREDIENT	% By Weight
I Deionized Water	50.7
II SLES (60%)	23.2
VARION CAS	5.4
VARONIC LI-63	1.3
VARONIC LI-48	8.6
III VARSULF SBFA-30	10.8
IV Citric Acid (25%)	qs
V Preservative	qs

Mixing Instructions:

Heat Phase I to 75C. Add Phase II to I in order listed, melting VARONIC LI-48 before adding. Cool to 45C and add Phase III. Cool to 35C and adjust pH to 6.5 with Citric Acid. Add Phase V.

Solids: 30.8%
 pH: 6.5
 Viscosity: 28,750 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.8

BABY SHAMPOO

RAW MATERIALS	% By Weight
Cocoamphocarboxyglycinate (and)	
Sodium Lauryl Sulfate (and) Hexylene Glycol	26.5
Polysorbate 20	13.5
PEG-150 Distearate	1.5
Sorbitan Laurate	0.9
GERMALL II	0.1
Water	q.s. to 100.0

Procedure:

Melt together PEG-150 distearate, sorbitan laurate, and polysorbate 20. Add amphoteric and then water. Cool to room temperature and adjust pH to 7.0 with phosphoric acid. Add preservative.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
 Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
Water	72.6
Lauramide DEA	3.0
Sodium Myreth Sulfate	11.7
Oleoamphohydroxypropyl Sulfonate	9.2
Sodium Laureth-13-Carboxylate	0.5
Dimethicone Copolyol	1.0
GERMABEN II	1.0
Isopropyl PPG-2 Isodeceth-7-Carboxylate (VELSAN D8P3)	1.0
	100.0

Procedure:

Heat the Lauramide DEA, Sodium Myreth Sulfate, Oleoamphohydroxypropyl Sulfate, and the Sodium Laureth-13-Carboxylate to 62C with stirring and mix until homogeneous. Add the water and stir and cool to room temperature. While stirring add the GERMABEN II and the Isopropyl PPG-2 Isodeceth-7-Carboxylate. Adjust pH to 5.5 with citric acid.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary-Supplement #2- Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
ELFAN NS 343 S (28%)	10.0
ELFANOL 850 (45%)	8.0
ARMOTERIC LB (30%)	12.0
ELFACOS GT 282 (S)	3.0
Water, preservative, dye, perfume oil and other additives	ad 100.0
pH	ca. 7
Viscosity (20C)	ca. 1500 mPa.s
Formula No. 483	

BABY SHAMPOO

RAW MATERIALS	% By Weight
ELFAN 240 M (29%)	20.0
ELFANOL 850 (45%)	5.0
AROMOX DMMCD-W (30%)	7.0
ELFACOS GT 282 (S)	3.0
Water, preservative, dye, perfume oil and other additives	ad 100.0
pH	ca. 7
Viscosity (20C)	ca. 700 mPa.s
Formula No. 2083	

SOURCE: Akzo Chemie: Elfacos GT 282: Suggested Formulas

BABY SHAMPOO

RAW MATERIALS	% By Weight
A:	
Tego Betain L 7	15.0
SOFTIGEN 767	15.0
Perfume	q.s.
B:	
Texapon N 40	35.0
Extrapon Camomile Special	1.0
Water	12.5
Preservative	q.s.

Preparation:

Mix separately the components of A and B and then mix A and B together.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formula 3.5.1

BABY SHAMPOO

FORMULA	% By Weight
Jordawet DSLES	30.0
Avanel S-150	5.0
MAZER T-MAZ 28	7.0
MAZER MAPEG 6000 DS	2.0
Propylene Glycol	1.0
Water	55.0

Adjust pH to 6.8 with citric acid.

Viscosity: 600 cps.

Procedure:

Heat all components while stirring to 75C. When homogeneous stir to cool, adding perfume at 40-45C.

MAZER Formula 22

BABY SHAMPOO

FORMULA	% By Weight
Avanel S-90	22.0
Jortaine LMAB	19.0
MAZER MAZAMIDE CS-148	2.0
MAZER T-MAZ 28	1.0
Ammonium Chloride	0.5
Citric Acid (50% Solution)	To adjust pH to 6.0-7.0%
Perfume	q.s.
Preservative, Dye	q.s.
Water	55.5
MAZER Formula 24	

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D

BABY SHAMPOO

INGREDIENTS	% wt/wt
AMPHOTERGE K-2 (40% sol'n)	9.00
CARSONOL SLES (29% sol'n)	10.30
CARSAMIDE SAC	2.10
LONZEST SML-20	1.30
PEG 6000 Distearate	2.10
Sodium chloride	1.40
Citric acid, anhydrous	0.43
Water	73.37

pH 6.8-7.2
 Viscosity 600-800 cps
 Zero eye irritation baby shampoo

SOURCE: Lonza, Inc.: Baby Shampoo D-22-13A

BABY SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 Liquid	0.5
Perfume	0.5
Monoethanol ammonium lauryl sulphate (33%)	14.0
Fatty acid methyl tauride, sodium salt (30%)	7.0
Phase B:	
Water	66.0
TEGO-Betain HS	12.0
Preserving agent, colouring	q.s.

Preparation:

Heat the monoethanol ammonium lauryl sulphate and the fatty acid methyl tauride to app. 40C until a clear solution. Add ANTIL 141 liquid and perfume. Mix B in the given order. Stir B into A.
 Formula E 1.1.13

BABY SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.3
Sodium lauryl ether sulphate (28%)	5.0
Lauryl ether sulphosuccinate, disodic acid (40%)	5.0
Phase B:	
Water	66.2
Sodium chloride	1.0
Polyvinyl pyrrolidone	0.5
TEGO-Betain HS	20.0
Preserving agent, colouring	q.s.
Formula E 1.1.14	

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

BABY SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	20.0
Lauryl ether sulphosuccinate, disodic salt (40%)	3.0
Chamomille extract	0.1
Phase B:	
Water	62.4
TEGO-Betain L7	12.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formula E 1.1.15

BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL BM CONC.	17.0
CEDEPAL TD 407MF	7.5
Tween 20	10.0
Kessco PEG 6000 Distearate	3.0
Boric Acid	1.0
Water	61.5

Procedure:

Blend all ingredients except boric acid and water. Heat to 60C until uniform. Add water and boric acid and adjust pH to 6.5 with hydrochloric acid.

Solids: 26.1%

Viscosity: 800 cps

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL MHT	35.0
Tween 20	7.0
Kessco PEG 6000 Distearate	2.0
Propylene Glycol	1.0
Water	55.0

Procedure:

Blend all ingredients and heat to 55-60C. Adjust pH to 6.8 with hydrochloric acid.

Solids: 22.3%

Viscosity: 600 cps

BABY SHAMPOO-I

RAW MATERIALS	% By Weight
MIRANOL BT	35.0
Tween 20	5.0
Kessco PEG 6000 Distearate	3.0
Propylene Glycol	1.0
Water	56.0
Solids:	21.3%
Viscosity:	1600 cps

BABY SHAMPOO-II

RAW MATERIALS	% By Weight
MIRANOL BT	35.0
Tween 20	1.0
Kessco PEG 6000 Distearate	2.0
Cedemide AX	1.0
Water	61.0
Solids:	16.3%
Viscosity:	2000 cps

Procedure:

Mix together all ingredients except the water and heat to dissolve the solid components. Add the water and, at 55-60C, adjust the pH to 6.8-7.2 in the case of the first formulation, or 6.6-7.0 in the case of the second.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulations

BABY SHAMPOO

COMPOSITION	MS-1
PEG-80 Sorbitan Laurate	19.4
Sodium Trideceth Sulfate (70%)	17.2
PEG-150 Distearate	5.0
Cocamidopropyl Hydroxysultaine	5.2
Lauroamphodiacetate	10.6
Sodium Laureth-13 Carboxylate	2.0
Quaternium 15	0.1
Water	40.5

Compounding procedure: Baby shampoos can be prepared by simply diluting the above concentrate to the following formulation:

	% By Weight
Compound MS-1	50.0
Fragrance, benzyl alcohol, Quaternium-15, color, water	q.s.
Citric acid to adjust pH to 6.8	q.s.
Solids (approximately)	20
Viscosity (cps)	1000-1500

BABY SHAMPOO

COMPOSITION	MS-2
PEG-80 Sorbitan Laurate	17.0
Sodium Trideceth Sulfate (70%)	15.0
PEG-150 Distearate	6.5
Cocamidopropyl Hydroxysultaine	11.6
Lauroamphodiacetate	10.0
Sodium Laureth-13 Carboxylate	2.0
Quaternium 15	0.1
Water	37.8

Compounding Procedure: Baby shampoos can be prepared by simply diluting the above concentrate to the following formulation:

	% By Weight
Compound MS-2	37.5
Fragrance, benzyl alcohol, Quaternium-15, color, water	q.s.
Citric acid to adjust pH to 6.8	q.s.
Solids (approximately)	15
Viscosity (cps)	1000-1500

NOTE: The use of Compound MS-2 represents a cost savings over Compound MS-1.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

BABY SHAMPOO

INGREDIENT	% By Weight
I Deionized Water	50.7
II SLES (60%)	23.2
VARION CAS	5.4
VARONIC LI-63	1.3
VARONIC LI-48	8.6
III VARSULF SBFA-30	10.8
IV Citric Acid (25%)	qs
V Preservative	qs

Mixing Instructions:

Heat Phase I to 75C. Add Phase II to I in order listed, melting VARONIC LI-48 before adding. Cool to 45C and add Phase III. Cool to 35C and adjust pH to 6.5 with Citric Acid. Add Phase V.

SOURCE: Sherex Chemical Co.: Formulation Code 6.3.8

BABY BATH

RAW MATERIALS	% By Weight
Texapon ASV	40.0
Rewopol SBFA 30	30.0
Comperlan KD	3.0
SOFTIGEN 767	10.0
Extrapon Camomile Special	1.5
Perfume	q.s.
Water	ad 100.0
Preservative	q.s.

Preparation:

All the materials are put together and stirred until homogeneous at about 40C.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formula 3.6.1

BABYSHAMPOO

Clear, liquid, 10% active detergent

RECIPE	% By Weight
A.	
GENAPOL LRO liquid*	21.00
B.	
GENAPOL AMS	10.00
Perfume	0.30
Water	67.50
Preservative	q.s.
Dyestuff solution	q.s.
C.	
Citric acid -----> pH 6.5	q.s.
D.	
TYLOSE H 10000	1.20

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/4027

BABYSHAMPOO

Clear, 13.2% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	2.00
B.	
Water	10.00
C.	
HOE S 1906	12.00
GENAPOL ZRO liquid*	12.00
Perfume	0.30
Water	53.20
Extrapon Camomile special	2.00
Preservative	q.s.
Dyestuff solution	q.s.
D.	
BETAINE HOE S 3267	8.50
E.	
Citric acid -----> pH 6	q.s.

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO is required.

Formulation B I/4031

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

BABYSHAMPOO

Clear, 13.8% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	2.00
B.	
Water	10.00
C.	
GENAPOL AMS	7.00
GENAPOL LRO liquid*	32.00
Perfume	0.30
Water	44.40
Extrapon Camomile special	2.00
Preservative	q.s.
Dyestuff solution	q.s.
D.	
Citric acid -----> pH 6	q.s.
E.	
Sodium chloride	2.30

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/4030

BABYSHAMPOO

Clear, without ethersulfate, 13.8% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	3.00
B.	
Water	15.00
C.	
HOE S 1906	20.00
Perfume	0.30
Water	43.70
Extrapon Camomile special	2.00
Preservative	q.s.
Dyestuff solution	q.s.
D.	
BETAINE HOE S 3267	16.00
E.	
Citric acid -----> pH 6	q.s.

Formulation B I/4302

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

CLEAR LIQUID BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCA MODIFIED	30.0
Hexylene Glycol	2.0
Tween 20	1.0
Water	67.0

Procedure:

Mix together all ingredients at 50-55C and adjust pH to 6.8-7.0 with hydrochloric acid. Cool. A slightly higher viscosity can be achieved with the addition of 1-2% of high active Laura-mide DEA.

Solids: 18.0%

CLEAR LIQUID BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS MODIFIED	35.0
Tween 20	1.0
Cedemide AX	1.0
Kessco PEG 6000 Distearate	1.0
Water	62.0

Procedure:

Blend the ingredients together at 70C and, when uniform, adjust pH to 6.8-7.0 with hydrochloric acid.

Solids: 19.5%

Viscosity: 600 cps

PEARLESCENT BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS MODIFIED	35.0
Cedemide AX	2.0
Cerasynt IP	0.5
Methocel E4M Premium, 3% solution	50.0
Water	12.5

Procedure:

Combine MIRANOL 2MCAS MODIFIED, Cedemide AX and Cerasynt IP and heat to 80C. Add 3% Methocel solution and mix until uniform, then add the remaining water. Adjust pH to 6.8-7.0 with hydrochloric acid.

Solids: 20.8%, viscosity: 17,000 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulas

CONDITIONING BABY SHAMPOO

INGREDIENT	% By Weight
I Deionized Water	67.0
Quaternium 19	0.1
II VARONIC LI-67	5.0
SLES (60%)	14.7
VARAMIDE MA-1	2.0
VARION CADG-HS	11.2
III Citric Acid (25%)	qs
IV Preservative	qs

Mixing Instructions:

Heat water in Phase I to 45C; sprinkle in Quaternium 19 with good agitation. Mix until hydrated. Add ingredients in Phase II in order listed, melting VARONIC LI-67 before adding. Cool to 30C and adjust pH to 6.0 with Citric Acid. Add Phase IV.

Solids:	19.8%
pH:	6.0
Viscosity:	300 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.8

ECONOMICAL BABY SHAMPOO

INGREDIENT	% By Weight
I Deionized Water	82.0
Natrosol 250 HR	0.7
II SLES (60%)	13.3
VARONIC LI-63	4.0
III Citric Acid (25%)	qs
IV Preservative	qs

Mixing Instructions:

Heat water in Phase I to 45C. Sprinkle Natrosol 250 HR in with adequate agitation. Mix until completely hydrated. Add Phase II. Cool to 35C and adjust pH to 7.0 with Citric Acid. Add Phase IV.

Solids:	12.7
pH:	7.0
Viscosity:	1550 cps

SOURCE: Sherex Chemical Co.: Formula Code: 6.3.8

HAND AND FACE CREAM FOR BABIES

RAW MATERIALS	% By Weight
A.	
White soft paraffin	40.0
MIGLYOL 840	5.0
IMWITOR 780K	3.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Zinc oxide	2.0
D.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and slowly emulsified into A.

At about 40C C is gradually added to A + B and well stirred occasionally.

Finally D is stirred in.

Before filling it is beneficial to homogenize the cream.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 3.1.1

BABY POWDER

RAW MATERIALS	% By Weight
Talcum	72.0
DYNASAN 114	2.0
Magnesium stearate	8.0
Ground Kaolin P	18.0

Preparation:

The materials are put together and mixed and then passed through a 0.16 mm sieve. Any remainder is milled in a micromill and sieved again until no residue remains.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 3.4.1

MILD BABY SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	53.8
Sorbitol	1.0
B.	
Disodium Cocamido MIPA Sulfosuccinate	20.0
Cocoamidopropylhydroxysultaine	20.0
C.	
PEPTEIN 2000	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Citric Acid	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a very mild, clear, medium viscosity shampoo with good foaming characteristics.

Formula: 614-29E

SOURCE: Geo. A. Hormel & Co.: Suggested Formulation

BABY SUNTAN LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
Mineral Oil	5.0
Cocoa Butter	2.0
Amerchol L-101	4.0
Stearic Acid XXX	2.0
Cerasynt Q	2.0
Ceraphyl 50	1.0
Amerscreen P	4.0
Propyl Paraben	0.1
Aqueous Phase:	
Water	25.5
VERAGEL Liquid 1:1	50.0
Glycerin	3.0
Triethanol Amine	1.0
Methyl Paraben	0.15
Germall 115	0.20
Fragrance & Dye	Q.S.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

OPACIFIED BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS MODIFIED	30.0
Cedemide AX	2.0
Cerasynt IP	0.5
Methocel 4EM Premium, 3% Solution	35.0
Water	32.5

Procedure:

- (A) To prepare the Methocel solution add three parts of Methocel E4M to 30 parts of water at 80C. Mix until uniformly suspended. Add 67 parts of cold water with mixing and stir until uniform.
- (B) Combine the MIRANOL 2MCAS MODIFIED, Cedemide AX and Cerasynt IP and heat to 80C. Add the 3% Methocel solution slowly with good mixing, then the remaining water. Mix until uniform. Adjust pH to 7.0 with hydrochloric acid.
- Solids: 17.0%, viscosity: 4,000 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulation

PEARLESCENT BABY SHAMPOO

INGREDIENTS	%W/W
Water	q.s. to 100.00
TEXAPON ASV (Sodium Laureth Sulfate	25.00
(and) Magnesium Laureth Sulfate	
(and) Sodium Laureth-8 Sulfate	
(and) Magnesium Laureth-8 Sulfate	
(and) Sodium Oleth Sulfate	
(and) Magnesium Oleth Sulfate	
VELVETEX AB-45 (Coco Betaine)	6.50
EUPERLAN PK-850 (Mixture of fatty alcohol	3.00
ether sulfates with pearlizing agent)	
Sodium Chloride	3.00
BRONIDOX L (Propylene Glycol (and)	0.20
5-Bromo-5-Nitro-1,3 dioxane)	
Fragrance	q.s.
	100.00

Procedure:

Charge kettle with water. Add ingredients individually in the order listed, under agitation. Adjust the pH to 7.0 +/- 0.5 with 50% citric acid. Continue mixing until homogeneous. Fill off.

Comments:

This relatively low solid formula provides good performance without sacrificing mildness.

SOURCE: Henkel Corp.: Personal Care Products Formulary: H-4861

Section III

Bath and Shower Products

AEROSOL SKIN-CLEANSER GEL

RAW MATERIALS	% By Weight
Concentrate:	
WITCAMIDE 5195 (Lauramide DEA)	38.20
Potassium Laurate, 40%	9.55
Water	30.20
Propylene Glycol	9.55
WITCAMIDE 511C (Oleamide DEA)	7.50
Carnation White Mineral Oil	5.00
Aerosol:	
Concentrate	95.00
Pentane	3.00
Isobutane	2.00

Heat concentrate until clear. Pour while hot into aerosol containers, cool to room temperature and pressurize. Shake containers until contents are well mixed.

This formulation is dispersed as a clear gel, which changes to a rich lather when spread and rubbed onto the skin. The combination of emulsifiers, humectants and oil provides cleansing, moisturizing and lubricity for thorough skin conditioning.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 126C

BATH GELEE

INGREDIENTS	% W/W
STANDAPOL ES-40 CONC (Sodium Myreth Sulfate)	40.00
TEXAPON SB-3 (Disodium Laureth Sulfosuccinate)	10.00
Laureth-7	10.00
STANDAMID KD (Cocamide DEA)	5.00
Fragrance	3.00-5.00
Carbowax 400	1.00-3.00
Lanolin/Lanolin Alcohol	1.00
Water	q.s. to 100.00

Procedure:

Charge STANDAPOL ES-40 CONC. in a container. Pre-mix fragrance with Laureth-7. Add remaining ingredients, one at a time, under agitation. Continue stirring until product is homogeneous. Fill off.

Comments:

STANDAPOL ES-2 may be substituted either partially or totally for STANDAPOL ES-40 CONC. if increased foam is desired in this high quality Bath and Shower Gel.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula H-4868

AFTER BATH SPLASH

INGREDIENTS	% W/W
A.	
Alcohol SD 40	50.0
Sodium Lactate (60%) (1)	5.0
Isostearyl Lactate (2)	3.0
Perfume F77-281 (3)	2.7
Sodium Isostearoyl-2-Lactylate (4)	2.0
B.	
Deionized Water	37.3

Procedure:

Combine A and mix until clear. Slowly add B with agitation. Filter if desirable.

- | | |
|-----------------------------|-------------|
| (1) Patco Cosmetic Products | |
| (2) Patco Cosmetic Products | PATLAC IL |
| (3) Perry Brothers, Inc. | J.N. |
| (4) Patco Cosmetic Products | PATONIC ISL |

SOURCE: Patco Cosmetic Products: Formulary Bulletin No. 165

BATH SPLASH

RAW MATERIALS	% By Weight
Perfume oil	2.0
GLUCAM P-20	1.0
PPG-36 Oleate	0.6
SOLULAN PB-20	0.6
Specially Denatured Alcohol No. 40	78.8
Water	17.0
Color	q.s.

Description:

Afterbath splash. Used liberally all over body. Fragrance oils light in character, benefit from GLUCAM P-20's ability to increase lasting power. GLUCAM P-20, PPG-36 Oleate and SOLULAN PB-20 impart humectant and emollient properties, leaving silky, nonoily feel on skin.

Procedure:

Dissolve all ingredients (except water) in alcohol with stirring. Add water in thin stream with stirring. Age, chill.

Variations:

If mixture has heavy cloud or precipitate, increase alcohol and decrease water.

For increased lubricity, add AMERLATE P.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Formulation F-4004

BATH BUBBLES

INGREDIENT	% By Weight
I	
Deionized Water	56.0
II	
Sodium Lauryl Sulfate (29%)	30.0
VAROX 1770	7.5
AROSURF 66-PE12	1.5
AROSURF 66-E10	1.0
VARONIC LI-67	4.0
Citric Acid (25%)	qs
III	
Preservative	qs

Mixing Instructions:

Warm water to 45C. Warm Phase II to 45C. Add Phase II to Phase I with mixing. Cool to 30C and adjust pH to 5.5 with Citric Acid.

Solids:	17.9%
pH:	5.5
Viscosity:	1,600 cps

SOURCE: Sherex Chemical Co.: Formulation 6.2.1

BUBBLE BATH WITH GLYCERINE

INGREDIENT	% By Weight
I	
Deionized Water	77.0
Glycerine	2.0
II	
AOS (40%)	10.0
VARION CAS	3.0
VAROX 1770	3.0
VARONIC LI-420	5.0
III	
Citric Acid (25%)	qs
IV	
Preservative	qs

Mixing Instructions:

Warm Phase I to 45C. Warm Phase II to 45C. Add Phase II to Phase I with mixing. Cool to 30C and adjust pH to 7.1 with Citric Acid.

Solids:	12.2%
pH:	7.1
Viscosity:	6,600 cps

SOURCE: Sherex Chemical Co.: Formulation Code 6.2.1

BATHCREAM-OIL

RAW MATERIALS	% By Weight
ELFACOS ST 37	2
Olive-oil	20
Oxynex 2004	0,15
Isocetyl stearate	20
Paraffin	38,85
ARMOTAN MO (Sorbitan Oleate)	10
Methylalcoholic acid ester	3
Perfume oil	6

A stable formulation is obtained, which gives spontaneous an emulsion when poured into the water.

As a good spreading oil-component isocetyl stearate is used here, ARMOTAN MO is the solubilizer for dissolving in the bath-water, while ELFACOS ST 37 acts as the stabilizer for the formulation.

SOURCE: Akzo Chemicals, Inc.: ELFACOS ST9, ST37, C26, E200:
Formula No. 1940

BATH OIL WITH ETHEREAL OILS

RAW MATERIALS	% By Weight
MIGLYOL 829	30.0
SOFTIGEN 767	40.0
Hostaphat KL 340 N	10.0
Pine needle oil	13.0
Mountain pine oil	5.0
Rosemary oil	2.0
Antioxidants	0.01

Preparation:

All components are mixed, heated to approx. 40C and finally stirred until cold.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formula 5.3.4

BATH FOAM

INGREDIENT:	% By Weight
Standapol ES-2	44.0000
Standamid KD	1.5000
Texapon ST 40	1.0000
Demineralized Water	44.0000
RELAXANT #278 HS	3.0000
EUCALYPTUS HS	1.5000
TRI-SEPT M	0.2000
TRI-SEPT P	0.1000
ABIOL	0.2000
Tween 20	3.0000
Perfume	1.0000
Sodium Chloride	0.5000
Certified Color	Q.S.

Code: AMI.021.

SHOWER GEL

INGREDIENT:	% By Weight
Standapol ES-2	35.0000
Standamid KD	3.0000
Demineralized Water	39.9000
Tego Betaine L7	10.0000
Texapon ST 40	2.0000
Abil B 8851	1.0000
EUCALYPTUS HS	2.0000
PEPPERMINT HS	1.5000
TRI-SEPT M	0.2000
TRI-SEPT P	0.1000
ABIOL	0.2000
Tween 20	3.5000
Perfume	0.6000
Certified Color	Q.S.

Code: AMI.022.

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE COB	15.0
MIRANOL 2MCA-ESF	30.0
Sodium Lauroyl Sarcosinate	10.0
Water	45.0

Procedure:

Mix all ingredients together and agitate until uniform. Adjust the pH to 6.2 with hydrochloric acid while warm. Allow to cool. Viscosity without fragrance is 41,500 cps. Solids: 22.6%.

Note:

Using Cocamidopropyl Betaine on an equivalent solids basis gives a viscosity of 20,000 cps. The formulation will accept a high percentages of perfume (up to 2.0% for most fragrances).

BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE CBS	29.0
Cedepal SN 303	29.0
Witconate AOS	18.0
Ethyl Alcohol	3.0
Water	21.0

Procedure:

Mix all ingredients together and adjust pH to 7.0 with citric acid.

Solids: 30.1%, viscosity: 60,000 cps.

HIGHLY PERFUMED BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE COB	10.0
Witconate AOS	35.0
Cedephon LA 30HV	20.0
Cedemide AX	4.0
Perfume	3.0
Surfactol 365	0.5
Dipropylene Glycol	0.5
Water	27.0

Procedure:

Separately mix perfume, Surfactol 365 and Dipropylene Glycol. Mix other ingredients together and heat to dissolve the CEDEMIDE AX. Slowly add the perfume blend with agitation to other ingredients. Adjust pH to 6.2 with citric acid.

Solids: 31.5%, viscosity: 9500 cps.

SOURCE: Miranol Chemical Co.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulations

BATH GEL

INGREDIENT	% By Weight
Standapol ES-3	50.00
Water D.I.	37.80
Standamid SD	4.00
Emerest 2350	2.50
Sodium Chloride	2.50
Merquat 550	1.00
Glycerin	1.00
Germaben II	1.00
EXTRAPONE Witch-Hazel 2/789420	0.10
EXTRAPONE Rosemary 2/033251	0.10
Fragrance	q/s
	100.00

Manufacturing Directions:

1. Add Standapol ES-3, Water, Standamid SD, Emerest 2350, Sodium Chloride and Glycerin. Heat to 75C, and stir until Emerest 2350 is completely dissolved.
2. Remove heat, stir, and let cool to 40C.
3. Add Merquat 550, Germaben II, EXTRAPONE Witch-Hazel and Rosemary. Stir until uniform.
4. Add Fragrance.

SOURCE: Dragoco, Inc.: Suggested Formulation 711-0030

LUXURY FOAM BATH AND SHOWER GELEE

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate	59.80
Cocamide DEA (Incromide CA)	5.00
Steareth-10 (Volpo S-10)	5.00
Hydrolyzed Animal Protein (Crotein SPA)	1.00
Disodium Lauryl Sulfosuccinate (Incosal LS)	25.00
Magnesium Sulfate	0.10
Panthenol	0.10
PPG-12-PEG-50 Lanolin (Lanexol AWS)	1.00
GERMABEN II	1.00
Fragrance	2.00

Procedure:

Heat the SLES to 70C and add the Volpo S-10, the amide and Magnesium Sulfate with stirring. When homogeneous add the sulfosuccinate slowly and then add the panthenol and Lanexol AWS. Cool to 45C and add the protein, fragrance and GERMABEN II.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary-Supplement #1- Suggested Formulation

BATH GEL B-5010

RAW MATERIALS	% By Weight
Monamid 150 LW	43.5
Standapol ES-40	44.0
Standamul 1414E	4.0
AMEROXOL OE-2	0.5
Methocel 65HG, 2% aqueous dispersion	4.0
SOLULAN 16	2.0
GLUCAM E-20	2.0
Perfume, preservative and color	q.s.

Description:

Popular bath gel for overall body use. Stringy pearlescence, medium to high viscosity. GLUCAM E-20 provides humectancy without tack.

Procedure:

Melt MONAMID 150LW. Add remaining ingredients in order listed, mixing thoroughly after each addition. SOLULAN 16 should be melted before adding.

Variations:

To reduce stripping of natural body oils, replace part of STANDAPOL ES-40 with SOLULAN L-575.

To vary viscosity, vary concentration of Methocel 65HG.

BATH GEL B-5011

RAW MATERIALS	% By Weight
Standapol ES-2	46.5
Emcol 4300	25.0
Monamid 150LW	23.0
GLUCAM E-10	2.5
SOLULAN 16	3.0
Perfume, preservative and color	q.s.

Description:

Popular bath gel for overall body use. Medium viscosity, stringy gum-free system. Can also be used as shampoo. SOLULAN 16 and GLUCAM E-10 provide luster and ease of combing.

Procedure:

Premelt solid materials. Add ingredients one at a time, mixing thoroughly after each addition. Stir until uniform.

Variations:

For more smoothness and slip, add SOLULAN PB-20.

SOURCE: Amerchol Corp.: Bath and Fragrance Products:
Suggested Formulations

BATH GEL B-5012

RAW MATERIALS	% By Weight
Standapol T	45.0
Standapol AB-45	10.0
GLUCAM E-10	2.0
Citric acid, 10% in water	3.0
SOLULAN 75	3.5
Monamid 150 LW	6.0
Water	30.5
Perfume, preservative, color	q.s.

Description:

Clear medium viscosity flowing gel for shower or tub use. Serves also as bubble bath. GLUCAM E-10 and SOLULAN 75 provide bodying effect.

Procedure:

Warm water to 45-50C. Add Standapol T with gentle agitation. Premix remaining ingredients and warm until clear. Add with gentle agitation to water.

Variations:

To opacify, add GLUCATE SS.

To impart residual silky effect, add SOLULAN PB-20.

BODY GEL B-5013

RAW MATERIALS	% By Weight
GLUCAM E-10	3.0
SOLULAN L-575	4.0
Monamid R31-42	20.0
Standapol ES-2	59.0
Water	6.0
Citric acid, 40% solution q.s. to pH 5.0-5.5	
Specially Denatured Alcohol No. 40	4.0
Perfume oil	4.0
Preservative and color	q.s.

Description:

Highly fragranced body shampoo designed to impart overall fresh, fragrant feeling. SOLULAN L-575 and GLUCAM E-10 provide body and reduce oil-stripping effect.

Procedure:

With slow agitation, combine GLUCAM E-10, SOLULAN L-575, Monamid R31-42, Standapol ES-2 and water. Add citric acid solution to adjust pH to 5.0 to 5.5. Add alcohol and perfume oil slowly, mix until clear.

Variations:

For increased fragrance, increase perfume oil to total up to 8%.

To increase fragrance duration, add GLUCAM P-20.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Formulas

BATH AND SHOWER GEL

INGREDIENTS	% W/W
STANDAPOL ES-40 (Sodium Myreth Sulfate)	50.0
STANDAMID SD (Cocamide DEA)	5.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	5.0
Water	40.0
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Blend at 75-80C in the recommended order of addition as given above. Blend until uniform. Discontinue agitation; fill at 70C.

Comment:

This is a rigid emollient gel. Emolliency is provided by the ethoxylated cocoate, CETIOL HE.

Formula H-4851

LOW IRRITATION BATH AND SHOWER GEL

INGREDIENTS	% W/W
Water	15.3
Sodium Chloride	0.2
STANDAPOL T (TEA Lauryl Sulfate)	40.0
STANDAPOL SH-100 (Disodium Monooleamido PEG-2 Sulfosuccinate)	40.0
STANDAMID LD (Pre-melted at 45C)	4.4
Perfume Oil	q.s.
Dyes and Preservatives	

Procedure:

Heat water to 80C. Add materials in the above order of addition, under agitation, while maintaining the 80C temperature. Continued sweep-type agitation while product cools. Fill at 30-35C.

Comments:

This high foaming formula is very low in irritation with the inclusion of STANDAPOL SH-100.

Formula H-4850

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

BATHING-GEL

RECIPE:	% By Weight
A.	
GENAPOL LRO Paste	48.00
HOSTAPUR SAS 60	24.00
GENAPOL AMS	7.00
Oleic acid diethanolamide	1.00
Common salt	2.50
Water	14.50
B.	
Dyestuff	q.s.
Preserving agent	q.s.
Perfume	3.00

Procedure:

I Melt A at 70C under careful stirring.

II One after another the components of B are added to I at 50C.

Formulation No. A I/5013

BUBBLE-BATH

Clear, middle viscosity

12% active detergent

RECIPE:	% By Weight
A.	
Cocamide DEA	3.00
B.	
Water	15.00
C.	
HOSTAPUR SAS 60	6.00
GENAPOL ZRO Liquid	30.00
Perfume	1.20
Water	42.00
Preserving agent	q.s.
Dyestuff	q.s.
D.	
Common salt	2.80

If GENAPOL ZRP Paste is being used instead of GENAPOL ZRO Liquid, 0.4 times the quantity of GENAPOL ZRO Liquid is diluted with water to the required amount.

Procedure:

I A is dissolved warm in B.

II One after another the components of C are added to I.

III Finally the viscosity is adjusted with D.

Formulation No. A I/1064

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

BATH GELEE

FORMULA:	% By Weight
Jordawet DMDS	37.0
MAZER MAZAMIDE CS-148	37.0
Myreth-3 Myristate	4.0
MAZER MACOL OA-5	0.5
Sodium Laureth Sulfate	3.0
Water	11.0
Lactic Acid, USP	2.5
Propylene Glycol	2.0
Perfume	3.0
Dyes and Preservatives	q.s.

Procedure:

Blend first two ingredients while heating to 50-55C. Add other ingredients in order listed under gentle agitation, with no additional heat. Continue sweep-type agitation until product is uniform. Fill at 30C.

Product Characteristics:

This is a soft emollient gel. Emolliency is provided by the ethoxylated myristate.

Formula 21

BATH AND SHOWER GELEE

FORMULA:	% By Weight
AOS (40%)	30.0
MAZER MAFO CAB	6.6
MAZER MAZAMIDE CS-148	2.0
MAZER MAPEG EGMS	1.0
Ammonium Chloride	3.0
Preservatives	q.s.
Perfume	q.s.
Water	q.s. to 100

Procedure:

Heat water to 70C-75C. Add AOS with moderate agitation. Add MAFO CAB, MAZAMIDE CS-148 and MAPEG EGMS with agitation. When homogeneous, add salt and adjust pH to 6.0 while solution is hot. Cool to 40C. Add remaining ingredients and package.

Product Characteristics:

This gelee formulation provides a dense, lubricating lather in a high viscosity pearlescent gel form.

Formula 20

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

BATH MILK

STANDARD FORMULA	% By Weight
A.	
IMWITOR 960	5.0
MIGLYOL 812 Neutral Oil	15.0
MIGLYOL 840	10.0
Hostaphat KL 340 N	15.0
B.	
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Extrapon Hamamelis Spec.	1.0
D.	
Perfume	5.0

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is added at 50C and D at 30C.

Formulation 5.4.1

CREAM BATH

STANDARD FORMULA	% By Weight
MIGLYOL 812 Neutral Oil	34.0
SOFTIGEN 767	20.0
Paraffin oil	25.0
Hostaphat KL 340 N	16.0
Perfume	5.0

Preparation:

All the materials are brought together, heated to 40C and stirred until homogeneous.

Formulation 5.3.1

CREAM BATH

STANDARD FORMULA	% By Weight
Arlatone T	4.5
Tween 85	18.0
SOFTIGEN 767	21.5
MIGLYOL 812 Neutral Oil	27.0
Paraffin oil	26.0
Perfume	3.0

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.

Formulation 5.3.2

SOURCE: DYNAMIT NOBEL: Cosmetic Formulas: Suggested Formulation

BATH-OIL
Clear, low viscosity

RECIPE:	% By Weight
HOSTAPHAT KL 340N	2.00
EMULSOGEN LP	2.00
Mineral oil, high viscosity	53.00
Soya oil	10.00
Isopropyl palmitate	30.00
Perfume	3.00
Dyestuff solution	q.s.

Procedure:

I Mix all of the components in any sequence at room temperature.

Formulation A XV/1010

SHOWER-BATH
With silky lustre effect, 19.2% active detergent

RECIPE:	% By Weight
A.	
GENAPOL LRO liquid	40.00
B.	
MEDIALAN KF	10.00
GENAPOL TSM	4.00
Perfume	0.50
Water	35.70
Preservative	q.s.
Dyestuff solution	q.s.
BETAINE HOE S 3267	8.00
C.	
Citric acid -----> 6-7	q.s.
D.	
Sodium chloride	1.80

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation A I/8043

SOURCE: Hoechst: Kosmetic Guide Formulations: Suggested Formulations

BATH OIL (BLOOM TYPE)

INGREDIENTS	% W/W
CETIOL HE (PEG-7 Glyceryl Cocoate)	25.0
Isopropyl Myristate	20.0
EUMULGIN 05 (Oleth-5)	10.0
Mineral Oil, NF	40.0
Perfume Oil	5.0
Dyes and Preservatives	

Procedure:

The recommended order of addition is given above. Blend all ingredients at room temperature until clear.

Comments:

The ethoxylated cocoate provides emollient and substantive dermal effects without a feeling of excessive oiliness.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula H-4852

BATH OIL #H126-17-3

INGREDIENTS	% W/W
CERAPHYL 55 (Tridecyl Neopentanoate)	20.00
CERAPHYL 41 (C12-C15 Alcohols Lactate)	5.00
Isopropyl Myristate	15.00
Arlatone T (PEG-40 Sorbitan Peroleate)	2.00
Mineral Oil 65/75	53.00
CERAPHYL GA (Maleated Soybean Oil)	5.00
Fragrance and Preservative	q.s.

Procedure:

In a suitable vessel able to contain the entire batch, weigh all ingredients, mix until uniform and package.

SOURCE: Van Dyk & Co., Inc.: CERAPHYL GA: Formula #H126-17-3

BATH OIL, WATER WHITE AND FOAMY

RAW MATERIALS	% By Weight
A.	
EMEREST 2706 PEG-8 Dilaurate	5.0
ACETOL 1706 Acetate Ester	30.0
Mineral oil, 70 visc.	56.7
EMID 6576 Cocamide DEA	3.0
B.	
EMERY 5340 Trideceth-7 Carboxylic Acid	5.0
Triethanolamine	0.3

This bath oil has excellent spreadability and will turn water white and foamy. ACETOL 1706 will leave the skin with a noticeable good, conditioned feel which is not greasy or oily.

Procedure:

Heat A slowly to 60C and add B with mild agitation.

SOURCE: Emery Industries: EMERY Acetylated Lanolin Derivatives: Formulation 2252-134A

TWO LAYER FOAMING BATH OIL

RAW MATERIALS	% By Weight
A.	
EMERSAL 6453 Sodium Laureth Sulfate	21.00
EMERSAL 6434 TEA Lauryl Sulfate	7.00
EMID 6560 Alkanolamide	5.60
B.	
Propylene glycol	1.75
Sodium chloride	0.35
SDA 40 alcohol	0.35
EMERCIDE 1199 Liquid Preservative System	0.50
Deionized water	33.40
C.	
EMEREST 2486 Pentaerythrityl Tetrapelargonate	10.00
BHA	0.05
Safflower oil	20.00
Fragrance	q.s.

This bath oil will clean and condition the skin. EMEREST 2486 helps to lightly condition skin and decrease the greasy feel of other oils.

SOURCE: Emery Chemicals: EMEREST 2486: Formulation 2743-010

BATH OIL B-5001

RAW MATERIALS	% By Weight
Mineral Oil, 70 wt.	85.0
PROMYR	5.0
ACETULAN	5.0
SOLULAN PB-20	5.0
Perfume and color	q.s.

Description:

High mineral oil content floating bath oil with superior rub-in and spreading characteristics provided by ACETULAN and SOLULAN PB-20.

Procedure:

Blend all ingredients, stir until uniform.

Variations:

For increased lubricity, replace PROMYR with AMERLATE P.

For improved spreading and emollient properties, replace part of mineral oil with AMERCHOL L-101.

BATH OIL B-5002

RAW MATERIALS	% By Weight
Mineral oil, 125 wt.	65.0
Isostearyl alcohol	20.0
ACETULAN	5.0
GLUCAM P-20	10.0
Perfume and color	q.s.

Description:

Thin film floating bath oil with humectant. Film formation promoted by isostearyl alcohol, oiliness sharply reduced by ACETULAN. GLUCAM P-20 increases fragrance duration and imparts humectant to bath water.

Procedure:

Blend all ingredients. Stir until uniform.

Variations:

For added skin treatment, add small amount of MODULAN in place of part of mineral oil.

For added body and silky feel, replace part of isostearyl alcohol with PPG-36 oleate.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulas

BATH OIL B-5003

RAW MATERIALS	% By Weight
Mineral oil, 70 wt.	62.0
ACETULAN	7.0
Isostearyl alcohol	12.0
AMERLATE P	5.0
PROMYR	14.0
Perfume oil	q.s.

Description:

Elegant mineral oil-based floating bath oil. Oily effect reduced by ACETULAN, lubricity imparted by AMERLATE P.

Procedure:

Blend all ingredients except perfume. Stir with warming until uniform. Add perfume, stir until uniform.

Variations:

To lighten feel, replace part of mineral oil with Witconol APEM.

To add blooming effect, add AMEROXOL OE-2.

BATH OIL B-5004

RAW MATERIALS	% By Weight
PROPAL	25.0
ACETULAN	10.0
SOLULAN PB-20	10.0
Specially Denatured Alcohol No. 40	55.0
Perfume and color	q.s.

Description:

Light, floating alcohol-bearing bath oil with velvety feel due to ACETULAN and spreading properties due to SOLULAN PB-20.

Procedure:

Blend all ingredients, stir until uniform.

Variations:

For "natural" labeling, replace part of PROPAL with vegetable oil.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

BATH OIL B-5005

RAW MATERIALS	% By Weight
Mineral oil, 70 wt.	60.0
PROMYR	20.0
ACETULAN	10.0
AMEROXOL OE-2	10.0
Perfume and color	q.s.

Description:

Instant blooming bath oil that leaves part of emollient in water and part floating. ACETULAN reduces oiliness and adds velvety feel. AMEROXOL OE-2 effects partial dispersion.

Procedure:

Blend all ingredients; stir until uniform.

Variations:

For additional skin treatment, replace part of PROMYR with MODULAN.

For lubricity, replace part of PROMYR with AMERLATE P.

BATH OIL B-5006

RAW MATERIALS	% By Weight
Sesame oil	28.0
Corn oil	8.0
Mineral oil, 70 wt.	19.0
Decyl Oleate	16.0
Standamul 1414-E	15.0
AMEROXOL OE-2	10.0
SOLULAN PB-20	2.0
ACETULAN	2.0
Perfume and antioxidant	q.s.

Description:

Combination blooming dispersible and floating bath oil with high concentration of vegetable oil. AMEROXOL OE-2 offers dispersion. ACETULAN reduces oily feel and imparts velvety character. Popular skin treatment type.

Procedure:

Blend all ingredients; stir until uniform.

Variations:

For silky feel, replace part of oil system with PPG-36 Oleate.

For added lubricity, replace part of decyl oleate with AMERLATE P.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Suggested Formulations

BATH OIL B-5007

RAW MATERIALS	% By Weight
AMERCHOL L-101	10.0
Mineral oil, 70 wt.	60.0
ACETULAN	2.0
MODULAN	1.0
Kessco PEG-100 Dilaurate	20.0
SOLULAN PB-20	5.0
AMEROXOL OE-2	2.0
Perfume and color	q.s.

Description:

Semidispersible popular mineral oil-based bath oil type, recommended for skin treatment. ACETULAN sharply reduces oily character and AMERCHOL L-101 and MODULAN provide treatment.

Procedure:

Blend all ingredients together with slight warming. Stir until uniform.

Variations:

For increased water soluble emollient character, replace part of mineral oil with GLUCAM P-20.

BATH OIL B-5008

RAW MATERIALS	% By Weight
Mineral oil, 70 wt.	77.0
ARLAMOL E	15.0
AMEROXOL OE-2	1.0
Igepal CO-520	1.0
SOLULAN PB-20	6.0
Perfume and color	q.s.

Description:

Semidispersible bath oil with good spread on skin due to SOLULAN PB-20.

Procedure:

Blend all ingredients, mix until uniform.

Variations:

For greater dispersibility, increase concentration of Igepal CO-520.

For greater lubricity, replace part of mineral oil with AMERLATE P.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Suggested Formulations

BATH OIL B-5009

RAW MATERIALS	% By Weight
Diol 400	30.0
PROPAL	30.0
Mineral oil, 70 wt.	20.0
Monamid 716	4.0
GLUCAMATE SSE-20	3.0
ACETULAN	10.0
Water	3.0
Perfume and colors	q.s.

Description:

Two layer, partially dispersible treatment bath oil. Use of different dye shades in Diol-400 and oil phase can provide greater visual contrast in product prior to shaking.

Procedure:

Blend all ingredients with minimum warming, stir sufficiently to mix thoroughly. Product will settle into two layers.

Variations:

For increased humectancy, add GLUCAM E-20.

For increased body, add PPG-36 Oleate.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Formula

BATH OIL

RAW MATERIALS	% By Weight
ACTRASOL MY	75
White Oil	24
Perfume	1

Sulfated oils are used in the toilet goods field primarily in bath oils and shampoos of the non-lathering type. Their very low levels of toxicity or irritation make them ideal for this use. For example, the bath oil formulation gives excellent skin feeling, and at the same time disperses limesoap curds, thus preventing bathtub ring.

SOURCE: Arthur C. Trask Corp.: The ACTRASOLS: A Unique Class of Anionic Surfactants: Formulation

BATH SALTS B-5017

RAW MATERIALS	% By Weight
Newport Bathing Salt	90.0
Sodium sesquicarbonate	7.0
GLUCAM P-20	1.5
Perfume oil	1.5
Color	q.s.

Description:

Attractive large sodium chloride crystals. Sodium sesquicarbonate serves as water softener and GLUCAM P-20 as water-soluble emollient and fragrance duration extender. Intended as extension of bath fragrance line.

Procedure:

Premix perfume oil and GLUCAM P-20. Load half of the salt into a hopper above a twin shell blender, then add the sodium sesquicarbonate. Spray in the perfume and color solutions. Drop into blender and add remainder of salt. Blend 5 minutes only to avoid destroying crystal structure of salt.

Variations:

For improved emollient and foaming effects, add SOLULAN L-575 to color solution.

BATH BEADS B-5018

RAW MATERIALS	% By Weight
Pentasodium triphosphate	50.0
Sodium sesquicarbonate	46.0
Perfume oil	0.5
GLUCAM P-20	1.5
GLUCAMATE SSE-20	1.0
SOLULAN PB-20	1.0
Color	q.s.

Description:

Water-softening emollient small bead tub water treatment with dispersible and lipophilic emollients provided by GLUCAM P-20, GLUCAMATE SSE-20 and SOLULAN PB-20.

Procedure:

Premix perfume oil, GLUCAM P-20, GLUCAMATE SSE-20 and SOLULAN PB-20.

Variations:

- For lightness, add Cab-O-Sil M-5.
- For "relaxing" label claim, add magnesium sulfate.
- For foaming effect, add sodium olefin sulfonate.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

BATH SPLASH F-4005

RAW MATERIALS	% By Weight
Phase A:	
Carbopol 941	0.1
Water	25.9
GLUCAM P-20	3.0
GLUCAM E-10	2.0
Phase B:	
GLUCAMATE SSE-20	4.0
Perfume oil	2.5
Diisopropyl adipate	1.5
Specially Denatured Alcohol No. 40	60.0
Phase C:	
Diisopropanolamine, 10% in water	1.0
Color	q.s.

Description:

Hydroalcoholic moisturizing afterbath body splash. GLUCAM E-10 provides dry humectant, GLUCAM P-20 fragrance fixation and water-soluble emollient.

Procedure:

Phase A: Completely disperse Carbopol 941 in water. Add GLUCAMS with stirring.

Phase B: Combine all ingredients except alcohol with stirring and just enough heat to clarify. Add slowly with stirring to alcohol. Stir until clear. Add Phase B to Phase A slowly with stirring until clear. With good mixing, add Phase C in thin stream. Mix until homogeneous.

Variations:

To opacify, add small amount of GLUCATE SS to Phase B.

SOURCE: Amerchol Corp.: Bath & Fragrance Products:
Formulation F-4005

BENZOYL PEROXIDE SKIN CLEANSER

INGREDIENT	% W/W
Part A:	
Luperco AA (Benzoyl Peroxide)	29.0
Propylene Glycol	22.0
LANETTE E (Sodium Cetearyl Sulfate)	1.0
Part B:	
VELVETEX CDC (Cocamphodiacetate)	10.0
STANDAMOX CAW (Cocamidopropylamine Oxide)	10.0
Part C:	
Carbopol 934 (2% a.q.) (Carbomer 934)	24.5
Triethanolamine	0.5
EMULGADE 1000NI (Cetearyl Alcohol (and) Ceteareth-20)	3.0
Part D:	
Citric Acid (50%)	q.s. to pH 5.5-6.0

BENZOYL PEROXIDE SKIN CLEANSER

INGREDIENT	% W/W
Part A:	
Luperco AA (Benzoyl Peroxide)	29.0
Propylene Glycol	22.0
LANETTE E (Sodium Cetearyl Sulfate)	0.5
Part B:	
VELVETEX CDC (Cocamphodiacetate)	10.0
STANDAMOX CAW (Cocamidopropylamine Oxide)	10.0
Part C:	
Carbopol 934 (2 a.q.) (Carbomer 934)	25.0
Triethanolamine	0.5
EMULGADE 1000NI (Cetearyl Alcohol (and) Ceteareth-20)	3.0
Part D:	
Citric Acid (50%)	q.s. to 5.5-6.0

Procedure:

1. Melt EMULGADE 1000NI and add to heated Carbopol 60-65C.
2. Add Part B.
3. Add TEA and mix until cool.
4. Mix Part A until it becomes a smooth paste and add to B+C
5. Adjust pH.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formulation HOB-177-42

BLOOMING BATH OIL

Ingredient	% W/W
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A.

Mineral oil 65/75 Vis	67.0
PEG-8 Laurate (1)	16.0
PATONIC ISL (2)	7.0
PATLAC IL (3)	4.0
Ceteth-2 (4)	2.5
Sorbitan Sesquioleate (5)	1.0

B.

Perfume	2.5
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(1) Mazer Chemical	Mapeg 400 ML
(2) Patco Cosmetic Products	Sodium Isostearyl-2-Lactylate
(3) Patco Cosmetic Products	Isostearyl Lactate
(4) ICI America	Brij 52
(5) ICI America	Arlacel 83

SOURCE: Patco Cosmetic Products: Formulary: Formula Bulletin
No. 216

BLOOMING BATH OIL
(with PURCELLIN)

INGREDIENTS	% By Weight
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Mineral Oil (Carnation)	75.00
PURCELLIN OIL	10.00
Isopropyl Myristate	5.00
Brij 93	5.00
Fragrance	5.00
	100.00

Manufacturing Directions:

Mix all ingredients together at room temperature.

SOURCE: Dragoco, Inc.: Formula 711-0027

BODY SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
Water	30.50
Sodium C14-16 Olefin Sulfonate (Witconate 14-16 AOS)	35.00
Sodium Methyl Cocoyl Turate (Igepon TC-42)	12.00
PEG-150 Distearate	1.00
Glycol Distearate	2.00
Cocamide DEA	6.00
Polyquaternium-11 (Gafquat 755N)	2.50
Cocamidopropyl Betaine (Monateric CAB)	10.00
Phase B:	
GERMABEN II-E	1.00
Phase C:	
Fragrance, citric acid, Sodium Chloride	q.s.

Procedure:

Heat water to 75C and add each ingredient of Phase A, stirring until uniform. Cool to 40C and add GERMABEN II-E. Add fragrance and adjust the pH to 6.0 with citric acid. Finally add 20% salt solution to desired viscosity.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary - Supplement #1

BODY SHAMPOO

INGREDIENTS	% wt/wt
Amphoterge K-2 (40% sol'n)	10.00
Carsonol SLES (29% sol'n)	36.20
Carsonol TLS (40% sol'n)	20.00
Barlox C (30% sol'n)	4.00
Carsamide SAC	4.00
Citric acid	0.60
Sodium chloride	0.25
Water	24.25
pH:	7.0
Viscosity	500 cps

Pleasant after feel on the skin.

SOURCE: Lonza Inc.: AMPHOTERGE K/AMPHOTERGE K-2: Suggested Formulation

BODY SHAMPOO

RAW MATERIALS	% By Weight
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Phase A:	
Magnesium lauryl sulphate (30%)	27.0
Perfume	0.5
Phase B:	
Water	64.5
TEGO-Betain L 7	8.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.16

BODY SHAMPOO

RAW MATERIALS	% By Weight
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Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Alpha-olefine sulphonate, sodium salt (37%)	30.0
Phase B:	
Water	54.0
Sodium chloride	1.5
TEGO-Betain L7	12.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.17

BODY SHAMPOO

RAW MATERIALS	% By Weight
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Phase A:	
ANTIL 141 liquid	3.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	35.0
Phase B:	
Water	56.5
TEGO-Betain L7	5.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

BODY SHAMPOO

RAW MATERIALS % By Weight

Phase A:
 ANTIL 141 liquid 1.0
 Perfume 1.0
 Sodium lauryl ether sulfate (28%) 35.0

Phase B:
 TEGO-Betain L7 10.0
 ABIL B8843 0.5
 Wasser 52.5
 Preserving Agent, colouring q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
 Formulation E 1.1.19

HAIR AND BODY SHAMPOO

RAW MATERIALS % By Weight

Water 68.65
 Jordaquat 41 0.75
 MAZER MAFO CAB 5.6
 Jortaine CSB 11.6
 Jordapon CI-50 Paste 11.0
 Jordaquat 1033 1.0
 Jordamox LDA 1.2
 Tetrasodium EDTA 0.2
 Perfume q.s.
 Preservative, Dye q.s.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
 Suggested Formulation

SHOWER BATH

RAW MATERIALS % By Weight

Phase A:
 ANTIL 141 liquid 2.0
 Perfume 1.0
 Alpha-olefine sulphonate, sodium salt (37%) 35.0
 Phase B:
 Water 42.0
 TEGO-Betain L7 20.0
 Preserving agent, colouring q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: E 1.2.1

BODY SHAMPOO WITH FRESCOLAT(620105)-TRANSPARENT

RAW MATERIALS % By Weight

A.	
Texapon N 40	43,60
Dehydol LS 3 deo	2,00
Dehyton K	4,00
Lamepon S	6,00
Arlatone G	0,50
FRESCOLAT (620105) H&R	0,50
Fragrance H&R 10 519/734781	1,50
B.	
Water, distilled or deionised	41,40
Euxyl K 100	0,10
Sodium chloride	0,20
FD+C Green No. 3 C.I. 42053 (1% solution in water)	0,20
Formula K 12/7-44457 A/E	

BODY SHAMPOO WITH FRESCOLAT (620105)-PEARLIZED

RAW MATERIALS % By Weight

A.	
Texapon N40	39,40
Dehydol LS 3 deo	2,00
Dehyton K	4,00
Lamepon S	6,00
Euperlan PK 771	2,50
FRESCOLAT (620105) H&R	0,50
Fragrance H&R F 10 519/734781	1,50
B.	
Water, distilled or deionised	43,60
Euxyl K 100	0,10
Sodium chloride	0,10
FD+C Green No. 3 C.I. 42053	0,30
Formula K 12/7 - 44 457 A/E	

FOAM BATH WITH HERBS AND ESSENTIAL OIL (21% ACTIVE)

RAW MATERIALS % By Weight

Texapon NSO	48,00
Texapon ASV	20,00
Dehydol LS 3 deo	2,00
Essential Oil H&R	4,00
CREMOGEN FORTE CAMOMILE 728 790 H&R	2,00
Euxyl K 100	0,10
Water, dist. or deionized	23,40
Sodium Chloride	0,50
Formula K 12/7-45 306 A/E	

SOURCE: Haarman & Reimer: Suggested Formulations

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	3.0
Perfume	1.0
Magnesium lauryl sulphate (30%)	48.0
Phase B:	
Water	28.0
TEGO-Betain F	20.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.5

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	1.0
Magnesium lauryl sulphate (30%)	40.0
Alpha-olefine sulphonate, sodium salt (37%)	5.0
Phase B:	
Water	37.0
TEGO-Betain L7	15.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.6

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	1.0
Ammonium lauryl sulphate (35%)	37.0
Phase B:	
Water	40.0
TEGO-Betain L7	20.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.7

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT L2	1.0
Perfume	1.0
Monoethanol ammonium lauryl sulphate (33%)	45.0
Phase B:	
Water	38.0
TEGO-Betain F	15.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.8

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT L	7.0
Perfume	0.3
Sodium lauryl ether sulphate (28%)	28.5
Phase B:	
Water	31.7
TEGO-Betain HS	32.5
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.9

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

BUBBLE BATH

RAW MATERIALS	% By Weight
MIRANOL CS CONC.	25.0
MIRATAINE CBS	10.0
CEDEPON LS 30PM	10.0
Cedemide AX	1.0
Water	54.0

Procedure:

Add in order above. Heat to 60C to dissolve the Cedemide AX. Adjust pH to 7.0 with citric acid.
Solids: 20.2%, viscosity: 1800 cps

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulation

BUBBLE BATH B-5014

RAW MATERIALS	% By Weight
Water	47.5
Standapol ES-40	38.0
Monamid 716	7.0
GLUCAM E-20	3.5
SOLULAN L-575	4.0
Perfume, preservative, color	q.s.

Description:

Medium viscosity liquid bubble bath. Good foamer. GLUCAM E-20 contributes to body and foam stability. SOLULAN L-575 reduces stripping effect of surfactant system.

Procedure:

Blend all ingredients; stir until uniform.

Variations:

For increased fragrance duration, add GLUCAM P-20.

For increased body, add SOLULAN 16.

BUBBLE BATH B-5015

RAW MATERIALS	% By Weight
Water	51.0
GLUCAM E-10	4.0
Ammonyx LO	15.0
Maprofix WAC	25.0
Sodium chloride, 10% in water	5.0
Perfume, preservative, color	q.s.

Description:

Clear viscous bubble bath.

AMMONYX LO contributes to foam, GLUCAM E-10 to body and feel.

Procedure:

Add ingredients in order listed with thorough agitation, avoiding excess aeration.

Variations:

Viscosity can be controlled by varying sodium chloride concentration.

To opacify for "creamy" appearance, add GLUCATE SS.

SOURCE: Amerchol Corp.: Bath & Fragrance Products:
Suggested Formulations

BUBBLE BATH
Clear, 16% active detergent

RECIPE:	% By Weight
A.	
GENAPOL LRO liquid*	40.00
B.	
HOSTAPUR SAS 60	8.00
Perfume	1.50
Water	46.80
Dyestuff solution	q.s.
Preservative	q.s.
C.	
Sodium chloride	3.70

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

- I Add one after another, the components of B to A.
 II Finally adjust the viscosity with C.

Formulation A I/1067

SPECIAL-BATH
Clear, 14.4% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	3.00
B.	
Water	15.00
C.	
GENAPOL AMS	8.00
GENAPOL LRO liquid*	40.00
Perfume	1.00
Neo-PCL water soluble	5.00
Water	25.70
Preservative	q.s.
Dyestuff solution	q.s.
D.	
Citric acid -----> 6	q.s.
E.	
Sodium chloride	2.30

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation A I/3024

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

BUBBLE BATH

RAW MATERIALS	Parts by Weight
EMCOL 4161L (Disodium Oleamido-MIPA-Sulfosuccinate)	50.0
WITCAMIDE 82 (Cocamide DEA)	5.0
Water	45.0
Perfume, Preservative	q.s.

Combine ingredients; mix until clear.

Approximately 1 ounce is used in a tub of bath water.

Formulation 106B

LIQUID BUBBLE-BATH-A

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	15.0
WITCAMIDE 82 (Cocamide DEA)	3.0
Ammonium Chloride	2.0
Perfume, Dye, Preservative	q.s.
Lanolin	0.1
Water	q.s. to 100

LIQUID BUBBLE-BATH-B

RAW MATERIALS	Parts by Weight
WITCOLATE AE-3 (Ammonium Pareth-25-3 Sulfate)	10.0
WITCAMIDE 82 (Cocamide DEA)	2.0
Perfume, Dye, Preservative	q.s.
Lanolin	0.1
Water	q.s. to 100

More concentrated bubble bath formulations can be produced by increasing levels of ingredients to as high as three times the above. (Ammonium chloride is not needed in more concentrated formulations).

Formulation 105B

SOURCE: Witco Chemical Co.: Surfactants for Cosmetics and Toiletries: Formulations

BUBBLE BATH LIQUID - PREMIUM QUALITY

RAW MATERIALS	%w
NEODOL 25-3S (60%)	32
Lauryldimethylamine oxide (30%) (a)	16
Water, dye, perfume, preservatives	to 100%
Properties:	
Viscosity, 73F, cps	52
Clear point, F	18
Adjust pH to 6.5-7 with citric acid.	

BUBBLE BATH LIQUID - GOOD QUALITY

RAW MATERIALS	%w
NEODOL 25-3S (60%)	20
FADEA (b)	3
Sodium chloride	4
Water, dye, perfume, preservatives	to 100%
Properties:	
Viscosity, 73F, cps	738
Clear point, F	43
Adjust pH to 6.5-7 with citric acid.	

Blending Procedure:

Dissolve the sodium chloride in water, where indicated. Add the NEODOL 25-3S slowly with good stirring. Add the amide or amine oxide.

- (a) Ammonyx LO, Onyx Chemical Co., or equivalent product.
 (b) Fatty acid diethanolamide such as Ninol 2012EX, Stepan Chemical Co., or an equivalent product.

SOURCE: Shell Chemical Co.: NEODOL Formulary: Formulations

BUBBLE BATH WITH RELAXING EFFECT

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	1.0
Softigen 767	4.0
Extrapon Melisse	1.0
Extrapon Rosmarin	1.0
Eucalyptus oil	0.5
Peppermint oil	0.2
Sodium lauryl ether sulphate (28%)	25.0
Phase B:	
Water	45.3
TEGO-Betain L7	22.0
Preserving agent, colouring	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
 Formula E 1.2.16

BUBBLE BATH WITH LANOLIN

INGREDIENT	% By Weight
I	
Deionized Water	48.0
SLES (28% 3 mole EO)	25.0
VARION CADG-HS	10.0
VARSULF SBFA-30	10.0
VARSULF S-1333	3.0
Lantrol AWS	1.0
VARAMIDE MA-1	3.0
II	
Citric Acid (25%)	qs
III	
Preservative	qs

Mixing Instructions:

Mix and heat Phase I to 35C until even. Cool to 30C.
Adjust to pH 7.0 with Citric Acid.

Solids: 19.7%
pH: 7.0

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.1

BUBBLE BATH WITH PLANT EXTRACTS

INGREDIENT	% By Weight
I	
Deionized Water	44.5
VARSULF SBFA-30	20.0
VARION CADG-HS	15.0
TEALS (40%)	15.0
VARAMIDE MA-1	2.5
Extrapone Phytostimulin	3.0
II	
Sodium Chloride	qs
III	
Preservative	qs

Mixing Instructions:

Mix and heat Phase I to 35C until even. Cool to 30C. Add Sodium Chloride (approx. 1.5%) to achieve desired thickening.

Solids: 24.7%

SOURCE: Sherex Chemical Co.: Formulation Code 6.2.1

BUBBLING FOAM BATH TABLET

RAW MATERIALS	% By Weight
VAR SULF S1333/P	10.0
VAR SULF SBL203/P	40.0
Citric Acid	20.0
Sodium Bicarbonate	30.0

Mixing Procedure:

Mix ingredients uniformly, then form into tablets.

SOURCE: Sherex Chemical Co.: Suggested Formulation

CHILDREN'S BUBBLE BATH

INGREDIENT	% By Weight
I	
Deionized Water	52.6
VAR SULF S-1333	15.0
VARION 2C	22.0
TEALS (40%)	10.0
II	
Citric Acid	0.4
III	
Ammonium Chloride	qs
IV	
Preservative	qs

Mixing Instructions:

Heat and mix Phase I to 65C. Add Citric Acid. Cool to 30C and add Ammonium Chloride (approx. 1.5-2%) to thicken.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.3

MELISSA-SCENTED BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O 2	10.0
Softigen 767	5.0
ANTIL 141 liquid	1.0
1.2-propylene glycol	4.0
Melissa oil	3.0
Sodium lauryl ether sulphate (28%)	35.0
Phase B:	
Water	27.0
TEGO-Betain L7	15.0
Preserving agent, colouring	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 1.2.13

CONDITIONING BUBBLE BATH

RAW MATERIALS	% By Weight
Water, D.I.	70.5-73.5
DESONIC CE-12 (Glycereth-12)	1.0
Varamide MA-1 (Cocamide DEA)	1.8
DESONATE AOS (Sodium C14-16 Olefin Sulfonate)	8.2
DESONOL SE-2 (Sodium Laureth Sulfate)	12.5
Citric Acid	to pH 6.5-7.0
Sodium Chloride	3.0-6.0
Perfume, Dye and Preservative	q.s.

Blending Procedure:

Add surfactants, in order, to D.I. Water with moderate agitation. Adjust pH with Citric Acid; then, add Sodium Chloride to obtain the desired viscosity before adding Perfume, Dye and Preservative.

Comment:

DESONIC CE-12 exhibits excellent emollient and humectant properties and imparts a soft, conditioned effect to the skin without residual oiliness. It is compatible with anionic, cationic and nonionic surfactants and does not inhibit cleansing and foam performance.

SOURCE: DeSoto, Inc.: Formulation L-3093

SHOWER BATH

RAW MATERIALS	% By Weight
Phase A:	
Texapon ASV	45.0
Phase B:	
Comperlan OD	3.0
Oxypon 2145	2.0
Perfume oil	3.0
Phase C:	
Water	34.8
Bronidox L	0.2
HYDROLASTAN	10.0
Sodium chloride	2.0

Processing:

1. Mix well the substances of phase B and incorporate to phase A.
2. Mix well the substances of phase C and add to phase A + B.

SOURCE: Pentapharm Ltd.: Guide Formulations: Code No. PL 1504

DISPERSIBLE BATH-OIL

RAW MATERIALS	Parts By Weight
Carnation White Mineral Oil	85.0
WITCONOL APM (PPG-3 Myristyl Ether)	3.0
WITCONOL H-31A (PEG-8 Oleate)	10.0
Water	2.0

Dissolve WITCONOL APM and WITCONOL H-31A in Carnation White Mineral Oil. When solution is homogeneous, add water slowly with agitation.

This unique formula will form an instant milky cloud when added to the bath.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 110B

DISPERSIBLE BATH OIL

STANDARD FORMULA	% By Weight
MIGLYOL 812 Neutral Oil	20.0
MIGLYOL 840	67.0
Silicone Oil AR 200	10.0
Perfume oil	3.0

Preparation:

All components are mixed at room temperature.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formula 5.3.3

LAVENDER BATH OIL

RAW MATERIALS	% By Weight
TAGAT O2	30.0
1.2-propylene glycol	20.0
Lavender oil	40.0
Water	10.0
Colouring	q.s.
Formula E 1.2.19	

ROSEMARY BATH OIL

RAW MATERIALS	% By Weight
TAGAT O	30.0
1.2-propylene glycol	20.0
Rosemary oil DAB 8	40.0
Water	10.0
Colouring	q.s.
Formulation E 1.2.17	

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

EMOLLIENT BUBBLE BATH

INGREDIENTS	% W/W
Water	29.0
STANDAPOL ES-2 (Sodium Laureth Sulfate)	60.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	5.0
STANDAMID LDS (Lauramide DEA)	3.0
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The recommended order of addition is given above. Add all materials singularly under adequate agitation. Continue stirring until product is homogeneous.

Note:

The ethoxylated cocoate provides emollient and substantive dermal effects. This high foaming formula can also be used as a body shampoo.

Formulation H-4855

LIQUID BUBBLE BATH

INGREDIENTS	%W/W
Water	68.5
Sodium Chloride	1.0
STANDAPOL ES-40 CONC. (Sodium Myreth Sulfate)	20.0
STANDAMID LD (Pre-melted at 45C) (Lauramide DEA)	5.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	2.5
STANDAMOX CAW (Cocamidopropylamine Oxide)	3.0
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Continue stirring until product is homogeneous.

Note:

The ethoxylated cocoate provides emolliency. The blend of amide and amine oxide provides a high level of detergency with minimum irritation potential not possible in a strictly high amide blend. To increase creaminess of lather, replace all of alkanolamide with STANDAMOX CAW.

Formulation 4856

SOURCE: Henkel Corp.: Cosmetics Formulary: Suggested Formulations

FLOATING BATH OIL

Clear, straw colored oil with velvety afterfeel

RAW MATERIALS	% By Weight
ACETULAN	10.0
SOLULAN PB-20	1.0
AMEROXOL OE-2	5.0
Mineral oil, 70 vis.	56.0
Isopropyl palmitate	28.0
Perfume and Preservative	q.s.

Procedure:

Add the ingredients in the order given, mixing well after each addition. If necessary, heat gently to clear.

SOURCE: Amerchol Corp.: ACETULAN acetylated lanolin alcohols:
Formulation Suggestion

FLOATING BATH OIL

Clear, straw-colored oil with velvety afterfeel

RAW MATERIALS	% By Weight
AMEROXOL OE-2	5.0
SOLULAN PB-20	1.0
ACETULAN	10.0
Mineral oil, 70 vis.	56.0
Isopropyl palmitate	28.0
Perfume and Preservative	q.s.

Procedure:

Weigh ingredients together, heat where necessary, and mix until uniform.

SOURCE: Amerchol Corp.: AMEROXOL OE oleyl alcohol ethoxylates:
Formulation Suggestion

FLOATING BATH-OIL BAR

RAW MATERIALS	Parts by Weight
WITCONOL APM (PPG-3 Myristyl Ether)	69.0
Carnation White Mineral Oil	10.0
Propylene Glycol	10.0
Witco Sodium Stearate C-1	8.0
Water	3.0
Color, Perfume	q.s.

Disperse WITCO Sodium Stearate C-1 in WITCONOL APM. Add Carnation White Mineral Oil, propylene glycol and water; heat to 80 to 85C. Stir until clear. Cool with stirring to 77C and add color and perfume. Pour into molds at 73C.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 103B

MILD HERBAL BATH OIL

INGREDIENTS	% W/W
EDENOL 302 (Propylene Glycol Dicaprylate/Dicaprate)	20.0
CETIOL G-16S (Isocetyl Stearate)	20.0
MYRITOL 318 (Caprylic/Capric Triglyceride)	30.0
Mineral Oil, NF	24.0
VITAPLANT CLR, Oil Soluble	3.0
Perfume Oil	3.0
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Continue stirring until product is homogeneous.

Comments:

This combination of fatty acid esters and CLR material provides an emollient dermal effect that is particularly effective for dry skin.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula H-4853

FOAM BATH

Standard Formula	% By Weight
Rewopol NL 3	78.0
Marlopon AT 50	8.0
Aminoxyd WS 35	2.0
SOFTIGEN 767	7.0
Perfume	3.0
Hexylene glycol	2.0
Preservative	q.s.

Preparation:

All the materials are put together, heated to about 40C and stirred until homogeneous.

Formulation 5.1.1

FOAM BATH

Standard Formula	% By Weight
Rewopol NL 3	54.0
Rewopol SBFA 30	25.0
Rewo-Amid DC 212/S	3.0
Rewoteric AM-CA	8.0
Perfume	3.0
Hexylene glycol	2.0
SOFTIGEN 767	5.0
Preservative	q.s.

Preparation

All the materials are put together, heated to about 40C and stirred until homogeneous.

Formulation 5.1.2

FOAM BATH

Standard Formula	% By Weight
Rewopol SBFA 30	34.0
Rewopol NL 3	43.0
Rewo-Amid DL 203/S	3.0
SOFTIGEN 767	4.0
Water	11.0
Perfume	3.0
Hexylene glycol	2.0
Preservative	q.s.

Preparation:

The materials are brought together, heated to about 40C and stirred until homogeneous.

Formulation 5.1.3

Source: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

FOAM BATH

Standard Formula	% By Weight
Rewopol NL 3	44.0
Medialan KF	41.0
Mountain pine oil	5.0
SOFTIGEN 767	10.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.

Formulation 5.1.4

MEDICATED FOAM BATH

Standard Formula	% By Weight
Rewopol NL 3	60.0
Rewo-Amid DL 203/S	6.0
Tego Betain L 7	22.0
SOFTIGEN 767	12.0
Preservative	q.s.

To these can be added the following:

Against cellulitis		
Adipol	5.0%	
Celluniol	5.0%	
Thiomucase (ampoules)	[2000 TRU]	
Extrapon Arikin Special		5.0
Extrapon Camomile Special		5.0
Extrapon 1 Special		5.0
Hygroplex HHG		5.0
Collagen CLR		5.0
Hamamelis dist. colourless special (witch hazel)		5.0
Soluvit		5.0
Eucalyptol		1.5

Preparation:

All the materials are put together, heated to 40C and stirred until homogeneous.

Formulation 5.1.5

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

FOAM BATH IN TUBES

STANDARD FORMULA	% By Weight
Rewopol SBFA 30 (40%)	77.0
Rewoteric AM-CA	6.0
Lantrol AWS	4.0
Rewo-Amid DL 203/S	3.0
Rewo-Amid DO 280/SE	4.0
Perfume	3.0
SOFTIGEN 767	3.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.

Formulation 5.1.7

TWO-PHASE FOAM BATH

STANDARD FORMULA	% By Weight
Texapon N 25	30.0
Water	30.0
MIGLYOL 840	17.0
Paraffin oil	17.0
Hexylene glycol	4.0
Perfume oil	q.s. 2.0
Colouring matter	q.s. 0.02
Preservative	q.s.

Preparation:

The ingredients are mixed with a mechanical stirrer, homogenized, heated to approx. 50C and well shaken.

The desired separation of the phases takes place during heating and the ratio of the separated phases is determined by the duration of homogenization and the speed of the motor. The quantity of the ingredients also plays a part.

Formulation 5.2.1

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

FOAMING BATH OIL

INGREDIENTS	% W/W
Water	26.25
STANDAPOL ES-1 (Sodium Laureth Sulfate)	60.00
STANDAMOX CAW (Cocamidopropylamine Oxide)	3.50
STANDAMOX O1 (Oleamine Oxide)	1.50
AETHOXAL B (PPG-5-Laureth-5)	2.50
SEDAPLANT RICHTER (Urea (and) Fennel Extract (and) Hops Extract (and) Balm Mint Extract (and) Mistletoe Extract (and) Matricaria Extract (and) Yarrow Extract (and) Allantoin)	1.00
Glucamate DOE-120	5.00
Kathon CG	0.05
Fragrance	0.20
Citric Acid (50% solution)	q.s.

Procedure:

1. Mix all ingredients and heat to 65C until homogeneous.
2. Cool to room temperature and adjust pH to 6.0-6.2 with the citric acid solution.
3. Fill off.

Comments:

The use of amine oxides, which create a creamy "lather", and AETHOXAL B results in an economical yet high performance foam bath.

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formula HOB-220-30B

FOAMING BATH OIL

INGREDIENTS	% W/W
Part A:	
STANDAPOL ES-2 (Sodium Laureth Sulfate)	50.0
Water	20.0
Part B:	
CETIOL HE (PEG-7 Glyceryl Cocoate)	20.0
Isopropyl Myristate	10.0
Perfume Oil	q.s.
Dyes and Preservative	q.s.

Procedure:

Blend Part A. Blend Part B. Add Part B to Part A with stirring until solution is clear.

Comments:

This formula based on the mild 2 mole ether sulfate exhibits good foaming characteristics coupled with the skin softening effects of the emollient esters.

SOURCE: Henkel Corp.: Personal Care Products Formulary: H-4854

FOAMING BATH OIL

INGREDIENTS	% W/W
Water	30.00
STANDAPOL ES-1 (Sodium Laureth Sulfate)	60.00
VELVETEX OLB-50 (Oleyl Betaine)	4.50
STANDAMID LDO (Lauramide DEA)	3.00
AETHOXAL B (PPG-5-Laureth-5)	1.25
SEDAPLANT RICHTER (Urea (and) Fennel Extract (and) Hops Extract (and) Balm Mint Extract (and) Mistletoe Extract (and) Matricaria Extract (and) Yarrow Extract (and) Allantoin)	1.00
Kathon CG	0.05
Fragrance	0.20
Citric Acid (50% solution)	q.s.

Procedure:

1. Add all ingredients and mix until homogeneous (heat to about 45C, with speed procedure).
2. Adjust pH to 6.4 to 6.6 with citric acid solution.
3. Fill off.

Comments:

The long chain betaine will deposit on the skin so that in combination with AETHOXAL B leaves a soft, moisturized feel to the skin.

Source: Henkel Corp.: Personal Care Products Formulary:
Formula HOB-220-30C

FOAMING BATH OIL

INGREDIENTS	% W/W
STANDAPOL CONC. 7023 (Cocamide DEA (and) DEA-Myreth Sulfate)	75.00
EUTANOL G (Octyldodecanol)	23.00
Fragrance	2.00
Dyes and Preservatives	q.s.
	100.00

Procedure:

Charge kettle with STANDAPOL CONC. 7023. Add remaining ingredients, one at a time, under agitation. Continue stirring until product is homogeneous. Fill off.

Comments:

A medium foaming bath oil with excellent skin moisturizing effects.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula H-4857

HAND AND BODY CLEANSER

INGREDIENT	% By Weight
I	
Deionized Water	67.0
AOS (40%)	20.0
VARONIC LI-48	3.7
VARONIC LI-67	1.3
EGMS	1.6
VARAMIDE ML-1	2.5
II	
Glycerine	0.2
Lanoquat 50	0.5
Tetrasodium EDTA	0.1
VARION CADG-HS	3.1
III	
Citric Acid (25%)	qs
IV	
Sodium Chloride	qs
V	
Preservative	qs
Solids:	19.5%
pH:	7.3

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.6

SCRUBBING CLEANSER

INGREDIENT	% By Weight
I	
Deionized Water	87.5
Carbopol 934	0.2
II	
STARFOL Wax CG	1.0
Emerest 2407	1.0
STARFOL IS	3.0
STARFOL OS	3.0
III	
Deionized Water	2.0
Triethanolamine	0.3
IV	
Pumice	2.0
V	
Preservative	qs
Solids:	12.3%
pH:	7.4
Viscosity:	16,000 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.7

LUXURIOUS BUBBLE BATH

INGREDIENT	% By Weight
A:	
VANSEAL NACS-30	40.00
Sodium Laureth Sulfate	40.00
Deionized Water	13.50
B.	
Lauramide DEA	5.00
C.	
Sodium Chloride	1.00
VANATE TS	0.50
Citric Acid to pH 6.0	q.s.
Preservative, Fragrance, Color	q.s.
	100.00

LUXURIOUS BUBBLE BATH

RAW MATERIALS	% By Weight
A.	
VANSEAL NACS-30	20.00
Sodium Laureth Sulfate	32.00
Deionized Water	41.50
B.	
Myristamide DEA	5.00
C.	
Sodium Chloride	1.00
VANATE TS	0.50
Citric Acid to pH 6.0	q.s.
Preservative, Fragrance, Color	q.s.
	100.00

Formulation A produces rich, voluminous foam stable for 20-30 minutes.

Formulation B is a lower cost composition which produces less foam volume than A with about the same stability.

Preparation:

Mix A ingredients at room temperature with gentle stirring. Heat mixture to 70-75C. Add B and mix until uniform. Cool to 30C while stirring and add C ingredients in the order listed.

Consistency:

Low viscosity clear liquid (Viscosity - 150-250 cps; measured after 30 days at room temperature.)

Suggested Packaging: Plastic bottle

SOURCE: R.T.Vanderbilt Co., Inc.: Formulations Nos. 430 and

OIL FOAM BATH

STANDARD FORMULA	% By Weight
DYNACERIN 660	10.0
MIGLYOL 829	26.0
SOFTIGEN 767	10.0
Texapon WW 99	50.0
Colouring matter, 1% in SOFTIGEN 767	1.0
Perfume oil	3.0
Preservative	q.s.

Preparation:

All ingredients are mixed at room temperature.
Formula 5.2.2.

OIL FOAM BATH(ALSO FOR CHILDREN)

STANDARD FORMULA	% By Weight
Rewopol TLS 90/L	22.0
Rewo-Amid DL 203/S	15.0
Lantrol AWS	20.0
MIGLYOL 812 Neutral Oil	20.0
SOFTIGEN 767	2.0
MIGLYOL 840	10.0
SOFTIGEN 701	3.0
Colouring matter	4.0
Perfume	4.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.
Formulation 5.2.3

OIL FOAM BATH

STANDARD FORMULA	% By Weight
Zetesol 856 T	42.0
Purton CDF	8.0
Mulsifan RT 7	15.0
MIGLYOL 810	15.0
Water	ad 100.0
Perfume	3.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.
Formulation 5.2.4

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

PEARLESCENT BODY CLEANSER

INGREDIENTS	% W/W
Water	q.s. to 100.00
TEXAPON ASV (Sodium Laureth Sulfate)	20.00
(and) Magnesium Laureth Sulfate	
(and) Sodium Laureth-8 Sulfate	
(and) Magnesium Laureth-8 Sulfate	
(and) Sodium Oleth Sulfate	
(and) Magnesium Oleth Sulfate	
STANDAPOL T (TEA-Lauryl Sulfate)	20.00
STANDAMID SOD (Soyamide DEA)	2.00
CETIOL HE (PEG-7 Glyceryl Cocoate)	2.00
EUPERLAN PK-850 (Mixture of fatty alcohol ether sulfates with pearlizing agent)	8.00
Sodium Chloride	2.50
BRONDEX L (Propylene Glycol (and) 5-Bromo-5-Nitro-1,3 dioxane)	0.20

Procedure:

Charge kettle with water. Add ingredients, one at a time, under agitation. Adjust pH to 7.0+/-0.5 with 50% citric acid. Continue mixing until homogeneous. Fill off.

Comments:

This elegant formulation is mild to the skin while leaving it with a feeling of conditioning/moisturization.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula H-4862

SKIN CLEANSER

RAW MATERIALS	% By Weight
MIRANOL CS CONC.	20.0
MIRATAINE COB	10.0
CEDEPON LS 30PM	15.0
Cedemide CX	1.0
Ajidew N-50	1.0
Water	53.0

Procedure:

Mix all ingredients together and heat to 60C to dissolve the Cedemide CX. Adjust pH to 7.0 with citric acid.

Solids:	18.5%
Viscosity:	1500 cps

SOURCE: Miranol Chemical Co.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulation

PEARLESCENT GEL BODY SOAP

INGREDIENTS	% W/W
Water	q.s. to 100
STANDAPOL ES-2 (Sodium Laureth Sulfate)	32.00
STANDAPOL SH-135 (Sodium Oleamide PEG-2 Sulfosuccinate)	8.50
VELVETEX BA-35 (Cocamidopropyl Betaine)	7.50
CETIOL HE (PEG-7 Glyceryl Cocoate)	3.00
STANDAPOL 7092 (Sodium Laureth Sulfate (and) Glycol Stearate)	5.00
STANDAMOX CAW (Cocamidopropylamine Oxide)	7.50
Fragrance, dyes and preservatives	q.s.

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, in the order given. Adjust pH to 6.0 +- 0.3 with 50% citric acid solution. (For better mixing and uniformity, heat and maintain temperature at 40C throughout processing). Fill off.

Comments:

STANDAPOL 7092 is an economical and quick means of adding pearlescence to shampoos. This formula illustrates its use in a moisturizing cleanser for the entire body.

Formula H-4844

PEARLESCENT SHOWER GEL

INGREDIENTS	% W/W
Water	56.00
STANDAPOL AP (Sodium Laureth Sulfate (and) Cocamide DEA (and) Cocamidopropyl Betaine)	40.00
CETIOL 1414E (Myreth-3 Myristate)	1.00
EUPERLAN PK-789 (Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA)	3.00
Dyes, preservatives and fragrance	q.s. 100.00

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.5-7.0 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

Formulation H-4849 is an excellent choice due to its performance benefits which include good foam qualities and a nice residual skin feel due to the CETIOL 1414-E.

Formula H-4849

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

PINE NEEDLE AND DWARF PINE-SCENTED BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O2	7.6
Softigen 767	3.6
Pine needle oil	3.6
Dwarf pine oil	1.2
ANTIL 141 liquid	1.0
Sodium lauryl ether sulfate (28%)	35.0
Phase B:	
TEGO-Betain L7	15.0
Water	33.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.14

ROSEMARY-SCENTED BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O	7.0
ANTIL 141 liquid	1.0
Rosemary oil	5.0
Sodium lauryl ether sulphate (28%)	35.0
Phase B:	
Water	35.0
ABIL B 8843	2.0
TEGO-Betain L7	15.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.15

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulations

SHOWER-BATH
with pearl lustre effect
high viscosity, 16.7% active detergent

RECIPE:	% By Weight
A.	
HOSTAPON CT Paste	5.00
Cocamide DEA	2.00
B.	
Water	40.60
C.	
GENAPOL LRO Liquid	40.00
GENAPOL AMS	6.00
GENAPOL PGM Conc.	4.00
Perfume	0.50
Dyestuff	q.s.
Preserving agent	q.s.
D.	
Common salt	1.90

If GENAPOL LRO paste is being used instead of GENAPOL LRO Liquid, 0.4 times the quantity of GENAPOL LRO Liquid is diluted with water to the required amount.

Formulation No. A I/8032

SHOWER-BATH
26% active detergent

RECIPE:	% By Weight
A.	
Cocamide DEA	3.00
B.	
Water	15.00
C.	
GENAPOL AMS	50.00
Perfume	0.50
Water	9.50
Dyestuff	q.s.
Preserving agent	q.s.
HOE S 3267	26.00
D.	
Common salt	2.00

Procedure:

- I A is dissolved warm in B.
- II One after another the components of C are added to I.
- III Finally the viscosity is adjusted with D.

Formulation No. Ku 1106/22

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

SHOWER-BATH
Clear, 24% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	3.00
B.	
Water	15.00
C.	
HOE S 1906	50.00
Perfume	0.50
Water	10.50
Dyestuff solution	q.s.
Preservative	q.s.
BETAIN HOE S 3267	20.00
D.	
Citric acid -----> pH 6	q.s.
E.	
Sodium chloride	1.00
Formulation A I/8042	

SHOWER-BATH
Clear, 16.2% active detergent

RECIPE:	% By Weight
A.	
Coconut fatty acid diethanolamide	3.00
B.	
Water	15.00
C.	
GENAPOL AMS	5.00
GENAPOL LRO liquid	40.00
Rosmarin-bath	0.30
Water	32.20
Dyestuff solution	q.s.
Preservative	q.s.
D.	
Menthol	0.30
Camphor	0.10
1,2-Propyleneglycol	2.00
E.	
Citric acid -----> pH 6-7	q.s.
F.	
Sodium chloride	2.10

If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation A I/8041

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

SHOWER GEL

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.00
Perfume	1.00
Alpha-olefine sulphonate, sodium salt (37%)	35.00
Phase B:	
Water	41.85
Polymer JR 400	0.15
TEGO-Betain L7	20.00
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A. (To dissolve faster the Polymer JR 400, water can be heated slightly.)

Formulation E 1.2.2

SHOWER GEL

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	1.0
Alpha-olefine sulphonate, sodium salt (37%)	35.0
Phase B:	
Water	40.5
TEGO-Betain L7	20.0
Merquat 550	1.5
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.2.3

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulations

SHOWER GEL

INGREDIENT	% By Weight
I	
Deionized Water	73.6
TEALS (40%)	20.0
VARION CADG-HS	2.0
VARAMIDE MA-1	4.0
Propylene Glycol	0.4
II	
Citric Acid (25%)	qs
III	
Sodium Chloride	qs
IV	
Preservative	qs

Mixing Instructions:

Mix and warm Phase I (to about 60C). When even, cool to room temperature and adjust to pH 6.5 with Citric Acid. Add Sodium Chloride to achieve desired viscosity.

Solids: 13.1%

pH: 6.5

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.2

MOISTURIZING SHOWER GEL

INGREDIENT	% By Weight
I	
Deionized Water	45.1
Potassium Hydroxide	1.2
II	
Lauric Acid (97%)	5.0
EGDS	0.5
III	
VARONIC LI-63	5.0
VARION CAS	14.0
SLS (30%)	13.7
VAROX 1770	2.5
IV	
VARISULF SBFA-30	13.0
V	
Preservative	qs

Mixing Instructions:

Heat Phase I, II and III to 70C. With adequate agitation, add Phase II to Phase I. When even, add Phase III. Cool with mixing to 50C. Add Phase IV. Cool to 30C.

Solids: 27%

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.2

SPECIAL-BATH
Clear

RECIPE:	% By Weight
A.	
GENAGEN CA-050	15.00
B.	
Perfume	3.00
C.	
Softigen 767	5.00
Isopropyl myristate	3.00
GENAMINOX KC	5.00
Water	34.00
GENAPOL LRO liquid*	35.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

I Mix A and B.

II Add one after another, the components of C to I.

Formulation A I/7010

SPECIAL-BATH
Clear, low viscosity

RECIPE:	% By Weight
A.	
GENAGEN CA-050	40.00
B.	
Rosmarin-bath	15.00
Isopropyl palmitate	5.00
Mineral oil, high viscosity	5.00
Water	15.00
GENAPOL LRO liquid*	20.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

I Add one after another, the components of B to A.

Formulation A I/7013

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

SPECIAL-BATH
Clear, low foaming

RECIPE:	% By Weight
A.	
GENAGEN CA-050	30.00
B.	
Rosmarin-bath	5.00
Isopropyl palmitate	5.00
Water	50.00
GENAPOL LRO liquid*	10.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

I Add one after another, the components of B to A.

SPECIAL-BATH
Clear, low viscosity

RECIPE:	% By Weight
HOSTAPHAT KL340N	3.00
EMULSOGEN LP	3.00
Rosmarin-bath	20.00
Mineral oil, high viscosity	24.00
Isopropyl palmitate	29.00
Soya oil	20.00
Dyestuff solution	q.s.

Procedure:

I Mix all of the components in any sequence at room temperature.

Formulation A XV/3001

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

SPREADABLE BATH OILS

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	52
Isopropyl Myristate	46
Polyoxyethylene polyol Fatty Acid Ester	1
Perfume & Color	1

DISPERSIBLE BATH OILS

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	63
Modified coconut triglyceride	22
Decaglycerol decaoleate	7
Polyoxyethylene myristyl alcohol	5
Perfume & Color	3

The spreadable oils are typified by an oily film which is discernible on the surface of the water and leaves a film on the body. The dispersible oils emulsify throughout the bath water and leave an invisible film on the body.

BATH OIL BEADS

RAW MATERIALS	% By Weight
Nitrile Tri Acetic Acid	30
Sodium hexameta phosphate	7
Carboxy Methyl Cellulose	1
Sodium Sulfate	60.5
Water	1.5
Adjust to pH 6-7	

BATH OIL BEADS

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	60
Lanolin	5
Isopropyl Myristate	20
PEG dilaurate	10
Perfume	3
Phosphated diglyceryl mono-oleate	2

A new and novel way to dispense dispersible bath oil is via the "Bath Oil Beads."

SOURCE: Witco; SONNEBORN Products for the Cosmetics Industry:
Suggested Formulation

SPREADING BATH OIL

INGREDIENT	% By Weight
I	
ADOL 66	7.0
Mineral Oil	45.0
STARFOL OS	45.0
II	
AROSURF 66-PE12	1.0
Perfume	2.0
III	
Preservative	qs

Mixing Instructions:

Mix Phase I ingredients. Add pre-mixed Phase II to Phase I.

Solids: 98.0%

SOURCE: Sherex Chemical Co.: Formulation Code 6.2.4

THREE LAYER BATH OIL WITH PROTEIN

RAW MATERIALS	% By Weight
Mineral Oil	32.00
PPG-50 Cetyl Ether (Procetyl 50)	32.00
Water	31.00
Hydrolyzed Animal Protein (Crotein SPC)	4.00
Perfume	q.s.
GERMABEN II	1.00
Color - suggested one per layer	q.s.

Procedure:

Dissolve the protein in water with the GERMABEN II and a water soluble D & C Color. Add color to the PPG-50 Cetyl Ether, add color to the mineral oil. Blend all 3 phases.

On shaking the product will mix and may be poured into the bath in this form. On settling, it reseparates into the attractive three layers.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary - Supplement #1

Section IV

Beauty Aids

ABRASIVE FACIAL SCRUB LOTION

RAW MATERIALS	% By Weight
Part A:	
MIRATAINE ODMB-35	7.0
MIRANOL MHT	30.0
Propylene Glycol	2.0
Citric Acid	0.65
Water	47.2
Part B:	
Cetyl Alcohol	3.0
Polytex 10	3.0
Part C:	
Microthene MN-772	7.15

Procedure:

Heat Part A and Part B to 60C. While stirring, add Part B to Part A. Continue stirring and allow to cool. At 40-50C, add Part C. Continue agitation until product reaches room temperature.

Solids: 28.8%

FACIAL CLEANSING LOTION

RAW MATERIALS	% By Weight
Part A:	
MIRANOL 2MHT Modified	30.0
Surfactol 365	0.5
Promulgen G	0.7
Solulan 98	1.0
Propyl Paraben	0.2
Part B:	
Water	60.6
Glycerol	1.0
Propylene Glycol	1.5
Bentone 38	3.0
Simethicone	0.3
Bentone EW	1.0
Methyl Paraben	0.2

Procedure:

Prepare Part A by mixing all ingredients together. Heat to 60C until clear and adjust pH to 7.0 with hydrochloric acid. Prepare Part B by dispersing Bentone 38 and Bentone EW in remaining ingredients. Heat to 60C. Homogenize hot. Add Part A to Part B at 60C while stirring. Cool to 40C. Readjust pH to 7.0 with hydrochloric acid.

Solids: 24.3%

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulations

AEROSOL TALC WITH VITAMIN E

INGREDIENTS	% By Weight
Part I:	
Lo Micron Talc #1	17.80
Delytl Extra	0.80
Acetulan	0.40
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Perfume Oil	0.50
Isobutane	80.00

Procedure:

All ingredients should be thoroughly blended by means of an Osterizer before propellant is added.

Formulation MI 601

MULTIVITAMIN MOISTURIZING BEAUTY OIL MOUSSE

INGREDIENTS:	% By Weight
Part I:	
Deionized Water	14.55
Methyl Parasept	0.10
Propyl Parasept	0.05
Part II.	
Mineral Oil	25.00
Promulgen D	10.00
Ceraphyl 140-A	25.00
Dow Corning 344 Fluid	5.00
Emulsynt GDL	3.00
Part III:	
dl-Panthenol, Cosmetic Grade	1.00
Alcohol SDA 40, 95%	15.00
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Part IV:	
Perfume Oil	0.30

Procedure:

Heat Part I and Part II to 70C with mixing. Add Part II to Part I and mix thoroughly. Continue mixing to room temperature. Add Part III and mix. Add Part IV and mix thoroughly. Fill and Pressurize.

Aerosil Fill:	% By Weight
Concentrate	95.00
Propellant A-46	5.00

Formulation MU 504

SOURCE: Roche Chemicals Division: Suggested Formulations

ALCOHOLIC SPLASH TONER

INGREDIENTS	% By Weight
Deionized water	61.60
Isopropyl alcohol	20.00
Propylene glycol	2.00
Methylparaben	0.15
Ginseng extract	2.00
Horse chestnut extract	2.00
Sodium PCA	1.00
Methocel E4M Premium (2% solution)	10.00
Procetyl AWS	0.10
DOWICIL 200 preservative	0.05
Polysorbate 20	1.00
Perfume oil (floral)	0.10
D&C Red 40	q.s.

Easy to apply, this bracer incorporates uncommonly high levels of non-aqueous ingredients.

Procedure:

1. Add deionized water and alcohol to a vessel and begin mixing.
2. Dissolve methylparaben in warm propylene glycol - add to batch.
3. Add remaining ingredients one at a time mixing well between each addition.
4. Add perfume oil to the Polysorbate 20 and warm while mixing to dissolve perfume--add to batch.
5. Add color and mix well.

NON-ALCOHOLIC SPLASH TONER

INGREDIENTS	% By Weight
Deionized water	81.55
Propylene glycol	2.00
Methylparaben	0.15
Ginseng extract	2.00
Horse chestnut extract	2.00
Na PCA	1.00
METHOCEL E4M Premium (2% solution)	10.00
Procetyl AWS	0.10
DOWICIL 200 preservative	0.10
Polysorbate 20	1.00
Perfume oil (floral)	0.10

A toner that combines mildness and a unique feel for sensitive skin.

SOURCE: Dow Chemical U.S.A.: Suggested Formulations

ALL-OVER BODY OIL

RAW MATERIALS	% By Weight
MAZER MASIL SF V	53.0
Mineral Oil, 70 SUS	31.0
Talc	13.5
Ethanol (95%, 5% H ₂ O)	1.0
Isopropyl Palmitate	1.5
Fragrance	q.s.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 29

PRESTIGE FACIAL OIL

RAW MATERIALS	% By Weight
MIGLYOL 840	75.0
MIGLYOL 818	5.0
Silicone Oil AR 200	7.0
Mink oil	3.0
Walnut shell oil	5.0
Carotene oil	5.0
Antioxidants	q.s.

Preparation:

The oils are mixed at room temperature.

Formulation 1.5.5

REGENERATING OIL, INVIGORATING AS A BODY AND FACE MASSAGE

RAW MATERIALS	% By Weight
MIGLYOL 812 Neutral Oil	50.0
MIGLYOL 818	10.0
Paraffin oil	39.8
Vitamin-A-Palmitate	0.1
Vitamin E	0.1
Perfume oil	q.s.

Procedure:

All ingredients are mixed at room temperature.

Formulation 1.5.4

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulation

ALOE JELLY

INGREDIENTS:	% By Weight
A.	
ALOE VERAGEL Liquid 1:1	96.9
Sodium Hexametaphosphate	0.1
B.	
Xanthan Gum	2.0
Irish Moss	1.0

Procedure:

Heat aloe gel to 55C. Dry blend Phase B. In a homomixer add B to A. Let mix until thick and all of B is hydrated. Fill warm, because this product sets to a thick gel.

ALOE VERA JELLY

INGREDIENTS:	% By Weight
A.	
Water	91.94
Citric Acid (granular)	0.2
Glydant	0.3
Germall 115	0.25
Versene-220	0.05
Propyl Gallate	0.05
B.	
Propyl Glycol	4.5
Xanthan Gum	0.75
Aubygel x-125	1.5
C.	
ALOE VERA 200 powder	.46

Procedure:

Heat phase A to 80C. Pre mix phase B with good agitation and add phase B to A. Mix slowly and cool to 55C. Add phase C, and mix until uniform. Package at between 35-45C.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ALOE JELLY (90%)

INGREDIENTS:	% By Weight
A.	
Water	55.65
2% Carbopol-940 (Sol.)	40.00
Citric Acid (granular)	0.2
Glydant	0.2
Germaan II	0.3
B.	
ALOE VERAGEL Liquid Concentrate 1:40	2.25
C.	
Triethanolamine-99	1.6

Procedure:

Mix and heat phase A to 55C. Add ALOE VERAGEL 1:40. Mix until uniform. Neutralize with TEA. Mix until clear and smooth.

TONER (30% ALOE)

INGREDIENTS:	% By Weight
A.	
Water	93.39
Glycerin	5.0
Methylparaben	0.15
Propylparaben	0.01
B.	
Sodium Hexametaphosphate	0.2
Allantoin	0.5
C.	
ALOE VERAGEL Liquid Concentrate 1:40	0.75
D.	
Color and Fragrance	Q.S.

Procedure:

Heat phase A to 80C. When the parabens are dissolved add phase B. Mix and cool to 55C and add Aloe concentrate. Add color and fragrance as desired.

Note:

The fragrance may need to be pre stabilized with a suitable co solvent such as a Tween.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ALOE PEEL-OFF MASK

INGREDIENTS:	% By Weight
A.	
PVA 35/45 cps (15% solution)	35.0
PVA 20/25 cps (20% solution)	35.0
B.	
ALOE VERAGEL Liquid 1:10	2.0
Alcohol	20.0
Methylparaben	0.2
Carbowax 1540	2.0
Glycerin	0.6
Propylene glycol	3.0
C.	
Tween 60	2.0
Perfume oil	0.2

Procedure:

Make PVA solutions separately heating up to 85C-90C while stirring to be certain of complete solution. Mix ingredients in B; when solution is clear add the mixture of C and B and stir well. Add the mixture of B and C to A and stir well. Let stand overnight to let air rise to surface and escape.

FACIAL MASK WITH ALOE

INGREDIENTS:	% By Weight
A.	
Glycerin	5.00
Water	50.70
ALOE VERAGEL 1:1	20.00
Propylene glycol	5.00
B.	
Bentonite USP, gel white H	16.00
Titanium dioxide	1.50
C.	
Jojoba oil	1.00
Vitamin A	0.10
Vitamin D	0.10
Vitamin E	0.10
D.	
Fragrance	0.20
DMDMH hydantoin	0.30

Procedure:

Heat A to 80C. Stir in B until uniform. When temperature is 45C or lower, add C and D.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ALOE VERA CREAM SCRUB

INGREDIENTS:	% By Weight
A.	
Deionized water	65.95
ALOE VERA 200 powder	1.00
B.	
Propylene glycol	2.00
Methylparaben	0.20
Ethylparaben	0.15
C.	
Glycerylstearate SE	5.00
Mineral oil	5.00
Safflower oil	1.00
Sesame oil	1.00
Squalane	1.00
Dioctyl Adipate (and) Octyl stearate (and) Octyl palmitate	1.00
Stearic acid	2.50
Cetyl alcohol	0.50
Methocel 40-100	0.50
D.	
Deionized water	1.00
Triethanolamine	1.00
E.	
Color	q.s.
F.	
Perfume oil	0.10
G.	
Deionized water	1.00
DOWICIL 200 antimicrobial	0.10
H.	
Polyethylene 9A	10.00

Procedure:

1. Meter water (Phase A) into a compounding vessel, add aloe vera mix and begin heating to 80C.
2. In a separate vessel, prepare Phase B by heating propylene glycol. Add parabens and, when dissolved, add to water phase (Phase A). Water must be above 60C.
3. Prepare Phase C by combining all ingredients in a separate vessel and heating to 80C. Methocel polymer can be added with no prewetting. At 80C combine with batch and mix for 5 minutes
4. Add Phase D to batch and begin to cool.
5. Add color (Phase E).
6. Add perfume oil (Phase F) when batch is below 45C.
7. Add Phase G (dissolved DOWICIL 200 antimicrobial) when batch is below 45C.
8. Sprinkle in polyethylene beads and mix well.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

ALOE VERA CREAM SCRUB

INGREDIENTS	% By Weight
Deionized Water	65.95
Aloe vera gel	1.00
Propylene glycol	2.00
Methylparaben	0.20
Ethylparaben	0.15
Glyceryl stearate SE	5.00
Mineral oil	5.00
Safflower oil	1.00
Sesame oil	1.00
Squalane	1.00
Diethyl Adipate (and) Octyl stearate (and) Octyl palmitate	1.00
Stearic acid	2.50
Cetyl alcohol	0.50
METHOCEL 40-100	0.50
Deionized water	1.00
Triethanolamine	1.00
Color	q.s.
Perfume oil	0.10
Deionized water	1.00
DOWICIL 200 preservative	0.10
A/C Polyethylene Grade 9A	10.00

A high-sudsing cleanser that leaves a silky afterfeel on the skin.

ALOE VERA LOTION SCRUB

INGREDIENTS	% By Weight
Deionized water	29.90
Aloe vera gel	1.00
Veegum regular	1.00
Propylene glycol	3.00
Methylparaben	0.20
Ethylparaben	0.10
Glycol stearate	5.00
Sesame oil	0.50
Safflower oil	0.50
METHOCEL 40-100	0.50
Propylparaben	0.10
Sodium lauryl ether sulfate	20.00
Sodium lauryl sulfate	18.00
Cocamide DEA	0.50
Perfume oil (herbal)	0.10
Color	q.s.
Cocamidopropyl betaine	5.00
Deionized water	1.00
DOWICIL 200 preservative	0.10
A/C Polyethylene Grade 9A	13.50

A mild, low-sudsing scrub with a combination of thickening agents.

SOURCE: Dow Chemical U.S.A.: Suggested Formulations

ALOE VERAGEL MOISTURIZER

INGREDIENTS	% By Weight
A.	
Amerchol L-101	2.0
Super corona lanolin	0.5
Mineral oil	8.0
Cetearyl alcohol	2.0
Stearic acid XXX	4.0
Isopropyl lanolate	1.0
Spermaceti Amerchol Laneth-5	1.0
Glyceryl stearate	4.0
B.	
Triethanolamine	1.0
Glycerin	2.0
Propylene glycol	2.0
Methyl paraben benzoate	0.3
Propyl paraben benzoate	0.1
ALOE VERAGEL 200 Powder	0.05
Sorbitol 70%	2.0
Water	69.1
C.	
Fragrance	q.s.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

SKIN MOISTURIZER

INGREDIENTS	% By Weight
A.	
Deionized Water	74.8
Hydroxyethylcellulose	0.5
Sorbitol	1.0
B.	
Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
Petrolatum	5.0
C14-16 Alcohols Benzoate	1.0
Dimethicone	1.0
C.	
LIPITEIN	3.0
SOLLAGEN	5.0
PEPTEIN CAA	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.2

SOURCE: Geo. A. Hormel & Co.: Formulation DG614-20

ANHYDROUS CREAM MAKEUP

RAW MATERIALS	% By Weight
AMERCHOL RC	5.0
SOLULAN PB-2	5.0
MODULAN	5.0
Petrolatum, USP white	40.0
Mineral oil, 70 vis.	22.0
Microcrystalline wax, 190-195F m.p.	8.0
Pigments, micronized	15.0
Perfume and Preservative	q.s.

Glossy, emollient makeup with good spread and coverage

Procedure:

Heat all ingredients except the pigment blend to 85C to melt the wax. Add the pigment blend and mix until uniform. Cool to 60C and pour.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

LIQUID MAKEUP

RAW MATERIALS	% By Weight
AMERCHOL L-101	4.5
AMERLATE P	0.9
Stearic acid, xxx	2.7
Glyceryl Monostearate, neut.	1.8
Mineral oil, 70 vis.	4.5
Propylene glycol	4.5
Triethanolamine	0.9
Water	70.2
Pigments, micronized	10.0
Perfume and Preservative	q.s.

Thick, fluid o/w makeup with smooth, even application.

Procedure:

Prepare lotion using Procedure A:

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

Add the micronized powder blend in increments, mixing well after each addition.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

ANIONIC ACID PH LIQUID MAKEUP

RAW MATERIALS	% By Weight
Phase A-1:	
Water, Deionized	52.8
Phase A-2:	
Magnesium Aluminum Silicate (Veegum R)	0.5
Cellulose Gum (CMC 7MF)	0.2
Phase A-3:	
Propylene Glycol	8.0
Phase A-4:	
Pigment Blend F-2-121-1	9.5
Phase A-5:	
Water, Deionized	1.0
Disodium Oleamido PEG-2 Sulfosuccinate (Standapol SH-100)	1.0
Phase B:	
Glyceryl Stearate	2.0
Stearic Acid, T.P.	2.0
Cetyl Phosphate (and) DEA Cetyl Phosphate (Amphisol)	3.0
Mineral Oil (and) Lanolin Alcohol (Amerchol L 101)	4.0
Dioctyl Maleate (Bernel Ester DOM)	8.0
Octyl Dodecyl Stearate (Cetiol G20S)	4.0
Octyl-Methoxycinnamate (Parsol MCX)	3.0
GERMABEN II	1.0

Procedure:

Sprinkle blended Phase A-2 into Phase A-1. Disperse well, then add Phase A-3, turn on homo-rod and sprinkle in pulverized Phase A-4 until "smooth". Maintain 80-85C, turn homo-rod to very low speed and add Phase A-5 followed immediately by Phase B. Turn up homo-rod for two or three minutes to smooth out emulsion and turn homo-rod mixer off. Switch to propeller mix, hold at 70C to de-aerate, then cool and mix to 30C.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

ASTRINGENT

RAW MATERIALS	% By Weight
AMEROXOL OE-10	3.0
Menthol	0.1
Ethanol, anhydrous	70.0
Water	26.9
Perfume	q.s.

Procedure:

Weigh ingredients together, heat where necessary, and mix until uniform.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

AEROSOL FACIAL MASK FOR CHAPPED SKIN

RAW MATERIALS	% By Weight
A.	
Emulgator E 2149	3.0
MIGLYOL 812 Neutral Oil	10.0
Arkopal N 100	1.0
B.	
Tego Betain L7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic acid	0.2
Preservative	q.s.
Water	80.1
C.	
Epidermin in oil	0.5
Perfume oil	q.s.

Preparation:

A and B are heated to 70C.

B is emulsified into A. Epidermin in oil and perfume oil are added stirring the emulsion continuously until cool.

Filling:

Emulsion	85 parts
Gas 12/114 (40:60)	15 parts

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 6.2.7

BODY POWDER MOUSSE WITH PANTHENOL & VITAMIN E

INGREDIENTS	% By Weight
Part I:	
Deionized Water	35.05
Cerasynt 840	0.50
Part II:	
Alcohol SDA 40, 95%	35.00
Cetal	0.50
Ceraphyl 65	2.00
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Part III:	
Lo-Micron Talc #1	25.00
Aerosil 200	0.25
Part IV:	
Perfume Oil	0.20

Procedure:

Mix ingredients in Part I. Heat to 50C. Mix ingredients in Part II until thoroughly dissolved. Add Part II to Part I and mix thoroughly. Mix ingredients in Part III and add to mixture slowly with mixing until thoroughly dispersed. Add Part IV and mix. Fill and pressurize.

Aerosil Fill:	% By Wt.
Concentrate	95.00
Propellant A-46	5.00
Formulation MU 503	

NAIL CONDITIONER WITH PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Deionized Water	50.00
Carbopol 934	0.15
Part II:	
Deionized Water	27.15
Triethanolamine, 98%	0.05
1,3-Butylene Glycol	2.50
Part III:	
dl-Panthenol, Cosmetic Grade (Code 63920)	5.00
SD Alcohol #40, 95%	15.00
Triton N-101	0.10
Perfume Oil	0.05

Procedure:

Sift the Carbopol into the water with rapid agitation. Heat to 75C and mix until all the Carbopol has dissolved. Add premixed Part II. Cool to room temperature, then add premixed Part III. Formulation NC 701

SOURCE: Roche Chemical Division: Vitamins for Cosmetics: Formulas

CATIONIC CREAM MAKEUP

INGREDIENTS	%W/W
Phase A:	
CERASYNT SD (Glyceryl Stearate)	9.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	6.50
EMULSYNT GDL (Glyceryl Dilaurate)	6.50
Cetyl Alcohol	1.00
Dow Corning 200 Fluid (100 cs) (Dimethicone)	1.00
Phase B:	
Water, deionized	51.40
Cellosize QP 30,000 (Hydroxyethyl Cellulose)	0.30
Phase C:	
CERASYNT 303 (Diethylaminoethyl Stearate)	1.00
Phosphoric Acid (85%)	0.30
Glycerin	5.00
Phase D:	
Pigment Blend #F112-9	15.00
Phase E:	
CERAPHYL 65 (Quaternium-26)	2.00
Phase F:	
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

Procedure:

Combine Phase A and heat to 80C. Disperse Cellosize in water and heat to 80C. Combine Phase C and warm to keep liquid. Add Phase C and warm to keep liquid. Add Phase C to Phase B. Sprinkle Pigment Blend into water phase and mix until well dispersed. Add Phase E, followed immediately by Phase A, to minimize aeration and foaming. Cool to 50C and add Phase D. Cool to room temperature with mixing.

Pigment Blend #F112-9	%W/W
Titanium Dioxide #3328	93.70
#7051 Cosmetic Iron Oxide Red	1.70
Cosmetic Brown Iron Oxide C33-5136	0.34
Cosmetic Yellow Iron Oxide C33-8073	4.26

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation
#F112-29-1

CATIONIC CREAM MAKE-UPRAW MATERIALS Parts

Phase A:	
CERASYNT SD	10.50
CERAPHYL 847	7.50
EMULSYNT GDL	7.50
Cetyl Alcohol	1.00
Dow Corning 200 Fluid (100 cs.)	1.00
PRESERVATOL	0.20

Phase B1:	
Water, deionized	63.70
Cellosize QP 30,000	0.30

Phase B2:	
CERASYNT 303	1.00
Phosphoric Acid (85% Ortho)	0.30
Glycerine	5.00

Phase B3:	
Pigment Blend #A63-46-1	15.00

Phase B4:	
CERAPHYL 65	2.00

Procedure:

In a vessel equipped for heating and mixing, add ingredients of Phase A. Heat and stir to 80C and hold at 80C for addition to Phase B.

In a separate vessel large enough to hold the entire batch and equipped for proper mixing, (scraper blades included), heating and cooling, prepare Phase B-1 by slowly dispersing the Cellosize in the water. When Phase B-1 is "smooth", add ingredients of Phase B-2. Start heating to 80C and sprinkle in Phase B-3. When all of Phase B-3 is added and temperature is at 80C, continue to mix fifteen minutes. Keeping all at 80C, next add Phase B-4 followed immediately by the addition of Phase A to minimize any foaming or aeration. Mix five minutes, holding the temperature at 80C then cool and continue to mix to 30C.

Pigment Blend Formula #A63-46-1:	
#1222 Talc	67.00
#3328 Titanium Dioxide	30.00
#7054 Cosmetic Iron Oxide Red	1.50
#7055 Cosmetic Iron oxide Yellow	1.50

SOURCE: Van Dyk & Co., Inc.: New Cationic Self-Emulsifying Systems: Formulation #A64-6-1

CATIONIC LOTION MAKE-UP WITH SUNSCREEN

RAW MATERIALS % By Weight

Phase A:	
Laureth-23 (Brij 35 SP)	0.50
Glyceryl Stearate (Cerasynt SD)	5.00
Dimethicone (Dow Corning 200 Fluid)	1.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	4.00
Cetyl Alcohol	1.00
Octyl Dimethyl PABA (Escalol 507)	7.00
Benzophenone-3 (Spectra-Sorb UV-9)	3.00

Phase B-1:	
Water, Deionized	58.25
Hydroxyethylcellulose (Natrosol 250HR)	0.50

Phase B-2:	
Diethylaminoethyl Stearate (Cerasynt 303)	1.00
Lactic Acid (88%)	0.75
Glycerin	2.50

Phase B-3:	
Pigment Blend No. B73-9-1	13.00

Phase B-4:	
Quaternium-26 (Ceraphyl 65)	1.50

Phase C:	
Germaben II	1.00

Procedure:

Heat Phase A to 80C and hold at 80C for addition to Phase B. Predisperse the Natrosol in water and heat Phase B-1 to 80C. Then add the ingredients of Phase B-2, one at a time in the order written, to Phase B-1. Mix until smooth and sprinkle in Phase B-3, then mix for fifteen minutes. Keeping all at 80C, add Phase B-4 followed immediately by the addition of Phase A to minimize any foaming or aeration. Mix five minutes, holding the temperature at 80C, then cool and continue to mix to 25-28C.

Pigment Blend No. B73-9-1:	
TiO ₂ 3328	71.58
Iron Oxide Red 7054	4.21
Talc 141	10.53
Iron Oxide Black C33-134	1.58
Iron Oxide Yellow 3170	12.10

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

COMPLEXION TONING MASK, EMULSION

RAW MATERIALS	% By Weight
A.	
MIGLYOL 812 Neutral Oil	12.0
Alugel DF 30	2.0
PCL liquid	5.0
B.	
Emulgade F	6.0
Cetyl alcohol	2.0
Stearic acid	4.0
C.	
Karion F	4.0
Algipon 578L, 2% in water	60.1
Allantoin	0.5
Soluvit	3.0
Preservative	q.s.
D.	
Perfume	0.4

Instead of Soluvit the following can also be incorporated:

1. Esculin	3.0
2. Collagen CLR	3.0
3. Hamamelis dist. colourless spec. (witch hazel)	3.0
4. Placentaliqoid	3.0
5. Camphor (0.2g dissolved in 2.8 g Ethanol)	3.0

Preparation:

A is stirred into B and both brought to 65C.

C is heated to the same temperature and stirred into A+B

Finally D is added.

Formulation 6.2.2.

CLAY MASK

RAW MATERIALS	% By Weight
Active Bentonite B	15.0
Titanium dioxide	2.0
Allantoin	0.2
Glycerin	3.8
Arnica Special	2.0
Extrapon Camomile Special	6.0
SOFTIGEN 701	5.0
Preservative	q.s.
Water	ad 100.0

Preparation:

All components are weighed into a mixing vessel and stirred with a high speed mixer until smooth.

Formulation 6.2.4

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

COMPLEXION TONING MASK, GEL

RAW MATERIALS	% By Weight
A.	
Ethanol 96%	15.0
Water	50.0
Carbopol 940	1.0
B.	
Water	13.1
Soluvit	3.0
Glycerin	4.0
SOFTIGEN 767	10.0
Hygroplex HHG	3.0
Triethanolamine	0.6
Allantoin	0.1
Preservative	q.s.
Instead of Soluvit the following can be incorporated:	
1. Esculin	3.0
2. Collagen CLR	3.0
3. Hamamelis dist. colourless spec. (witch hazel)	3.0
4. Placentaliqoid	3.0
5. Camphor (0.2 g dissolved in 2.8 g Ethanol)	3.0

Preparation:

A is mixed at room temperature.

B is mixed at room temperature and then stirred into A.

Perfume can also be added.

Formulation 6.2.3

AEROSOL MOISTURIZING FACIAL MASK

RAW MATERIALS	% By Weight
A.	
Emulgator E 2149	3.0
MIGLYOL 812 Neutral Oil	10.0
Arkopal N 100	1.0
B.	
Tego Betain L7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic acid, anhydrous	0.2
Hygroplex HHG	5.0
Water	75.6
Preservative	q.s.
C.	
Perfume	q.s.

Preparation:

A and B are heated to 70C. B is emulsified into A, C is added to the emulsion, stirring continuously until cool.

Formulation 6.2.5

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulations

CONDITIONING SKIN MOUSSE

MATERIALS	Parts by Weight
A)	
Celquat L-200	0.50
Distilled Water	88.50
Propylene Glycol	2.00
Triethanolamine	0.50
Preservative	Q.S.
dl Panthenol	0.50
B)	
Mineral Oil	2.00
Acetulan	0.50
Amerchol L-101	1.50
Emerest 2407	0.75
Cetyl Alcohol	0.25
Stearic Acid XXX	1.00
Crodamol IPM	2.00
C)	
Fragrance	Q.S.

Preparation:

Dissolve CELQUAT L-200 in water. Add remaining ingredients of (A) while mixing. Heat to 75C. Prepare (B) and heat to 75C. When each is uniform, add (B) to (A). Cool. Add (C) when 35C. Fill.

Fill: Concentrate	95.0
Propellant A-46	5.0

SOURCE: National Starch and Chemical Corp.: Formulation 5003-69

SKIN MOUSSE

INGREDIENTS	Parts by Weight
(A)	
CELQUAT SC-240	0.50
Propylene Glycol	2.00
Triethanolamine	1.50
Distilled Water	86.25
(B)	
Drakeol 21	3.50
Stearic Acid, XXX	3.00
Isopropyl Myristate	2.00
Glyceryl Monostearate	0.75
(C)	
Germaben IIE	0.50

Fill: Concentrate - 90%---Propellant A-46 - 10%

SOURCE: National Starch and Chemical Corp.: Formulation 5628-75D

CONTOUR BLUSH

RAW MATERIALS	% By Weight
Phase A:	
Cosmetol X	26.53
CERAPHYL 41	20.00
Bentone Gel MI0	4.00
Phase B:	
Castorwax MP 80	14.00
Paraffin 143/148	4.00
Ozokerite 1544	2.00
Talc 141	5.00
Tenox BHA	0.10
Butyl Paraben	0.10
Phase C:	
Yellow #5 6505 - 35% in Castor Oil	10.31
Blue #1 T427B1	0.77
Red #7 T429	2.35
Red #9 C15-004-35% in Castor Oil	4.48
TiO2 47-056-55% in Castor Oil	6.36

Procedure:

Combine Phase A and disperse Bentone Gel with homomixing agitation. Combine Phase B add to Phase A and heat to 80-85C. Combine Phase C, the color phase, and slowly add to the batch. Mix batch until uniform. Cool and pour at 65-67C.

Formulation #W79-2-3

PEARLESCENT GEL BLUSHER

INGREDIENTS	%W/W
Phase A:	
Carbopol 934 (2% Soln.) (Carbomer-934)	50.00
Propylene Glycol	15.00
Brij 35 SP (Laureth-23)	2.00
CERAPHYL 41 (C12-15 Alcohols Lactate)	10.00
Phase B:	
SPECTRA-PEARL MTW (Mica (and) Titanium Dioxide (and) Carmine)	6.00
SPECTRA-PEARL MTG (Mica (and) Titanium Dioxide (and) Carmine)	6.00
Phase C:	
Triethanolamine (85%)	1.40
Phase D:	
GERMABEN II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00
SD Alcohol 40	8.60

Formulation #F109-22-1

SOURCE: Van Dyk & Co., Inc.: Make Up Formulary: Formulations

CREAM MATTE MAKEUP

RAW MATERIALS	% By Weight
A.	
VEEGUM	2.60
CMC 7LF	0.40
Water	42.70
B.	
Propylene glycol	5.00
Water	12.30
C.	
Talc	18.50
VANCLAY Kaolin	1.30
Titanium dioxide	3.70
Iron oxides	1.50
D.	
Isopropyl myristate	5.00
Arlacel 20	0.75
Tween 20	2.25
Stearyl alcohol	2.00
Amerchol L-101	2.00
Preservative	q.s.

Procedure:

Blend VEEGUM and CMC. Slowly add to the water, while agitating at maximum available shear. Continue mixing until smooth. Micropulverize C. Add to B and grind to a smooth paste. Add to A and heat to 65C. Heat D to 70C and add to A/B/C. Mix until cool.

Consistency: Medium viscosity cream

Suggested Packaging: Jar or tube

Comments:

VEEGUM stabilizes the emulsion and provides uniform pigment suspension. This nonionic makeup spreads smoothly and evenly with a light greaseless feel. It can be applied with a wet sponge if desired. With slight modifications, this formula can be used as a cream eye shadow.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetic and Toiletries Formulary: Formulation No. 154

CREAMY CLAY MASK

RAW MATERIALS	% By Weight
A.	
VEEGUM	4.5
Rhodigel 23	0.2
Water	73.8
Glycerin	4.0
B.	
Ritachol	4.5
Synchrowax BB4	1.0
Cetyl alcohol	0.5
Crodamol MM	1.5
Arlacel 40	0.5
Tween 60	0.6
C.	
VANCLAY Kaolin	6.0
Titanium dioxide	3.0
Preservative	q.s.

Consistency: Firm cream

Suggested Packaging: Tube or cream jar

Comments: VEEGUM is used in this nonionic emulsion as part of the gently cleansing clay system.

Formulation No. 350

PEELABLE FACE MASK

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.5
Water	58.5
Vinol 523	10.0
Propylene glycol	7.0
B.	
SD Alcohol 40	20.0
Hetoxol OL-23	3.0
Preservative	q.s.

Consistency: Fluid lotion

Suggested Packaging: Wide mouth jar with applicator brush.

Comments: VEEGUM thickens this formula and allows smooth application without tackiness or stringiness.

Formulation No. 297

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

CREAMY EYE SHADOW

INGREDIENTS	%W/W
Phase A:	
CERAPHYL 28 (Cetyl Lactate)	2.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	2.00
Beeswax, White	7.80
Ganex V-220 (PVP/Eicosene Copolymer)	6.50
Thixcin R (Trihydroxystearin)	3.50
Shell Sol 71 (Petroleum Distillate)	33.00
Phase B:	
Bentone gel SS-71 (Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate)	14.70
Zinc Stearate	2.00
Magnesium Stearate	1.00
328 Titanium Dioxide	6.00
Talc 141	14.50
Chroma-Lite Light Blue (Mica (and) Bismuth Oxychloride (and) Ferric Ammonium Ferrocyanide)	6.00
Phase C:	
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

CREAMY EYE SHADOW

INGREDIENTS	%W/W
Phase A:	
CERAPHYL 28 (Cetyl Lactate)	2.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	2.00
Beeswax, White	7.80
Ganex V-220 (PVP/Eicosene Copolymer)	6.50
Thixcin R (Trihydroxystearin)	3.50
Shell Sol 71 (Petroleum Distillate)	28.00
Phase B:	
Bentone gel SS-71 (Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate)	19.70
Zinc Stearate	2.00
Magnesium Stearate	1.00
328 Titanium Dioxide	2.00
Talc 141	12.50
Chroma-Lite Green (Mica (and) Bismuth Oxychloride (and) Chromium Oxide Greens)	12.00
Phase C:	
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation
#P85-2-1 & 2

CREAMY EYE SHADOW

RAW MATERIALS	% By Weight
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Phase A:

Cetyl Lactate (Ceraphyl 28)	2.0
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	2.0
Beeswax, White	7.8
PVP/Eicosene Copolymer (Ganex V-220)	6.5
Trihydroxystearin (Thixcin R)	3.5
Petroleum Distillate (Shell Sol 71)	33.0

Phase B:

Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate (Bentone gel SS-71)	14.7
Zinc Stearate	2.0
Magnesium Stearate	1.0
328 Titanium Dioxide	6.0
Talc 141	14.5
Mica (and) Bismuth Oxychloride (and) Ferric Ammonium Ferrocyanide (Chroma-Lite Blue)	6.0

Phase C:

GERMABEN II	1.0
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SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

EYE SHADOW STICK

RAW MATERIALS	% By Weight
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ELFACOS ST	10
Liquid paraffin	41
Carnauba wax	3
Candelilla wax	7
Acetylated lanolin alcohol	4
Isopropyl palmitate	10
ELFACOS C26	6
Microcrystalline wax	4
Pigments	15

The eye shadow stick is storage stable, waterproof and has good spreadability.

Formulation No. 147 (ST9) or No. 551 (ST 37)

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulation

CREAMY MAKE-UP (2252-150-B)

RAW MATERIALS	% By Weight
A.	
TRISOLAN 1720 Lanolin Oil Blend	10.0
EMEREST 2310 Isopropyl Isostearate	5.0
EMEREST 2400 Glyceryl Stearate	2.5
EMERSOL 132 Stearic Acid	1.5
Propyl paraben	0.1
B.	
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7
Butylene glycol	8.0
CMC 7LF (Cellulose Gum)	0.4
Methocel K 4M Premium (2% aqueous solution) (Hydroxypropyl Methycellulose)	10.0
Methyl paraben	0.2
Demineralized water	44.1
C.	
Zinc stearate	5.0
Titanium dioxide	2.5
D.	
25% pigment dispersion in ETHOXYOL 1707 Emulsifying Acetate Ester	10.0

This creamy make-up contains less oil than regular make-ups, plus oil blotters to help keep you shine-free for hours. It has a more even coverage than oil free make-ups and provides light moisture protection. ETHOXYOL 1707 is utilized as a pigment wetting agent in this formula.

Procedure:

Heat A and B to 80C and add C. Agitate until homogenized. Preheat B to 60C and add to the AC mixture. Subject the ABC mix to a #3 Roller mill, then add D.

SOURCE: Emary Industries: EMERY Acetylated Lanolin Derivatives

PRESSED POWDER FOR FACE OR EYES (19D)

RAW MATERIALS	% By Weight
Low micron talc	60.0
Alpine talc	25.0
Zinc stearate	3.0
Kaolin	1.0
Iron oxide pigments	6.0
EMEREST 2310 Isopropyl Isostearate	5.0

SOURCE: Emary Chemicals: EMERY Isostearate Esters: Formulation
19D

'DROUGHT RELIEF' MOISTURIZER

INGREDIENTS	% By Weight
A.	
Deionized Water	84.4
Hydroxyethylcellulose	1.0
Sorbitol	1.0
B.	
Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
PEG 75 Lanolin Oil	0.5
Cetyl Alcohol	0.5
C.	
PEPTEIN CAA	5.0
D.	
Dimethicone	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

In the heat of the hot, dry summer months, skin without moisture can dry out and crack from the searing sun. Get "Drought Relief" from PEPTEIN CAA. It replenishes skin with lost moisture and increases the skin's ability to bind moisture by penetrating into the epidermal layers.
Formula: 621-02A

SKIN 'DROUGHT RELIEF'

INGREDIENTS	% By Weight
Part A:	
Deionized Water	84.4
Hydroxyethylcellulose	1.0
Sorbitol	1.0
Part B:	
Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
PEG 75 Lanolin Oil	0.5
Cetyl Alcohol	0.5
Part C:	
SOLLAGEN	5.0
Part D:	
Dimethicone	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

In the heat of the hot, dry summer months, skin without moisture can dry out and crack from the searing sun. Get "Drought Relief" from SOLLAGEN. It replenishes skin with lost moisture and increases the skin's ability to bind moisture.
Formula: 621-02

SOURCE: Geo. A. Hormel & Co.: Suggested Formulations

DRY OIL BODY SPRAY

INGREDIENTS	%W/W
CERAPHYL 45 (Dioctyl Maleate)	20.10
CERAPHYL GA (Maleated Soybean Oil)	8.00
ESCALOL 507 (Octyl Dimethyl PABA)	1.40
Fragrance S3321-2	0.50
Siloxane 03314 (Cyclomethicone)	45.00
Ethanol (SD Alcohol 40)	25.00

Procedure:

In a suitable vessel weigh ingredients in order written with agitation. Mix until uniform and package.

Formulation #H126-23-1

DRY SKIN TREATMENT STICK

INGREDIENTS	%W/W
Phase A:	
CERAPHYL 50-S (Myristyl Lactate)	5.00
CERAPHYL 140-A (Isodecyl Oleate)	43.80
CERAPHYL 424 (Myristyl Myristate)	5.00
Penreco Super (Petrolatum)	10.00
Lantrol 1674 (Lanolin Oil)	3.00
White Beeswax	8.00
Ozokerite	6.00
Candelilia Wax	9.00
Carnauba Wax	4.00
CERAPHYL GA (Maleated Soybean Oil)	5.00
Vitamin E Acetate (Tocopheryl Acetate)	0.50
Propylparaben	0.20
Phase B:	
Allantoin	0.50

Procedure:

Combine Phase A and heat to 85C until melted and clear. Add Phase B at 75C and mix thoroughly. Cool to just above congealing point and pour into molds.

Formulation #P129-10-1

SOURCE: Van Dyk & Co., Inc.: CERAPHYL GA: Suggested Formulations

DUSTING POWDER B-5019

RAW MATERIALS	% By Weight
Talc	97.7
Perfume oil	0.8
GLUCAM P-20	1.5
Preservative	q.s.

Description:

Basic dusting powder with talc for lubrication and absorbency and GLUCAM P-20 to increase stability and duration of fragrance.

Procedure:

Premix a dry master batch of perfume oil, GLUCAM P-20 and 5% of the talc. Add master batch to remainder of talc. Mix until uniform.

Variations:

For deodorant labeling, add sodium bicarbonate.

To flesh-tint for aftershave, add iron oxide pigments.

DUSTING POWDER B-5020

RAW MATERIALS	% By Weight
Talc	91.6
Magnesium carbonate	3.0
Zinc stearate	3.0
Triclosan	0.2
Perfume oil	0.7
GLUCAM P-20	1.5
Preservative	q.s.

Description:

Deodorant dusting powder with Triclosan antibacterial and increased coverage due to zinc stearate. GLUCAM P-20 protects and extends the fragrance.

Procedure:

Premix a dry master batch of Triclosan, perfume oil, GLUCAM P-20 and 5% of the talc. Mix with remaining talc and other ingredients until uniform.

Variations:

For greater coverage, add zinc oxide or titanium dioxide.

For light emollient effect, add ACETULAN to the master batch mix.

SOURCE: Amerchol Corp.: Bath and Fragrance Products:
Suggested Formulations

EMOLLIENT SKIN FRESHENER

RAW MATERIALS	% By Weight
AMERCHOL L-101	5.0
AMERLATE P	1.0
SOLULAN 25	3.0
Carbopol 934	0.5
Natrosol 250 HR	0.2
Water	55.3
Triethanolamine, 10% aq.	5.0
Ethanol, anhydrous	30.0
Perfume and Preservative	q.s.

Elegant o/w emulsion skin freshener with persistent lubricity

Procedure:

Disperse the Carbopol in half of the water using high speed mixing. Disperse the Natrosol in the rest of the water using high speed mixing. Combine the two dispersions and heat to 75C. Add the water phase to the oil phase, also at 75C. Continue mixing for five minutes. Add the triethanolamine. Continue mixing while cooling to 38C. Add the alcohol, continue mixing to room temperature.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

SKIN FRESHENER

RAW MATERIALS	% By Weight
AMEROXOL OE-20	3.0
Diisopropyl adipate	2.0
Menthol	0.1
Ethanol, anhydrous	50.0
Water	44.9
Perfume	q.s.

Clear solution for pleasant skin cleansing and freshening.

Procedure:

Weigh ingredients together, heat where necessary, and mix until uniform.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

EMULSION BLUSH

INGREDIENTS	% By Weight
Phase A:	
Stearic Acid, XXX	4.40
CERAPHYL 424 (Myristyl Myristate)	0.80
Cetyl Alcohol	0.40
Dow Corning 200 Fluid (100 cs) (Dimethicone)	2.60
CERAPHYL 375 (Isostearyl Neopentanoate)	9.00
Phase B:	
Water, deionized	42.60
Veegum R (5% Soln.) (Magnesium Aluminum Silicate)	3.50
Glycerin	4.40
Solulan 98 (Laneth-10 Acetate)	1.00
Phase C:	
141 Talc	10.58
LUSTRA-PEARL SATIN (Mica (and) Titanium Dioxide)	11.20
SPECTRA-PEARL RDG (Mica (and) Iron Oxide (and) Titanium Dioxide)	2.15
SPECTRA-PEARL BNG (Mica (and) Iron Oxide (and) Titanium Dioxide)	1.07
Phase D:	
Triethanolamine (85%)	0.90
Phase E:	
Carbopol 941 (2% soln.) (Carbomer-941)	4.40
Phase F:	
Germaben IIE (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

Procedure:

Combine Phase A and heat to 80C. Combine Phase B and heat to 80C. Preblend Phase C, slowly sprinkle into Phase B and allow to mix 5-10 minutes. Add Phase A to water Phase and allow to mix 5-10 minutes. Add Carbopol and allow to mix 10-15 minutes. Cool to 50C and add Germaben. Cool to room temperature.

Note: Viscosity takes approximately one week to develop.

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation #F112-43-2

ENRICHED EMOLLIENT LIQUID MAKE-UP

INGREDIENT	% By Weight
A.	
VEEGUM	0.70
Cellulose Gum	0.25
Water	42.28
Triethanolamine	0.75
PEG-26 Glyceryl Ether	10.50
Methylparaben	0.30
B.	
Titanium Dioxide	10.00
Talc	3.15
Iron Oxides	1.97
C.	
Isopropyl Isostearate	10.00
Mineral Oil (and) Lanolin Alcohol	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Animal Glyceride	2.10
Stearic Acid	1.60
Diocetyl Adipate (and) Octyl Stearate (and) Octyl Palmitate	2.10
VANSEAL CS	1.00
Lithium Stearate	0.10
Propylparaben	0.10
Butylparaben	0.10

Preparation:

Heat the water to 70 to 75F. Add the VEEGUM and mix at maximum available shear until smooth. Slowly mix in remaining A ingredients. Mix B ingredients thoroughly into A until uniform. Maintain temperature at 70 to 75C. Heat C to 70 to 75C and add to A and B. Mix while cooling.

Consistency: Medium Viscosity Lotion, 2,000 to 2,500 cps.

Suggested Packaging: Cosmetic Jars, Tubes or Plastic Squeeze Bottles.

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones. This formula was originally presented by Mitchell L. Schlossman, Tevco Inc., at a Society of Cosmetics Chemists Meeting in 1984; it has been tested in the Vanderbilt Laboratories solely for physical stability.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 433

EYE GEL

RAW MATERIALS	% By Weight
A)	
Butylene Glycol	5.00
Methylparaben (TRISEPT M)	0.20
Propylparaben (TRISEPT P)	0.05
B)	
Polyglucane (AMIGEL)	0.80
C)	
Deionized Water	QS to 100
D)	
Imidazolidinyl Urea (TRISTAT IU)	0.30
E)	
Lactic Acid (TRI-K)	QS to pH 5.5
F)	
Witch Hazel Extract HS (TRI-K)	2.00
Cornflower Extract HS (TRI-K)	1.50
Sambucus Extract (ELDER EXTRACT HS)	1.00
Euphrasia Extract (EYEBRIGHT EXTRACT HS)	1.00
G)	
Methylsilanol Hydroxyproline (HYDROXYPROLISILANE)	4.00
Sodium Hyaluronate Dimethylsilanol (DSH)	2.00
Hydrolyzed Animal Elastin (EXSYPROTEINS 2%)	2.00

This premium eye gel contains botanical extracts and organic silicon derivatives to help firm, tone and soothe the area around the eye.

Procedure:

Weigh and mix A until clear and uniform. Then add B and mix. Heat C to 80C. Add AB to C while mixing with side sweep agitator. Start cooling. At 50C. add D. Then adjust pH to 5.5 with Lactic Acid. At 45C add F while mixing. Add G at 35C and mix until uniform.

SOURCE: TRI-K Industries, Inc.: Formulation MS-2-48-1

EYE SHADOW CC-102

RAW MATERIALS	% By Weight
Timica MIC Bronze Golden	40.5
Talc BC	32.4
SF-1214	13.6
Oleyl Erucate	13.5

Comments:

- SF-1214 can be replaced by SF-1236.
- Replace 2% oleyl erucate with apple pectin for more firmness

SOURCE: GE Silicones: Personal Care Formulary: Formulation CC-102

EYE LINER

RAW MATERIALS	% By Weight
A:	
VEEGUM	2.5
Water	75.5
B:	
PVP K-30	2.0
Water	10.0
C:	
Pigments	10.0
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Dissolve the PVP in water using a little heat. Add B to A and mix until uniform. Add C and mix until smooth and uniform.

Consistency: Soft cream

Suggested Packaging: Small jar

Comments:

VEEGUM provides thickening and pigment suspension in this formula while insuring smooth application properties. This product can be applied to the eyelid with a brush.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 107

MASCARA - BLACK

RAW MATERIALS	% By Weight
Candelilla Wax	10.30
Beeswax	7.80
Undecylenic Acid	1.96
Oleic Acid	2.74
Cetyl Alcohol	0.60
Glyceryl Monostearate	2.44
Propylparaben	0.10
Deionized Water	61.53
Hydroxyethylcellulose (Cellosize WP-09)	1.20
PVP (PVP K-30)	0.15
Ammonium Vinyl Acetate/Acrylates Copolymer (Resyn 2261)	0.25
GERMALL II	0.20
Methylparaben	0.20
Kaolin	3.84
Iron Oxides (3068)	4.00
Morpholine	2.44

Procedure:

Add oil phase heated to 85C to water phase at 80C. Add kaolin and pulverized iron oxide slowly. Cool to 55-60. Add morpholine. Pass through 3 roll mill or colloid mill at 45C. Pack into case or tube.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formula

EYE MAKEUP REMOVER

RAW MATERIALS	% By Weight
Phase A:	
Water, Deionized	86.00
GERMABEN II	1.00
Sodium Laureth Sulfate (Standapol ES-2)	5.00
Disodium Oleamido PEG-2 Sulfosuccinate (Standapol SH-100)	4.00
Phase B:	
Polysorbate 20 (Tween 20)	2.00
Quaternium 22 (Ceraphyl 60)	1.00
Quaternium 26 (Ceraphyl 65)	1.00
	100.00

Procedure:

Combine Phase A by adding ingredients stepwise and mixing until clear and uniform after each addition. Premix Phase B and add to Phase A, mixing until clear and uniform (Adjust to pH 7.0 with NaOH solution)

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

EYE MAKE-UP REMOVER

RAW MATERIALS	% By Weight
Avanel S-90	5.0-10.0
MAZER T-MAZ 20	1.0- 2.0
Propylene Glycol	1.0- 2.0
Mixed Parabens	0.1- 0.1
EDTA	0.1- 0.1
Water	92.5-85.8

Procedure:

Mix at room temperature. Filter and pack.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 16

EYE-MAKE UP REMOVER (CREAM)

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
Lanette N	4.0
MIGLYOL 812 Neutral Oil	3.0
SOFTISAN 378	3.0
Paraffin oil	7.0
Hostaphat KL 340 N	0.5
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is mixed and heated to the same temperature.

B is slowly emulsified into A.

C is stirred in at about 40C. Before filling it is beneficial to homogenize the cream.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.8

EYE-MAKE-UP REMOVING LOTION

RAW MATERIALS	% By Weight
A.	
Emulgade F	5.0
MIGLYOL 812 Neutral Oil	3.0
SOFTISAN 378	3.0
Hostaphat KL 340 N	1.0
B.	
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
C. Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is mixed and heated to the same temperature.

B is slowly emulsified into A.

C is stirred in at about 40C. Before filling it is beneficial to homogenize the lotion.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.9

EYE-MAKE-UP REMOVING PENCIL

RAW MATERIALS	% By Weight
SOFTISAN 378	45.0
SOFTIGEN 701	2.0
White soft paraffin	40.0
Castor oil	10.0
White beeswax	3.0
Antioxidants	q.s.
Perfume	q.s.

Preparation:

All ingredients are melted, stirred until cold to a creamy consistency and poured into moulds.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.11

EYE-MAKE-UP REMOVING STICK

RAW MATERIALS	% By Weight
SOFTISAN 100	20.0
SOFTISAN 378	35.0
White beeswax	5.0
White soft paraffin	15.0
MIGLYOL 812 Neutral Oil	3.0
SOFTIGEN 701	2.0
Hard paraffin	12.0
Paraffin oil	18.0

Preparation:

All the materials are melted down and stirred until cold to a creamy consistency and then poured out into a mould.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.10

EYE MAKEUP REMOVER STICK

RAW MATERIALS	% By Weight
ACETULAN	4.0
Mineral oil, 70 vis.	62.0
Petrolatum, USP white	12.0
Paraffin wax, 133F m.p.	4.0
Carnauba wax	4.0
Ozokerite	10.0
Myristyl lactate	4.0
Perfume and Preservative	q.s.

Molded stick which liquefies to an emollient cleansing oil.

Procedure:

Heat all ingredients to about 85C to melt the waxes. Mix until uniform and pour into mold.

SOURCE: Amerchol Corp.: ACETULAN: Suggested Formulation

EYE MAKE-UP REMOVER STICK

RAW MATERIALS	% By Weight
Part A:	
PEG-200 Trihydroxy Stearin	29.70
MAZER MAZOL PG 810	27.80
Ozokerite Wax	5.00
Hydrogenated Castor Oil	12.00
Petrolatum	10.00
Anti-Oxidant	0.10
Propyl Paraben	0.10
Part B:	
Bentone Gel M10	15.00
Part C:	
Titanium Dioxide	0.30

Procedure:

Mix Part A and heat to 85C, or until it is melted clear. Cool to 75C and mix Part B using a homomixer at medium speed for 10 minutes. Add Part C and mix until homogeneous. Cool to 60C - 65C with gentle stirring and pour molten mass into mold. Cool and put the stick into holder.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 14

FACE MILK O/W

RAW MATERIALS	% By Weight
Phase A:	
Arlacel 60	3.5
Tween 60	4.0
Cetyl alcohol	1.0
Paraffin oil	12.0
Isopropylmyristate	12.0
Miglyol 812	5.0
Phase B:	
Water, preservative	54.1
Propylene glycol	2.0
PENTAVITIN	3.0
REVITALIN	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Code No. PL 1024

FACE MILK W/O

RAW MATERIALS	% By Weight
Phase A:	
ELFACOS E 200	5.0
ELFACOS ST 9	3.0
ELFACOS C 26	5.0
Paraffin oil	11.0
Isopropylstearate	7.0
Phase B:	
Water, preservative	60.5
Glycerine	5.0
REVITALIN	3.0
Phase C:	
Perfume oil	0.5

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Code No. PL 1314

SOURCE: Pentapharm Ltd.: Guide Formulations

FACE MILK W/O

RAW MATERIALS	% By Weight
Phase A:	
Arlacel 481	1.0
Arlacel 989	5.0
Isopropylstearate	7.0
Isopropylmyristate	6.0
PCL-liquid	6.0
Phase B:	
Water, preservative	64.0
Propylene glycol	4.0
Magnesium sulphate-heptahydrate	0.6
THYMUS PEPTIDE	3.0
PENTAVITIN	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Code No. PL 1313

FACE MILK O/W

RAW MATERIALS	% By Weight
Phase A:	
Tween 60	5.0
Arlacel 60	3.0
Arlacel 165	2.0
Cetylalcohol	2.0
Isopropylmyristate	8.0
Phase B:	
Water, preservative	72.5
Propylene glycol	2.0
PENTAGLYCAN	5.0
Phase C:	
Perfume oil	0.5

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Code No. PL 1023

SOURCE: Pentapharm Ltd.: Guide Formulations

FACIAL CLEANSER

INGREDIENTS	% By Weight
Deionized water	73.04
Chamomile	0.01
Aloe vera gel	0.01
Allantoin	0.001
DOWICIL 200 Preservative	0.20
METHOCEL 40-100	1.50
Triethanolamine	0.02
Glycerine	3.00
TEA lauryl sulfate	15.00
Polysorbate 20	2.00
Vitamin A, D2 oil	0.01
Vitamin E oil	0.01
Laneth-10 acetate	2.00
Lauramide DEA	3.00
Perfume oil	0.2

A cleanser that's more like a liquid soap for wider sales appeal

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

LOW IRRITATION FACIAL CLEANSER

INGREDIENTS:	%W/W
Water	q.s. to 100.0
Sodium Chloride	1.0-2.0
TEXAPON K-14S Special (Sodium Myreth Sulfate)	30.0
VELVETEX BK-35 (Cocamidopropyl Betaine)	6.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	1.5
STANDAMID SD (Cocamide DEA)	2.0
Dyes, preservative and fragrance	q.s.

Procedure:

Blend ingredients at room temperature, one at a time in the order given. Adjust pH to 6.0-6.5 with 50% citric acid. Stir until homogeneous product is obtained. Fill off.

Comments:

The combination of TEXAPON K-14S Special, a mild ether sulfate, and VELVETEX BK-35 forms the basis of low irritation cleansing formulas.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula HOB-217-41

FACIAL CLEANSING MOUSSE

RAW MATERIALS	% By Weight
Disodium Cocamido MIPA-Sulfosuccinate (Monamate CPA 40)	12.50
Sodium Laureth Sulfate (Standapol ES-3)	18.00
Quaternium-22 (Ceraphyl 60)	2.00
Propylene Glycol	3.00
C12-C15 Alcohol Lactate (Ceraphyl 41)	0.50
Water, Deionized	63.00
Perfume	q.s.
GERMABEN II	1.00

Procedure:

In a suitable vessel weigh ingredients in order written, mix until uniform and package.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

FACIAL WASH

INGREDIENT	% By Weight
I:	
Deionized Water	80.0
II:	
SLES (60%)	14.0
VARAMIDE MA-1	2.0
VARSULF S-1333	3.0
EGMS	1.0
III.	
Citric Acid	qs
IV.	
Preservative	qs

Mixing Instructions:

Warm water to 60C. With adequate agitation blend in Phase II ingredients. Cool to 30C with mixing. Adjust to pH 6.5 with Citric Acid.

Solids:	14.4%
pH:	6.5

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.7

FACIAL MOISTURIZER

INGREDIENTS	%W/W
Water	80.10
Carbopol 934 (Carbomer 934)	0.50
Part B:	
CETIOL A (Hexyl Laurate)	6.00
LANETTE O (Cetearyl Alcohol)	3.50
GENEROL 122E-10 (PEG-10 Soya Sterol)	1.40
GENEROL 122 (Soya Sterol)	2.00
Stearic Acid XXX	1.20
Part C:	
DERIPHAT 160-C (Sodium Lauriminodipropionate)	5.00
Dimethicone	0.20
Part D:	
GERMABEN II (Propylene Glycol (and) Diazolinyl Urea (and) Methyl Paraben (and) Propyl Paraben)	0.10
Dyes	q.s.
Fragrance	q.s.

Procedure:

Disperse Carbopol in water and heat Part A to 80C. Heat Part B to 80C. Add Part A to Part B. Maintain temperature and add Part C. Cool to 40C and add individual components of Part D under agitation. Cool to room temperature and fill off.

Comments:

CETIOL A is an effective "all purpose" emollient ester working well with the soya sterols.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formula H-4809

WATER-IN-OIL MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.3
Water	55.7
Magnesium sulphate	0.5
B.	
Carnation White Mineral Oil	9.0
Polysynlane	10.0
Nimlesterol D	7.5
Amerchol L-101	9.0
Sorbitol 70%	5.0
Witcamide 511C	2.0
Preservative	q.s.
Comments: An elegant, stable, easily prepared water-in-oil lotion for softening and moisturizing dry skin.	

SOURCE: R.T. Vanderbilt Co., Inc: Cosmetics and Toiletries
Formulary: Formulation No. 325

FACIAL SCRUB CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	10.0
IMWITOR 900	10.0
MIGLYOL 812 Neutral Oil	15.0
Cremophor A6	1.2
Cremophor A25	1.8
PCL liquid	5.0
B.	
Dehyton AB30	5.0
Allantoin	0.2
Salicylic acid	0.5
Titiplex III	1.0
Preservative	q.s.
Water	ad 100.0
C.	
Almond bran	3.0
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A

At about 30C C is added.

Formulation 1.5.12

FACIAL SCRUB, WATER-FREE

RAW MATERIALS	% By Weight
A.	
MIGLYOL 812 Neutral Oil	66.0
IMWITOR 780K	5.0
Teginacid	3.4
Texapon L 100	1.5
Paraffin oil	2.5
Preservative	q.s.
B.	
Zinc peroxide	1.05
Potato starch	5.0
Almond bran	5.0
C.	
Aerosil 200	4.0
Syloid 244	6.0
Perfume oil	q.s.

Preparation:

A is melted.

B is gradually stirred into A with the high-speed mixer.

Finally C is slowly added whilst stirring.

Formulation No. 1.5.13

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.5.13

FAST DRYING WATERPROOF MASCARA

RAW MATERIALS	% By Weight
Phase A1:	
Shell Sol 71 (Petroleum Distillate)	40.60
Bentone Gel SS-71 (Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate)	15.00
Phase A2:	
Talc 141	1.00
C33-5198 Cosmetic Black J (Iron Oxides)	10.00
Phase B:	
CERAPHYL 85 (Stearamidopropyl Cetearyl Dimonium Tosylate (and) Propylene Glycol)	2.00
CERAPHYL 375 (Isostearyl Neopentanoate)	2.00
Beeswax, White	10.00
Ozokerite	10.00
Thixcin R (Trihydroxystearin)	3.00
Ganex V-220 (PVP/Eicosene Copolymer)	6.00
Methylparaben	0.10
Butylparaben	0.10
Sorbic Acid	0.20

Procedure:

Admix Phase A2 and pulverize until uniform. Mix Phase A1 with homomixing agitation. Add Phase A2 slowly to Phase A1 while maintaining homomixing agitation, then heat to 70C. Mix and heat Phase B to 75C, then combine with Phase A1 and Phase A2. Cool to just above congealing point and fill into containers.

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Suggested Formulation #P85-7

LIQUID EYE LINER

RAW MATERIALS	% By Weight
Water	80.75
Sodium Carboxymethylcellulose	1.50
Hectorite	0.50
Propylene Glycol	5.00
Triethanolamine-shellac (25%)	8.00
Iron Oxide	4.00
Methylparaben	0.10
GERMALL II	0.15

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Suggested Formulation

FLUID MAKE-UP

RAW MATERIALS	%W/W
a)	
DELYL EXTRA (CTFA: Isopropyl Myristate)	20.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	5.00
SATOL purified, stabilized (CTFA: Oleyl Alcohol)	3.00
Stearic acid T.P. (CTFA: Stearic Acid)	4.80
Butylated hydroxytoluene (CTFA: Stearic Acid)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	0.50
c)	
Kronos RN 56 (CTFA: Titanium Dioxide)	8.60
Kaolin (CTFA: Kaolin)	3.00
Texapon K 12 (CTFA: Sodium Lauryl Sulfate)	1.00
Red cogilor 348.90 (CTFA: Iron Oxide Red C.I. 77491)	0.20
Yellow cogilor 138.90 (CTFA: Iron Oxide Yellow C.I.777492)	1.50
Brown cogilor 748.90 (CTFA: Iron Oxide Brown C.I. 77492)	0.70
d)	
Carbopol 940 dispersion (2%) (CTFA: Carbomer 940)	15.00
Deionized water	23.55
e)	
Texapon T 42 (CTFA: TEA-Lauryl Sulfate)	4.00
Triethanolamine (99%)	1.50
Deionized water	5.60
f) Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulation

LIQUID MAKE-UP

RAW MATERIALS	% By Weight
Oil Phase:	
C16/C18 Fatty alcohol with 6 moles EO	1,5
C16/C18 Fatty alcohol with 25 moles EO	1,5
Glycerine monostearate neutral	3
Cetyl alcohol	2
Isocetyl stearate	3
Paraffin	3
ELFACOS ST 37	1
Nipasteril 30 K	0,2
Water Phase:	
Sorbitol	5
Preservative	0,3
Water	75,2
Pigments	4
Perfume oil CA 25423	0,3

This light O/W make-up is easily spreadable and gives a somewhat rough skin feel.

SOURCE: Akzo Chemicals, Inc.: ELFACOS ST9, ST37, C26, E200:
Formulation No. 1051

FLUID MAKE-UP

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	6.0
IMWITOR 900	4.0
MIGLYOL 812 Neutral Oil	7.0
MIGLYOL 840	5.0
Paraffin oil	5.0
Hostaphat KL 340 N	6.0
DYNASAN 114	4.0
B.	
Karion F	5.0
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.
D.	
Pigments:	
Titanium dioxide	3.0
Talcum	3.0
Zinc oxide	3.0
Iron oxide brown PC 1136	0.5
Cosmetic Sienna Oxide CS-10051	0.5

Preparation:

A is melted and brought to 75-80C; B is mixed, heated to the same temperature and then slowly emulsified into A. 90g of the emulsion are gradually added to 10g of the thoroughly mixed pigments and stirred. Finally C is stirred in and homogenized.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 2.1.2

MAKE-UP REMOVER OIL

RAW MATERIALS	% By Weight
MAZER MAZOL 1400	12.0
MAZER MAPEG 200 DL	6.0
Mineral Oil (70 SUS)	82.0
Perfume	q.s.

Procedure:

Mix at room temperature. Filter. Pack. Low viscosity oil for removing make-up can be rinsed or tissue off.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 15

FROSTED MOUSSE BLUSHER

MATERIALS	% W/W
Phase A:	
EMULSYNT GDL (Glyceryl Dilaurate)	2.00
CERASYNT 840 (PEG-20 Stearate)	1.00
Stearic Acid, XXX	5.00
Cetyl Alcohol	0.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
CERAPHYL 140-A (Isodecyl Oleate)	4.00
Phase B:	
Water, deionized	49.90
Methocel K4M (Hydroxypropyl Methylcellulose)	0.10
Propylene Glycol	2.00
Titanium Dioxide #3328	4.29
LUSTRA-PEARL GLIMMER (Mica (and) Titanium Dioxide)	5.14
SPECTRA-PEARL RDW (Mica (and) Iron Oxide (and) Titanium Dioxide)	2.57
Phase C:	
Triethanolamine (85%)	0.50
Phase D:	
SD Alcohol 40	20.00
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

Procedure:

Disperse Methocel in water and heat to 80C. Add Propylene Glycol to water Phase, then slowly sprinkle in Pigments, mixing well. Combine Phase A and heat to 80C. Add Phase A to Phase B, then add Phase C. Cool to 45C and add Germaben II, then Alcohol. Cool to room temperature and fill.

Fill:

95% Concentrate and 5% Propellant A-46
Precision Valve 2X.020 Conical. Incereted with tailpiece
Foam Spout #02-1560

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation
#F98-29-1

GEL BLUSHER

INGREDIENTS	% W/W
Phase A:	
Carbopol 934 (2% Soln.) (Carbomer-934)	50.00
Propylene Glycol	15.00
Brij 35 SP (Laureth-23)	2.00
CERAPHYL 41 (C12-15 Alcohol Lactate)	10.00
Phase B:	
SPECTRA-PEARL MTW (Mica (and) Titanium Dioxide (and) Carmine)	6.67
PEARL-GLO UVR (Bismuth Oxochloride)	3.33
Titanium Dioxide #3328	3.33
#7051 Cosmetic Iron Red	1.67
Phase C:	
Triethanolamine (85%)	1.40
Phase D:	
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00
SD Alcohol 40	5.60

Procedure:

Combine Phase A and heat to 70C to melt Brij. Premix Phase B and slowly add to Phase A. Add Phase C. Cool to 45C and add Germaben, then Alcohol. Cool to room temperature.

Formulation #F109-22-2

STICK BLUSH

INGREDIENTS	%W/W
Phase A:	
Syncrowax HGL-C (C18-36 Acid Triglyceride)	8.00
Syncrowax ERL-C (C18-36 Acid Glycol Ester)	8.00
Paraffin 143/148	2.00
Siloxane SWS-03314 (Cyclomethicone)	48.85
CERAPHYL 41 (C12-15 Alcohols Lactate)	10.00
Tenox 4 (Corn Oil (and) BHA (and) BHT)	0.05
Stearyl Alcohol	2.00
Phase B:	
Pigment Blend:	
141 Talc	5.00
PEARL-GLO UVR (Bismuth Oxochloride)	10.40
#7051 Cosmetic Iron Oxide Red	0.08
SPECTRA-PEARL MTW (Mica (and) Iron Oxide (and) Titanium Dioxide)	5.52
Methylparaben	0.10

Formulation #F112-45-1

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulations

HERBAL AEROSOL FACIAL MASK

RAW MATERIALS	% By Weight
A.	
Emulgator E 2149	3.0
MIGLYOL 812 Neutral Oil	10.0
Arkopal N 100	1.0
B.	
Tego Betain L 7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic acid, anhydrous	0.2
Extract of herbs	2.0
Water	78.6
Preservative	q.s.
C.	
Perfume oil	q.s.

Preparation:

A and B are heated to 70C.

B is emulsified into A.

C is added stirring the emulsion continuously until cool.

Formulation 6.2.6

VITAMIN MASK

RAW MATERIALS	% By Weight
A.	
MIGLYOL 812 Neutral Oil	10.0
MIGLYOL 840	2.0
Alugel DF 30	2.0
B.	
SOFTISAN 378	3.0
Stearic acid	4.0
Emulgade F	6.0
PCL solid	3.0
PCL liquid	4.0
Preservative	q.s.
C.	
Karion	4.0
Allantoin	0.3
Algipon 578L, 2% in H2O	58.3
Preservative	q.s.
D.	
Collagen CLR	3.0
Vitamin A/Palmitate	0.3
Vitamin E	0.1
Perfume	q.s.

Preparation:

A is heated to 75-80C. B and also C are heated to the same temperature. First B, then C is added to A. D is stirred in at about 40C. Before filling it is recommended to homogenize the mask.

Formulation 6.2.1

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

HIGH INTENSITY GLOSS (FOR LIP POT CONTAINER)

INGREDIENTS	%W/W
Phase A:	
Indopol H-100 (Polybutene)	41.00
Clearlan 1650 (Lanolin)	25.70
Paraffin 143/148 (Paraffin)	5.50
Thixcin R (Trihydroxystearin)	3.00
CERAPHYL 50-S (Myristyl Lactate)	9.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
Propylparaben	0.15
Antioxidant	0.05
Phase B:	
#6905 D & C Orange #5 Zr. Lake (D & C Orange No. 5 Zirconium Lake)	0.75
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	1.75
Phase C:	
FD & C Blue #1 Aluminum Lake in Castor Oil	0.30
Phase D:	
LUSTRA-PEARL GLIMMER (Mica (and) Titanium Dioxide)	10.00
Phase E:	
Fragrance	0.30

Procedure:

Prepare Phase B using two passes over a three roll mill at room temperature. Combine Phase A and heat to 85C until melted clear and homogeneous. Cool to 75C. add Phase B, Phase C and Phase D to it and mix thoroughly after each addition. Cool to just above congealing point - add Phase E and mix for 5 minutes and package.

Formulation #P107-31

PEARLY LIP GLOSS (FOR POT CONTAINER)

INGREDIENTS	% W/W
Phase A:	
Indopol H-100 (Polybutene)	41.00
Clearlan 1650 (Lanolin)	25.50
Paraffin 143/148 (Paraffin)	5.50
Thixcin R (Trihydroxystearin)	3.00
CERAPHYL 50-S (Myristyl Lactate)	12.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
Propylparaben	0.15
Antioxidant	0.05
Phase B:	
SPECTRA-PEARL MTW (Mica (and) Titanium Dioxide (and) Carmine)	10.00
Phase C:	
Fragrance	0.30
Formulation #P107-29-1	

SOURCE: Van Dyk & Co., Inc.: Make Up Formulary: Formulations

HIGH PEARL PRESSED POWDER EYE SHADOW

RAW MATERIALS	% By Weight
Ultramarine Blue 3516	5.55
Zinc Stearate, USP	3.70
Kaolin 347	11.00
Mica 280	40.0
Micro Crystalline Cellulose	32.15
SCHERCOMID AME-70	7.60

The above ingredients without the SCHERCOMID AME-70 will not press. At 7.6%, SCHERCOMID AME-70 gave a good (hard) surface (with no cracking when dropped three feet onto a concrete floor), when pressed at 4500 PSIG with 10-15 seconds dwell time.

SOURCE: Scher Chemicals, Inc.: SCHERCOMID AME-70: Formulation SG-0205

EYE SHADOW CC-102

RAW MATERIALS	% By Weight
Timica MIC Bronze Golden	40.5
Talc BC	32.4
SF-1214	13.6
Oleyl Erucate	13.5

Procedure:

- 1) Mill through a 0.027" herringbone screen.
- 2) Press into suitable container.

Comments:

- SF-1214 can be replaced by SF-1236.
- Replace 2% oleyl erucate with apple pectin for more firmness.

SOURCE: GE Silicones: Personal Care Formulary: Formulation CC-102

EYE MAKE-UP REMOVER

RAW MATERIALS	% By Weight
Klearol (Mineral Oil)	85.00
SCHERCEMOL DID (Diisopropyl Dimerate)	10.00
SCHERCEMOL 318 (Isopropyl Isostearate)	5.00

Blend all ingredients at 40-45C with slow agitation for 5-10 minutes.

SOURCE: Scher Chemicals, Inc.: Suggested Formulation

HIGH SPF LIP BALM

INGREDIENTS:	% By Weight
Super Sterol Ester	10.00
Super Refined Apricot Kernel Oil	53.75
Synchrowax HGL-C	12.00
Synchrowax ERL-C	6.00
Silicone Copolymer F755	1.00
Fluilan	5.00
Escalol 507	7.00
Uvinul N539	3.00
Propylparaben	0.20
VERAGEL Lipoid 1:1	1.00
BHA	0.05
Fragrance 14390	1.00

Procedure:

Combine ingredients and heat to clarify, with agitation, approximately 80C. Cool. Pour at 54-58C. This is a protective lip balm containing a high level sunscreen.

Source: Dr. Madis Laboratories Inc.: Suggested Formulation

LIP BALM

INGREDIENTS	% By Weight
Part I:	
Lantrol	8.20
Bleached Beeswax	30.00
Carnation Mineral Oil	26.00
Witconol 14F	2.00
Aristowax 143	15.00
Tenox BHT	0.06
Part II:	
Fructose, USP-FCC (Code 54016)	2.00
Tween 20	2.00
Deionized Water	11.94
Dexpanthenol	0.10
Glycerin, USP	2.00
Part III:	
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	0.10
Flavor	0.10

Procedure:

Mix and heat Part I to 70C (stir while heating). Heat and stir Part II to 30C. Add Part II to Part I with stirring, then add premixed Part III. Mix well and pour into molds.

SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
Formulation SC 414

LIP CARE STICK

RAW MATERIALS	% By Weight
SOFTISAN 100	20.0
DYNACERIN 660	8.0
MIGLYOL 812 Neutral Oil	6.0
SOFTISAN 649	5.0
Hard paraffin	5.0
Cetyl alcohol	5.0
Carnaubawax	1.0
White beeswax	20.0
White soft paraffin	30.0
Antioxidants	q.s.
Perfume oil	q.s.

Preparation:

All ingredients are melted, stirred until cold to a creamy consistency, perfumed and poured into moulds.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.5.1

LIPSTICK

RAW MATERIALS	% By Weight
ACETULAN	5.0
SOLULAN PB-2	5.0
Isopropyl palmitate	25.0
Cab-O-Sil H5	1.0
Pigments	10.0
Beeswax, USP	6.0
Candelilla wax	7.0
Ozokerite	5.0
Carnauba wax	3.0
Myristyl lactate	5.0
Castor oil	28.0
Perfume and Preservative	q.s.

Glossy, sheer nongreasy payoff

Procedure:

Grind the pigments in a blend of ACETULAN, SOLULAN PB-2 and isopropyl palmitate. Heat the remaining ingredients to 85-90C while mixing slowly. Add the pigment concentrate and continue slow mixing at 85-90C until uniform and free of air. Cool to 75C and pour into molds.

SOURCE: Amerchol Corp.: ACETULAN acetylated lanolin alcohols: Suggested Formulation

LIP-GLOSS

RAW MATERIALS	% By Weight
ELFACOS C26	10
Candelilla wax	5
Carnauba wax	2
Micro wax	5
Castor oil	59,85
ELFACOS ST 9	3
Isopropyl lanolate	5
p-Hydroxy benzoic acid propylester	0,15
Pigments	5
Iriodin WR 70	5

A solid mass is obtained which can be easily applied to the lips.

LIP-GLOSS

RAW MATERIALS	% By Weight
ELFACOS ST 37	74,5
Liquid paraffin	15
Candelilla	4
Vaseline	5,5
Pigments	1

This is a high-gloss high-quality lip-gloss. This really expensive formulation contains 75% ELFACOS ST 37 as a basis. The appearance of the product and the application on the lips as well as the storage stability are considered to be very good.

Formulation No. 555

Manufacturing of lipsticks and lip-gloss.

The fat-phase is heated to the melting temperature. All products, except pigments, are mixed at 80C until homogeneous, then the pigments are added whilst stirring. The melt is passed through a three-roll mill and reheated. Iriodin is added and the melt is poured into the moulds. Lipsticks produced in this way do not normally require flame finishing.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

LIP-GLOSS

RAW MATERIALS	% By Weight
A.	
Bentone 38-Gel (10% Bentone 38 in liquid lanolin)	20.0
Lanolin liquid	12.0
SOFTIGEN 767	5.0
IMWITOR 780 K	3.0
Product V 8080	30.0
Dye Solution (1% in SOFTIGEN 767)	4.0
B.	
Carnaubawax	13.0
Beeswax	7.0
C.	
Colouring	3.0
Pearling pigment Iriodin Ti 100	2.0
D.	
Perfume oil Tandress 75418 B	1.0

Preparation:

A is slowly stirred.

B is added and the mixture is heated to 75-80C for a few minutes. The mixture is stirred until cold.

C is very finely milled and A + B are incorporated into C in small amounts at a time. Finally, the perfume is added.

It may be advisable to homogenize the finished Lip-Gloss.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 2.2.1

LUSTROUS LIP GLOSS

INGREDIENTS	% W/W
Phase A:	
Carnauba	2.00
Ozokerite	2.00
Lanfrax 1777 (Lanolin Wax)	5.00
Indopol H-100 (Polybutene)	40.00
Lantrol 1674 (Lanolin Oil)	36.70
CERAPHYL 50-S (Myristyl Lactate)	3.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	7.00
Propylparaben	0.10
Antioxidant	0.10
Phase B:	
SPECTRA-PEARL RDW (Mica (and) Iron Oxide (and) Titanium Dioxide)	0.80
LUSTRA-PEARL GLIMMER (Mica (and) Titanium Dioxide)	3.00
Phase C:	
Fragrance D84-389	0.30

SOURCE: Van Dyk & Co., Inc.: Make-up Formulary: Formulation #P100-1

LIP GLOSS-1

RAW MATERIALS	% W/W
Phase A:	
CERAPHYL 50-S (Myristyl Lactate)	8.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	19.60
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
Indopol H-100 (Polybutene)	35.00
Lantrol (Lanolin Oil)	25.00
Carnauba	6.00
Ozokerite	3.00
Thixcin R (Trihydroxystearin)	1.00
Preservative and Antioxidant	0.20
Phase B:	
30% #6607 D & C Red #7 Ca Lake in Castor Oil	0.06
55% TiO ₂ in Castor Oil	0.14
	100.00

Formulation #P89-42-1

LIP GLOSS - 2

RAW MATERIALS	% W/W
Phase A:	
CERAPHYL 50-S (Myristyl Lactate)	8.00
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	28.60
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
Indopol H-100 (Polybutene)	30.00
Lantrol (Lanolin Oil)	20.00
Carnauba	7.00
Ozokerite	3.00
Thixcin R (Trihydroxystearin)	1.00
Preservative and Antioxidant	0.20
Phase B:	
30% #6607 D & C Red #7 Ca Lake in Castor Oil	0.06
55% TiO ₂ in Castor Oil	0.14
	100.00

Procedure:

Combine Phase A and heat to 80C - 85C until melted and homogeneous. Mix Phase B while stirring. Cool to just above congealing point and package.

Formulation #P89-42-2

Formulation #P89-42-2 has improved lubricity and less tackiness than Formulation #P89-42-1

SOURCE: Van Dyk & Co., Inc.: Make-up Formulary: Suggested Formulations

LIP POT (2244-131-01)

RAW MATERIALS	% By Weight
A.	
LANTROL 1673 Lanolin Oil	20.0
EMEREST 1723 Isopropyl Lanolate	22.5
LANFRAX 1776 Lanolin Wax	3.0
Multiwax 180M	7.0
Ozokerite, 180F	3.5
NIMLESTEROL 1732 Liquid Absorption Base	25.0
Indopol H-1500	10.0
B.	
20% D&C Red #6 Barium Lake milled in LANTROL 1673 Lanolin Oil	6.5
20% D&C Red #7 Calcium Lake milled in LANTROL 1673 Lanolin Oil	0.8
Perfume	1.7

This lip gloss imparts a shiny nongreasy film to the lips, soft to the touch, and easy to apply.

Procedure:

Mix oils and waxes together and warm until melted, approximately 85C. Add pigment dispersions and mix until homogeneous.

SOURCE: Emery Chemicals: LANTROL Lanolin Oil: Formulation 2244-131-01

MOISTURIZING LIP BALM (2748-016)

RAW MATERIALS	% By Weight
Candelilla wax	7.00
Carnauba wax	2.00
Microcrystalline wax (195 m.p.)	1.20
EMERWAX 1253 Synthetic Beeswax	1.50
EMTHOX 2730 PEG-75 Cocoa Butter	5.00
EMERY 1650 CLEARLAN Lanolin, USP	7.00
ACETOL 1706 Acetate Ester	10.00
LANTROL 1674 Lanolin Oil	5.00
Methyl paraben	0.30
Propyl paraben	0.25
BHA	0.05
Castor oil	60.70

This product is designed to impart a soft, moisturized feel to lips and to provide a light glossy effect. It can be worn alone or over lip color for shine.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730 PEG-75 Cocoa Butter for Ethnic Products: Formulation 2748-016

LIPSTICK

RAW MATERIALS	% By Weight
ELFACOS ST 37	6
Lunacera MW	3
Lunacera C40	19
Generol 122	10
Oleyl alcohol	20
Castor Oil	20
Propylene glycol monomyristate	10
Pigment C14-038	7
Pigment C23-009	2
Titanium dioxide	6

ELFACOS ST 37 acts as a pigment dispersant. The lipstick has a good self-gloss, is very good for distribution on the mucous membrane and shows a good gloss on the lips. The stick is very solid but shows a very good colour pay-off.

Formulation No. 1050

LIPSTICK

RAW MATERIALS	% by Weight
ELFACOS ST	5
Isopropyl lanolate	12
Liquid paraffin	42
Carnauba wax	4
Candelilla wax	8
Vaseline	16
Paraffin wax	6
Pigments	6
Perfume oil	1

This lipstick formulation distinguishes by a high self-gloss, good distribution and colour pay-off.

Formulation No. 3114 (ST 9) or No. 3180 (ST 37)

Manufacturing of lipsticks and lip-gloss.

The fat-phase is heated to the melting temperature. All products, except pigments, are mixed at 80C until homogeneous; then the pigments are added whilst stirring. The melt is passed through a three-roll mill and reheated. Iriodin is added and the melt is poured into the moulds. Lipsticks produced in this way do not normally require flame finishing.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST 9, ST 37, C 26, E 200:
Suggested Formulations

LIPSTICK

RAW MATERIALS	% By Weight
ELFACOS C26	7
Lunacera C 46	7,5
Lunacera C 44	3
Castor oil	37,5
Lunacera M	6
Norasoft C 17	10
Isopropyl palmitate	20
OH-Lan	5
Pigment	3
Perfume oil	1

Formulation No. 3122

PEARL LIPSTICK

RAW MATERIALS	% By Weight
ELFACOS C26	10
Candelilla wax	9
Isopropyl myristate	7,85
Castor oil	25
ARMOTAN TO (Sorbitan Trioleate)	5
OH-Lan (hydroxy lanolin)	3
1,3 Butylene glycol	6
p-Hydroxy benzoicacid propyl ester	0,15
Aromatic oil	1
Pigments	3
Iriodin Ti 100 FK	15
Iriodin Ti 100 MK	15

Manufacturing of lipsticks and lip-gloss

The fat-phase is heated to the melting temperature. All products, except pigments, are mixed at 80C until homogeneous; then the pigments are added whilst stirring. The melt is passed through a three-roll mill and reheated. Iriodin is added and the melt is poured into the moulds. Lipsticks produced in this way do not normally require flame finishing.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST 9, ST 37, C 26, E 200:
Suggested Formulation

LIPSTICK(FOR ETHNIC MARKET)

INGREDIENTS	% By Weight
Phase A:	
CERAPHYL 50-S (Myristyl Lactate)	5.0
CERAPHYL 375 (Isostearyl Neopentanoate)	20.0
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	11.0
Lantrol (Lanolin Oil)	5.0
Castor Oil	19.6
Drakeol 7 (Mineral Oil)	5.0
Ozokerite	3.0
Candelilla Wax	10.0
Beeswax, White	2.0
Carnauba	2.0
Preservative and Antioxidant	0.2
Phase B:	
F&DC Blue #1 Al Lake in Castor Oil	0.5
30% #6607 D & C Red 7 Ca Lake in Castor Oil	15.0
35% #6505 D & C Yellow 5 Al Lake in Castor Oil	1.5
Phase C:	
Fragrance	0.2
SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation #P87-27	

LIPSTICK-LIPBALM BASE

INGREDIENTS	% W/W
CERAPHYL 50-S (Myristyl Lactate)	5.00
CERAPHYL 140-A (Isodecyl Oleate)	38.80
CERAPHYL 424 (Myristyl Myristate)	5.00
Penreco Super (Petrolatum)	10.00
Lantrol 1674 (Lanolin Oil)	3.00
White Beeswax	8.00
Ozokerite	6.00
Candelilla Wax	9.00
Carnauba	4.00
CERAPHYL GA (Maleated Soybean Oil)	10.00
Vitamin E Acetate (Tocopheryl Acetate)	0.50
Propylparaben	0.20
Phase B:	
Allantoin	0.50
SOURCE: Van Dyk & Co., Inc.: CERAPHYL GA: Formulation #P129-10-2	

LIPSTICK (4D-1 & 2)

RAW MATERIALS	% By Weight
Candelilla wax	7.0
Carnauba wax	5.0
Beeswax	2.0
Paraffin wax	2.0
CLEARLAN 1650 Lanolin	5.0
Mineral oil	14.0
EMEREST 1723 Isopropyl Lanolate	5.0
PEG-20 Sorbitan Beeswax	5.0
EMEREST 2314 Isopropyl Myristate	7.0
Titanium dioxide	3.0
Pigments, lakes & dyes	4.1
EMEREST 2452 Polyglyceryl-3 Diisotearate	40.9

In this formula the EMEREST 2452 is used to form a smooth, homogeneous pigment dispersion. The stability of the product against rancidity even at the relatively high temperatures used in lipstick manufacturing has been shown in long term stability studies of this formula.

LIQUID LIP GLOSSER FOR ROLL-ON APPLICATOR (2239-114A)

RAW MATERIALS	% By Weight
Polybutene	30.0
EMEREST 2452 Polyglyceryl-3 Diisostearate	42.8
Mineral oil	25.0
Propyl paraben	0.1
Amyl dimethyl PABA	0.1
Flavor-Strawberry 1297	2.0

EMEREST 2452 is used in this formulation as a vehicle and base for the flavor. It provides the correct viscosity needed for such a formula without contributing any fatty taste.

Procedure:

Mix and heat all ingredients except flavor to 82-85C. Cool to 52C and add flavor. Cool to 25C and package.

Note: If different flavor compounds are desired that are not completely soluble, EMEREST 2384 may be added to solubilize the flavor in this formula.

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Suggested Formulations

LIQUID MAKEUP

RAW MATERIALS	% By Weight
AMERLATE P	0.9
AMERCHOL L-101	4.5
Stearic acid, xxx	2.7
Glyceryl monostearate, neut.	1.8
Mineral oil, 70 vis.	4.5
Propylene glycol	4.5
Triethanolamine	0.9
Water	70.2
Pigments, micronized	10.0
Perfume and Preservative	q.s.

Emollient o/w makeup with excellent spreading and blending.

Procedure:

Prepare lotion using Procedure A:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

Add the micronized powder blend in increments, mixing well after each addition.

SOURCE: Amerchol Corp.: AMERLATE: Suggested Formulation

NONIONIC MAKEUP

RAW MATERIALS	% By Weight
AMEROXOL OE-2	2.0
SOLULAN PB-10	3.0
SOLULAN 98	4.0
OHLAN	1.0
Isopropyl isostearate	10.0
Silicone fluid 200, 350 cstks.	2.0
Cetyl alcohol	1.5
Stearyl alcohol	1.5
Sperm wax	2.5
Arlacel 165	5.0
Veegum HV	1.0
Propylene glycol	5.0
Water	51.5
Pigments, micronized	10.0
Perfume and Preservative	q.s.

Soft, glossy o/w cream with elegant spread and coverage.

Procedure:

Disperse the Veegum in the water using high speed mixing.

Add the pigments to the water phase with high speed mixing. Add the water phase at 80C to the oil phase at 80C while mixing. Continue mixing while cooling to 35C.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

LIQUID MAKE-UP

RAW MATERIALS	% By Weight
A.	
Water, Deionised	65.70
Veegum Regular	0.50
CMC-7LF	1.00
B.	
Titanium Dioxide 3328	4.40
Cosmetic Brown 7061	0.35
Pur Oxy Brown 3180	0.35
Brown Extender 7147	0.90
Methyl Paraben	0.20
Propyl Paraben	0.10
C.	
Solulan-98	2.00
SCHERCEMOL PGMS	2.50
Arlacel-165	2.00
Klearol	18.00
D.	
Water, Deionized	1.80
Germall-115	0.20
Formulation SK-113	

LIQUID MAKE-UP

RAW MATERIALS	% By Weight
A.	
Water, Deionised	69.70
Veegum Regular	0.50
CMC-7LF	1.00
B.	
Titanium Dioxide 3328	4.40
Cosmetic Brown 7061	0.35
Pur Oxy Brown 3180	0.35
Brown Extender 7147	0.90
Methyl Paraben	0.20
Propyl Paraben	0.10
C.	
Solulan-98	2.00
SCHERCEMOL PGMS	2.50
Arlacel-165	2.00
Propylene Glycol	7.00
SCHERCEMOL DID	7.00
D.	
Water, Deionized	1.80
Germall-115	0.20
Formulation SK-114	

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

LIQUID MAKE-UP

RAW MATERIALS % By Weight

A.	
Water, Deionized	69.70
Veegum Regular	0.50
CMC-7LF	1.00
B.	
Titanium Dioxide 3328	4.40
Cosmetic Brown 7061	0.35
Pur Oxy Brown 3180	0.35
Brown Extender 7147	0.90
Methyl Paraben	0.20
Propyl Paraben	0.10
C.	
Solulan-98	2.00
SCHERCEMOL PGMS	2.50
Arlacel-165	2.00
Propylene Glycol	6.00
SCHERCOMID AME-70	8.00
D.	
Water, Deionized	1.80
Germall-115	0.20

Formulation SK-115

LIQUID MAKE-UP

RAW MATERIALS % By Weight

A.	
Water, Deionized	69.70
Veegum Regular	0.50
CMC-7LF	1.00
B.	
Titanium Dioxide 3328	4.40
Cosmetic Brown 7061	0.35
Pur Oxy Brown 3180	0.35
Brown Extender 7147	0.90
Methyl Paraben	0.20
Propyl Paraben	0.10
C.	
Solulan-98	2.00
SCHERCEMOL PGMS	2.50
Arlacel-165	2.00
SCHERCEMOL DID	7.00
SCHERCOMID AME-70	7.00
D.	
Water, Deionized	1.80
Germall-115	0.20

Formulation SK-116

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

LIQUID MAKEUP (2244-151)

RAW MATERIALS	% By Weight
A.	
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
Butylene glycol	3.5
EMEREST 2314 Isopropyl Myristate	3.0
NIMLESTEROL 1732 Liquid Absorption Base	5.0
EMSORB 2500 Sorbitan Oleate	1.5
EMERSOL 233 Oleic Acid	2.5
Isostearyl alcohol	2.0
Propyl paraben	0.1
B.	
Methocel K4M Premium	0.4
Demineralized water	57.8
Propylene glycol	10.0
Methyl paraben	0.2
CMC-7HF	0.5
EMSORB 2728 Polysorbate 60	1.0
Veegum	0.5
Iron oxide pigments	10.0

NIMLESTEROL 1732 aids in pigment wetting and suspension in this nonionic pigmented lotion. It also aids in emulsion stability and long term rheology control to prevent separation. Application on the skin is very smooth and even. There is no oily after-feel.

Procedure:

Predisperse Methocel, CMC and Veegum in the water and propylene glycol. Homogenize with fast agitation at elevated temperatures until a homogeneous solution is achieved. Add the remaining ingredients of B and heat to 90C with continued fast agitation. Heat and mix A in a separate vessel, add to B and allow to cool to 35C while homogenizing.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol and Lanolin Alcohol Absorption Bases: Formulation 2244-151

PEELABLE FACE MASK (2743-002)

RAW MATERIALS	% By Weight
A.	
SDA 40 alcohol	27.0
Gelvatol 20/90 Polyvinyl Alcohol	10.0
Deionized water	49.3
B.	
SDA 40 alcohol	7.5
EMEREST 2486 Pentaerythrityl Tetrapelargonate	3.5
LANTROL AWS 1692 PPG-12-PEG-65 Lanolin Oil	2.5
Methyl paraben	0.2

EMEREST 2486 increases the ease of spreading, without increasing the drying time or the oiliness of the product.

SOURCE: Emery Chemicals: EMEREST 2486: Formulation 2743-002

MAKEUP

RAW MATERIALS	% By Weight
ELFACOS ST	10
PEG 1000 monostearate	6
Liquid paraffin	18,5
Vaseline	15
Paraffin wax	10
Pigments	40
Perfume oil	0,5

Manufacturing Procedure:

ELFACOS ST, PEG 1000 monostearate, liquid paraffin, vaseline and paraffin wax are homogeneously mixed at 75-80C. The pigments are added to the molten mass, dispersing them by means of a Silverson. Then the dispersion is passed through a triple roll mill, melted again at 75C, perfumed and then packed.

This make-up is soft, storage-stable and is easily spreadable on the skin with a good colourstain.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Formulation No. 152 (ST9) or No. 556 (ST37)

NONIONIC LIQUID MAKEUP

RAW MATERIALS	% By Weight
A.	
VEEGUM	0.75
Rhodigel 23	0.15
Water	67.10
Glycerin	4.00
Citric acid	0.30
B.	
Talc	5.00
Titanium dioxide	5.00
Iron oxides	3.70
C.	
Ritachol	5.00
Crodamol MM	2.50
Polysynlane	2.00
Oleyl alcohol	2.00
Cosmowax	2.00
Tween 85	0.50
Preservative	q.s.

Consistency: Fluid lotion

Suggested Packaging: Liquid make-up container

Comments: This formula is designed specifically for oily skin.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 349

MAKE-UP BASE CC-100

RAW MATERIALS	% By Weight
Part A:	
Lanaetex 75	3.00
Myristyl Myristate	2.20
Diethyl Sebacate	2.00
Dispersen G	2.00
Brij 56	0.10
Butyl Paraben	0.10
Part B:	
Water	68.25
Veegum HV	0.50
Keltrol	0.15
Glycerin	3.00
Citric Acid	0.30
Germaben II	0.60
Methyl Paraben	0.10
Part C:	
SS-4267	3.00
SF-1214	1.00
Talc	5.00
Titanium Dioxide	5.00
Iron Oxide	3.70

Procedure:

- 1) Heat Part A and Part B to 75C.
- 2) Add Part B to Part A with high shear mixing.
- 3) Cool to 55C and add Part C with good mixing.
- 4) Continue mixing until cooled to 75C.

SOURCE: GE Silicones: Personal Care Formulary: Formulation
CC-100

MOISTURE MAKE-UP

RAW MATERIALS	% By Weight
Part A:	
SCHERCOMID AME-70	20.0
SCHERCEMOL MM	20.0
Promulgen D	5.0
Part B:	
Powder Mixture	5.0
Part C:	
Carbowax 400	10.0
Micro Crystalline Cellulose	40.0
Fragrance, preservative	qs

SOURCE: Scher Chemicals, Inc.: SCHERCOMID AME-70: Formulation
SG-0208

MAKE-UP MOUSSE - 2

INGREDIENTS	% W/W
Phase A:	
EMULSYNT GDL (Glyceryl Dilaurate)	2.00
CERAPHYL 840 (PEG-20 Stearate)	1.00
Stearic Acid, XXX	5.00
Cetyl Alcohol	0.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
CERAPHYL 140-A (Isodecyl Oleate)	4.00
Phase B:	
Water, deionized	49.90
Methocel K4M (Hydroxypropyl Methylcellulose)	0.10
Propylene Glycol	2.00
* Pigment Blend #F96-7	12.00
Phase C:	
Triethanolamine (88%)	0.50
Phase D:	
Alcohol SD 40	20.00
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

MAKE-UP MOUSSE - 3

INGREDIENTS	% W/W
Phase A:	
EMULSYNT GDL (Glyceryl Dilaurate)	2.00
CERAPHYL 840 (PEG-20 Stearate)	1.00
Stearic Acid, XXX	5.00
Cetyl Alcohol	0.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
CERAPHYL 140-A (Isodecyl Oleate)	10.00
Phase B:	
Water, deionized	43.90
Methocel K4M (Hydroxypropyl Methylcellulose)	0.10
Propylene Glycol	2.00
* Pigment Blend #F96-7	12.00
Phase C:	
Triethanolamine (88%)	0.50
Phase D	20.00
Alcohol SD 40	20.00
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00
Pigment Blend #F96-7	%W/W
Titanium Dioxide #3328	82.50
Cosmetic Brown Iron Oxide C33-5136	0.50
Cosmetic Yellow Iron Oxide C33-8073	14.00
7051 Cosmetic Iron Oxide Red	3.00

SOURCE: Van Dyk & Co., Inc.: Make-up Formulary: Formulation
#F96-7-2&3

MAKE-UP REMOVER

INGREDIENTS	%W/W
Part A:	
EMULGADE F (Cetearyl Alcohol (and) PEG-40 Castor Oil (and) Sodium Cetearyl Sulfate)	8.0
CUTINA CP (Cetyl Palmitate)	4.0
CUTINA BW (Glyceryl Hydroxystearate (and) Cetyl Palmitate (and) Microcrystalline Wax (and) Trihydroxystearin)	2.5
CETIOL J 600 (Oleyl Erucate)	3.0
CETIOL LC (Coco Caprylate/Caprates)	3.5
Part B:	
Water	78.9
Dowicil 200 (Quaternium 15)	0.1
Part C:	
Fragrance	q.s.

Procedure:

Mix and heat Part A - 65-70C. Heat Part B - 65-70C and add to A. Cool to 45C while mixing and add fragrance. Package at 35C.

Comments:

Non-greasy oil-free makeup remover. Ideal for oily skin.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula HOB-203-2

MAKE-UP REMOVER OIL

RAW MATERIALS	% By Weight
MAZER MAZOL 1400	12.0
MAZER MAPEG 200 DL	6.0
Mineral Oil (70 SUS)	82.0
Perfume	q.s.

Procedure:

Mix at room temperature. Filter. Pack. Low viscosity oil for removing make-up can be rinsed or tissue off.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation

MAKE-UP REMOVER

RAW MATERIALS	% By Weight
A.	
White soft paraffin	40.0
MIGLYOL 812 Neutral Oil	5.0
IMWITOR 780K	3.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream..

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.7

OIL FREE EYE MAKEUP REMOVER

RAW MATERIALS	% By Weight
GLUCAM P-10	2.7
GLUCAMATE SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	2.0
Boric Acid	0.3
Cocoamphocarboxyglycinate (and) Sodium Trideceth Sulfate (and) Hexylene Glycol	5.0
Deionized Water	90.0
Preservatives	q.s.

Procedure:

Dissolve GLUCAMATE SSE-20 and boric acid in water by gentle heating to 60C. Add the rest of the ingredients. Mix until clear.

Description:

Crystal clear solution designed to remove eye makeup without leaving an oily residue. GLUCAMATE SSE-20 serves as a mild surfactant that is used along with the amphoteric to gently dissolve makeup. GLUCAM P-10 offers water soluble emolliency to delicate tissue around the eye. Suitable for use with pads.

SOURCE: Amerchol Corp.: GLUCAM: Formulation T49-96-2

MASCARA

RAW MATERIALS	% By Weight
A.	
Veegum	2.0
Tylose CB 30 000	0.1
1,2-Propylene glycol	1.5
Water	68.0
Preservative	q.s.
B.	
MIGLYOL 812 Neutral Oil	2.0
Pigments	4.0
C.	
White beeswax	3.5
IMWITOR 191	2.0
Carnaubawax	5.0
Stearic acid	1.0
Arlatone T	2.0
D.	
Morpholine	0.4
Colophony	1.5
Luviskol VA 64	2.0
Ethanol 96%	5.0
Perfume	q.s.

Preparation:

A is mixed and heated to about 60C.

B is mixed, C is added to B and both phases are heated to 60C.

B + C are stirred into A.

D is dissolved and added at about 30C.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 2.3.1

WATER-IN-OIL MASCARA

RAW MATERIALS	% By Weight
A:	
VEEGUM	1.50
Water	31.28
PVP K-30	0.22
Crotein SPA	1.00
Propylene glycol	5.00
B:	
Petrolatum	3.00
Shell Sol 71	32.00
Carnauba wax	5.00
Waxenol 821 SB	5.00
Candellila wax	3.00
Paraffin	2.50
Witcamide 511C	5.00
C.	
Iron oxide	5.50
Preservative	q.s.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 376

MILD FACIAL CLEANSER

RAW MATERIALS	% By Weight
MIRANOL 2MHT Modified	20.0
MIRATAINE COB	10.0
Witconate AOS	15.0
Cedepon LA 30HV	10.0
Cedemide CX	2.0
Cerasynt IP	1.0
Water	42.0

Procedure:

Mix all ingredients except water and Cedepon LA 30HV together and heat to 60C to dissolve the Cerasynt IP. Add water and Cedepon LA 30HV. Adjust pH to 6.5 with citric acid.

Solids: 25.0%, viscosity: 3800 cps.

MILD FACIAL CLEANSER

RAW MATERIALS	% By Weight
MIRANOL 2MHT Modified	20.0
MIRANOL 2MCAS Modified	15.0
MIRATAINE COB	10.0
Cedemide CX	1.0
Water	54.0

Procedure:

Mix all ingredients together and agitate until uniform. Adjust pH to 7.0 with citric acid.

Solids: 22.0%, viscosity: 1000 cps.

SKIN CLEANSER

RAW MATERIALS	% By Weight
MIRANOL CS Conc.	20.0
MIRATAINE COB	10.0
CEDEPON LS 30PM	15.0
Cedemide CX	1.0
Ajidew N-50	1.0
Water	53.0

Procedure:

Mix all ingredients together and heat to 60C to dissolve the Cedemide CX. Adjust pH to 7.0 with citric acid.

Solids: 18.5%, viscosity: 1500 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulations

MOISTURIZER WITH VITAMIN A

INGREDIENT	% By Weight
I	
Deionized Water	89.1
Carbopol 934	0.2
II	
HYDROFOL ACID 1655	2.0
ADOL 52	1.0
STARFOL WAX CG	2.0
STARFOL IS	3.0
VARONIC LI-48	0.8
AROSURF 66-E2	0.8
III	
Deionized Water	0.7
Triethanolamine	0.3
IV	
Vitamin A Palmitate	0.1
V	
Preservative	qs

Mixing Instructions:

With rapid agitation, sprinkle Carbopol into the water. When dispersed heat to 75-80C. Heat Phase II to 75-80C. Add Phase II to Phase I with adequate agitation. Mix 10 minutes. Add Phase III. Cool to 30C with mixing. Add Phase IV.

Solids:	10.8%
pH:	7.0
Viscosity:	23,500 cps

SOURCE: Sherex Chemical Co.: Formulation Code 6.4.1

CATIONIC HAND AND BODY MOISTURIZER

RAW MATERIALS	% By Weight
Phase A:	
Almond Oil (Croda Super Refined)	10.00
Emulsifying Wax, NF (Polawax)	1.00
Lanolin Oil	1.50
Cetyl Alcohol	0.50
Stearyl Dimethyl Amine Oxide (Incromine Oxide S)	2.00
Behenyl Trimethyl Ammonium Methosulfate/Cetearyl Alcohol (Incroquat Behenyl TMS)	2.00
Phase B:	
Lactamide MEA (Incromectant LMEA)	2.00
Water	80.00
Phase C:	
GERMABEN II	1.00

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary - Supplement #1

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
---------------	-------------

A.	
VEEGUM	1.5
Water	74.5

B.	
Glycerin	4.0
Triethanolamine	1.0

C.	
Stearic acid xxx	2.0
Cetyl alcohol	2.0
Isopropyl myristate	2.0
Atmul 124	3.0
Lantrol	10.0

Preservative	q.s.
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Consistency: Medium viscosity cream

Suggested Packaging: Wide mouth jar

Comments: This cream can serve as the basis for a number of skin treatment products.

Formulation No. 271

PROTEIN MOISTURIZING LOTION

RAW MATERIALS	% By Weight
---------------	-------------

A.	
VEEGUM	1
Water	73

B.	
Glycerin	4
Polypeptide LSN	5
Triethanolamine	1

C.	
Lantrol	10
Isopropyl myristate	2
Stearic acid xxx	2
Cetyl alcohol	2

Preservative	q.s.
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Consistency: Viscous lotion

Suggested Packaging: Squeeze or pump bottle

SOURCE: R.T. Vanderbilt Co.: Cosmetics and Toiletries Formulary:
Formulation No. 162

MOISTURIZING LIP GLOSS

RAW MATERIALS	% By Weight
70% Pearl (in Castor Oil)	5.0
35% D.C. Red #7 (in Castor Oil)	5.0
Emerwax 1253	8.5
Candelilla Wax	3.0
Lanolin	11.0
Alcolec 4135	2.0
"Ultra" grade Emulan Mink Oil	52.5
SCHERCOMID AME-70	12.5
Perfume	0.5

This is a W/O absorption base. It provides high sheen to the lips and feels soft and creamy under normal use conditions.

Formulation SG-0207

LIPSTICK

RAW MATERIALS	% By Weight
Part A:	
Lanolin	10.0
Petrolatum	5.0
SCHERCEMOL ML	10.0
Sesame Oil	19.2
Ozokerite No. 4	7.5
Beeswax	7.5
Carnauba	5.0
SCHERCOMID AME-70	5.0
Preservative	qs
Part B:	
Color Pigments	1.6
Bismuth Oxychloride (and) Castor Oil	14.0
SCHERCEMOL DO	15.0

Grind color in phase B. Add pearl after grinding. Melt phase A to 80C and add B to A at 70-80C.

Formulation SG-0206

SOURCE: Scher Chemicals, Inc.: SCHERCOMID AME-70: Suggested Formulations

MOISTURIZING LIPSTICK

INGREDIENTS	% W/W
Phase A:	
Ross White Ozokerite Wax #1544 (Ozokerite)	3.00
Ross Refined Candelilla Wax (Candelilla Wax)	8.00
Ross Refined #1 Yellow Carnauba Wax (Carnauba)	3.00
Ross White Beeswax (Beeswax)	2.00
CERAPHYL 50-S (Myristyl Lactate)	5.00
CERAPHYL 375 (Isostearyl Neopentanoate)	7.60
Crystal Crown (Castor Oil)	30.40
Penreco 7 (Mineral Oil)	10.00
Lantrol 1674 (Lanolin Oil)	5.00
Propylparaben	0.15
Antioxidant	0.05
Phase B:	
#6905 D&C Orange #5-Zr. Lake (D&C Orange No. 5 Zirconium Lake)	4.50
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	10.50
Phase C:	
#6627 D&C Red #27-Zr. Lake (D&C Red No. 27 Zirconium Lake)	0.76
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	1.14
Phase D:	
FD&C Blue #1 Al. Lake in Castor Oil	1.60
Phase E:	
LUSTRA-PEARL GLOSS (Mica (and) Titanium Dioxide)	5.50
LUSTRA-PEARL GOLD (Mica (and) Titanium Dioxide (and) Iron Oxide)	1.50
Phase F:	
Fragrance	0.30
	100.00

Procedure:

Prepare Phase B and Phase C using two passes over a three roll mill at room temperature. Combine Phase A and heat to 85C while stirring until melted clear and homogeneous. Cool to 75C and add Phase B, Phase C, Phase D and Phase E to it and after each addition mix thoroughly. Cool to just above congealing point. Mix Phase F and pour into molds.

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation #P100-49

MOISTURIZING MILK

RAW MATERIALS	% By Weight
A.	
IMWITOR 940	3.0
MIGLYOL 812 Neutral Oil	7.0
Almond oil	5.0
IMWITOR 375	3.0
Antioxidants	q.s.
B.	
Hygroplex HHG	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and slowly emulsified into A.

C is stirred in at about 40C. Before filling it is beneficial to homogenize the lotion

Formulation 1.3.5

ORANGE BEAUTY MILK

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
IMWITOR 375	5.0
MIGLYOL 812 Neutral Oil	5.0
MIGLYOL 818	2.0
B.	
Lemon oil	0.3
C.	
Preservative	q.s.
D.	
Ascorbic acid	0.2
Water	5.0
E.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C and then B is added.

C is heated to the same temperature and slowly emulsified into A + B.

D and E are stirred in at about 30C.

Before filling it is beneficial to homogenize the cream.
Formulation 1.3.6

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

NONIONIC MAKE-UP MOUSSE

INGREDIENTS	%W/W
Phase A:	
EMULSYNT GDL (Glyceryl Dilaurate)	2.00
CERASYNT 945 (Glyceryl Stearate (and) Laureth-23)	2.00
Promulgen D (Cetearyl Alcohol (and) Cetareth-20)	1.00
Cetyl Alcohol	0.50
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
CERAPHYL 140-A (Isododecyl Oleate)	4.00
Phase B:	
Water, deionized	48.50
Methocel K4M (2% Soln.) (Hydroxypropyl Methylcellulose)	5.00
Propylene Glycol	2.00
* Pigment Blend #F96-7	12.00
Phase C:	
Alcohol SD 40	20.00
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	1.00

Procedure:

Combine water, Methocel and Propylene Glycol, and heat to 80C with mixing. Slowly add Pigment Blend, mixing well to disperse completely. Combine Phase A and heat to 80C. Add Phase A to Phase B and cool to 45C. Add Alcohol, then Germaben. Cool to room temperature and fill.

Fill:

95% Concentrate and 5% Propellant A-46
Precision Valve 2X.020 inverted. Foam Spout #02-1512

* Pigment Blend #F96-7	%W/W
Titanium Dioxide #3328	82.50
Cosmetic Brown Iron Oxide C33-5136	0.50
Cosmetic Yellow Iron Oxide C33-8073	14.00
7051 Cosmetic Iron Oxide Red	3.00

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation
#F98-14-1

O/W-CLEANSING-MILK

RECIPE:	% By Weight
A.	
HOSTAPHAT KL 340 N	2.00
HOSTACERIN DGS	6.00
Mineral oil, high viscosity	15.00
Cetiol SN	8.00
Solulan 98	2.00
Cetyl alcohol	2.00
B.	
HOSTACERIN PN73*	0.10
C.	
Water, preservative	64.60
D.	
Dyestuff solution	q.s.
Perfume	0.30

* Alternative thickeners could also be used.

SOURCE: Hoechst: Kosmetik Guide Formulations: Formulation
A VI/4001

REGENERATING MILK W/O

RAW MATERIALS	% By Weight
Phase A:	
Arlacel 83 S	3.0
Amerchol CAB	5.0
Amerchol L 99	5.0
Norasoft C 24	5.0
Paraffin oil	10.0
Beeswax	5.0
Phase B:	
Water, preservative	57.6
Glycerine	5.0
Phase C:	
PLACENTOL	4.0
Phase D:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 35C and then add phase C.
4. At 30C add phase D and stir cold.

SOURCE: Pentapharm Ltd: Guide Formulations: Code No. PL 1311

O/W, LIQUID MAKE-UP

RAW MATERIALS	% By Weight
Phase A:	
Magnesium Aluminum Silicate (Veegum)	0.76
Xanthan Gum	0.15
Water	66.88
Glycerin	3.21
Citric Acid	0.30
GERMABEN II-E	1.00
Phase B:	
Talc (and) Bismuth Oxychloride (Bitol)	5.00
Silvery or Color Timirons (Rona Pearl)	8.70
Phase C:	
Mineral Oil (and) Lanolin Alcohol	4.90
Myristyl Myristate	2.60
Hydrogenated Polyisobutene	2.00
Oleyl Alcohol	2.00
Stearyl Alcohol (and) Steareth-20 (and) Steareth-10 (Cosmowax)	2.00
Polysorbate 85	0.50

Procedure:

Blend the Veegum with the Xanthan gum. Homomix the water at high sheer and sprinkle the gums to obtain a uniform smooth slurry. Stop mixing and add the glycerin, citric acid and GERMABEN II-E. Mix until uniform. Blend B and add A at low speed. Heat A/B and C to 65C. Add C to A/B and cool.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary-Supplement #1 - Suggested Formulation

WATERPROOF MAKEUP

RAW MATERIALS	% By Weight
Oil Phase:	
Polyglycerol-4 Monooleate (Witconol 14)	3.00
Aluminum Stearate	1.50
Paraffin Wax, 143F m.p. (Aristowax 143)	5.00
Mineral Oil, 70 sus. visc.	23.50
Pigment Blend (cf. Infra.)	8.00
Water Phase:	
GERMALL II	0.20
Methylparaben	0.15
Propylparaben	0.10
Deionized Water	58.55
Pigment Blend:	
Oil Dispersible TiO ₂	87.80
Low Micron Umber	5.20
Cosmetic Yellow Iron Oxide	5.20
Cosmetic Red Iron Oxide	1.80

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formula

O/W-SKINMILK

RECIPE:	% By Weight
A.	
HOSTAPHAT KL 340 N	1.00
HOSTACERIN DGS	4.00
Wheat germ oil	2.00
Soya oil	5.00
Isopropyl palmitate	3.00
B.	
HOSTACERIN PN 73*	0.50
C.	
Glycerol	3.00
Water, preservative	81.30
D.	
Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
 - II Heat C to 70C.
 - III Stir II into I.
 - IV Stir until cool.
 - V Add D to IV at 40C.
 - VI Homogenize if necessary.
- Formulation A VI/1111

W/O-SKINMILK

RECIPE:	% By Weight
A.	
HOSTACERIN WO	2.00
Arlacel 989	2.00
Mineral oil, low viscosity	15.00
Isopropyl palmitate	5.00
Eutanol G	5.00
B.	
Sodium chloride	2.00
Water, preservative	68.70
C.	
Perfume	0.30

Procedure:

- I Melt A at 80C.
 - II Stir the solution of B into I at room temperature.
 - III Stir until cool.
 - IV At 40C add C to III.
 - V Homogenize if necessary.
- Formulation A VI/2202

O/W - SKINMILK
without mineral oil

RECIPE:	% By Weight
A.	
HOSTAPHAT KL 340 N	2.00
HOSTACERIN DGS	4.00
Avocado oil	3.00
Isopropylpalmitate	7.00
B.	
HOSTACERIN PN 73	0.50
C.	
Water, preserving agent	83.20
D.	
Perfume	0.30

Procedure:

- I Melt A at 70C.
 - II Add B to A.
 - III Heat C to 70C.
 - IV Stir III into II.
 - V Stir until cool.
 - VI Add D to V at 40C.
 - VII Homogenization is necessary.
- Formulation No. A VI/1103

O/W-SKINMILK

RECIPE:	% By Weight
A.	
HOSTAPHAT KL 340 N	1.00
HOSTACERIN DGS	4.00
Paraffin oil, high viscosity	8.00
Isopropylpalmitate	4.00
Cetiol V	3.00
B.	
HOSTACERIN PN 73	0.40
C.	
Water, preserving agent	79.30
D.	
Perfume	0.30

Procedure:

- I Melt A at 70C, then add B.
 - II Heat C to 70C.
 - III Stir II into I.
 - IV Stir until cool.
 - V Add D to IV at 40C.
 - VI Homogenization is necessary.
- Formulation No. A VI/1107

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

PEARLESCENT LIPSTICK

INGREDIENTS

% By Weight

Phase A:

Ross White Ozokerite Wax #1544 (Ozokerite)	3.00
Ross Refined Candelilla Wax (Candelilla Wax)	9.00
Ross Refined #1 Yellow Carnauba Wax (Carnauba)	3.00
Ross White Beeswax (Beeswax)	2.00
EMULSYNT GDL (Glyceryl Dilaurate)	5.00
CERAPHYL 41 ((C12-15 Alcohol Lactate)	5.00
CERAPHYL 375 (Isostearyl Neopentanoate)	12.00
Crystal Crown (Castor Oil)	26.00
Lantrol 1674 (Lanolin Oil)	9.20
Penreco 7 (Mineral Oil)	5.00
ESCALOL 507 (Octyl Dimethyl PABA)	2.00
Propylparaben	0.15
Antioxidant	0.05

Phase B:

#6905 D & C Orange #5 - Zr. Lake (D & C Orange #5 Zirconium Lake)	2.25
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	5.25

Phase C:

FD&C Blue #1 Al. Lake in Castor Oil	0.80
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Phase D:

LUSTRA-PEARL SILK (Mica (and) Titanium Dioxide)	10.00
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Phase E:

Fragrance	0.30
	100.00

Procedure:

Prepare Phase B using two passes over a three roll mill at room temperature. Combine Phase A and heat to 85C while stirring until melted clear and homogeneous. Cool to 75C and add Phase B, Phase C and Phase D to it and after each addition mix thoroughly. Cool to just above congealing point, mix Phase E and pour into molds.

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Formulation #P107-23

PINK OIL MOISTURIZER

(Match to Luster's Pink Oil Moisturizer Hair Lotion)

RAW MATERIALS	Sequence	% By Weight
Deionized water	1	56.83
Borax	1	0.40
dl-Panthenol 50%	1	0.10
Benzoic Acid	1	0.10
Britol-7	2	20.00
Fancol LAO	2	12.00
LIPOBEE 102	2	6.00
Perlatum-510	2	3.00
LIPOSORB O	2	1.00
UVATONE 2-6	2	0.25
Dehydroacetic Acid	2	0.10
Fragrance	3	0.20
D&C Red #33 (1% sol'n)	4	0.02

Manufacturing Procedure:

1. Heat Sequence 1 ingredients to 80C under Lightnin' mixing.
2. Heat Sequence 2 ingredients to 80C under Lightnin' mixing.
3. Add Sequence 2 to Sequence 1 under vigorous Lightnin' mixing. Maintain stirring for 15 minutes at temperature. Cool to 42C with stirring.
4. Add Fragrance at 42C.
5. Add Sequence 4 at 40C and cool to room temperature.

SOURCE: Lipo Chemicals Inc.: Formulation No. 344

NONIONIC MOISTURIZER FOR DRY SKIN

INGREDIENTS	%W/W
Part A:	
CUTINA MD (Glyceryl Stearate)	6.00
EUMULGIN B-1 (Cetareth-12)	4.00
LANETTE 16 (Cetyl Alcohol)	4.00
GENEROL 122E-10 (PEG-10 Soya Sterol)	3.00
CETIOL V (Decyl Oleate)	14.00
CETIOL LC (Coco Caprylate/Caprates)	10.00
Part B:	
Water	49.00
Sorbitol	5.00
Part C:	
ELASTIN CLR	5.00
Preservative, dyes and fragrance	q.s.
Comments:	

This highly effective cream features CETIOL V which is a close match to the skin's natural oils and CETIOL LC which reduces any feelings of greasiness.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formula H-4805

PRESSED EYE SHADOW

INGREDIENTS	%W/W
Phase A:	
Talc 141	32.75
Zinc Stearate	5.00
Germall 115 (Imidazolidinyl Urea)	0.15
Phase B:	
SPECTRA-PEARL GNG (Mica (and) Chromium Oxide Greens (and) Titanium Dioxide)	50.00
Phase C:	
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	12.00
Methylparaben	0.10

Procedure:

Mix Phase A in a P-K blender. Add Phase B to it and mix thoroughly. Heat Phase C separately until clear, cool to room temperature. Add Phase C to Phase "AB" through liquid injector intensifier bar and mix until uniform. Press the blend and package.

Formulation #P110-28

PRESSED EYE SHADOW/BLUSH

INGREDIENTS	%W/W
Phase A:	
Talc 141	32.75
Zinc Stearate	5.00
Germall 115 (Imidazolidinyl Urea)	0.15
Phase B:	
SPECTRA-PEARL MTW (Mica (and) Titanium Dioxide (and) Carmine)	50.00
Phase C:	
CERAPHYL 847 (Octyldodecyl Stearoyl Stearate)	12.00
Methylparaben	0.10

Procedure:

Mix Phase A in P-K blender. Add Phase B to it and mix thoroughly. Heat Phase C separately until clear, cool to room temperature. Add Phase C to Phase "AB" through liquid injector intensifier bar and mix until uniform. Press the blend and package.

Formulation #P110-29

SOURCE: Van Dyk & Co., Inc.: Make-Up Formulary: Suggested Formulations

PRESSED POWDER EYE SHADOW

RAW MATERIALS	% By Weight
VEEGUM F	7
Talc	50
Zinc oxide	4
Zinc stearate	11
VANCLAY Kaolin	10
Pigment	18
Preservative	q.s.

Procedure:

Mix all ingredients together. Press to desired hardness.

Consistency: Firm cake

Suggested Packaging: Compact

Comments:

VEEGUM F serves as the binder in this formula giving a firm cake with good payout. Apply with a brush or eye shadow applicator. This formula can also be packaged as a loose powder. VEEGUM F promotes good flowability of powders.

Formulation No. 169

PRESSED POWDER PEARLESCENT EYE SHADOW

RAW MATERIALS	% By Weight
A:	
VEEGUM F	5
Timica Pearl white	35
Talc	29
Zinc stearate	8
Magnesium carbonate	1
B:	
Acetol 1706	3
Tween 20	9
Water	10
Preservative	q.s.

Procedure:

Micropulverize A. Mix B until uniform and add to A. Mix until uniform. Screen through a No. 16 sieve and compress to desired hardness.

Consistency: Firm cake

Suggested Packaging: Compact

Comments:

VEEGUM F serves as the binder in this formula giving a firm cake with good payout. To apply to eyelid, wet brush and rub on cake surface.

Formulation No. 214

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

PROTECTIVE/MOISTURIZING LIP GUARD

INGREDIENTS	% By Weight
Part I:	
Lantrol	8.20
Bleached Beeswax	30.00
Carnation Mineral Oil	26.00
Witconol 14F	2.00
Aristowax 143	15.00
Parsol MCX	2.00
Parsol 1789	0.50
Butylated Hydroxytoluene	0.06
Part II:	
Deionized Water	9.00
Fructose, USP-FCC (Code 54016)	2.00
Tween 20	2.00
Glycerin USP	2.00
Dexpanthenol (Code 63909)	0.10
Sorbistat	0.20
Part III:	
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Liquid Vitamin A Palmitate* (Code 63828)	0.10
Liquid Vitamin D3 (Code 63643)	0.01
Flavor	0.10
Part IV:	
Deionized Water	q.s. to 100.0

* Vitamin A & D3 Blend
(5:1 ratio) (Code 63857) may be used instead of the individual
vitamins.
0.1% is recommended.

Procedure:

- A. Weigh ingredients of Part I into a suitable container. Heat to 75C. Stir until completely homogeneous.
- B. Mix Part II ingredients in a separate container. Heat to 70C.
- C. Add Part II to Part I with stirring.
- D. Cool to 55C. Add Part III. Stir until uniform.
- E. Pour into molds.

SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
Formulation SC 416

ROLL-ON LIP GLOSS (14D)

RAW MATERIALS	% By Weight
LANTROL 1673 Lanolin Oil	55.0-65.0
Indopol H-100	25.0
Fragrance	5.0-10.0
EMEREST 2384 Propylene Glycol Isostearate	0.0-10.0

This formulation yields an excellent moisturizing lip product which is easy to apply in roll-on form. By varying the amounts as shown, an optimum formulation can be achieved for the desired results.

Procedure:

Add all ingredients in order with mixing until homogeneous. The use of EMEREST 2384 is recommended only for fragrances which are not soluble.

SUPER GLOSS LIP POT (2244-114-01)

RAW MATERIALS	% By Weight
LANTROL 1673 Lanolin Oil	20.0
PROPOXYOL 1695 PPG-5 Lanolin Wax	47.5
Bentone Gel LANTROL	20.0
Multiwax 180M	3.5
Super Pearl	2.5
20% D&C Red #6 Barium Lake milled in EMEREST 2452	
Polyglyceryl-3 Diisostearate	5.0
Perfume	1.5

This lip pot preparation features a smooth and creamy consistency, thus providing excellent coverage.

Procedure:

Weigh all ingredients except perfume and heat to 85-90C. Mix thoroughly to cool to 65-70C. Perfume and package.

LIP POMADE (2244-105-01)

RAW MATERIALS	% By Weight
LANTROL 1673 Lanolin Oil	10.0
EMEREST 1723 Isopropyl Lanolate	35.5
CLEARLAN 1650 Lanolin	8.0
NIMLESTEROL 1732 Liquid Absorption Base	15.0
Ozokerite, 180F	15.0
Mineral oil (70 visc.)	16.5

This formula imparts a smooth feel to the lips, leaving a nongreasy film.

SOURCE: Emery Chemicals: LANTROL Lanolin Oil: Formulations

ROUGE-EMULSION TYPE

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	39.4
Oleic Acid	7.3
Dry Ingredients:	
Titanium Dioxide	0.6
Zinc Stearate	0.42
Pigment	0.42
Aluminum Hydroxide	0.36
Water	47.7
Triethanolamine	3.7
Methyl P-hydroxybenzoate	0.1
Perfume	q.s.

ROUGE-EMULSIFIED CREAM

RAW MATERIALS	% By Weight
WHITE PROTOPET 1S Petrolatum	24.0
CARNATION White Mineral Oil	22.0
White Beeswax	12.0
Spermaceti	8.0
Borax	0.8
Water	30.0
Pigment	3.1
Methyl P-hydroxybenzoate	0.1
Perfume	q.s.

ROUGE-ANHYDROUS CREAM

RAW MATERIALS	% By Weight
WHITE PROTOPET 1S Petrolatum	76
CARNATION White Mineral Oil	8
Lanolin	4
Zinc Oxide	5
Pigments	7
Perfume	q.s.

SOLID ROUGES

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	22.5
Isopropyl Myristate	45.0
Carnauba Wax	8.8
Lanolin	4.0
Color	19.7
Perfume	q.s.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics
Industry: Technical Bulletin No. 1001

SKIN CLEANSER

RAW MATERIALS	% By Weight
MIRANOL C2M Conc. N.P.	20.0
MIRANOL 2MHT Modified	10.0
MIRATAINE COB	8.0
Cedemide CX	2.0
Kessco PEG 6000 Distearate	1.0
Water	59.0

Procedure:

Mix all ingredients and heat until uniform. Adjust pH to 7.0 with citric acid.

Solids: 20.8%, viscosity: 3800 cps.

SKIN CLEANSER

RAW MATERIALS	% By Weight
MIRANOL C2M Conc., N.P.	20.0
MIRATAINE COB	3.5
Witconate AOS, 40%	8.0
Cedepon LA 30 HV	5.0
Propylene Glycol	2.0
Cedemide CX	1.0
Water	60.5

Procedure:

Blend all ingredients and adjust pH to 6.5 with citric acid.

Solids: 18.9%, viscosity: 3800 cps.

CONDITIONING FACIAL AND BODY CLEANSER

RAW MATERIALS	% By Weight
MIRANOL H2M Conc.	25.0
MIRATAINE COB	10.0
Cedepal SN 303	10.0
Sodium Lauroyl Sarcosinate	8.0
Cedemide CX	2.0
Propylene Glycol	1.0
Water	44.0

Procedure:

Blend all ingredients and adjust pH to 7.0 with citric acid.

Solids: 24.4%, viscosity: 3400 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Suggested Formulations

SKIN-MILK

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	4.0
DYNACERIN 660	5.0
MIGLYOL 812 Neutral Oil	5.0
IMWITOR 375	3.0
Silicon Oil AR 200	3.0
Emulgade F	5.0
B.	
Carbopol-Gel 1%	10.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.
Preparation of Carbopol-Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Preparation:

A is melted and heated to 75-80C.

B is heated to the same temperature and is gradually stirred into A.

C is added at about 30C.

Formulation 1.3.7

SKIN REJUVENATING OIL

RAW MATERIALS	% By Weight
MIGLYOL 812 Neutral Oil	50.0
MIGLYOL 840	40.0
MIGLYOL 818	3.0
Wheatgerm oil	3.0
Perostron in oil	1.0
Placentaliquid soluble in oil	3.0
Antioxidants	q.s.
Perfume	q.s.

Preparation:

All the ingredients are mixed one after the other at room temperature.

Formulation 1.5.3

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

SKIN MOISTURIZING BASE SP-104

RAW MATERIALS	% By Weight
Part A:	
PEG-8 Stearate	1.31
SF-96 (100)	6.50
Myristyl Alcohol	3.80
Arlacel 165	4.00
Monawet M085P	0.17
Myristyl Lactate	2.70
Lanaetex 75	2.70
Methyl Paraben	0.17
Part B:	
Disodium EDTA	0.05
Tenox-6	q.s.
Water	78.60

Procedure:

- 1) Heat Part A and Part B to 80C.
- 2) Add Part A to Part B with agitation.
- 3) Continue to mix until product is cooled to 25C. Force cool if needed.

Comments:

- Methylparaben may be added to Part B or it may be substituted with 0.8% GERMABEN II-E5.
- Greater viscosity may be achieved by replacing the myristyl alcohol with cetyl, cetearyl, stearyl or behenyl alcohol.
- Greater elegance may be achieved by replacing SF-96 (100) with SF-1214.

SOURCE: GE Silicones: Personal Care Formulary: Formulation
SP-104

FACE WATER

RAW MATERIALS	% By Weight
CREMOPHOR NP 10	0.6
CREMOPHOR NP 14	0.4
(+)-ALPHA-BISABOLOL rac.	0.2
Ethanol 96%	16.0
Water	82.8

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

SKIN MOUSSE

RAW MATERIALS	% By Weight
Phase A:	
Isodecyl Oleate (Ceraphyl 140-A)	5.00
Octyl Dimethyl PABA (Escalol 507)	1.50
Cetyl Alcohol	0.50
Stearic Acid, XXX	5.00
PEG-20 Stearate (Cerasynt 840)	1.00
Phase B:	
Water, Deionized	62.40
Hydroxypropyl Methylcellulose (Methocel K4M)	0.10
Propylene Glycol	2.00
Phase C:	
Triethanolamine (88%)	0.50
Phase D:	
Ethanol SD 40	20.00
GERMABEN II	1.00
TEA Coco-Hydrolyzed Animal Protein (and) Sorbitol (Supro-Tein V)	1.00

Procedure:

Disperse Methocel in water. Heat to 80C. Add Propylene Glycol. Heat Phase A to 80C and add to Phase B. Add Phase C and agitate, with constant temperature, 10-15 minutes to saponify. Cool to 45C and add Phase D. Cool to room temperature and fill.

SKIN MOUSSE

RAW MATERIALS	% By Weight
Emulsifying Wax NF (Polawax)	6.00
Sucrose Distearate (Crodesta F-10)	2.50
Super Refined Shark Liver Oil	5.00
BHA	0.05
Lauryl Dimethyl Ammonium Hydrolyzed Collagen Protein (Croquat L)	0.50
TEA-Lauroyl Collagen Amino Acid (Aminofoam C)	0.50
Deionized Water	79.45
Acetamide MEA (Incromectant AMEA 70)	5.00
GERMABEN II	1.00

Procedure:

Combine oil and heat to 80C under high agitation. Combine water phase and heat to 80C. Add water phase to oil phase maintaining high agitation to incorporate air in to the system until the volume has increased by 30-50%. Cool to 40C and fill.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulations

SUPER GLOSS LIPSTICK (2244-121-01)

RAW MATERIALS	% By Weight
LANTROL 1673 Lanolin Oil	10.0
Carnauba wax	5.0
Ozokerite, 180F	3.5
Multiwax 180M	2.5
Steareth-2	6.5
Mineral oil (70 visc.)	7.5
Tenox 2	0.2
Beeswax	8.0
25% D&C Red #7 Calcium Lake milled in EMEREST 2452 Polyglyceryl-3 Diisostearate	15.0
25% D&C Red #6 Barium Lake milled in EMEREST 2452 Polyglyceryl-3 Diisostearate	25.0
EMEREST 1723 Isopropyl Lanolate	10.0
Candellila wax	5.0
Perfume	1.8

This lipstick imparts a soft and creamy feel on the lips.

Procedure:

Heat all ingredients except perfume to 85-90C. Mix gently and cool to 75C. Perfume, deaerate, and pour into molds. Chill and remove from molds. Flame polish.

SUPER GLOSS LIPSTICK (MS-322)

RAW MATERIALS	% By Weight
LANTROL 1673 Lanolin Oil	43.5
Carnauba wax	1.5
Ozokerite, 170F	6.5
Beeswax	2.5
PROPOXYOL 1695 PPG-5 Lanolin Wax	10.0
Candellila wax	8.0
Oleyl alcohol	10.0
Mineral oil (355 visc.)	5.0
Tenox 4	0.1
Propyl paraben	0.1
25% pigments in LANTROL 1673 Lanolin Oil	10.0
Pearlwhite	2.5
Perfume	0.3

This formula imparts a nice, emollient feel to the lips. It has excellent pigment release.

Procedure:

Combine all but the last two ingredients and heat to 85C. Stir until all waxes are melted. Add pearl and perfume; mix until homogeneous and pour into molds.

SOURCE: Emery Chemicals: LANTROL Lanolin Oil: Formulations

SUPER REFINED OIL MOISTURIZER

RAW MATERIALS	% By Weight
Emulsifying Wax, N.F. (Polawax)	3.00
Super Refined Almond Oil	5.00
Super Refined Shark Liver Oil	10.00
Myristyl Myristate (Crodamol MM)	1.00
Lanolin (Super Corona Lanolin Anhydrous)	2.00
Stearic Acid, XXX	3.00
Propylparaben	0.10
BHA	0.05
Stearoxy Dimethicone (Silicone copolymer F755)	2.00
Deionized Water	62.15
Propylene Glycol USP	5.00
Carbomer 941 (Carbopol 941)	0.30
Methylparaben	0.20
GERMALL II	0.20
Triethanolamine (99%)	1.50
Soluble Reticulin (Reticusol)	1.00
Hydrolyzed Elastin (Crolastin)	1.00
Collagen Amino Acids (Crotein CAA S.F.)	1.00
Soluble Collagen (Collasol)	1.00
Fragrance	0.50

Product Characteristics:

A highly emollient moisturizer for day or night use provides a natural moisturizing function.

Procedure:

Charge batch vessel with water and propylene glycol. Begin mixing. Completely disperse Carbopol. Heat to 78C. Add methyl paraben and GERMALL. When completely dissolved, slowly add triethanolamine. In a separate vessel, combine oil phase to water phase. Cool. At 40C, add protein phase and fragrance. Cool to room temperature and fill off.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

VITAMIN F SKIN MOISTURIZER

INGREDIENTS	%W/W
Part A:	
Stearic Acid	4.0
CETIOL MM (Myristyl Myristate)	5.0
Mineral Oil	10.0
LANETTE O (Cetearyl Alcohol)	1.5
VITAMIN F FORTE CLR (Linoleic Acid (and) Linolenic Acid (and) Arachidonic Acid)	1.0
Part B:	
Water	76.8
Carbopol 941 (Carbomer 941)	0.2
Part C:	
Triethanolamine	1.0
Part D:	
Dowicil 200 (Quaternium-15)	0.1
D & C Yellow #5 (0.1% aq.)	0.2
Fragrance	0.2

Procedure:

1. Mix and heat Part A 65-70C.
2. Disperse Carbopol 941 into water and mix Part B.
3. Add Part C to Part B and heat 65-70C.
4. Add Part (B + C) to Part A and mix until cooled to 40C.
5. Add Part D when cooled to 35-40C.
6. Adjust pH to 7.5+/-0.2.

Comments:

This simple TEA-stearate emulsion is enhanced by the special feel CETIOL MM contributes. CETIOL MM refines the effect of plain mineral oil by making the lotion feel like it is melting into the skin. It leaves the skin feeling talc-like and velvety smooth.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation H-4824

WATER-IN-OIL COSMETIC EMULSION - HIGH VISCOSITY LOTION

RAW MATERIALS	% By Weight
Phase A:	
WITCONOL 14 (Polyglycerol-4 Oleate)	1.5
Carnation White Mineral Oil	9.0
WITCO Aluminum Stearate EA (Food Grade)	0.7
PERFECTA Petrolatum	2.3
Phase B:	
Methylparaben	0.15
Propylparaben	0.10
Fragrance, Color	q.s.
Water	q.s. to 100

WATER-IN-OIL COSMETIC EMULSION - SOFT CREAM

RAW MATERIALS	% By Weight
Phase A:	
WITCONOL 14 (Polyglycerol-4 Oleate)	5.0
Carnation White Mineral Oil	5.5
WITCO Aluminum Stearate EA (Food Grade)	2.5
Perfecta Petrolatum	10.5
Aristowax 143	5.5
Phase B:	
Methylparaben	0.15
Propylparaben	0.10
Fragrance, Color	q.s.
Water	q.s. to 100

Heat Phase A to 90 to 95C. Stir at this temperature until uniform (about 15 minutes).

Add Phase B, preheated to 90 to 95C, to oil Phase A with moderate agitation. Maintain agitation for 15 minutes at 90C and during cooling. Pour at or below 35C.

These emulsions are recommended for use as night creams, moisturizing creams or cleansers. They are characterized by excellent emulsion viscosity stability on extended storage. Unlike most water-in-oil emulsions prepared as above, these exhibit none of the characteristic greasiness, and they spread quite easily and rapidly on the skin. Since water is the internal phase in these emulsions, they do not evaporate as readily as oil-in-water types on application. Thus small amounts should be applied and spread over a wide skin area.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 112C

WATER-IN-OIL LUXURIOUS MAKEUP

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.2
Water	37.9
Magnesium sulfate	0.4
B.	
Talc	5.5
VANCLAY Kaolin	1.5
Titanium dioxide	5.0
Iron oxides	3.0
C.	
Carnation White Mineral Oil	15.0
Polysynlane	8.0
Ritachol	8.0
Lanapene	7.0
Sorbitol 70%	5.0
Witcamide 511C	2.5
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the magnesium sulfate and mix until smooth. Grind B and add to A, mixing until uniform. Add A/B to C. Mix until smooth and uniform.

Consistency: Fluid lotion

Suggested Packaging: Liquid makeup container.

Comments:

This formula is a cold process water-in-oil emulsion stabilized by VEEGUM. VEEGUM also controls the viscosity and insures uniform color throughout the product. It is a moisturizing makeup for dry skin.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 332

WATERPROOF MAKE-UP

RAW MATERIALS	% By Weight
A.	
Silicone Oil AR 200	30.0
Stearic acid	7.0
Cetyl alcohol	2.0
SOFTIGEN 767	4.0
B.	
Water	ad 100.0
Preservative	q.s.
C.	
Triethanolamine	0.6
D.	
Pigments:	
Zinc oxide	3.0
Talcum	3.0
Titanium dioxide	3.0
Iron oxide brown PC 1218	0.5
Cosmetic Sienna Oxide CS-10051	0.5
E.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is also heated.

After heating up, C is added to B, then B is emulsified into A.

The pigments are pulverized and then the cream is portionwise stirred to the pigments.

Perfuming is done below 40C.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 2.1.3

UNDER MAKE-UP FOUNDATION

RAW MATERIALS	% By Weight
Part A:	
Carbopol 941	0.5
Water	61.5
Part B:	
Lanogene	5.0
Mink Oil	3.5
MAZER MACOL 125	3.0
Part C:	
TEA	0.5
Ethanol, SDA 40, 95%	26.0

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 17

W/O - SKINMILK
without mineral oil

Recipe	% By Weight
A.	
HOSTACERIN WO	6.00
Arlacel 989	3.00
Isopropylpalmitate	10.00
Perhydrosqualene	15.00
B.	
Water, preserving agent	65.60
C.	
Perfume	0.40

Procedure:

- I Heat A and B to 80C.
- II Stir B into A.
- III Stir until cool.
- IV Add C to III at 40C.

SOURCE: Hoechst Celanese Corp.: Formulation No. A VI/2201

SKIN TONIC

INGREDIENT	% By Weight
Demineralized Water	87.3500
TONIQUE #216 HS	4.0000
STIMULANT #280 HS	4.0000
ORGANIC SILICONE AMI	1.5000
DC 193 Surfactant	0.5000
TRI-SEPT M	0.2000
TRI-SEPT P	0.0500
Propylene Glycol USP	1.0000
ABIOL	0.2000
Tween 20	1.0000
Perfume	0.2000

Procedure:

1. Predisperse the fragrance in Tween and set aside.
2. Dissolve the methyl/propyl parabens in the propylene glycol and set aside.
3. Charge water to main tank and with prop agitation, add herbals and silicones.
4. Mix well until fully dissolved and uniform.
5. Add Paraben/Glycol blend and mix until dissolved and uniform.
6. Add Fragrance/Tween blend and mix until fully dissolved and uniform.

SOURCE: TRI-K Industries, Inc.: Formulation Code AMI.010.

Section V

Creams

ACID-PH OIL-IN-WATER CREAM - A

RAW MATERIALS	Parts by Weight
Oil Phase:	
WITCONOL MST (Glyceryl Stearate)	8.0
WITCONOL APM (PPG-3 Myristyl Ether)	8.0
Perfecta Petrolatum	5.0
Witconol H-35A (PEG-8 Stearate)	2.0
Emphos D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	2.0
Propylparaben	0.1
Water Phase:	
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	5.0
Glycerin USP	5.0
Methylparaben	0.15
Fragrance, Color	q.s.
Water	q.s. to 100

ACID-PH OIL-IN-WATER CREAM - B

RAW MATERIALS	% By Weight
Oil Phase:	
WITCONOL MST (Glyceryl Stearate)	10.0
WITCONOL APM (PPG-3 Myristyl Ether)	3.0
Perfecta Petrolatum	5.0
WITCONOL H-35A (PEG-8 Stearate)	5.0
WITCAMIDE MAS (Stearamide MEA Stearate)	3.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	2.0
Propylparaben	0.1
Water Phase:	
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	3.0
Glycerin USP	3.0
Methylparaben	0.15
Fragrance, Color	q.s.
Water	q.s. to 100

Heat each phase to 70 to 75C and stir until uniform. Add the Water Phase to the Oil Phase at 70 to 75C with moderate agitation and maintain agitation and temperature for 15 minutes. Let cool, with slow stirring; avoid air entrainment during cooling cycle. Pour at or below 28C.

These creams have a white glossy texture and offer excellent emulsion stability on extended storage.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation No. 144C

ACNE CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
MIGLYOL 840	8.0
Lanette N	5.0
B.	
Propylene glycol	3.0
Allantoin	0.2
Preservative	q.s.
Water	ad 100.0
C.	
Baktol	0.5
D.	
Sulphur	2.0
Titanic oxide	5.0
Cosmetic Sienna Oxide CS-10051	0.5
E.	
Perfume oil	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.18

ANTI-PERSPIRANT DEODORANT CREAM (W/O)

RAW MATERIALS	% By Weight
Phase A (cold):	
ABIL WE09	5.0
ABIL 8839	7.7
ABIL K4	5.0
Irgasan DP 300	0.3
Phase B (cold):	
Water	45.0
Aluminum chlorhydroxide solution (50%)	34.0
Glycerol	3.0
Perfume	q.s.
Preserving agent	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 2.3.5

ALL PURPOSE CREAM

RAW MATERIALS	% By Weight
AMERLATE LFA	3.0
AMERLATE P	1.5
AMERCHOL C	4.0
Mineral oil, 70 vis.	3.5
Glyceryl monostearate, s.e.	6.0
Cetyl alcohol	3.0
Beeswax, USP	2.5
Spermwax	2.5
Triethanolamine	1.0
Propylene glycol	2.5
Water	70.5
Perfume and Preservative	q.s.

Soft, glossy extra-rich o/w cream.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

SOURCE: Amerchol Corp.: AMERLATE: Suggested Formulation

ALL PURPOSE CREAM

RAW MATERIALS	% By Weight
AMERCHOL C	4.0
AMERLATE P	1.5
Stearic acid, xxx	3.0
Mineral oil, 70 vis.	3.5
Glyceryl monostearate, s.e.	6.0
Cetyl alcohol	3.0
Beeswax, USP	2.5
Triethanolamine	1.0
Propylene glycol	2.5
Water	73.0
Perfume and Preservative	q.s.

Medium consistency white o/w lubricating cream.

Procedure:

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

ALL PURPOSE CREAM

RAW MATERIALS	% By Weight
Phase A:	
Methyl Glucose Sesquistearate (Glucate SS)	1.5
Coconut Oil, 76	7.5
Glyceryl Monostearate, Neut.	7.5
Phase B:	
Methyl Gluceth-20 Sesquistearate (Glucamate SSE-20)	1.5
Methyl Gluceth-20 (Glucam E-20)	5.0
Water	76.0
GERMABEN II	1.0

Procedure:

Heat Phase A and Phase B separately to 75C. Mix Phase A until uniform. Add Phase A to Phase B with constant stirring and cool to room temperature.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

ALL PURPOSE CREAM, HAND & BODY A-47

INGREDIENTS	% By Weight
Part A:	
U.S.P. White Mineral Oil	6.0
Cetyl Alcohol	10.0
AVANEL S-150	4.0
Part B:	
Propylene Glycol	5.0
Methyl Paraben	0.25
Deionized Water	74.75
Color & Perfume	As Desired

This emulsion is similar to the A-28, but is less lipophilic (more hydrophylic). It leaves a smooth, non-sticky feel to the skin and is extremely mild.

Preparation Method:

Heat Part A to 70C, Part B to 75C. Add Part A to Part B with moderate to high agitation, including side-scraping motion. Mix for a few minutes, then cool rapidly to 30C. Emulsion will invert to give a viscous water-in-oil emulsion.

The product is a non-pourable viscous cream with a pH about 6.8.

SOURCE: Mazer Chemicals: AVANEL S Formula A-47

ALOE VERA NIGHT CREAM

RAW MATERIALS

% By Weight

Phase A:

Deionized Water	49.225
Tetrasodium EDTA	0.075
Propylene Glycol	3.50
Methylparaben	0.20

Phase B:

Cetyl Alcohol (Adol 52 NF)	2.00
Cetearyl Alcohol (and) Polysorbate 60 (and) PEG-150 Stearate (and) Steareth-20 (Ritachol 1000)	2.00
Stearic Acid (Emersol 132)	4.00
Polysorbate-40	2.00
Sorbitan Palmitate	0.70
Mineral Oil (and) Lanolin Alcohol (Ritachol)	1.00
Mineral Oil	7.00
Aloe Vera Oil	3.00
Petrolatum (and) Lanolin (and) Sodium PCA (and) Polysorbate 85 (Ritaderm)	3.00
Dimethicone 200	1.00
BHA	0.10
Propylparaben	0.10

Phase C:

Sodium Borate	0.20
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Phase D:

Aloe Vera Gel	20.50
Fragrance	0.15
GERMALL II	0.25

Procedure:

Heat Phase A and Phase B separately with agitation to 75C. Add Phase A to Phase B and mix 30 minutes. Add Phase C and cool with agitation until temperature reaches 50C. Add Phase D and agitate until temperature reaches room temperature.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

ANTI-FATIGUE SKIN CREAM

INGREDIENT	% By Weight
CIRAMI No. 1 AMI	3.0000
Arlacel 165	5.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Isopropyl Myristate	3.0000
Petrolatum	3.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
TRI-SEPT M	0.2000
Glycerin USP	3.0000
TENSAMI 3/06	0.4000
EVENING PRIMROSE OIL	0.5000
ELDERLY SKIN #296 HS	3.0000
TRI-DERM SE	3.0000
ORGANIC SILICONE AMI	0.5000
ABIOL	0.2000
Perfume	0.2000
Demineralized Water	71.3850

Formulation Code: AMI.006

BUST CREAM

INGREDIENT	% By Weight
CIRAMI No. 1	3.0000
Arlacel 165	5.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Isopropyl Myristate	2.0000
White Petrolatum	3.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
Demineralized Water	70.8850
Glycerin USP	3.0000
TENSAMI 3/06 AMI	0.4000
BUST CARE #601 LS	1.5000
BUST CARE #201 HS	2.0000
GINSENG EXTRACT AMI	5.0000
TRI-SEPT M	0.2000
ABIOL	0.2000
Perfume	0.2000

Formulation Code: AMI.014.

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

ANTIPERSPIRANT CREAM

RAW MATERIALS	% By Weight
AMERLATE P	1.50
AMERCHOL L-101	2.50
SOLULAN 16	2.00
Glyceryl monostearate, neut.	7.50
Spermwax	3.00
Glycerine	2.00
Veegum HV	1.75
Water	41.75
Chlorhydrol, 50%	38.00
Perfume and Preservative	q.s.

White, light-textured o/w cream with quick rub-in

Procedure:

Disperse the Veegum in the water using high speed mixing. Add the water phase at 70C to the oil phase at 70C while mixing. Continue mixing and cool to 50C. Warm the Chlorhydrol to 50C and add it slowly to the batch. Continue mixing and cool to 35C. Homogenize.

SOURCE: Amerchol Corp.: AMERLATE: Suggested Formulation

AVOCADO CREAM, PARAFFIN-FREE

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	15.0
MIGLYOL 812 Neutral Oil	8.0
IMWITOR 780K	5.0
Lactil	5.0
Avocado oil	6.0
Sesame oil	4.0
Antioxidants	q.s.
B.	
Karion F	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Collagen CLR	3.0
Perfume oil	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.2.9

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-A

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL (CTFA: Cetyl Alcohol)	0.50
Mineral oil (min 30 cP) (CTFA: Mineral Oil)	20.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.00
Deionized water	68.50
d)	
Preservatives, deionized water	qs to 100

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-B

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL (CTFA: Cetyl Alcohol)	0.50
Finsolv TN (CTFA: C12-C15 Alcohols Benzoate)	20.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.00
Deionized water	68.50
d)	
Preservatives, deionized water	q.s. to 100

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-C

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL (CTFA: Cetyl Alcohol)	0.50
Myglyol 812 (CTFA: Caprylic/Capric Triglyceride)	20.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.00
Deionized water	68.50
d)	
Preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-D:CREAM

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL (CTFA: Cetyl Alcohol)	0.50
Perhydrosqualene (CTFA: Squalene)	20.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.00
Deionized water	68.50
d)	
Preservatives, deionized water	qs to 100

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-A:CREAM

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.0
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	0.5
Mineral oil (min 30 cP) (CTFA: Mineral Oil)	20.0
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.0
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.0
Deionized water	68.5
d)	
Perfume, preservatives, deionized water	qs to 100

BASIC ILLUSTRATIVE MOISTURIZING CREAM(O/W)-E:LOTION

INGREDIENTS	%W/W
a)	
Stearic acid XXX (CTFA: Stearic Acid)	4.0
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	0.5
Mineral oil (min 30 cP) (CTFA: Mineral oil)	20.0
ELFACOS ST37 (CTFA: PEG-22-Dodecyl Glycol Copolymer)	0.5
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.0
c)	
Propylene glycol (CTFA: Propylene Glycol)	3.0
Deionized water	68.5
d)	
Perfume, preservatives, deionized water	qs to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

BIO-ACTIVE CREAM O/W

RAW MATERIALS:	% By Weight
Phase A:	
Cutina KD 16	8.0
Emulgade 1000 NI	2.0
Miglyol 812	8.0
Paraffin oil	7.0
Phase B:	
Water, preservative	61.6
Glycerine	6.0
PENTAVITIN	4.0
REVITALIN	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1127

BIO-ACTIVE DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin CG	12.0
Emulgade 1000 NI	2.0
Miglyol 812	6.0
PCL-liquid	3.0
Phase B:	
Water, preservative	65.5
Glycerine	4.0
Carbopol 934	0.5
REVITALIN	3.0
PENTAVITIN	3.0
Phase C:	
Triethanolamine	0.6
Phase D:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, then add phase C, cool to 50C and homogenize.
4. Finally cool to 30C, add phase D and stir cold.

Formulation Code No. PL 1131

SOURCE: Pentapharm Ltd.: Guide Formulations

BODY CREAM

INGREDIENTS	%W/W
A.	
Cetearyl Alcohol (1)	5.0
Isopropyl Myristate	2.0
Sodium Stearoyl-1-Lactylate (2)	2.0
Sodium Isostearyl-2-Lactylate (3)	2.0
B.	
Deionized Water	83.6
Propylene Glycol	5.0
Sodium Lactate 60% (4)	0.2
Methyl Paraben	0.2
C.	
Perfume	q.s.

pH: 5.9
 Viscosity @ 75F: 180,000 cps

(1) Henkel Chemical Dehydag Wax-O
 (2) Patco Cosmetic PATIONIC 145A
 (3) Patco Cosmetic PATIONIC ISL
 (4) Patco Cosmetic

Bulletin No. 131

O/W BODY CREAM

INGREDIENTS	%W/W
A. Oil Phase:	
Cetearyl Alcohol (1)	5.0
Isostearyl Lactate (2)	3.0
Sodium Stearoyl-2-Lactylate (3)	2.0
Propyl Paraben	0.1
B. Aqueous Phase:	
Deionized Water	84.5
Propylene Glycol	5.0
Sodium Citrate	0.2
Methyl Paraben	0.1
C. Perfume 40-164P (4)	0.1

pH: 5.5
 Viscosity @ 80F: 164,000 cps

(1) Henkel Dehydag Wax O
 (2) Patco Cosmetic PATLAC IL
 (3) Patco Cosmetic PATIONIC SSL
 (4) Alpine Aromatics Fresh Floral

Bulletin No. 161

SOURCE: Patco Cosmetic Products: Suggested Formulations

CAMOMILE HAND CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	38.0
MIGLYOL 829	6.0
Hard paraffin	3.0
B.	
Karion F	5.0
Propylene glycol	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.
Extrapon Camomile Special	2.0

Preparation:

A and B are heated separately to 75-80C and B is emulsified into A.

The perfume is added below 40C.

Formulation 1.1.16

GLYCERIN HAND CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
MIGLYOL 812 Neutral Oil	10.0
Paraffin oil	3.0
Cetyl alcohol	3.0
Hostaphat KL340N	5.0
B.	
Carbopol-Gel 1%	20.0
Glycerin	30.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Preparation:

A is melted and heated up to 75-80C.

B is mixed and heated to the same temperature.

B is gradually stirred into A.

C is added at about 40C.

Formulation 1.1.15

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

CATIONIC/NONIONIC HAND CREAM

RAW MATERIALS	Parts by Weight
Mineral Oil, light	7.0
Glycerol Monostearate, pure	4.0
Generol 122	3.0
Cetyl Alcohol	1.0
Glycerol	4.0
Emcol E-607L (Lapyrium Chloride)	1.0
Germall 115	0.3
Methylparaben	0.2
Propylparaben	0.1
Fragrance	0.1
Water, deionized	q.s. to 100

Add EMCOL E-607L or EMCOL E-607S and glycerol to water phase and heat to 80C. Heat oil phase to 80C; add water phase to oil phase. Cool to 45C before adding fragrance.

CATIONIC/NONIONIC HAND CREAM

RAW MATERIALS	Parts by Weight
Mineral Oil, light	7.0
Glycerol Monostearate, pure	4.0
Generol 122	3.0
Generol 122E1	1.0
Cetyl Alcohol	1.0
Glycerol	4.0
EMCOL E-607S (Steapyrium Chloride)	1.0
Germall 115	0.3
Methylparaben	0.2
Propylparaben	0.1
Fragrance	0.1
Water, deionized	q.s. to 100

Add EMCOL E-607L or EMCOL E-607S and glycerol to water phase and heat to 80C. Heat oil phase to 80C; add water phase to oil phase. Cool to 45C before adding fragrance.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 103C

CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	5.0
MIGLYOL 812 Neutral Oil	5.0
IMWITOR 375	0.5
Emulgade F	12.0
B.	
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and slowly emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.4.2

CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
MIGLYOL 812 Neutral Oil	5.0
Stearic acid	7.0
Cetyl alcohol	2.0
Castor oil	1.0
Sunflower oil	4.0
Antioxidants	q.s.
B.	
Glycerin	4.0
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.9
D.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature. C is added to B.

B + C are emulsified into A.

At about 30C the perfume is added.

Formulation 1.4.3

CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
Lanette N	4.0
MIGLYOL 812 Neutral Oil	3.0
SOFTISAN 378	3.0
Paraffin oil	7.0
Hostaphat KL 340 N	0.5
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.4.4

CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
EMEREST 2400 Glyceryl Stearate	2.0
LANTROL 1673 Lanolin Oil	5.0
EMERSOL 132 Stearic Acid	1.0
EMERY 1787 Cetyl Alcohol Flakes, NF	1.5
Mineral oil (70 visc.)	3.0
Beeswax	1.0
EMSORB 2505 Sorbitan Stearate	1.0
EMEREST 2310 Isopropyl Isostearate	2.0
EMID 6515 Cocamide DEA	0.5
Propyl paraben	0.1
B.	
EMERY 916 Glycerine	5.0
EMSORB 2728 Polysorbate 60	1.0
Borax	0.2
Methyl paraben	0.2
C.	
Demineralized water (preheated to 65C)	76.5

This smooth textured cleansing cream is an ideal cosmetic in that it liquefies upon skin "rub out", it removes makeup and mascara, and leaves a smooth non-oily feel when wiped off with a warm, damp face cloth.

SOURCE: Emary Chemicals: LANTROL Lanolin Oil: Formula 2244-93-1

CLEANSING CREAM

RAW MATERIALS	% By Weight
Oil phase:	
Stearic acid	10
Paraffin oil	6
Vaseline	4
ELFACOS ST9	1,5
Castor oil	1
Cetyl alcohol	1
ARMOTAN MS (Sorbitan Stearate)	2
ARMOTAN PMS 20 (Polysorbate 60)	1
Glycerine	1
Water phase:	
Triethanolamine	0,6
Water	71,4
Dowicil 200	0,2
Perfume oil	0,3

The resulting emulsion is very solid and dry, easily foaming with water and therefore gives a good washing effect.

This recipe is a basis for face-cleaning formulations. ELFACOS ST9 acts as a co-emulsifier for the emulsifier ARMOTAN PMS20, while ARMOTAN MS in this formula acts as a consistency regulator.

SOURCE: Akzo Chemicals, Inc.: ELFACOS ST9, ST37, C26, E200:
Formulation No. 1800

CLEANSING CREAM

INGREDIENTS	%W/W
Phase A	
Mineral oil	40.0
Beeswax	5.5
VELSAN P8-16 (Cetyl C12-15 Pareth-9-Carboxylate)	2.7
VELSAN D8P-3 (Isopropyl PPG-2-Isodeceth-7-Carboxylate)	5.0
Naturechem GMHS (Glyceryl Hydroxystearate)	0.3
Arlacel 60 (Sorbitan stearate 60)	3.5
Tween 60 (Polysorbate 60)	2.9
Phase B:	
Propylene glycol	4.0
Borax	0.1
Water, fragrance, preservatives	Q.S.

An emollient cream for makeup removal incorporating VELSANS as moisturizers. This water-in-oil product is designed to be wiped away with a tissue. VELSANS help to reduce the oily after-feel.

SOURCE: Sandoz Chemicals: VELSAN: Formulation No. CSC-09

CLEANSING CREAM

INGREDIENTS	% As Supplied
A)	
Water	67.7
ACRYSOL ICS-1 Thickener (30%)	2.5
B)	
Mineral Oil	20.0
Lanolin	4.0
Petrolatum	4.0
Ethomeen C-25	0.7
C)	
Triethanolamine	1.1
Brookfield viscosity, cps.	
@ 0.5 rpm - 135,000	
@ 12 rpm - 45,000	
pH - 8.1	

Mixing Procedure:

Combine ingredients of part A to part B and then add part C (triethanolamine) with mixing. Heat each part separately to 70C. (158F.). Cool the formulation quickly to 30C (86F.).

SOURCE: Rohm and Haas Co.: Lit. Ref.: CS-505

CLEANSING CREAM(FOR WATERPROOF MAKEUP)

RAW MATERIALS	% By Weight
Phase A:	
Octyl Palmitate (Ceraphyl 368)	10.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	5.00
Glyceryl Stearate (and) Laureth-23 (Cerasynt 945)	5.00
Stearic Acid	5.00
Mineral Oil	15.00
Phase B:	
Deionized Water	58.65
Triethanolamine (99%)	0.70
Methylparaben	0.10
Propylparaben	0.10
Phase C:	
GERMALL II	0.15
Fragrance	0.30

Procedure:

Mix Phase A at 80C. Mix Phase B at 80C. Mix Phase A to Phase B. Add Phase C at 45C. Fill at 30C.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
EMEREST 2400 Glyceryl Stearate	2.5
LANTROL 1673 Lanolin Oil	5.0
EMERSOL 132 Stearic Acid	1.5
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
Mineral oil (visc. 70)	3.5
Beeswax	1.0
EMSORB 2505 Sorbitan Stearate	1.5
EMEREST 2310 Isopropyl Isostearate	2.5
EMID 6515 Cocamide DEA	1.0
Propyl paraben	0.1
B.	
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7
EMERY 916 Glycerine	5.0
EMSORB 2726 PEG-40 Sorbitan Diisostearate	1.0
Borax	0.2
Methyl paraben	0.2
Demineralized water	72.3

This cleansing cream formulation is a smooth, creamy emulsion. It will remove facial makeup and environmental contaminants such as dust. EMEREST 2310 provides "super" emolliency, lubricity, and moisturizing properties.

SOURCE: EMERY CHEMICALS: EMERY Isostearate Esters: Formulation 2244-93

RICH CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
LANACET 1705 Acetylated Lanolin	2.0
NIMCOLAN 1747 Solid Absorption Base	20.0
EMERSOL 132 Stearic Acid	7.0
EMEREST 2400 Glyceryl Stearate	1.3
EMEREST 2717 PEG-100 Stearate	1.3
Propyl paraben	0.1
B.	
Emery 916 Glycerine	5.0
Triethanolamine	0.7
Methyl paraben	0.2
Deionized water	62.4

A superb cleansing cream for removal of makeup and dead skin cells. The product leaves an occlusive moisturizing film on the skin. The cream has a thick, rich appearance with an excellent surface gloss.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol: Formulation 11E

CLEANSING CREAM

RAW MATERIALS	Parts
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	15.0
Liquid paraffin	15.0
Glyceryl monostearate	5.0
Preservative	q.s.
Essential oil	q.s.
Cetyl alcohol	4.0
Water	57.0

Formulation 52/002

COLLAGEN CREAM

RAW MATERIALS	Parts
CREMOPHOR A11	3.0
LUVITOL EHO	5.0
Cetylstearyl alcohol	7.0
Liquid paraffin	5.0
1,2-Propylene Glycol USP	3.0
Collagen CLR	5.0
Preservative	q.s.
Essential oil	q.s.
Water	72.0

Formulation 50/051

SOURCE: BASF: CREMOPHOR A grades: Suggested Formulations

SKIN CREAM

RAW MATERIALS	Parts
CREMOPHOR WO 7	6.0
Liquid paraffin	5.0
Isopropyl myristate	20.0
Lunacera MW	6.0
Aluminum stearate	1.0
Magnesium stearate	1.0
Vitamin E Acetate	1.5
1,2-Propanediol USP	4.0
Preservative	q.s.
Essential oil	q.s.
Water	55.5

SOURCE: BASF: CREMOPHOR WO 7: Formulation 51/017

CLEANSING CREAM - OIL TYPE

RAW MATERIALS	% By Weight
SONOJELL No. 9 Mineral Jelly	100
Perfume and color (optional)	q.s.

CLEANSING CREAM - EMULSIFIABLE TYPE

RAW MATERIALS	% By Weight
SONOJELL No. 9 Mineral Jelly	71
Cetyl Alcohol	3
Sodium Cetyl Sulfate	3
Water	23
Perfume and color (optional)	q.s.

Melt mineral jelly, alcohol and sulfate to 70C. Heat water to 75C and add to oil phase with good agitation. Allow to cool to 40C and fill.

There are two principal types of cleansing creams available. These are the emulsifiable and the straight oil type. Both of these general categories can be adapted to specialty creams as for example, detergent type or anti-bacterial type, by the simple addition of small amounts of active agent such as Borax and potassium hydroxide for the detergent cream, and hexachlorophene for the anti-bacterial cream.

COLD CREAM

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	50.00
Beeswax	16.67
Borax	0.83
Water	32.50

One of the most common cosmetic emollients used by women is a cold cream.

Bring beeswax and oil to 70C. Dissolve Borax in water and bring to 70C. Add water to oil phase with rapid stirring. Agitate slowly while cooling. Add perfume as desired at 45C and fill into jars at 40C.

SOURCE: Witco Chemical: Sonneborn Division: Sonneborn Products for the Cosmetics Industry: Suggested Formulations

COLD CREAM

RAW MATERIALS % By Weight

I.	
Beeswax	2.0
ADOL 62	1.5
Mineral Oil	18.0
ADOL 66	0.5
HYDROFOL ACID 1895	1.5
STARFOL WAX CG	0.5
II.	
Glycerine	1.0
Propylene Glycol	1.0
VARONIC LI-48	1.0
Borax	1.0
Deionized Water	72.0
III.	
Preservative	qs

Solids:	28.0%
pH:	7.8
Viscosity:	17,200 cps

Mixing Instructions:

Prepare each Phase separately. Warm Phase I and Phase II to 80C slowly. Blend Phase I and Phase II with rapid but smooth agitation. Cool with adequate agitation to 30C.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.7

COLD CREAM

RAW MATERIALS % By Weight

A.	
EMEREST 2400 Glyceryl Stearate	6.0
EMEREST 2717 PEG-100 Stearate	3.0
ETHOXYOL 1687 PEG-24 Hydrogenated Lanolin	2.5
Mineral oil	15.0
Decyl oleate	10.0
EMERY 1787 Cetyl Alcohol Flakes, NF	1.0
Propyl paraben	0.1
B.	
LANOQUAT 1756 Lanolin Quaternary	1.5
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7
Propylene glycol	5.0
Methyl paraben	0.2
Deionized water	55.0

SOURCE: Emery Industries: LANOQUAT 1756 Lanolin Quaternary:
Formulation 2248-125

COLLAGEN CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 100	2.0
MIGLYOL 812 Neutral Oil	4.0
MIGLYOL 840	10.0
DYNACERIN 660	6.0
Lanette N	10.0
Liquid Lanolin	3.0
B.	
Karion F	5.0
Preservative	q.s.
Water	55.0
C.	
Collagen CLR	5.0
Perfume	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.11

COLLAGEN CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A 11	3.0
LUVITOL EHO	5.0
Paraffin oil	5.0
Cetyl/stearyl alcohol	7.0
1,2-Propanediol USP	3.0
Collagen CLR	5.0
Water	72.0

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

COLLAGEN CREAM

RAW MATERIALS	% By Weight
Phase A:	
Glyceryl Monostearate	8.0
Ceteraeth-12 (Eumulgin C-700)	4.0
Octyldodecanol (Standamul G)	10.0
Mineral Oil	20.0
Phase B:	
Water	54.0
Phase C:	
Soluble Collagen (Collagen CLR)	3.0
GERMABEN II	1.0

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

CREAM

RAW MATERIALS	Parts by Weight
A. Oil Phase:	
Cetearyl Alcohol	5.0
Silicone Oil, 200 Fluid	1.0
Isopropyl Myristate	2.0
PATONIC SSL	2.0
B. Water Phase:	
Distilled Water	84.4
Propylene Glycol	5.0
Preservative	q.s.
Sodium Citrate	0.2
Color	q.s.
C. Perfume	q.s.

Procedure:

1. Combine A and heat to 65C.
2. Combine B and heat to 70C.
3. Add B to A with agitation.
4. Cool to 45C with agitation, and add C.
5. Cool to 35C and package.

SOURCE: Patco Cosmetic Products: Bulletin No. 125:
Formula #2

CREAM FOR VERY DRY SKIN

INGREDIENTS:	%W/W
Part A:	
CUTINA E-24 (PEG-20 Glyceryl Stearate)	4.00
CUTINA GMS (Glyceryl Stearate)	5.00
MYRITOL 318 (Caprylic/Capric Triglyceride)	6.00
LANETTE O (Cetearyl Alcohol)	2.00
CETIOL V (Decyl Oleate)	6.00
Part B:	
Water	63.50
COSMEDIA POLYMER HSP-1180 (Polyacrylamido- methylpropane Sulfonic Acid)	5.00
Part C:	
Triethanolamine (99%)	0.50
Collagen CLR	3.00
Fragrance, Preservative & Dye	q.s.

Comments:

Upon applying and rubbing this luxurious cream, one can notice the nice slip and talc-like after-feel due to the COSMEDIA POLYMER HSP-1180 combined with the emollients and Collagen.

SOURCE: Henkel Corp.: Personal Care Products Formulary: H-4813

CREAM C-1002

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	1.5
Coconut oil, 76	7.5
Glyceryl monostearate, neut.	7.5
Water Phase:	
GLUCAMATE SSE-20	1.5
GLUCAM E-20	5.0
Water	77.0
Perfume and Preservative	q.s.

Description:

All purpose cream with coconut oil emollient. Utilizes unique GLUCATE SS/GLUCAMATE SSE-20 nonionic emulsifier system with recovery of viscosity after work.

Variations:

Replace all or part of coconut oil with other vegetable oils for variations in functionality relating to claims.

Impart satiny feeling by incorporation of PPG-36 Oleate.

Improve lubricity by addition of AMERLATE P.

CREAM C-1003

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	0.8
MODULAN	2.0
Cetyl alcohol	2.0
Mineral oil, 70 vis.	6.0
Stearic acid	2.0
Water Phase:	
GLUCAMATE SSE-20	1.2
GLUCAM E-20	5.0
Albapel	1.5
Water	79.5
Perfume and Preservative	q.s.

Description:

All purpose highly emollient, glossy cream of medium consistency. Utilizes unique GLUCATE SS/GLUCAMATE SSE-20 nonionic emulsifier system with recovery of viscosity after work.

Variations:

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol.

For tube packaging, replace cetyl alcohol with myristyl alcohol.

For reduced oiliness, replace part of mineral oil with ACETULAN.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1004

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-500	1.0
MODULAN	2.0
Cocoa butter	7.0
Spermwax	4.0
Stearic acid, xxx	5.0
Cetyl alcohol	2.0
Silicone fluid 200, 350 cstks.	1.0
Glyceryl monostearate, neut.	5.0
Mineral oil, 70 vis.	10.0
Water Phase:	
Triethanolamine	1.5
Propylene glycol	4.0
Water	57.5
Perfume and Preservative	q.s.

Description:

Enriched night cream. Good gloss, oil-rich, firm consistency. Cocoa butter and MODULAN emollient system.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 45C, add perfume, mix to 30C.

Variations:

To reduce oily character, replace part of mineral oil with ACETULAN.

For lighter residual feel, replace propylene glycol with GLUCAM E-10.

For creamy elegance, replace part of stearic acid with AMERLATE LFA.

SOURCE: Amerchol Corp.: Creams: Suggested Formulation

CREAM C-1005

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	3.0
Beeswax, U.S.P.	4.0
Paraffin, 133F m.p.	5.3
Cetyl alcohol	1.0
Ceresin	2.7
Mineral oil, 70 vis.	20.0
Silicone fluid 200, 350 cstks.	1.0
Sorbitan monostearate	2.0
Water Phase:	
SOLULAN 25	2.0
Polysorbate 60	4.0
Carbopol 940	0.4
Triethanolamine (10% aq.)	4.0
Water	50.6
Perfume and Preservative	q.s.

Description:

Cleansing cream. Medium soft consistency. Soap-free for sensitive skin.

Variations:

To reduce oily feel, replace part of mineral oil with ACETULAN.

To impart satiny feel, replace part of beeswax with PPG-36 Oleate.

To impart rinsability, replace large portion of mineral oil with diglycol laurate.

CREAM C-1015

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-500	2.0
AMERCHOL C	5.0
Microcrystalline wax, 170-175F m.p.	10.0
Sorbitan sesquioleate	2.0
Water Phase:	
Water	50.0
Sorbitol solution, 70%	2.0
Perfume and Preservative	q.s.

Description:

Heavy duty cleansing cream. W/O. Imparts emollient residue. Recommended for night use.

Variations:

To reduce oiliness, replace part of mineral oil with ACETULAN.

To reduce tackiness, replace sorbitol with GLUCAM P-10.

To impart slip, replace part of microcrystalline wax with cetyl alcohol.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1007

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
SOLULAN 16	3.0
Silicone fluid 200, 350 cstks.	1.0
Myristyl myristate	5.0
Cetyl alcohol	10.0
Water Phase:	
Glycerine	2.5
Water	73.4
Hyamine 10X	0.1
Perfume and Preservative	q.s.

Description:

Pearlescent, soft, glossy, all purpose cream with good slip after rub-in.

Variations:

To add cationic (substantive to protein) properties to this formula, increase Hyamine 10X concentration to 1.0%.

For less tacky, residual feel, replace glycerine with GLUCAM E-20.

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol. To decrease viscosity, replace part of cetyl alcohol with myristyl alcohol.

SOURCE: Amerchol Corp.: Creams: Formulation C-1007

ANTI-INFLAMMATORY CREAM

INGREDIENT	** % By Weight
A.	
LIPACIDE PCO	2.00
Isopropyl Palmitate	10.00
Tristearin	5.00
Squalane	5.00
Glyceryl Stearate SE	10.00
B.	
Deionized Water	63.00
Glycerin	5.00
C.	
Preservative, Dye, Fragrance	q.s.

** As Received Basis

Features:

This cream is specially formulated to reduce inflammation resulting from burns, insect bites, excessive exposure to the sun and similar aggressions against the skin.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 435

CREAM C-1009

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE LFA	3.0
AMERLATE P	1.5
AMERCHOL C	4.0
Mineral oil, 70 vis.	3.5
Glyceryl monostearate, s.e.	6.0
Cetyl alcohol	3.0
Beeswax, USP	2.5
Spermwax	2.5
Water Phase:	
Triethanolamine	1.0
Propylene glycol	2.5
Water	70.5
Perfume and Preservative	q.s.

Description:

Night cream. Elegant, soft, rich. For extra conditioning and moisturizing.

Variations:

To reduce tackiness, replace propylene glycol with GLUCAM E-10.

To increase firmness, replace part of cetyl alcohol with stearyl alcohol.

CREAM C-1017

RAW MATERIALS	% By Weight
Oil Phase:	
OHLAN	0.5
Mineral oil, 80-90 vis.	11.0
Stearic acid, xxx	5.0
Spermwax	4.0
Glyceryl monostearate, s.e.	8.0
Water Phase:	
Triethanolamine	1.5
Propylene glycol	3.0
Water	67.0
Perfume and Preservative	q.s.

Description:

Moisturizing night cream. Firm, moderately residual

Variations:

For improved texture, replace half the stearic acid with

AMERLATE LFA

For reduced oiliness, replace part of mineral oil with

ACETULAN

For reduced tackiness, replace propylene glycol with GLUCAM E-10.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1010

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL 400	2.0
SOLULAN PB-10	3.0
Stearic acid, xxx	20.0
Isopropyl palmitate	12.0
Water Phase:	
Glycerine	4.0
Triethanolamine	1.2
Water	57.8
Perfume and Preservative	q.s.

Description:

Vanishing cream with good pearlescence. Emollient. Good rub-in. Serves as foundation for application of makeup.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Cool while mixing to 45C. Add the perfume oil. Continue mixing while cooling to 30C.

Variations:

For complete rub-in, replace glycerine with GLUCAM E-20.

To improve lubricity, replace part of isopropyl palmitate with AMERLATE P.

CREAM C-1011

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN PB-10	8.2
ACETULAN	2.0
Stearic acid, xxx	22.8
Isopropyl palmitate	5.0
Water Phase:	
Glycerine	4.0
Triethanolamine	1.2
Water	56.8
Perfume and Preservative	q.s.

Description:

Vanishing cream with cleansing properties. Pearlescent. Serves as makeup base, hand cream.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 45C. Add perfume.

Variations:

To improve lubricity, replace isopropyl palmitate with AMERLATE P.

To reduce tackiness, replace glycerine with GLUCAM P-10.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1012

RAW MATERIALS	% By Weight
Oil Phase:	
OHLAN	2.2
AMERCHOL L-101	16.3
Mineral oil, 70 vis.	21.7
Microcrystalline wax, 170-175 m.p.	16.3
Water Phase:	
Water	43.5
Perfume and Preservative	q.s.

Description:

Ointment base, w/o. Soft, glossy base. Vehicle for active medicaments and conditioner for extra dry skin.

Procedure:

Add the water phase at 65C to the oil phase at 65C while mixing. Continue mixing while cooling to 45C. Add perfume, stir to 35C. Homogenize and pack.

Variations:

To reduce oily feel, replace part of mineral oil with ACETULAN.

To impart slip, replace part of microcrystalline wax with cetyl alcohol.

To add dry film quality, add 2 to 4% of GLUCAM P-20 to water phase.

CREAM C-1013

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
MODULAN	15.0
Stearyl alcohol	13.0
Petrolatum, USP white	15.0
Sorbitan sesquioleate	2.0
Water Phase:	
Propylene glycol	12.0
PEG-40 stearate	5.0
Water	33.0
Perfume and Preservative	q.s.

Description:

Ointment base. O/W. Highly emollient, protective, superior moisturizing.

Variations:

To reduce tackiness, replace propylene glycol with GLUCAM E-10

To reduce viscosity, replace stearyl alcohol with cetyl alcohol

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1016

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 5	1.0
Coconut oil	10.0
Stearic acid, xxx	4.0
Spermwax	3.0
Glyceryl monostearate, s.e.	5.0
Cetyl alcohol	1.0
Silicone fluid 200, 350 cstks.	2.0
Water Phase:	
Triethanolamine	1.5
Sorbitol solution, 70%	4.0
Water	68.5
Perfume and Preservative	q.s.

Description:

All purpose cream. Fluffy, light, good rub-in. Coconut oil base, highly emollient.

Variations:

For lubricity, replace silicone fluid with AMERLATE P.

For greater firmness, replace cetyl alcohol with stearyl alcohol.

For complete rub-in, replace sorbitol with GLUCAM E-20.

CREAM C-1018

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	6.0
ACETULAN	2.0
Silicone fluid 200, 350 cstks.	1.0
Stearic acid, xxx	5.0
Cetyl alcohol	2.0
Glyceryl monostearate, neut.	5.0
Spermwax	5.0
Water Phase:	
Triethanolamine	1.0
Propylene glycol	4.0
Water	69.0
Perfume and Preservative	q.s.

Description:

All purpose cream. Glossy, elegant, firm.

Variations:

For improved lubricity, replace part of stearic acid with AMERLATE LFA.

For satiny feel, replace part of Spermwax with PPG-36 Oleate.

For reduced tackiness, replace propylene glycol with GLUCAM E-10.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1023

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL CAB	10.0
MODULAN	2.0
Glyceryl monostearate, neut.	6.0
Cetyl alcohol	2.0
Mineral oil, 70 vis.	6.0
Myristyl myristate	4.0
Stearic acid, xxx	5.0
Silicone 200 fluid, 350 cstks.	0.5
Water Phase:	
Glycerine	4.0
Sodium lauryl sulfate	0.5
Water	60.0
Perfume and Preservative	q.s.

Description:

All purpose, hand and body cream. Soft, elegant. Good rub-in, light residual feel.

Variations:

For firmer consistency, replace part of cetyl alcohol with stearyl alcohol.

For less residual feel and a feeling of dry film, replace glycerine with GLUCAM E-20.

For lighter texture, replace stearic acid with AMERLATE LFA.

CREAM C-1024

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	4.0
ACETULAN	2.0
Isopropyl palmitate	2.0
Stearic acid, xxx	2.0
Cetyl alcohol	0.5
Stearyl alcohol	0.5
Arlacel 165	5.0
Silicone fluid 200, 350 cstks.	1.0
Water Phase:	
Albagel	1.5
Propylene glycol	5.0
Water	76.5
Perfume and Preservative	q.s.

Description:

Hand cream. Firm texture. Glossy.

Variations:

To reduce tackiness, replace propylene glycol with GLUCAM E-10

To impart satiny feel, replace silicone fluid with PPG-36 Oleate

For softer texture, replace stearyl alcohol with myristyl alcohol and replace stearic acid with AMERLATE LFA.

CREAM C-1025

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL 400	3.00
SOLULAN 25	1.00
Mineral oil, 70 vis.	16.50
Petrolatum, USP white	3.00
Water Phase:	
Carbopol 934	0.75
Water	68.25
Triethanolamine, 10% aq.	7.50
Perfume and Preservative	q.s.

Description:

All purpose cream. Good peaking. Soft texture. Can be used for cleansing and for dry skin areas.

Procedure:

Disperse the Carbopol in the water using high speed mixing. Heat to 65C. Add to the oil phase at 65C while mixing. When emulsion has formed, add the triethanolamine solution. Continue mixing and cool to 45C. Add perfume. Stir to 30C.

Variations:

To reduce oiliness, replace part of mineral oil with ACETULAN

For satiny feel, replace part of mineral oil with PPG-36

Oleate.

For better emulsification, replace petrolatum with AMERCHOL 400.

CREAM C-1026

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
MODULAN	2.0
Glyceryl monostearate, neut.	7.0
Myristyl myristate	2.0
Mineral oil, 70 vis.	4.0
Silicone 200 fluid, 350 cstks.	0.5
Water Phase:	
Sorbitol, 70%	5.0
Albagel	1.5
Triton X-400	1.0
Water	72.0
Perfume and Preservative	q.s.

Description:

All purpose, cationic cream. Light, fluffy texture.

Variations:

To reduce tackiness, replace sorbitol with GLUCAM E-20

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1027

RAW MATERIALS	% By Weight
Oil Phase:	
OHLAN	3.0
AMERLATE P	2.0
Beeswax, USP	10.0
Mineral oil, 80-90 vis.	44.0
Glyceryl monostearate, neut.	2.0
Ozokerite	5.0
Water Phase:	
Borax, USP	0.6
Water	33.4
Perfume and Preservative	q.s.

Description:

Heavy duty cleansing cream, W/O. Liquefies readily. Soft texture. Use overnight on problem dry areas.

Variations:

To reduce oiliness, replace 5% of mineral oil with ACETULAN and an additional 10% of the mineral oil with isopropyl myristate
 For satiny feel, replace part of Beeswax with PPG-36 Oleate.
 For dry film feel, add 2-5% GLUCAM P-20 to water phase.

CREAM C-1029

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE P	3.0
Standamul 1414E	5.0
Isopropyl myristate	8.0
Cetyl alcohol	8.0
Ceraphyl 140-a	3.0
Cerasynt SD	4.5
Water Phase:	
GLUCAM E-20	5.0
Water	58.5
Propylene glycol	2.0
Standapol SHC 101	3.0
Perfume and Preservative	q.s.

Description:

Rinse-off Cleansing Cream. Soft, white, glossy cream with good makeup and soil removal. Can be rinsed off with water or tissue off. Leaves good emollient residue on skin.

Variations:

For softer consistency, replace part of cetyl alcohol with myristyl alcohol.

For firmer consistency, replace part of cetyl alcohol with stearyl alcohol.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

CREAM C-1021

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL C	4.0
AMERLATE P	1.5
Stearic acid, xxx	3.0
Mineral oil, 70 vis.	3.5
Glyceryl monostearate, s.e.	6.0
Cetyl alcohol	3.0
Beeswax, USP	2.5
Water Phase:	
Triethanolamine	1.0
Propylene glycol	2.5
Water	73.0
Perfume and Preservative	q.s.

Description:

Night cream. Glossy, medium consistency.

Procedure:

Add water phase to oil phase at 85C with good stirring.

Cool and stir to 50C. Add perfume and stir to 37C.

Variations:

For satiny feel, replace beeswax with PPG-36 Oleate.

For reduced tackiness, replace propylene glycol with GLUCAM

E-10.

For reduced viscosity, replace part of cetyl alcohol with myristyl alcohol.

For improved texture, replace stearic acid with AMERLATE LFA.

SOURCE: Amerchol Corp.: Creams: Suggested Formulation

NIGHT CREAM

RAW MATERIALS	% By Weight
AMERCHOL BL	8.0
AMERLATE P	2.0
Spermwax	4.0
Stearic acid, xxx	5.0
Cetyl alcohol	2.0
Silicone fluid 200, 350 cstks.	1.0
Glyceryl monostearate, neut.	5.0
Mineral oil, 70 vis.	10.0
Triethanolamine	1.0
Propylene glycol	4.0
Water	58.0
Perfume and Preservative	q.s.

SOURCE: Amerchol Corp.: AMERCHOL Multisterol Extracts: Formula

CREAM C-1028

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	0.8
ACETULAN	1.0
Peanut oil	12.0
Glyceryl monostearate, neut.	5.0
Spermwax	4.0
Water Phase:	
GLUCAMATE SSE-20	1.2
GLUCAM E-20	5.0
Water	71.0
Perfume and Preservative	q.s.

Description:

All purpose cream, natural oil emollient. Soft texture. Good rub-in. Utilizes unique GLUCATE SS/GLUCAMATE SSE-20 nonionic emulsifier system with recovery of viscosity after work.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 50C. Add perfume. Stir to 35C. Homogenize and pack.

Variations:

To vary natural base, replace peanut oil with other liquid vegetable oils.

SOURCE: Amerchol Corp.: Creams: Suggested Formulation

CATIONIC ALL PURPOSE CREAM

RAW MATERIALS	% By Weight
ACETULAN	3.00
AMERCHOL L-500	1.75
SOLULAN 16	1.75
Stearyl alcohol	2.75
Cetyl alcohol	1.75
Petrolatum, USP	7.00
Mineral oil, 70 vis.	15.00
Triton X-400	1.00
Glycerine	4.00
Dowicil 200	0.10
Water	61.90
Perfume	q.s.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

SOURCE: Amerchol Corp.: ACETULAN: Suggested Formulation

CREAM C-1030

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 75	2.0
Sonojell #9	7.5
Tween 60	1.0
Cetyl alcohol	7.0
Cerasynt SE	7.0
Isopropyl myristate	7.5
Water Phase:	
GLUCAM E-20	2.5
Water	63.0
Propylene glycol	2.5
Perfume and Preservative	q.s.

Description:

Washable Cleansing Cream. Glossy, soft white cream. Excellent soil and makeup removal. Washes or tissues off, leaving emollient residue.

Variations:

For softer, glossier consistency and appearance, replace part of Sonojell with AMERCHOL CAB.

For firmer consistency, replace part of cetyl alcohol with stearyl alcohol

SOURCE: Amerchol Corp.: Creams: Formulation C-1030

CLEANSING CREAM

RAW MATERIALS	% By Weight
AMERCHOL L-500	2.5
SOLULAN 16	2.5
Stearyl alcohol	2.5
Cetyl alcohol	2.5
Mineral oil, 70 vis.	30.0
Ceresin	5.0
GLUCAM E-20	4.0
Carbopol 934	0.5
Water	45.5
Triethanolamine, 10% aq.	5.0
Perfume and Preservative	q.s.

Procedure:

Disperse the Carbopol in the water with high speed mixing. Add the water phase at 85C to the oil phase at 85C while mixing. When the emulsion has formed, add the triethanolamine solution. Continue mixing while cooling to 30C.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

CREAM FOR THE LEGS

INGREDIENT	% By Weight
Arlacel 165	5.5000
Cetyl Alcohol	1.0000
Stearic Acid XXX	1.5000
White Petrolatum	4.0000
Isopropyl Myristate	4.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
TENSAMI 3/06	0.1500
Menthol, Crystalline	0.4000
RELAXANT #678 LS	3.0000
WITCH HAZEL AMI	4.0000
HORSE CHESTNUT AMI	3.5000
TRI-SEPT M	0.2000
ABIOL	0.2000
TEA 99%	0.6000
Perfume	0.2000

Formulation Code: AMI.015

HAND CREAM

INGREDIENT	% By Weight
Brookswax D	6.5000
Stearic Acid XXX	3.0000
Cetyl Alcohol	5.0000
White Petrolatum	5.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
Deionized Water	72.7850
DC 193 Surfactant	1.0000
ONYMYRRH AMI	5.0000
TRI-SEPT M	0.2000
ABIOL	0.2000
TEA 99%	1.0000
Perfume	0.2000

Formulation Code: AMI.012

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

DAYCREAM

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS ST	1
Liquid paraffin	2
AMPHISOL	1
Stearic acid	5
Glycerol monostearate, pure	3
Preservative	0,2
Glycerol	3
Water phase:	
Triethanolamine	1
Water	83,3
Perfume oil	0,5

This white, soft O/W cream has a very high water content. Meant as a basis for emollient creams.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Formulation No. 153 (ST9) or No. 557 (ST37)

DAY CREAM(W/O)

RAW MATERIALS	% By Weight
Phase A (cold):	
ABIL WE09	5.0
JOJOBA OIL	2.0
Mineral oil(app. 30 mPa-s)	9.0
Caprylic/Capric acid triglyceride	3.0
Phase B (cold):	
Water	78.2
Sodium chloride	0.8
Glycerol	2.0
Perfume	q.s.
Preserving agent	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 2.3.2

DAY CREAM

CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	5.0
Hydrogenated polyisobutylene, e.g. LUVITOL HP	6.0
(+)-ALPHA-BISABOLOL rac.	1.1
LUVIQUAT FC905	1.0
Glyceryl monostearate	3.5
Cetyl alcohol	3.5
ABIL 100	0.2
Water	75.7

Formulation 1

DAY CREAM

CREMOPHOR A25	2.0
Glycerol monostearate	8.0
Cetyl alcohol	2.0
Isopropyl myristate	8.0
Abil 350	1.0
Hamamelis	2.0
(+)-ALPHA-BISABOLOL rac.	0.5
Glycerol	20.0
Water	56.5

Formulation 2

SOURCE: BASF: ALPHA-BISABOLOL: Formulations

DAY CREAM O/W

CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	5.0
Vitamin E Nicotinate C	0.5
Cetyl Alcohol	4.0
Glyceryl Stearate	4.0
Paraffin oil	5.0
1,2-Propanediol USP	5.0
(+)-ALPHA-BISABOLOL rac.	0.2
D-PANTHENOL USP	1.0
TEGILOXAN 200	0.5
Water	ad 100
Perfume	
Preservative	

Formulation 50/001

SOURCE: BASF: Vitamin E Nicotinate C: Formulation 50/001

DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Cutina MD	12.0
Eumulgin B 1	1.5
Eumulgin B 2	1.5
Miglyol 812	6.0
Paraffin oil	6.0
Isopropylpalmitate	5.0
Phase B:	
Water, preservative	59.7
Glycerine	3.0
Phase C:	
GLYCOSOME	5.0
Phase D:	
Perfume oil	0.3

Formulation Code No. PL 1121

DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Tegin	5.0
Tagat S	2.0
Stearic acid	4.0
Amerchol CAB	2.5
Paraffin oil	8.0
Isopropylmyristate	7.0
PCL-liquid	2.0
Phase B:	
Water, preservative	60.1
Glycerine	3.0
Triethanolamine	1.0
HYDROLASTAN	5.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1128

SOURCE: Pentapharm Ltd.: Guide Formulations

DAY CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGO-CARE 150	8.0
ABIL-Wax 2434	3.0
Mineral oil (app. 30 mPa-s)	6.0
Phase B:	
Glycerol	3.0
Extrapon 4-Spezial	2.0
Water	78.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.1.1	

DAY CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGO-CARE 150	8.0
Caprylic/capric acid triglyceride	6.0
ABIL-Wax 2434	3.0
Phase B:	
Glycerol	3.0
Extrapon 4-Spezial	2.0
Water	78.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.1.2	

DAY CREAM (O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGO-CARE 150	8.0
Caprylic/capric acid triglyceride	6.0
ABIL-Wax 2434	3.0
Phase B:	
Glycerol	3.0
Water	80.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.1.3	

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Suggested Formulations

DAY CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2155	8.0
TEGOSOFT 189	6.0
Isopropyl stearate	6.0
Hexyl laurate	6.0
Stearyl alcohol	1.0
Phase B:	
Glycerol	3.0
Water	70.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.1.4	

DAY CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2155	6.0
Mineral oil (app. 30 mPa-s)	10.0
Microwax (Lunacera MWN)	3.0
Isopropyl stearate	3.0
Phase B:	
Glycerol	5.0
Water	73.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.1.5	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

DAY CREAM, OILY

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
MIGLYOL 812 Neutral Oil	6.0
MIGLYOL 840	6.0
SOFTISAN 649	5.0
DYNACERIN 660	3.0
Stearic acid	5.0
Cetyl alcohol	3.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.9
D.	
Perfume oil	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.1

DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Hostaphat KW340N	3.5
Amerchol CAB	2.0
Lanette 16	3.5
Paraffin oil	4.0
Isopropylpalmitate	4.0
Eutanol G	3.0
Phase B:	
Water, preservative	71.5
Glycerine	4.0
Carbopol 940	0.5
Phase C:	
Triethanolamine	0.6
Phase D:	
COLLAGEN	3.0
Phase E:	
Perfume oil	0.4

Formulation Code No. PL 1129

DAY CREAM

RAW MATERIALS	% By Weight
Phase A:	
Cutina KD 16	7.0
Stearic acid	8.0
Paraffin oil	4.0
Miglyol 812	5.0
Eutanol G	3.0
Phase B:	
Water, preservative	65.3
Glycerine	4.0
Triethanolamine	0.4
Phase C:	
COLLAGEN	3.0
Phase D:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 35C.
4. Then add phase C, cool to 30C, add phase D and stir cold.

Formulation Code No. PL 1130

SOURCE: Pentapharm Ltd.: Guide Formulations

DAY CREAM WITH AZULENE

RAW MATERIALS	% By Weight
A.	
Stearic acid	5.0
IMWITOR 960	5.0
Cetyl alcohol	1.0
Paraffin oil	5.0
MIGLYOL 812 Neutral Oil	5.0
MIGLYOL 840	5.0
B.	
Water	ad 100.0
Karion F	5.0
Preservative	q.s.
C.	
Triethanolamine	0.9
D.	
Perfume oil	q.s.
Azulene	0.1

Preparation:

A is heated to 75-80C. B is brought to the same temperature.

C is added to B and then B + C are slowly emulsified into A.

Below 40C perfume oil and azulene are added.

Also Collagen CLR, Hygroplex HHG and vitamins can be incorporated into this cream.

Formulation 1.1.2

DAY CREAM WITH VEGETABLE OIL

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	5.0
MIGLYOL 818	3.0
MIGLYOL 840	2.0
Stearic acid	5.0
Cetyl alcohol	1.0
Sunflower oil	5.0
Almond oil	5.0
Antioxidants	q.s.
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.7
D.	
Collagen CLR	4.0
Perfume oil	q.s.

Formulation 1.1.3

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

DAY CREAM W/O

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin WO	10.0
Lunacera M	4.0
Amerchol CAB	3.0
Beeswax	1.0
Vaseline	6.0
Paraffin oil	8.0
Isopropylpalmitate	6.0
Phase B:	
Water, preservative	51.2
Glycerine	4.0
Magnesium sulphate-heptahydrate	0.4
THYMUS PEPTIDE	3.0
PENTAVITIN	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

SOURCE: Pentapharm Ltd.: Guide Formulations: Formulation Code
PL 1222

DAY CREAM

INGREDIENT	% By Weight
Demineralized Water	81.1850
TENSAMI 3/03 AMI	0.4000
EMOLLIENT #235 HS AMI	3.0000
SOLARIUM #269 HS AMI	2.0000
TRI-SEPT M	0.2000
Arlacel 165	3.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Wheat Germ Oil	2.0000
Petrolatum	4.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
Abiol	0.2000
Perfume	0.2000

SOURCE: TRI-K Industries, Inc.: Code: AMI.002

DAY CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A6	1.5
CREMOPHOR A25	1.5
LUVITOL EHO	5.0
Cetyl alcohol	0.3
Glycerol monostearate	8.0
Isopropyl myristate	5.0
Vitamin E	3.0
Epigran	3.0
Hydroviton	1.5
Tegiloxan 350	0.3
Water	70.9

HAND CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A25	2.0
LUVITOL EHO	5.0
Paraffin oil	5.0
Cetyl alcohol	2.0
Glycerol monostearate	7.0
1,2-Propanediol USP	3.0
Water	76.0

SOURCE: BASF: LUVITOL EHO: Suggested Formulations

GLYCEROL CREAM

RAW MATERIALS	Parts
CREMOPHOR A6	1.0
CREMOPHOR A25	1.0
LUVITOL EHO	5.0
Glycerol Monostearate SE	10.0
Cetyl alcohol	1.0
(+)-ALPHA-BISABOLOL rac.	0.5
ABIL 100	0.5
Glycerol	20.0
Water	61.0

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

ELASTIN-COLLAGEN SKIN CREME

INGREDIENTS:	%W/W
Part A:	
CUTINA E-24 (PEG-20 Glyceryl Stearate)	3.00
CUTINA MD (Glyceryl Stearate)	5.00
MYRITOL 318 (Caprylic/Capric Triglyceride)	6.00
LANETTE O (Cetearyl Alcohol)	2.00
CETIOL V (Decyl Oleate)	6.00
Part B:	
Water	66.70
Part C:	
Dowicil 200	0.20
Collagen CLR	1.00
Elastin CLR	10.00
Fragrance	0.10

Comments:

HOB-217-11 is a mild cream designed especially for dry skin. This pleasant formula rubs in quite easily without whitening or greasiness.

Formula HOB-217-11

SKIN CREAM FOR DRY SKIN

INGREDIENTS:	%W/W
Part A:	
CUTINA LE (Glyceryl Stearate (and) Sodium Cetearyl Sulfate)	8.00
MYRITOL 318 (Caprylic/Capric Triglyceride)	6.00
Dow Corning 200 Fluid (350 cps)	2.00
Part B:	
Propylene Glycol	2.50
Water	76.50
Part C:	
Preservative, fragrance & dyes	q.s.
ELASTIN CLR	5.00

Comments:

The combination of MYRITOL 318 for re-fattening and Silicone for a protective barrier creates an aesthetic efficaceous dry skin cream.

Suggested Formula H-4808

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

ELASTIN SKIN CREAM

INGREDIENTS:	% By Weight
Part A:	
CUTINA CBS (Glyceryl Stearate (and) Cetearyl Alcohol (and) Cetyl Palmitate (and) Coco Glycerides)	12.0
EUMULGIN B1 (Cetareth-12)	1.5
EUMULGIN B2 (Cetareth-20)	1.5
EUTANOL G (Octyldodecanol)	10.0
CETIOL LC (Coco-Caprylate/Caprate)	10.0
AVOCADO OIL CLR	1.0
Part B:	
Water	53.0
Glycerin	5.0
Part C:	
GERMABEN II	1.0
Part D:	
ELASTIN CLR	5.0
Fragrance	q.s.

Comments:

Emollient cream which spreads easily on the skin and leaves the skin feeling moisturized. This aesthetic creamy emulsion contains ELASTIN and does not leave a greasy after-feel.
Formula HOB-151-18

SKIN CREAM FOR DRY SKIN

INGREDIENTS:	%W/W
Part A:	
CUTINA LE (Glyceryl Stearate (and) Sodium Cetearyl Sulfate)	8.0
CETIOL A (Hexyl Laurate)	4.0
MYRITOL 318 (Caprylic/Capric Triglyceride)	2.0
Dow Corning 200 Fluid (100 cs) (Dimethicone)	2.0
Part B:	
Germaben II	1.0
Propylene Glycol	2.0
Water	76.0
Part C:	
Fragrance	q.s.
ELASTIN CLR	5.0

Comments:

Emollient cream rubs easily into the skin leaving a smooth non-greasy feel.
Formula HOB-154-30

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

EMOLLIENT CREAM

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	10.50
CERASYNT 303	1.00
CERAPHYL 140	5.00
EMULSYNT GDL	10.00
Cetyl Alcohol	1.00
Dow Corning 200 Fluid (100 cs.)	1.00
PRESERVATOL	0.15
Phase B:	
Water, deionized	63.80
Phosphoric Acid (85% Ortho)	0.25
Cellosize QP 30,000	0.30
CERAPHYL 65	2.00
Glycerine	5.00

Procedure:

Completely pre-disperse Cellosize in water, then add the rest of ingredients of Phase B. Heat Phases A and B to 80C. Add slowly Phase A to Phase B with constant agitation at 80C and cool with continuous stirring to 25-28C.

SOURCE: Van Dyk: New Cationic Self-Emulsifying Systems:
Formulation #A60-8-5

MINERAL OIL CREAM (W/O)

RAW MATERIALS	% By Weight
Phase A(cold):	
ABIL WE 09	5.0
Mineral oil (app. 30 mPa-s)	14.0
Phase B(cold):	
Water	80.3
Sodium chloride	0.7
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.3.1

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulation

EMOLLIENT HAND CREAM

RAW MATERIALS	% By Weight
Part A:	
Lanolin Oil (USP)	10.00
Stearic Acid N.F.	1.50
Cetyl Alcohol N.F.	0.20
Mineral Oil, 70 Viscosity	20.00
Beeswax (Bleached)	1.00
S-MAZ 60	2.00
Propyl Paraben	0.10
Part B:	
Borax USP	0.20
Glycerine CP/USP (99.5%)	5.00
Triethanolamine (85%)	0.70
Deionized Water	58.10
T-MAZ 60	1.00
Methyl Paraben	0.20

Procedure:

Heat Parts (A) and (B) separately to 75C. Add (A) to (B) at 75C. Stir steadily while in a water bath, to 32C - add perfume and pour.

Formulation 13

PROTECTIVE HAND CREAM

RAW MATERIALS	% By Weight
Stearic Acid	15.0
S-MAZ 60	2.0
T-MAZ 60	1.5
Zinc Stearate	5.0
Glycerine	6.0
CMC-7-HF (2% Solution)	37.5
Water	33.0
Preservative	q.s.

Procedure:

Melt all fats and Zinc Stearate and heat to 90C. Dissolve Glycerine and preservatives in water and heat to 90C. Add second batch to the first batch with rapid agitation. Drop temperatures to 55C and add slowly to the CMC solution.

Formulation 12

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies:
Suggested Formulations

EMOLLIENT NIGHT CREAM

RAW MATERIALS	% By Weight
A.	
EMERSOL 132 Stearic Acid	5.00
EMEREST 2380 Propylene Glycol Stearate	4.00
NIMCOLAN 1747 Solid Absorption Base	7.50
EMSORB 2505 Sorbitan Stearate	1.50
Methyl paraben	0.10
B.	
Propylene glycol	3.50
EMSORB 2728 Polysorbate 60	1.00
Triethanolamine	0.75
Propyl paraben	0.20
Deminerlized water	76.45

In this formulation NIMCOLAN 1747 provides an excellent emollient feel and rich moisturizing effect.

This rich moisture night cream is for overnight body skin care. Massage over body at night, after shower, or whenever skin is dry and flaky to give skin a new added softness. Never feels greasy.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol and Lanolin Alcohol Absorption Bases: Formulation 2252-12-02

DRY SKIN CREAM

RAW MATERIALS	% By Weight
A.	
EMEREST 2400 Glyceryl Stearate	4.0
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
EMERSOL 132 Stearic Acid	2.0
LANTROL 1673 Lanolin Oil	3.5
EMID 6540 Linoleamide DEA	1.0
EMSORB 2518 Sorbitan Diisostearate	1.0
Propyl paraben	0.1
B.	
Propylene glycol	3.5
EMSORB 2726 PEG-40 Sorbitan Diisostearate	2.0
Methyl paraben	0.2
Deionized water	80.7

This creamy smooth, high-oil-content emulsion provides maximum lubricity and emollience for people with dry skin. EMSORB 2726 and EMSORB 2518 serve as primary and secondary emulsifiers, and contribute to emulsion stability.

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Formulation 5E

EYE CREAM (W/O)

RAW MATERIALS	% By Weight
Phase A:	
PROTEGIN W	30.0
Perhydrosqualene	1.0
PCL liquid	1.0
Phase B:	
Glycerol	5.0
Magnesium sulphate-7H2O	0.5
Water	59.5
Collagen CLR	2.0
Hydrolastan	1.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.2.4

JOJOBA OIL CREAM (W/O)

RAW MATERIALS	% By Weight
Phase A:	
PROTEGIN WX	25.0
JOJOBA OIL	5.0
Phase B:	
Glycerol	5.0
Magnesium sulphate-7H2O	0.5
Water	64.5
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.2.3

LANOLIN CREAM (W/O)

RAW MATERIALS	% By Weight
Phase A:	
PROTEGIN X	22.0
Lanolin	7.0
Mineral oil (app. 200 mPa-s)	3.0
Isopropyl myristate	1.0
Phase B:	
Glycerol	3.0
Magnesium sulphate-7H2O	0.5
Water	63.5
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.2.2

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

EYE CREAM FOR NIGHT-TIME

RAW MATERIALS	% By Weight
A.	
White soft paraffin	17.0
Hard paraffin	5.0
Alugel DF 30	1.0
IMWITOR 780 K	5.0
MIGLYOL 840	3.0
Epigran	3.0
B.	
Biopollin	2.0
Preservative	q.s.
Water	ad 100.0

Preparation:

A is heated to approx. 80C and briefly stirred until it thickens.

B is heated to the same temperature and emulsified into A.

Formulation 1.2.11

MASSAGE CREAM TYPE O/W

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
Cetyl alcohol	3.0
SOFTISAN 378	5.0
Paraffin oil	20.0
Hostaphat KL 340 N	3.0
B.	
Water	ad 100.0
Preservative	q.s.
Glycerin	20.0
C.	
Perfume oil	q.s.

Preparation:

A is brought to 75-80C.

B is brought to the same temperature and emulsified into A.

Below 40C the perfume is added.

Formulation 1.1.20

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

FIRMING NIGHT CREAM CONTAINING DSH & PROTEOSILANE

INGREDIENTS	%w/w
A)	
Dist. Water	68.5
ACRISINT 400	0.5
Methyl Paraben	0.2
Propyl Paraben	0.1
B)	
Hostaphat KW340N	2.0
CIRAMI	2.5
RICE BRAN OIL	5.0
JOJOBA OIL	2.0
T-WAX	2.5
T-BASE	1.0
DC 200 Silicone 350 cs	0.5
SQUALANE	5.0
TOCOPHERYL ACETATE	0.2
C)	
Water Dist.	1.0
TEA (98%)	0.35
D)	
Water Dist.	2.0
ABIOL	0.5
E)	
DSH	4.0
PROTEOSILANE	2.0
F)	
Fragrance E4081	0.15

Formula #: MS-2-35-2

NATURAL NIGHT CREAM

INGREDIENT	% By Weight
CIRAMI No. 1 AMI	10.5000
JOJOBA OIL	1.0000
SWEET ALMOND OIL	4.0000
Myritol 318	6.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
Demineralized Water	69.2850
TENSAMI 3/06	2.0000
CARROT AMI OIL SOLUBLE	1.5000
PEACH AMI WATER SOLUBLE	5.0000
TRI-SEPT M	0.2000
ABIOL	0.2000
Perfume	0.2000

Formulation Code: AMI.007.

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

FOOT CREAM

INGREDIENT	% By Weight
I.	
Deionized Water	74.0
II.	
STARFOL OO	6.0
STARFOL WAX CG	4.0
AROSURF TA-100	6.0
ADOL 52	6.0
III.	
Pumice	4.0
IV.	
Preservative	qs
Solids:	26%
pH:	7.0
Viscosity:	2800 cps

Mixing Instructions:

Heat Phase I and Phase II to 70-80C. With rapid agitation, add Phase II to Phase I. Cool to 40C. Add Phase III. Cool to 30C with mixing.

Formulation Code 6.1.3

PROTECTIVE CREAM

INGREDIENT:	% By Weight
I.	
Deionized Water	79.2
Carbopol 934	0.1
II.	
ADOL 62	5.0
ADOL 52	4.0
STARFOL CP	1.0
Emerest 2407	2.0
DC 200 Fluid (50 cs)	1.0
Petrolatum	0.5
STARFOL IS	3.0
Tween 60	2.0
III.	
Deionized Water	2.0
Triethanolamine	0.2
IV.	
Preservative	qs
Solids:	20.7%
pH:	6.6
Viscosity:	62,500 cps
Formulation Code 6.4.1	

SOURCE: Sherex Chemical Co.: Suggested Formulations

GENERAL PURPOSE W/O CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS C26	10
ARMOTAN MO (Sorbitan Oleate)	1
ELFACOS ST37	2
Paraffin oil	50
p-Hydroxybenzoicacid methylester	0,2
Water Phase:	
Sorbitol 70%	4
Water	32,3
Dowicil 200	0,1
Perfume oil	0,4

This cream has a fatty character which is ideal for a cleansing cream or as a base for a pharmaceutical preparation.

Formulation No. 2121

GENERAL PURPOSE W/O CREAM

RAW MATERIALS	% By Weight
Oil phase:	
ARMOTAN MO (Sorbitan Oleate)	3
ELFACOS ST 37	5
ELFACOS C 26	7
12 Hydroxystearic acid	1
Isocetyl stearate	12
Isopropyl myristate	8
Nipasteril 30K	0,3
Water phase:	
Sorbitol 70%	5
Water	58,3
Perfume oil	0,4

This stable product has a very good, rapidly absorbing feeling with semisolid consistency.

Formulation No. 1034.

Manufacturing:

The oil and water phase are heated to 75C separately. The water phase is added to the oil phase with rapid stirring and then cooled down.

SOURCE: Akzo Chemicals, Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

GENERAL PURPOSE W/O CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS C26	5
ELFACOS ST37	3
ARMOTAN MO (Sorbitan Oleate)	3
Isopropyl stearate	5
Paraffin oil	15
Nipasteril 30K	0,2
Water Phase:	
Sorbitol 70%	5
Water	63,4
Perfume oil	0,4

The result is a soft cream which does not lose its consistency at 45C.

Formulation No. 3120

GENERAL PURPOSE W/O BASE

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS ST9	8,6
ELFACOS C26	4
Paraffin oil	8
ELFACOS E200	5
Water Phase:	
Water	68,8
Glycerin	5
Dowicil 200	0,2
Perfume oil	0,4

A stable, soft cream results: ELFACOS E200 acts as an emulsifier, ELFACOS ST9 as a stabiliser. This very simple recipe has optimal water content and is relatively cheap qua raw material costs; the emulsion is suitable for dry parts of the face, feet and body.

Formulation No. 1794

Manufacturing:

The oil and water phase are heated to 75C separately. The water phase is added to the oil phase with rapid stirring and then cooled down.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

GENERAL-PURPOSE CREAM

RAW MATERIALS	Parts
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
Glycerol monostearate	4.0
Cetyl alcohol	4.0
Liquid paraffin	5.0
Peanut oil	4.0
Isopropyl myristate	2.0
Glycerol	4.0
(+)-ALPHA-BISABOLOL rac.	1.2
Water	71.8

NOURISHING CREAM

RAW MATERIALS	Parts
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	13.0
(+)-ALPHA-BISABOLOL rac.	2.2
Cetyl alcohol	2.0
Glycerol monostearate	6.0
Peanut oil	5.0
Vitamin oil "Biocorno"	1.0
Abil 100	0.1
1,2-Propylene Glycol USP	3.0
Water	63.7

SKIN-CARE CREAM

RAW MATERIALS	Parts
CREMOPHOR A11	2.7
Cutina MD	8.0
Liquid paraffin	7.0
Abil 100	0.5
Carbopol 934/1% in water	40.0
Triethanolamine Pure C	0.6
(+)-ALPHA-BISABOLOL rac.	0.7
Water	40.5

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulations

GLOSSY WASHING CREAM

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.5
Water	54.0
Propylene glycol	4.0
B.	
Arlacel 165	7.0
Pluronic F68	5.0
Marcol 130	25.0
Lanacet	0.5
Trisolan	2.5
Cocoyl sarcocine	0.5
Preservative	q.s.

Consistency: Medium viscosity cream

Suggested packaging: jar or squeeze tube

Comments: This formula is ideal for makeup removal while moisturizing without greasiness.

Formulation No. 211

LIQUID COLD CREAM

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	69.0
B.	
Waxenol 821 S.B.	1.5
Crodamol SS	1.5
Marcol 130	20.0
Arlacel 40	3.5
Tween 60	3.5
Preservative	q.s.

Consistency: Pourable lotion.

Suggested Packaging: Squeeze or pump container.

Formulation No. 383

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

GLYCERIN CREAM, PARAFFIN-FREE

RAW MATERIALS	% By Weight
A.	
IMWITOR 370	6.0
IMWITOR 900	7.0
MIGLYOL 812 Neutral Oil	18.0
MIGLYOL 840	9.0
B.	
Glycerin	15.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

The perfume is added at 30C.

Formulation 1.1.13

WRINKLE CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	7.0
Stearic acid	7.0
MIGLYOL 812 Neutral Oil	1.5
MIGLYOL 840 Neutral Oil	3.0
MIGLYOL 818	2.0
B.	
Glycerin	2.0
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.9
D.	
Water soluble Placentaliquid (or Collagen CLR)	5.0
Perfume	q.s.

Preparation:

A is melted and brought to 80-85C.

B is brought to the same temperature.

C is added to B and B+C are emulsified into A.

D is stirred in at 35C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.1.6

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.6

HAND CREAM

RAW MATERIALS	% By Weight
Part A:	
Water	79.0
Triethanolamine	1.0
Methyl Paraben	0.2
Part B:	
MAZER MACOL 124	8.0
MAZER MACOL CA-30P	0.6
Mineral Oil	4.0
Stearic Acid	2.5
Propylene Glycol	4.5
Propyl Paraben	0.2

Procedure:

1. Add Part B to Part A at 75C.
2. Cool with continued high speed agitation.

Formula 7

HAND CREAM(WATER RESISTANT)

RAW MATERIALS	% By Weight
Part A:	
MAZER MAZU DF 200S	4.0
MAZER MASIL SF V	3.0
Stearic Acid	7.0
MAZER MACOL CPS	4.0
MAZER T-MAZ 60	2.5
MAZER S-MAZ 80	0.5
Lanolin (RITA)	1.0
Part B:	
Propylene Glycol	6.0
Distilled Water	20.0
Part C:	
Distilled Water	44.0
Part D:	
5% Veegum Solution	8.0
Perfume	q.s.
Preservative	q.s.

Procedure:

1. Part A and Part B are heated to 70C. Part C to 50C.
2. Part A is then added to Part B with good agitation.
3. The A-B mixture is cooled to 50C and Part C is added with good agitation.
4. Cool A-B-C mixture to 35C and blend in Part D.

Formulation 11.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

HAND CREAM

INGREDIENT	% By Weight
I.	
Deionized Water	78.8
Carbopol 934	0.2
II.	
Deionized Water	5.0
Glycerine	4.0
VARONIC K215	0.2
Triethanolamine	0.1
Sodium Hydroxide	0.2
VARONIC LI-67	0.5
III.	
HYDROFOL ACID 1655	4.0
Myristic Acid	1.5
STARFOL WAX CG	1.0
STARFOL IS	1.0
Mineral Oil	3.5
IV.	
Preservative	qs

Solids: 16.2% pH: 7.5 Viscosity: 22,000 cps
 Formulation Code: 6.4.1

HAND AND BODY CREAM

RAW MATERIALS	% By Weight
I.	
Deionized Water	87.3
Carbopol 940	0.2
II.	
Propylene Glycol	2.0
Keltrol	0.2
III.	
ADOL 52	3.0
STARFOL WAX CG	2.0
HYDROFOL ACID 1655	1.0
Petrolatum	0.5
VARONIC LI-48	1.5
IV.	
Deionized Water	2.0
Triethanolamine	0.3
V.	
Preservative	qs

Solids: 12.7% pH: 6.0 Viscosity: 48,000 cps
 Formulation Code: 6.4.1

SOURCE: Sherex Chemical Co.: Suggested Formulations

HAND CREAM

INGREDIENTS:	%W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	3.50
EUMULGIN B-1 (Ceteareth-12)	3.00
Mineral Oil, Light	5.00
Part B:	
Urea	2.00
Propylene Glycol	3.00
Water	83.25
Part C:	
Preservative	q.s.
Fragrance	q.s.
Dyes	q.s.

Procedure:

Heat Part A to 70-75C. Heat Part B to 70-75C. Add Part B to Part A and continue stirring. At 40C add individual components of Part C, one at a time, under agitation. Continue stirring until product is homogeneous. Fill off.

Comments:

HOB-152-14-C is a simple, economical yet effective all purpose cream with moisturizing properties.

Formula HOB-152-14-C

HAND AND BODY CREAM

INGREDIENTS:	%W/W
Part A:	
Stearic Acid XXX	8.00
GENEROL 122 (Soya Sterol)	3.00
MYRITOL 318 (Caprylic/Capric Triglyceride)	7.00
Part B:	
Carbopol 940 (Carbomer 940)	0.12
Propylene Glycol	4.00
Water	73.68
Part C:	
DERIPHAT 160-C (Sodium Lauriminodipropionate)	4.00
Dimethicone	0.20
Part D:	
Fragrance	q.s.
Dyes and preservatives	q.s.

Comments:

This elegant cream features MYRITOL 318 as an effective emollient oil even when used at relatively low levels.

Suggested Formula H-4811

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulas

HAND CREAM

INGREDIENTS	Parts by Weight
(A)	
CELQUAT SC-240	0.50
Propylene Glycol	4.00
Triethanolamine	2.50
Distilled Water	79.95
(B)	
Stearic Acid, XXX	7.00
Drakeol 21	4.00
Glyceryl Monostearate	1.00
Cetyl Alcohol	0.25
Lipolan R	0.30
(C)	
Germaben IIE	0.50

pH: 8.3

Preparation:

Prepare part A by sifting CELQUAT into a solution of propylene glycol and triethanolamine in water. In a separate vessel, combine part B ingredients. Heat both A and B to 80C. Mix until solutions are homogeneous. With vigorous mixing, add B to A. Add C while cooling.

SOURCE: National Starch and Chemical: CELQUAT SC-240: Formulation 5628-140F

CREAM C-1006

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
MODULAN	5.0
SOLULAN 16	1.0
Petrolatum, USP white	5.0
Water Phase:	
Carbopol 934	0.75
Water	77.25
Sodium hydroxide, 10% aq.	2.25
Ethomeen C-25, 10% aq.	3.75
Perfume and Preservative	q.s.

Description:

Soft hand cream. Suitable for tube dispensing. Protective emollient system.

Variations:

To reduce tackiness, add 2% GLUCAM P-10 to water phase.

For added emollience and emulsion stabilization, replace petrolatum with AMERCHOL CAB.

SOURCE: Amerchol Corp.: Creams: Suggested Formulations

HAND CREAM BASE
(no. 154 (ST9) or no. 558 (ST37))

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS ST	4
PEG 1000 monostearate	1
Liquid paraffin	7
Amphisol	3
Stearic acid	2
Glycerol monostearate, pure	7,5
Preservative	0,2
Silicone oil AK 350	0,5
Water phase:	
Triethanolamine	0,4
Water	74,1
Perfume oil	0,4

This stable emulsion is a basis for handcream development.

HAND CREAM BASE
(No. 1972 (ST9) or No. 1973 (ST37))

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS C36	15
ELFACOS ST	1
ARMOTAN MS	1
ARMOTAN PMS 20	3
Kathon CG	0,1
Glycerine	3
Water phase:	
Water	75,4
Perfume oil	0,5

With this formulation a so called "mix" emulsion, is obtained. This stable, dry, quickly absorbing handcream shows no staining when working e.g. on typewriter paper

Manufacturing:

The oil and water phase are heated to 75C separately. The water phase is added to the oil phase with rapid stirring and then cooled down.

At 45C the perfume oil is added.

It is recommended that the finished emulsion be homogenized using a stator-rator homogenizer.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

HYALURONIC ACID MOISTURIZING CREME

RAW MATERIALS	% By Weight
Part 1:	
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	5.00
Isopropyl Lanolate (Amerlate P)	1.00
Mineral Oil, 70 vis.	3.50
Stearic Acid, triple pressed	1.50
Glyceryl Stearate	2.00
Part 2:	
Carbomer 934, 3% slurry (Carbopol 934)	10.00
Water	60.90
Propylene glycol	5.00
Triethanolamine, 10% solution	10.00
Part 3:	
GERMABEN II-E	1.00
Hyaluronic Acid, 1% (Hyladerm)	0.10

Procedure:

Disperse the Carbopol slurry in water and mix until uniform. Heat Part 1 to 75C. and heat the slurry to 75C and add the water to the oil phase. Add the balance of Part 2 with stirring. Cool to room temperature and add Part 3.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary - Supplement #1

LIGHT MOISTURIZING CREAM

RAW MATERIALS	% By Weight
Phase A:	
Cyclomethicone (and) Dimethicone Copolyol (Silsoft Beauty Aid MG)	30.0
Stearic Acid	5.0
Myristyl Myristate (Ceraphyl 424)	2.0
Phase B:	
Glycerol	1.0
Propylene Glycol	1.0
Polyquaternium-10 (Ucare Polymer LR-400)	60.0
Phase C:	
GERMABEN II	1.0
Fragrance	q.s.

Procedure:

Heat Phase A and Phase B separately to 55C. Add Phase B slowly to Phase A with good mixing under moderate shear. Continue mixing and cool to 40C. Add Phase C with continued mixing and cool to 25C.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

LOW-PH(3.8)SUGAR ESTER REPLENISHING PREPARATION WITH
SOLUBLE COLLAGEN - CREAM

RAW MATERIALS	Parts by Weight
EMCOL E-607S (Steapyrium Chloride)	0.9
Polawax	5.0
Procetyl 10	3.0
Crodamol PG	3.0
Neobee 18	3.0
Glycerine	5.0
Water	70.1
Collasol	10.0
Perfume, Preservative, Antioxidant	q.s.

LOW-PH(3.8)SUGAR ESTER REPLENISHING PREPARATION WITH
SOLUBLE COLLAGEN-CREAM

RAW MATERIALS	% By Weight
EMCOL E-607S (Steapyrium Chloride)	0.9
Crodesta F160	2.4
Crodesta F20	1.0
Procetyl 10	3.0
Crodamol PG	3.0
Neobee 18	3.0
Glycerine	5.0
Water	71.6
Collasol	10.0
Perfume, Preservative, Antioxidant	q.s.

Heat oil and water phases separately to 65C. Add water to oil phase with high-speed agitation, avoiding aeration. When uniform, cool to 30C and add Collasol. Stir until uniform.

For additional smoothness, emulsions can be homogenized. The viscosity of these emulsions can be varied from liquid to solid by relatively minor variations in the sugar ester concentrations.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 113C

MAKE-UP CREAM (O/W)

RAW MATERIALS	Parts
Fat phase:	
EMULGATOR E 2155	6
Vaseline DAB 8	5
ABIL 100	5
Isopropyl stearate	6
Water phase:	
Glycerol	5
Water	73
Pigments	9
Perfume	q.s.
Preserving agent	q.s.

Preparation:

Stir pigments, glycerol and some water to a paste (at room temperature). Heat separately the residue of water and the fat phase to 65-70C. Stir together and homogenize.

Stir the paste of pigments into the fat phase. Stir until cool, adding perfume at app. 45C.

Formulation E 2.1.13

PEELING CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E 2155	5.0
Mineral oil (app. 200 mPa-s)	12.0
Cetyl alcohol	2.0
Isopropyl myristate	3.0
Phase B:	
Water	70.0
Nylon powder* (Rilsan BHV NAT COS)	8.0
Perfume	q.s.
Preserving agent	q.s.

* add after homogenization

Formulation E 2.1.14

SOURCE: Goldschmidt Chemical Co.: TEGO Surfactants: Suggested Formulations

MASSAGE CREAM

INGREDIENT	% By Weight
I.	
HYDROFOL ACID 1655	1.0
Mineral Oil	10.5
Lanolin Alcohol	1.0
STARFOL WAX CG	1.0
ADOL 52	0.5
ADOL 62	0.5
Lanolin	0.5
II.	
Borax	0.7
Propylene Glycol	3.0
Deionized Water	81.3
III.	
Preservative	qs

Mixing Instructions:

Prepare each phase separately and heat to 75-80C. With good agitation add Phase I to Phase II. Cool with mixing to 30C.

Solids: 18.7%
 pH: 7.2
 Viscosity: 5500 cps
 Formulation: Code: 6.1.9

MASSAGE CREAM WITH COCOA BUTTER

INGREDIENT	% By Weight
I.	
Glyceryl Stearate	1.3
HYDROFOL ACID 1655	2.0
Mineral Oil	7.5
ADOL 52	1.1
Lanolin	0.5
STARFOL OS	0.6
Cocoa Butter	0.5
II.	
VARONIC LI-48	1.6
Triethanolamine	0.9
Propylene Glycol	1.6
Deionized Water	82.4
III.	
Preservative	qs

Mixing Instructions:

Prepare Phase I and Phase II separately. Warm each Phase to 80C. Blend Phase I into Phase II with rapid but smooth agitation. Cool system with smooth agitation to 30C.

Formulation Code: 6.1.9

SOURCE: Sherex Chemical Co.: Suggested Formulations

MOISTURIZING CREAM

CREMOPHOR A6	1.5
CREMOPHOR A25	1.5
LUVITOL EHO	6.0
Paraffin oil	6.0
Cetyl/stearyl alcohol	7.0
1,2-Propanediol USP	3.0
Hygroplex HHG	2.0
Water	73.0
Formulation 1	

MOISTURIZING CREAM

CREMOPHOR A6	4.0
LUVITOL EHO	10.0
Glycerol monostearate SE	8.0
Paraffin oil	10.0
Collagen CLR	2.0
1,2-Propanediol USP	3.0
Water	63.0
Formulation 2	

SOURCE: BASF: LUVITOL EHO: Suggested Formulations

MOISTURIZING CREAM

CREMOPHOR A25	1.5
CREMOPHOR S9	7.0
Cetyl Alcohol	6.0
Wool Wax DAB 8	3.0
ABIL 350	1.1
Miglyol 812	5.0
Karion F	3.0
Collagen CLR	5.0
(+)-ALPHA-BISABOLOL rac.	1.0
Water	67.4

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

MOISTURIZING CREAM

CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	6.0
Paraffin oil	6.0
Vitamin E Nicotinate C	0.2
D-PANTHENOL 50P	4.0
Glyceryl stearate	6.0
Cetyl alcohol	0.5
Tegiloxan 100	0.2
Water/Perfume/Preservative	ad 100

SOURCE: BASF: Vitamin E Nicotinate C: Suggested Formulation

MOISTURIZING CREAM

INGREDIENTS:	%W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	6.0
EUTANOL G (Octyldodecanol)	4.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	3.5
Part B:	
Water	85.4
LANETTE E (Sodium Cetearyl Sulfate)	1.0
Part C:	
Preservative	q.s.
Fragrance	q.s.

Procedure:

- A. Mix and melt Part A to 60-65C.
- B. Add LANETTE E to heated water (65C).
- C. Add Part B to Part A and mix.
- D. Add Part C at 45C.

Comments:

LANETTE E is an anionic emulsifier which is efficient at low levels. This emulsion is a cream which spreads easily and provides an emollient non-greasy feel.

Formula HOB-151-22-A

MOISTURIZING CREAM WITH COLLAGEN

INGREDIENTS:	%W/W
Part A:	
EMULGADE 1000 NI (Cetearyl Alcohol (and) Ceteareth-20)	7.00
CETIOL 1414-E (Myreth-3 Myristate)	5.00
Part B:	
Water	83.85
Part C:	
COLLAGEN CLR	3.00
Germaben II	1.00
Fragrance	0.15

Procedure:

Heat Part A to 70-75C. Heat Part B to 70-75C. While agitating, add Part B to Part A. Remove heat and continue mixing during cooling step. When the batch temperature has reached 40-45C, add the individual components of Part C. Continue stirring for 15-20 minutes. Fill off.

Comments:

This economical moisturizing cream features rapid rub-in combined with a pleasant after-feel.

Formula HOB-176-15

SOURCE: Henkel Corp.:Personal Care Products Formulary:Formulas

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
A.	
VEEGUM PRO	1.5
Water	74.5
B.	
Triethanolamine	1.0
Glycerin	4.0
C.	
Stearic Acid XXX	2.0
Cetyl alcohol	2.0
Isopropyl myristate	2.0
Atmul 124	3.0
Marcol 130	10.0
Preservative	q.s.

Procedure:

Heat the water to 70 to 75C, then slowly add the VEEGUM PRO while agitating at maximum available shear. Mix until smooth. Add B to A with slow mixing until smooth. Maintain A/B at 70 to 75C; heat C to 70 to 75C. Add C to A/B and mix until cool.

Consistency: Medium viscosity cream.

Suggested Packaging: Wide mouth jar.

Comments: VEEGUM PRO contributes to viscosity and emulsion stability of this greaseless cream formula. The cream can serve as the basis for a number of skin treatment products.

SOURCE: R.T. Vanderbilt Co., Inc.: Suggested Formulation
No. 416

MOISTURIZING CREAM WITH COLLAGEN AND ELASTIN(O/W)

RAW MATERIALS	%W/W
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.00
SATOL purified, stabilized (CTFA: Oleyl Alcohol)	4.00
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Myristate)	5.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	8.00
Stearic acid T.P. (CTFA: Stearic Acid)	10.00
Butylated hydroxytoluene (CTFA: BHT)	0.05
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	1.50
Propylene glycol (CTFA: Propylene Glycol)	2.00
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
Deionized water	60.85
Collagen (1% water soluble) (CTFA: Collagen)	1.50
Hydrolastane (CTFA: Hydrolized Elastin)	1.50
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulation

MOISTURIZING CREAM, OILY

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	12.0
SOFTISAN 649	3.0
MIGLYOL 812 Neutral Oil	4.0
MIGLYOL 840	4.0
Almond oil	5.0
Hard paraffin	2.5
Cetyl alcohol	2.0
B.	
Hygroplex HHG	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

At about 30C the perfume is added.

Formulation 1.1.10

MOISTURIZING CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A.	
IMWITOR 940	10.0
Lanette N	5.0
MIGLYOL 812 Neutral Oil	5.0
MIGLYOL 840	3.0
B.	
Karion F	3.0
Hygroplex HHG	5.0
Propylene glycol	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 80-85C.

B is brought to the same temperature, and slowly emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.1.9

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulations

MOISTURIZING CREAM O/W

RAW MATERIALS % By Weight

Phase A:	
Tegin	11.5
Isopropylpalmitate	6.0
Paraffin oil	5.0
Miglyol 812	3.0
Phase B:	
Water, preservative	63.7
Propylene glycol	5.0
HYASOL	3.0
REVITALIN	3.0
Phase C:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

Formulation Code No. PL 1119

MOISTURIZING CREAM O/W

RAW MATERIALS: % By Weight

Phase A:	
Protegin	24.0
Beeswax	2.0
Lanolin	3.0
Isopropylpalmitate	6.0
Paraffin oil	6.0
Phase B:	
Water, preservative	52.1
Glycerine	3.0
Magnesium sulphate	0.5
HYASOL	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

Formulation Code No. PL 1215

SOURCE: Pentapharm Ltd.: Guide Formulations

MOISTURIZING CREAM (O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGO-CARE 150	8.0
Stearyl alcohol	1.0
Caprylic/capric acid triglyceride	6.0
ABIL-Wax 2434	3.0
Phase B:	
Glycerol	3.0
LACTIL	2.0
Water	77.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.1.6

MOISTURIZING CREAM (O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2155	8.0
TEGOSOFT 189	6.0
Isopropyl stearate	6.0
Hexyl laurate	2.0
Stearyl alcohol	2.0
ABIL-Wax 2434	5.0
Phase B:	
Water	67.0
Glycerol	3.0
LACTIL	1.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.1.7

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

MOISTURIZING CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Tween 60	3.0
Arlacel 60	2.0
Cetyl alcohol	3.0
Stearic acid	6.0
Isopropylmyristate	10.0
Miglyol 812	5.0
Phase B:	
Water, preservative	61.6
Glycerine	4.0
PENTAVITIN	5.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1125

MOISTURIZING DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin CG	12.0
Eumulgade 1000 NI	2.0
Miglyol 812	6.0
PCL-liquid	3.0
Phase B:	
Water, preservative	67.5
Glycerine	4.0
Carbopol 934	0.5
PENTAVITIN	4.0
Phase C:	
Triethanolamine	0.6
Phase D:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. First add phase C to the hot phase B, then add phase B + C to phase A under stirring, cool to 50C, homogenize and cool to 30C
4. Then add phase D and stir cold.

Formulation Code No. PL 1126

SOURCE: Pentapharm Ltd.: Guide Formulations

MOISTURIZING DAY CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Arlacel 165	6.0
Tween 85	3.0
Cetylalcohol	3.0
Isopropylmyristate	8.0
Miglyol 812	5.0
Paraffin oil	3.0
Phase B:	
Water, preservative	62.6
Propylene glycol	3.0
PENTAGLYCAN	3.0
PENTAVITIN	3.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1123

DAY CREAM W/O

RAW MATERIALS	% By Weight
Phase A:	
Lameform O	24.0
Lameform TGI	5.0
Beeswax	3.0
Lanolin	2.0
Perhydrosqualene	5.0
Isopropylpalmitate	4.0
Miglyol 812	3.0
Phase B:	
Water, preservative	44.1
Glycerine	5.0
Magnesiumsulphate-heptahydrate	0.5
Phase C:	
PLACENTOL	4.0
Phase D:	
Perfume oil	0.4

Formulation Code No. PL 1217

SOURCE: Pentapharm Ltd.: Guide Formulations

MOISTURIZING CREAM W/O

RAW MATERIALS	% By Weight
Phase A:	
HOSTACERIN DGO	2.0
Apicerol	10.0
Aluminum stearate	0.5
Lunacera M	2.0
Isopropylpalmitate	5.0
PCL-liquid	4.0
Paraffin oil	4.0
Phase B:	
Water, preservative	61.6
Glycerine	4.0
Magnesiumsulphate-heptahydrate	0.5
PENTAVITIN	3.0
Phase C:	
COLLAGEN	3.0
Phase D:	
Perfume oil	0.4

Formulation Code No. PL 1220

MOISTURIZING EMULSION O/W

RAW MATERIALS	% By Weight
Phase A:	
Eumulgin B 1	1.5
Eumulgin B 2	1.5
Lanette 16	1.5
Paraffin oil	8.0
Isopropylpalmitate	4.0
Stearic acid	2.0
Phase B:	
Water, preservative	70.0
Glycerine	3.0
PENTAVITIN	3.0
Triethanolamine	0.2
Phase C:	
GLYCOSOME	5.0
Phase D:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 35C and then add phase C.
4. At 30C add phase D and stir cold.

Formulation Code No. PL 1022

SOURCE: Pentapharm Ltd.: Guide Formulations

MOISTURIZING HAND AND FACE CREAM

RAW MATERIALS	% By Weight
A.	
NIMLESTEROL 1732 Liquid Absorption Base	20.0
EMEREST 2400 Glyceryl Stearate	2.5
ACETOL 1706 Acetate Ester	2.0
EMERWAX 1266 Emulsifying Wax BP Type	2.0
LANTROL 1673 Lanolin Oil	1.0
Dow Corning 200 Fluid	0.3
B.	
Carbopol 941 (.15% aq. sol'n.)	64.9
Propylene Glycol	4.5
EMEREST 2717 PEG-100 Stearate	1.5
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Methyl paraben	0.2
Triethanolamine	0.1

This cream has a rich appearance with excellent surface gloss. It readily rubs into the skin leaving a soothing emollient feel to dry skin areas.

SOURCE: Emary Chemicals: EMERY Lanolin Alcohol: Formulation 39E

MOISTURIZING HAND AND FACE CREAM

RAW MATERIALS	% By Weight
A.	
LANACET 1705 Acetylated Lanolin	4.0
EMERSOL 132 Stearic Acid	3.5
EMEREST 2380 Propylene Glycol Stearate	2.5
Propyl paraben	0.1
B.	
Propylene glycol	3.5
Triethanolamine	0.7
Methyl paraben	0.2
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7
DeminerIALIZED water	84.8

This elegant, creamy hand and face moisturizing cream can be applied smoothly and rubs in quickly to leave the skin with a soft, non-greasy, non-oily after feel. LANACET 1705 Acetylated Lanolin is utilized as a primary emulsifier.

SOURCE: Emary Chemicals: EMERY Acetylated Lanolin Derivatives: Formulation 2252-126B

MOISTURIZING HAND & BODY CREAM(O/W)

RAW MATERIALS	% By Weight
a)	
Lanette N (CTFA: Cetearyl Alcohol (and) Sodium Cetearyl Sulfate)	8.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	4.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	0.30
c)	
d-PANTHENOL (CTFA: Panthenol)	0.25
Allantoin (CTFA: Allantoin)	0.10
Glycerine (CTFA: Glycerin)	5.00
Urea (CTFA: Urea)	5.00
Sorbitol (70%) (CTFA: Sorbitol)	5.00
Deionized water	70.35
e)	
Perfume, preservatives, deionized water	qs to 100

WATER RESISTANT HAND CREAM(O/W)

RAW MATERIALS	% By Weight
a)	
Stearic acid T.P. (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.50
Hetester ISS (CTFA: Isostearyl Stearoyl Stearate)	4.00
Dermol 105 (CTFA: Isodecyl Neopentanoate)	4.00
Ganex V-220 (CTFA: PVP/Eicosene Copolymer)	4.00
Silicone Fluid 200/100 cs (CTFA: Dimethicone)	0.50
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.50
c)	
Carbopol 940 dispersion (2%) (CTFA: Carbomer 940)	5.00
Glycerine (CTFA: Glycerin)	8.00
Deionized water	59.40
d)	
Deionized water	5.00
Triethanolamine (99%) (CTFA: Triethanolamine)	0.10
e)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulation

MOISTURIZING REPAIR CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Hostaphat KW 340 N	5.0
Stearic acid	9.0
Lanette 16	1.0
Isopropylpalmitate	7.0
Paraffin oil	5.0
Phase B:	
Water, preservative	60.6
Glycerine	4.0
HYASOL	3.0
Phase C:	
GLYCOSOME	5.0
Phase D:	
Perfume oil	0.4

Formulation Code No. PL 1122

MOISTURIZING REPAIR CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Lamecreme LPM	8.0
Lamecreme SA 7	0.5
Cutina CP	5.0
Lanette 16	2.0
Lanolin	2.0
Paraffin oil	5.0
Isopropylpalmitate	4.0
Avocado oil	2.0
Phase B:	
Water, preservative	60.2
Glycerine	5.0
HYASOL	3.0
PENTAGLYCAN	3.0
Phase C:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

Formulation Code No. PL 1120

SOURCE: Pentapharm Ltd.: Guide Formulations

MOISTURIZING SKIN CREAM

INGREDIENTS	% By Weight
A.	
Deionized water	66.22
B.	
Propylene glycol	3.00
Methylparaben	0.20
Propylparaben	0.10
C.	
Xanthan gum	0.10
D.	
Mineral oil	5.00
Safflower oil	3.00
Stearic acid	3.50
Cetyl alcohol	1.00
Emulsifying wax N.F. (Polawax)	2.00
Lanolin (anhydrous)	0.50
Dimethicone (Dow Corning 200 Fluid)	0.50
Diocyl adipate (and) Octyl stearate (and) Octyl palmitate (Wickenol 163)	1.00
Glyceryl stearate (and) PEG-100 stearate (Arlacel 165)	5.00
Sorbitan stearate (Arlacel 60)	1.50
METHOCEL 40-100	0.10
BHA	0.05
Vitamin E oil	0.01
E.	
Sodium PCA (Ajidew N-50)	5.00
F.	
Deionized water	1.00
DOWICIL 200 preservative	0.10
G.	
Deionized water	1.00
Collagen	0.01
Elastin	0.01
H.	
Fragrance (honeydew)	0.1

A formulation with a high level of natural moisturizers and a silky afterfeel.

With this formula, you can create a cream with up to 5% sodium PCA.

The feel of this cream is also unique. Leaves a light, non-greasy afterfeel on the skin, increasing the sensation of moisturizing.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

NIGHT CREAM

RAW MATERIALS	% By Weight
A.	
Deionized water	66.20
VERSENE Powder chelating agent	0.10
Carbomer 941	0.20
B.	
Glycerin	3.00
C.	
Propylene glycol	4.00
Methylparaben	0.20
Ethylparaben	0.15
D.	
Squalane	2.00
Isopropyl palmitate	4.00
Isopropyl myristate	3.00
Cetearyl alcohol (and) Cetareth-20	1.50
Stearic acid	3.50
Glyceryl monostearate	3.50
Cetyl alcohol	1.00
Sesame oil	2.00
Mineral oil	1.00
Mineral oil (and) Lanolin alcohol	1.00
Laureth-23	0.50
Dimethicone	0.50
BHA	0.05
METHOCEL 40-100	0.10
E.	
Deionized water	1.00
Triethanolamine	0.25
F.	
Color	q.s.
G.	
Perfume oil	0.15
H.	
Deionized water	1.00
DOWICIL 200 preservative	0.10

A rich moisturizing formulation with a pleasant, high-quality afterfeel.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

NIGHT CREAM

INGREDIENTS:	%W/W
Part A:	
DEHYMULS E (Sorbitan Sesquioleate (and) Beeswax (and) Aluminum Stearate (and) other ingredients)	7.00
CETIOL V (Decyl Oleate)	4.00
White Petrolatum	9.00
Mineral Oil	10.00
Aluminum Stearate	1.00
Part B:	
Water	63.85
Glycerine	5.00
Part C:	
Fragrance	0.15
Dyes	q.s.
Preservatives	q.s.

Procedure:

Heat Part A in a suitable vessel under constant agitation to 60C. Heat Part B in a separate vessel to 60C and add slowly to Part A, under moderate agitation. Continue agitation with addition of Part C at 40C.

Comments:

This W/O cream provides a non-greasy application in addition to protective dermal properties imparted by the emollient ester. Formula 4322

NIGHT CREAM

INGREDIENTS	%W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	1.00
CUTINA GMS (Glyceryl Stearate)	10.00
EUMULGIN B-1 (Cetareth-12)	1.50
EUMULGIN B-2 (Cetareth-20)	1.50
EDENOL 302 (Propylene Glycol Dicaprylate/Dicaprate)	12.00
Part B:	
Water	73.00
Part C:	
GERMABEN II	1.00
Dyes	q.s.
Fragrance	q.s.

Procedure:

Heat Part A to 70-75C. Heat Part B to 75-80C. Add Part B to Part A under agitation. Continued stirring while product cools down. At 45C add individual components of Part C under agitation

Comments:

This night cream was designed to provide a good matt effect while not exhibiting the heavy oiliness typical of night creams. Formula H-4806

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulas

NIGHT CREAM

RAW MATERIALS	% By Weight
Oil phase:	
ARMOTAN MO (Sorbitan Oleate)	3
AMERCHOL L-101	3
ELFACOS ST9	3
ELFACOS C26	7
Paraffin oil perl.	10
Octyl isononanate	9
Nipasteril 30K	0,32
Water phase:	
Sorbitol 70%	5
Preservative	0,2
Water	59,08
Perfume oil	0,4
Formulation No. 1662	

NIGHT CREAM

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS E200	2
ELFACOS C26	2
ELFACOS ST9	1
Paraffin oil	20
Nipasteril 30K	0,2
Water phase:	
Sorbitol 70%	5
Water + perfume up to	100
Formulation No. 3130	

NIGHT CREAM

RAW MATERIALS	% By Weight
Oil phase:	
ARMOTAN MO (Sorbitan Oleate)	3
ELFACOS ST9	3
ELFACOS C26	5
Paraffin oil perl.	10
Amerchol CAB	5
Octyl isononate	6
Nipasteril 30K	0,32
Water phase:	
Sorbitol 70%	5
Water	61,98
Preservative	0,3
Perfume oil	0,4
Formulation No. 1650	
SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200	

NIGHT CREAM

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	20.0
Paraffin oil	8.0
IMWITOR 780K	5.0
B.	
Hard paraffin	3.0
Wheatgerm oil	5.0
Antioxidants	q.s.
C.	
Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
D.	
Perfume	q.s

Preparation:

A is mixed and heated to 75-80C.

B is heated to the same temperature and is then added to A.

C is heated to the same temperature and is then gradually emulsified into A+B.

At about 40C D is added.

Formulation 1.2.6

NIGHT CREAM

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	20.0
Paraffin oil	8.0
IMWITOR 780K	5.0
B.	
Hard paraffin	3.0
Almond oil	5.0
Cetyl alcohol	2.0
C.	
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
D.	
Perfume	q.s
Cetyl alcohol can be replaced by PCL solid.	

Formulation 1.2.7

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

NIGHT CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	5.0
MIGLYOL 812 Neutral Oil	8.0
Protegin X	22.0
Wool wax	5.0
Olive oil	10.0
Hard paraffin	3.0
Antioxidants	q.s.
B.	
Glycerin	0.5
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and emulsified into A.

At about 30C the perfume is added.

Formulation 1.2.8

NIGHT CREAM WITH VEGETABLE OILS, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	15.0
IMWITOR 780K	5.0
DYNACERIN 660	2.0
Olive oil	1.0
Almond oil	2.0
Lunacera PE-P	5.0
Antioxidants	q.s.
B.	
Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is mixed and heated to 75-80C.

B is brought to the same temperature and emulsified into A.

At about 30C the perfume is added.

Formulation 1.2.5

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulations

NIGHT CREAM (W/O)

RAW MATERIALS	Parts
CREMOPHOR W07	6.0
Paraffin oil	5.0
LUVITOL EHO	10.0
Isopropyl myristate	10.0
D-Panthenol USP	0.5
Lunacera MW	6.0
Aluminum stearate	1.0
Magnesium stearate	1.0
Vitamin E Nicotinate C	0.5
Water	ad 100
Perfume	
Preservative	

SOURCE: BASF: Vitamin E Nicotinate C: Formulation 51/001

PROTECTIVE SKIN CREAM

RAW MATERIALS	Parts
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
Glyceryl monostearate	5.0
Cetyl alcohol	5.0
Liquid paraffin	9.0
ABIL 100	1.0
Luviquat FC 370	5.0
Glycerol	10.0
Preservative	q.s.
Essential oil	q.s.
Water	61.0

SOURCE: BASF: CREMOPHOR A grades: Formulation 50/045

CREAM BASE

RAW MATERIALS	Parts
CREMOPHOR A25	2.0
Cetylstearyl alcohol	8.0
Vaseline white	10.0
Liquid paraffin	10.0
Preservative	q.s.
Essential oil	q.s.
Water	70.0

SOURCE: BASF: CREMOPHOR A grades: Formulation 50/052

NIGHT CREAM, NOT OILY

RAW MATERIALS	% By Weight
A.	
IMWITOR 370	6.0
IMWITOR 900	7.0
MIGLYOL 812 Neutral Oil	15.0
MIGLYOL 818	8.0
MIGLYOL 840	4.0
Epigran	5.0
B.	
Hygroplex HHG	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into

A.

The perfume is added at 30C.

Formulation 1.1.7

NIGHT CREAM, NOT OILY

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	5.0
MIGLYOL 829	6.0
Avocado oil	5.0
Mink oil	1.0
PCL, liquid	3.0
Cetyl alcohol	2.0
Stearic acid	5.0
Antioxidants	q.s.
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.7
D.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C. B is brought to the same temperature.

C is added to B, B+C are emulsified into A. At about 30C the perfume is added.

Formulation 1.1.8

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formula

NIGHT CREAM O/W

RAW MATERIALS	% By Weight
Phase A:	
Arlatone 983S	6.0
Cetyl alcohol	6.0
Stearic acid	3.0
Isopropylmyristate	7.0
Miglyol 812	7.0
Phase B:	
Water, preservative	63.5
Glycerine	4.0
PENTAGLYCAN	3.0
Phase C:	
Perfume oil	0.5

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1124

NIGHT CREAM

RAW MATERIALS	% By Weight
Phase A:	
Arlacel 481	6.0
Arlacel 989	4.0
Vaseline	6.0
Lanolin	2.0
Paraffin oil	8.0
Isopropylpalmitate	8.0
Miglyol 812	3.0
Phase B:	
Water, preservative	54.1
Glycerine	4.0
Magnesiumsulphate-heptahydrate	0.5
Phase C:	
PLACENTOL	4.0
Phase D:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 35C.
4. Then add phase C, cool to 30C, add phase D and stir cold.

Formulation Code No. PL 1218

SOURCE: Pentapharm Ltd: Guide Formulations

NIGHT CREAM W/O

RAW MATERIALS:

% By Weight

Phase A:	
Arlacel 83 S	3.0
Amerchol CAB	5.0
Isopropylpalmitate	3.0
Lunacera PA 5493	20.0
Phase B:	
Water, preservative	60.2
Glycerine	4.0
Magnesiumsulphate-heptahydrate	0.4
Phase C:	
COLLAGEN	4.0
Phase D:	
Perfume oil	0.4

Formulation Code No. PL 1221

NIGHT CREAM W/O

RAW MATERIALS:

% By Weight

Phase A:	
Arlacel 481	6.0
Arlacel 989	4.0
Vaseline	6.0
Lanolin	2.0
Isopropylpalmitate	8.0
Paraffin oil	8.0
Miglyol 812	3.0
Phase B:	
Water, preservative	50.1
Glycerine	4.0
Magnesium sulphate	0.5
Phase C:	
COLLAGEN	3.0
GLYCOSOME	5.0
Phase D:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 35C.
4. Then add phase C, cool to 30C, add phase D and stir cold.

Formulation Code No. PL 1216

SOURCE: Pentapharm Ltd.: Guide Formulations

NIGHT CREAM W/O

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin WO	18.0
Lunacera MW	2.0
Paraffin oil	12.0
Isopropylpalmitate	6.0
Cetiol SN	5.0
Phase B:	
Water, preservative	60.2
Glycerine	4.0
Magnesiumsulphate-heptahydrate	0.4
REVITALIN	4.0
Phase C:	
Perfume oil	0.4

Formulation Code No. PL 1226

NIGHT CREAM

RAW MATERIALS	% By Weight
Phase A:	
Dehymuls E	7.0
Beeswax	3.0
Vaseline	14.0
Paraffin oil	5.0
Cetiol V	6.0
Phase B:	
Water, preservative	55.2
Glycerine	5.0
Magnesium sulphate-heptahydrate	0.4
THYMUS PEPTIDE	4.0
Phase C:	
Perfume oil	0.4

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

Formulation Code No. PL 1224

SOURCE: Pentapharm Ltd.: Guide Formulations

NONIONIC HAND CREAM

RAW MATERIALS	% By Weight
ACETULAN	2.0
AMERCHOL L-101	4.0
Isopropyl palmitate	2.0
Stearic acid, xxx	2.0
Cetyl alcohol	0.5
Stearyl alcohol	0.5
Arlacel 165	5.0
Silicone fluid 200, 350 cstks.	1.0
Albagel	1.5
Propylene glycol	5.0
Water	76.5
Perfume and Preservative	q.s

Procedure:

Disperse the Albagel in the water using high speed mixing. Add the water phase at 80C to the oil phase at 80C while mixing. Continue mixing and cool to 35C.

SOURCE: Amerchol Corp.: ACETULAN: Suggested Formulation

HAND CREAM

RAW MATERIALS	% By Weight
A.	
DYNASAN 114	6.0
IMWITOR 370	5.0
IMWITOR 900	6.0
MIGLYOL 840	5.0
MIGLYOL 812 Neutral Oil	10.0
B.	
Glycerin	8.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

C is added at about 30C.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.14

NUTRIENT CREAM W/O

RAW MATERIALS	% By Weight
Phase A:	
Dehymuls	8.0
Vaseline	16.0
Paraffin oil	7.0
Cetiol V	7.0
Isopropylpalmitate	5.0
Perhydrosqualene	3.0
Phase B:	
Water, preservative	46.2
Glycerine	4.0
Magnesiumsulphate-heptahydrate	0.4
REVITALIN	3.0
Phase C:	
Perfume oil	0.4

Formulation Code No. PL 1225

REGENERATING OIL O/W

RAW MATERIALS	% By Weight
Phase A:	
Cutina MD	12.0
Eumulgin B 1	1.5
Eumulgin B 2	1.5
Miglyol 812	8.0
Paraffin oil	6.0
Isopropylpalmitate	5.0
Phase B:	
Water, preservative	59.7
Glycerine	3.0
STIMUCCELL	3.0
Phase C:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 50C, homogenize and cool to 30C.
4. Then add phase C and stir cold.

Formulation Code No. PL 1118

SOURCE: Pentapharm, Ltd.: Guide Formulations

OILY CREAM (COLD CREAM)

RAW MATERIALS	% By Weight
A.	
White soft paraffin	11.0
Alugel DF 30	2.0
B.	
IMWITOR 780K	10.0
White beeswax	2.0
SOFTISAN 378	11.0
MIGLYOL 812 Neutral Oil	5.0
C.	
Preservative	q.s.
Water	ad 100.0
D.	
Perfume	q.s.

Preparation:

At about 90C A is heated until it is a gel.

B is melted and slowly added to A.

C is brought to 75-80C and emulsified into A+B.

D is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.2.10

SKIN PROTECTION CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
MIGLYOL 812 Neutral Oil	5.0
Stearic acid	7.0
Cetyl alcohol	2.0
SOFTIGEN 701	9.0
B.	
Preservative	q.s.
Glycerin	4.0
Water	ad 100.0
C.	
Triethanolamine	1.0
D.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is brought to the same temperature.

C is added to B and B+C are emulsified into A.

D is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.1.17

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

PEARLESCENT VANISHING CREAM

RAW MATERIALS	% By Weight
A.	
EMERSOL 132 Stearic Acid	20.0
EMEREST 1723 Isopropyl Lanolate	1.5
NIMCOLAN 1740 Absorption Base	1.2
EMEREST 2388 Propylene Glycol Dipelargonate	6.0
EMEREST 2410 Glyceryl Isostearate	1.2
EMERY 1787 Cetyl Alcohol Flakes, NF	1.0
Propyl paraben	0.1
B.	
Deionized water	63.2
Triethanolamine	0.6
EMERY 916 Glycerine	2.0
EMEREST 2701 PEG-12 Isostearate	3.0
Methyl paraben	0.2

EMEREST 2410 and EMEREST 2701 are used in this formula as auxiliary emulsifiers. Their presence in this system enhances the pearlescent appearance and helps to a smoother more emollient feel.

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Formulation 13E

PROTECTIVE CREAM FOR INDUSTRY

RAW MATERIALS	% By Weight
Emulsifiable:	
WHITE PROTOPET 1S	4.5
Beeswax	2.0
Stearic acid	10.0
Triethanolamine	1.5
Glycerine	8.0
Water	54.0
Magnesium stearate	20.0

Melt the wax and petrolatum to 60C. Heat other components except the magnesium stearate to same temperature, mix and thoroughly emulsify. Stir until cold. Grind solid barrier material with the cream at room temperature.

It is often necessary for workers handling corrosive, allergenic or greasy products to prevent burns, allergic reaction or dermatitis. These creams can be readily formulated.

SOURCE: Witco Chemical: SONNEBORN Products for the Drug and Pharmaceutical Industry: Suggested Formulation

PHARMA-BASE CREAM

Composition: formula 3134
10% sodium chloride

RAW MATERIALS	% By Weight
Oil phase:	
Isopropyl stearate	5
Paraffin oil	15
Nipasteril 30K	0,2
ELFACOS ST37	3
ELFACOS C26	5
ELFACOS E200	3
Water phase:	
Sorbitol 70%	5
Water	53,4
Sodium chloride	10
Perfume oil	0,4

An emulsion W/O-base, containing various active materials.

PHARMA-BASE CREAM

RAW MATERIALS	% By Weight
Composition:	formula 2511
	2% lactic acid
	10% urea
Oil phase:	
Isopropyl stearate	5
Paraffin oil	15
Nipasteril 30K	0,2
ELFACOS ST37	3
ELFACOS C26	5
ELFACOS E200	3
Water phase:	
Sorbitol 70%	5
Water	51,4
Urea	10
Lactic acid	2
Perfume oil	0,4

An emulsion W/O base, containing various active materials.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

PROTECTIVE MOISTURIZING FACIAL CREAM - A
(approx. SPF: 2)

INGREDIENTS	%W/W
Part A:	
CUTINA GMS (Glyceryl Stearate)	3.50
LANETTE O (Cetearyl Alcohol)	1.50
EUMULGIN B-1 (Ceteareth-12)	0.75
EUMULGIN B-2 (Ceteareth-20)	0.75
CETIOL 868 (Octyl Stearate)	8.00
Escalol 507 (Octyl Dimethyl PABA)	1.50
DC Fluid 200 (350 cps) (Dimethicone)	0.20
Part B:	
Water	60.15
Carbopol 934 (2% aqueous soln.) (Carbomer 934)	15.00
Glycerine	5.00
Part C:	
TEA (99%)	0.45
Part D:	
GERMABEN II	1.00
Fragrance	0.20
Part E:	
ELASTIN CLR	1.00
Part F:	
COLLAGEN CLR	1.00
Procedure and Comments(See Below)	

PROTECTIVE MOISTURIZING FACIAL CREAM-B
(approx. SPF: 4)

INGREDIENTS	%W/W
Part A:	
CUTINA GMS (Glyceryl Stearate)	3.50
Lanette O (Cetearyl Alcohol)	1.50
EUMULGIN B-1 (Ceteareth-12)	0.75
EUMULGIN B-2 (Ceteareth-20)	0.75
CETIOL 868 (Octyl Stearate)	8.00
Escalol 507 (Octyl Dimethyl PABA)	3.00
DC Fluid 200 (350 cps) (Dimethicone)	0.20
Part B:	
Water	58.65
Carbomer 934 (2% aqueous soln.) (Carbomer 934)	15.00
Glycerine	5.00
Part C:	
TEA (99%)	0.45
Part D:	
GERMABEN II	1.00
Fragrance	0.20
Part E:	
ELASTIN CLR	1.00
Part F:	
COLLAGEN CLR	1.00
Procedure and Comments (See below)	
SOURCE:Henkel Corp.:Personal Care Products Formulary:HOB-215-35	

PROTECTIVE MOISTURIZING FACIAL CREAM - C
(Approx. SPF: 8)

INGREDIENTS	% By Weight
Part A:	
CUTINA GMS (Glyceryl Stearate)	3.50
LANETTE O (Cetearyl Alcohol)	1.50
EUMULGIN B-1 (Ceteareth-12)	0.75
EUMULGIN B-2 (Ceteareth-20)	0.75
CETIOL 868 (Octyl Stearate)	8.00
Escalol 507 (Octyl Dimethyl PABA)	4.00
Spectrasorb UV9 (Benzophenone-3)	2.00
DC Fluid (350 cps) (Dimethicone)	0.20
Part B:	
Water	55.65
Carbopol 934 (2% aqueous soln.) (Carbomer 934)	15.00
Glycerine	5.00
Part C:	
TEA (99%)	0.45
Part D:	
GERMABEN II	1.00
Fragrance	0.20
Part E:	
ELASTIN CLR	1.00
Part F:	
COLLAGEN CLR	1.00

Procedure:

1. Mix and heat Part A to 75-80C.
2. Mix and heat Part B to 75-80C.
3. Add Part B to Part A under agitation.
4. Remove heat and add Part C.
5. At 45C add Part D.
6. At 35C add Part E.
7. At 30C add Part F.
8. Continue mixing until product reaches room temperature.
9. Fill off.

Comments:

The projected SPF values of the above systems are 2,4 and 8 respectively.

A + B are soft white creams which rub in easily when applied to the skin and are non-oily. In addition to moisturizing the skin, these systems provide some protection to the sun's harmful rays. Formula C is an opaque off-white cream which is non-whitening when applied to the skin and provides more sun protection.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formulation HOB-215-35

REGENERATING CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A.	
DYNASAN 114	5.0
DYNACERIN 660	5.0
IMWITOR 900	5.0
IMWITOR 370	5.0
MIGLYOL 818	3.0
MIGLYOL 840	5.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Collagen CLR	5.0
Perostron in oil	1.0
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into

A.

C is added at about 30C.

Formulation 1.1.5

REJUVENATING AND VITILISING CREAM FOR THE FACIAL MASK

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	5.0
DYNASAN 110	3.0
MIGLYOL 812 Neutral Oil	5.0
MIGLYOL 840	5.0
Stearic acid	5.0
Wheatgerm oil	5.0
Cetyl alcohol	1.0
Antioxidants	q.s.
B.	
Preservative	q.s.
Water	50.3
C.	
Triethanolamine	0.9
D.	
Elastin	7.0
Extrapon Phytozell-Special	5.0
Extrapon Phytostimulin-Special	8.0
Perfume oil	q.s.

Formulation 1.1.4

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

SKIN BLEACH CREAM

RAW MATERIALS	% By Weight
A.	
VEEGUM K	2.00
Water	68.05
B.	
Glycerin	4.00
Triethanolamine	1.00
C.	
Stearic acid xxx	2.00
Cetyl alcohol	4.00
Isopropyl myristate	2.00
Amerchol L-101	10.00
Arlacel 165	3.00
D.	
Citric acid	0.30
Hydroquinone	3.00
Sodium sulfite	0.40
Sodium metabisulfite	0.25
Preservative	q.s.

Consistency: Soft Cream

Suggested Packaging: Opaque jar.

Comments: The emollient vanishing cream base prevents irritation or drying of the skin on prolonged product use.

Formulation No. 283

WATER-IN-OIL CLEANSING CREAM

RAW MATERIALS	% By Weight
A.	
Veegum	2
Water	37
B.	
Carnation White Mineral Oil	20
Petrolatum	9
Isopropyl myristate	5
Lantrol	3
Sorbitol 70%	20
Arlacel 186	3
Tween 80	1
Preservative	q.s.

Consistency: Soft cream

Suggested Packaging: Pump or squeeze bottle

Formulation No. 300

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetic and Toiletries
Formulary: Suggested Formulations

SKIN CARE EMULSION O/W

RAW MATERIALS	% By Weight
Phase A:	
Arlatone 983S	1.5
Brij 76	1.5
Lanette 16	1.5
Paraffin oil	12.0
Miglyol 812	4.0
Carbopol 940	0.2
Phase B:	
Water, preservative	68.8
Propylene glycol	4.0
Triethanolamine	0.2
HYASOL	3.0
HYDROLASTAN	3.0
Phase C:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

Formulation Code No. PL 1021

SPORT CREAM

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin WO	10.0
Lunacera M	3.0
Amerchol CAB	3.0
Beeswax	1.0
Vaseline	5.0
Paraffin oil	8.0
Isopropylmyristate	6.0
Phase B:	
Water, preservative	54.2
Glycerine	3.0
Magnesium sulphate-heptahydrate	0.4
HYDROLASTAN	3.0
PENTAVITIN	3.0
Phase C:	
Perfume oil	0.4

Formulation Code No. PL 1219

SOURCE: Pentapharm Ltd.: Guide Formulations

SKIN TONE CREAM O/W(WITH HYDROQUINONE)

RAW MATERIALS	%W/W
A:	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	5.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.00
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Myristate)	5.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.00
Stearic Acid T.P. (CTFA: Stearic Acid)	4.00
Lanette SX (CTFA: Cetearyl Alcohol (and) Sodium Lauryl Sulfate)	4.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	10.00
B:	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	1.00
C:	
Sequestrene Na ₂ (CTFA: Disodium EDTA)	0.10
Glycerine (CTFA: Glycerin)	10.00
Deionized water	38.75
D:	
Hydroquinone (CTFA: Hydroquinone)	2.00
Sodium metabisulfite (CTFA: Sodium Metabisulfite)	0.20
Ascorbic acid (CTFA: Ascorbic Acid)	0.10
Deionized Water	15.85
E.	
Perfume, preservatives, deionized water	q.s. to 100

SKIN TONE CREAM (WITHOUT HYDROQUINONE)

RAW MATERIALS	%W/W
A.	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	5.00
PARSOL 1789 (CTFA: Butyl Methoxybenzoylmethane)	1.50
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Myristate)	3.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.50
DELTYL EXTRA (CTFA: Isopropyl Myristate)	10.00
Paraffin oil (CTFA: Mineral Oil)	2.00
Stearic acid T.P. (CTFA: Stearic Acid)	2.00
Emulgade F (CTFA: Cetearyl Alcohol (and) PEG 40 Castor Oil (and) Sodium Cetearyl Sulfate)	4.00
Ascorbyl palmitate (CTFA: Ascorbyl Palmitate)	3.00
Butylated hydroxytoluene (CTFA: BHT)	0.10
B:	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	1.00
C:	
d-PANTHENOL (CTFA: Panthenol)	3.00
Sequestrene NA ₂ (CTFA: Disodium EDTA)	0.10
Sorbitol (70%) (CTFA: Sorbitol)	5.00
Deionized water	56.80
D:	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

SOFT CREAM

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	10.0
MIGLYOL 812 Neutral Oil	4.0
MIGLYOL 840	4.0
Hard paraffin	3.0
Cetyl alcohol	3.5
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.1.12

SOFT CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGINACID H	2.5
EMULGATOR E 2155	2.5
Stearyl alcohol	2.0
Mineral oil (app. 200 mPa-s)	8.0
Isopropyl stearate	5.0
Caprylic/capric acid triglyceride	2.0
TEGOSOFT 189	2.0
ABIL 100	1.0
Phase B:	
Glycerol	3.0
Water	71.5
Quatrisoft LM 200	0.5
Formulation E 2.1.8	

SOFT CREAM(W/O)

RAW MATERIALS	% By Weight
Phase A:	
PROTEGIN W	28.0
Perhydrosqualene	4.0
Phase B:	
Glycerol	5.0
Magnesium sulphate - 7H2O	0.5
Water	62.5
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.2.1	

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

10% T.E.A. SALICYLATE CREAM

RAW MATERIALS	% By Weight
Phase A:	
Glyceryl Stearate	5.00
Cetyl Alcohol	2.50
Cetyl Phosphate (and) DEA Cetyl Phosphate (Amphisol)	3.00
Stearyl Stearoyl Stearate (Hetester SSS)	4.00
Coco-Caprylate/Caprata (Cetiol LC)	4.00
Cetyl Palmitate (Cutina CP)	4.00
Dimethicone (Silicone Fluid 200)	0.50
Phase B:	
Water, Deionized	50.20
GERMABEN II	1.00
Phase C:	
Magnesium Aluminum Silicate (Veegum)	0.55
Xanthan Gum (Keltrol)	0.25
Phase D:	
Water, Deionized	10.00
T.E.A. Salicylate	10.00
Propylene Glycol	5.00

2% HYDROQUINONE CREAM

RAW MATERIALS	% By Weight
Phase A:	
Stearic Acid, T.P.	5.0
Cetyl Alcohol	3.0
Cetyl Phosphate (and) DEA Cetyl Phosphate (Amphisol)	3.0
Stearyl Stearate (Hetester 412)	6.0
Coco-Caprylate/Caprata (Cetiol LC)	6.0
Dimethicone (Silicone Fluid 200)	0.5
Octyl Methoxy Cinnamate (Parsol MCX)	4.0
Phase B:	
Water, Deionized (85C)	54.5
Hydroxyethylcellulose (Cellosize QP)	0.5
Disodium EDTA	0.1
GERMABEN II	1.0
Phase C:	
Water, Deionized (60C)	2.0
Citric Acid	0.2
Phase D:	
Water, Deionized (60C)	5.0
Hydroquinone, USP	2.0
Glycerine	5.0
Phase E:	
Water, Deionized (60C)	2.0
Sodium Metabisulfite	0.2

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

VITAMINIZED PROTECTIVE CREAM (O/W) WITH UV-A AND UV-B PROTECTION

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.0
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.0
DELTYL EXTRA (CTFA: Isopropyl Myristate)	5.0
GLYCERYL MONOMYRISTATE	5.0
CETYL ALCOHOL EXTRA	2.0
Hydrogenated Peanut Oil (Pharmacopeia Helvetica)	2.0
Butylated Hydroxytoluene (CTFA: BHT)	0.1
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.5
c)	
Sequestrene Na2 (CTFA: Disodium EDTA)	0.1
Deionized water	71.6
d)	
Vitamin E (CTFA: Tocopherol)	0.2
Beta Carotene (Solution 1%)	0.2
e)	
Vitamin C (CTFA: Ascorbic Acid)	0.3
Sorbitol (70%)	5.0
f)	
Perfume, preservatives, deionized water	q.s. to 100

MEDICATED SKIN TONE CREAM (O/W)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	5.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	10.00
CETYL ALCOHOL EXTRA	1.00
Stearic Acid XXX	4.00
Lanette SX (CTFA: Cetearyl Alcohol (and) Sodium C12-15 Alcohols Sulfate)	4.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	1.00
c)	
Deionized water	43.45
Glycerin	10.00
d)	
Deionized water	16.00
Hydroquinone (CTFA: Hydroquinone)	2.00
Sodium Metabisulfite	0.20
Vitamin C (CTFA: Ascorbic Acid)	0.10
Sequestrene Na2 (CTFA: Disodium EDTA)	0.15
e)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: PARSOL MCX: Suggested Formulations

WATER-IN-OIL MOISTURIZING EMULSION-CREAM

RAW MATERIALS	Parts by Weight
Oil Phase:	
EMPHOS F27-85(Sodium Hydrogenated Vegetable Glycerides Phosphate)	3.00
WITCO Aluminum Stearate EA (Food Grade)	1.50
Perfecta Petrolatum	3.00
Aristowax 143	3.00
WITCONOL APS (PPG-11 Stearyl Ether)	3.00
Carnation White Mineral Oil	14.25
Water Phase:	
Glycerine	2.00
Methylparaben	0.15
Propylparaben	0.10
Germall 115	0.25
Water, deionized	q.s. to 100
Perfume, Color	q.s.

WATER-IN-OIL MOISTURIZING EMULSION-LOTION

RAW MATERIALS	Parts by Weight
Oil Phase:	
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	3.00
WITCO Aluminum Stearate EA (Food Grade)	1.50
Perfecta Petrolatum	3.00
Aristowax 143	3.00
WITCONOL APS (PPG-11 Stearyl Ether)	3.00
Carnation White Mineral Oil	1-7.50
Water Phase:	
Methylparaben	0.15
Propylparaben	0.10
Germall 115	0.25
Water, deionized	q.s. to 100
Perfume, Color	q.s.

Heat Oil Phase to 90C. Stir at this temperature until uniform (about 15 minutes).

Add Water Phase, preheated to 90-95C, to Oil Phase with moderate agitation. Maintain agitation for 15 minutes at 90C and during cooling. Pour at or below 35C.

These emulsions are recommended for use as night creams, moisturizing creams or cleansers. They are characterized by excellent emulsion viscosity stability on extended storage. Unlike most water-in-oil emulsions prepared as above, these exhibit no characteristic greasiness and spread quite easily and rapidly on the skin. Since water is the internal phase in these emulsions, they do not evaporate as readily as oil-in-water types on application. Thus small amounts should be applied and spread over a wide skin area.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 125C

W/O CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS ST	3
ARMOTAN MO (Sorbitan Oleate)	3
Lanolin alcohol	5
ELFACOS C26	5
Liquid paraffin	14
Water phase:	
Sorbitol solution 70%	5
Preservative	0,2
Water	64,4
Perfume oil	0,4

A soft, easily spreadable and stable W/O cream is obtained, suitable as a basis for water resistant suntan cream or sports-cream.

Formulation no. 3110 (ST9) or no. 3182 (ST37)

SPORTSCREAM

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS ST37	3
OXYNEX 2004	0,02
ELFACOS C26	5
Paraffin oil	10
Isocetyl stearate	10
Nipasteril 30K	0,20
ELFACOS E200	3
Water Phase:	
Dowicil 200	0,10
Sorbitol 70%	5
Water	63,28

A soft, white cream easily spreadable on the skin.

Formulation 1920

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulations

W/O-CREAM, PARAFFIN-FREE

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	10.0
DYNACERIN 660	10.0
IMWITOR 780K	6.0
B.	
Mowiol 10-98	2.0
Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is mixed and heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

At about 30C the perfume is added.

Formulation 1.2.1

W/O-CREAM

RAW MATERIALS	% By Weight
A.	
DYNACERIN 660	2.0
MIGLYOL 840	3.0
IMWITOR 780K	5.0
White soft paraffin	17.0
Hard paraffin	5.0
B.	
Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

At about 30C the perfume is added.

Formulation 1.2.3.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

W/O-CREAM

RAW MATERIALS	% By Weight
A.	
MIGLYOL 840-Gel	20.0
Paraffin oil	8.0
IMWITOR 780K	5.0
B.	
SOFTISAN 649	5.0
Hard paraffin	3.0
C.	
Magnesium sulfate	2.0
Preservative	q.s.
Water	ad 100.0
D.	
Perfume oil	q.s.

Preparation:

Take MIGLYOL 840-Gel and gradually add the other components of part A. Phase A is stirred until smooth and then heated to 75-80C. B is also heated to this temperature and is emulsified into A. C is brought to the same temperature and emulsified into A and B in small amounts at a time. D is added below 40C.

Formulation 1.2.4

W/O-CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	10.0
Paraffin oil	17.0
IMWITOR 780K	3.0
B.	
Hard paraffin	3.0
C.	
Water	ad 100.0
Preservative	q.s.

Preparation:

A and B are mixed and heated to 75-80C.

C is heated to the same temperature and added to A + B.

Formulation 1.2.2

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

Section VI

Fragrances and Perfumes

AEROSOL FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Concentrate: CL9-201	
Phase 1	
SANDOXYLATE SX424	0.60
Perfume	0.20
Phase 2:	
Water	85.00
VELSAN P8-3	0.60
SDA-40	11.20
Silicone 193	0.20
Phase 3:	
CARTARETIN F-4	2.20
Propellant A-46	4%
Concentrate	96%

AEROSOL FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Concentrate: CL9-267	
Phase 1:	
SANDOXYLATE SX424	0.60
Perfume	0.20
Phase 2:	
Water	85.30
VELSAN P8-3	2.50
SDA-40	11.20
Silicone 193	0.20
Propellant A-46	10%
Concentrate	90%

A quick breaking foam which elegantly delivers fragrance with a nice afterfeel.

SOURCE: Sandoz Chemicals: VELSAN: Formulation No. CMP-04

CLEAR PERFUME EMOLLIENT STICK

RAW MATERIALS	% By Weight
WITCONOL APM (PPG-3 Myristyl Ether)	73.0
Propylene Glycol	10.0
Water	3.0
Witco Sodium Stearate C-1	8.0
Perfume Oil	6.0

Dissolve WITCO Sodium Stearate C-1 in WITCONOL APM, propylene glycol and water at 80 to 90C. Stir until clear. Add perfume oil at 77C. Cool to 73C and package.

Perfume level can be varied to suit final application. Fragrance oils may have an effect on overall clarity.

This formulation yields a "nonshrinking" gel which exhibits good clarity and an excellent feel. This formulation may be modified to produce a solid hand-lotion, deodorant, blusher or floating bath-oil bar.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 102C

CREAM SACHET F-4012

RAW MATERIALS	% By Weight
Phase A:	
STEARAL	5.0
Arlacel 165	16.0
PROPAL	1.5
AMERLATE P	2.5
GLUCATE SS	4.0
Phase B:	
Atlas G-2162	2.0
GLUCAM P-20	3.0
Water	56.0
Phase C:	
Perfume oil	10.0
Perfume	q.s.

Description:

Cream sachet with high fragrance concentration. AMERLATE P provides lubricity. GLUCAM P-20 provides emollience and fragrance fixation.

Variations:

For softer consistency, replace all or part of STEARAL with CETAL.

For creamier texture, replace G-2162 with PROMULGEN D.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Formulation

COLOGNE F-4003

RAW MATERIALS	% By Weight
Citrus or modified citrus perfume oil	5.0
GLUCAM P-20	1.5
SOLULAN 16	1.0
Specially Denatured Alcohol No. 40	72.5
Water	20.0
Color	q.s.

Description:

Cologne (citrus toilet water) based on original prototype from Cologne, Germany. GLUCAM P-20 particularly effective in increasing lasting power in such fragrances and it also adds body. SOLULAN 16 contributes an emollient feel.

Procedure:

Stir all ingredients except water until homogeneous. Add water in thin stream with stirring. Age, chill and filter.

Variations:

For perfume oils requiring further clarification, mix with GLUCAMATE SSE-20.

COLOGNE STICK F-4015

RAW MATERIALS	% By Weight
LANOGENE	3.0
AMERLATE P	11.0
PROMYR	10.0
CETAL	15.0
AMERCHOL L-101	10.0
MODULAN	5.0
OHLAN	8.0
Ozokerite	18.0
Hydrogenated vegetable oil	5.0
Cocoa butter	5.0
Lanolin, anhydrous deodorized USP	5.0
Perfume oil	5.0
Color and antioxidant	q.s.

Description:

Fragrant, firm cologne stick with excellent emollient properties provided by AMERLATE P, AMERCHOL L-101 and MODULAN.

Procedure:

Heat all ingredients except perfume oil to 80-90C. Add perfume oil with stirring at 70C. Mold into sticks.

Variations:

For firmer stick, replace part of CETAL with STEARAL.

For humectant properties, replace PROMYR with GLUCAM P-20.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

FRAGRANCE VEIL F-4006

RAW MATERIALS	% By Weight
Klucel HF	1.0
Specially Denatured Alcohol No. 40	74.6
Natural Pearl Essence	0.1
Perfume oil	1.5
Water	18.8
GLUCAM P-20	4.0
Color	q.s.

Description:

Pearlescent fragrance veil. Hydroalcoholic bodied toilet water with non-oily emollient and humectant effects provided by GLUCAM P-20 which also extends lasting power of fragrance.

Procedure:

Sprinkle Klucel HF into alcohol with stirring until no particles remain. With stirring add natural pearl essence and remaining ingredients in order listed. Stir until homogeneous.

Variations:

Mica based synthetic pearls may be substituted for the natural pearl after checking for possibility of excessive settling.

Increased perfume oil concentrations can be accomplished with the addition also of GLUCAMATE SSE-20.

FRAGRANCE VEIL F-4007

RAW MATERIALS	% By Weight
Phase A:	
Carbopol 940, 3% aqueous dispersion in water	6.5
Water	51.3
Ethomeen C/25	0.2
Phase B:	
Perfume oil	1.5
Isostearyl alcohol	2.5
AMEROXOL OE-10	3.0
GLUCAM P-20	3.0
Specially Denatured Alcohol No. 40	32.0

Description:

Hydroalcoholic fragrance veil emulsion with emollient properties due to isostearyl alcohol and oil-free GLUCAM P-20 which also extends fragrance duration.

Variations:

For increased lubricity, replace part of isostearyl alcohol with AMERLATE P.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

PERFUME F-4001

RAW MATERIALS	% By Weight
Perfume oil	18.0
GLUCAM P-20	3.0
Specially Denatured Alcohol No. 39C	79.0
Color	q.s.

Description:

Traditional prestigious top-of-the line fragrance extract. Used sparingly, GLUCAM P-20 increases lasting power of lighter odor types.

Procedure:

Add ingredients to alcohol. Stir until completely dissolved. Age, chill and filter.

Variations:

For maximum duration, adjust concentration of GLUCAM P-20 to individual perfume oil.

For varying intensity, adjust perfume oil concentration between 10 and 25%.

PERFUME STICK F-4013

RAW MATERIALS	% By Weight
Coconut oil 110	30.0
Microcrystalline wax	5.5
Ozokerite	14.0
GLUCATE SS	7.5
Magnesium carbonate	2.0
AMERCHOL L-101	26.0
Perfume oil	15.0
Preservative, color and antioxidant	q.s.

Description:

Highly fragrant, firm perfume stick with good payout at body temperature. Nongreasy.

Description:

Heat all ingredients except perfume oil to 85-90C. Add fragrance at 75C. Warm slightly, mixing until uniform. Mold into sticks.

Variations:

For greater lubricity, add AMERLATE P.

For velvety feel, add ACETULAN.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

POMADE PERFUME F-4014

RAW MATERIALS	% By Weight
LANOCERIN	10.0
GLUCATE SS	8.0
Hydrogenated coconut oil	25.0
Petrolatum	10.0
Glyceryl monostearate pure	7.0
ACETULAN	3.0
Microcrystalline wax	15.0
Ozokerite	5.0
Cab-O-Sil M-5	2.0
Perfume oil	15.0
Color and antioxidant	q.s.

Description:

Highly fragrant solid perfume designed for dispensing from compacts in metal godets. Finger dispensed, used sparingly.

Procedure:

Melt all ingredients except Cab-O-Sil M-5 and perfume oil to 80-90C. With good stirring, add Cab-O-Sil M-5 until completely taken up. At 70-75C, stir in perfume oil, cool to just above solidification point and pour into godets.

Variations:

For improved slip, replace part of microcrystalline wax with cetyl alcohol.

For softer consistency, replace part of petrolatum with AMERCHOL L-101.

TOILET WATER F-4002

RAW MATERIALS	% By Weight
Perfume oil	8.0
GLUCAM P-20	2.0
Specially Denatured Alcohol No. 40	84.0
Water	6.0
Color	q.s.

Description:

Typical toilet water (eau de toilette) usually based on prestige fragrance. Usually sales volume leader for such fragrances. GLUCAM P-20 valuable in increasing lasting power in many odor types and contributes to humectant and emollient feel.

Procedure:

Dissolve perfume oil and GLUCAM P-20 in alcohol. Add water in thin stream with stirring. Age, chill and filter.

Variations:

For smooth, emollient feel, add 0.4 to 0.8% SOLULAN PB-20.

For perfume oils requiring further clarification, mix with small amount of GLUCAMATE SSE-20.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Formulations

Section VII
Hair Care Products

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
VERSACRYL-40	2.50
Potassium Hydroxide	0.33
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Ethanol	46.97
Hydrocarbon Propellant	50.00
Cloud Point (C): <-35	

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
VERSACRYL-40	2.50
Potassium Hydroxide	0.25
Adogen 172	0.40
Monamid 716	0.10
Fragrance	Q.S.
Anhydrous Ethanol	46.75
Hydrocarbon Propellant	50.00
Cloud Point(C): <-35	

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
VERSACRYL-40	2.50
Potassium Hydroxide	0.33
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Isopropanol	46.97
Hydrocarbon Propellant	50.00
Cloud Point (C): <-35	

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
VERSACRYL-40	2.50
Potassium Hydroxide	0.25
Adogen 172	0.40
Monamid 716	0.10
Fragrance	Q.S.
Anhydrous Isopropanol	46.75
Hydrocarbon Propellant	50.00
Cloud Point (C): <-35	

SOURCE: National Starch and Chemical Corp.: VERSACRYL-40:
Suggested Formulation

AEROSOL HAIR SPRAY WITH PROPANE/BUTANE AND ETHANOL(01/001)

RAW MATERIALS	Parts
ULTRAHOLD 8	2,00
AMP	0,15
LUVITOL EHO	0,10
Propane/Butane (15:85)	60,00
Ethanol abs.	37,75
Perfume	q.s.

AEROSOL HAIR SPRAY WITH DIMETHYLETHER AND ETHANOL(01/008)

RAW MATERIALS	Parts
ULTRAHOLD 8	1,50
AMP	0,11
LUVITOL EHO	0,05
Water, de-ion.	6,00
Dimethylether	60,00
Ethanol, 96% Vol. %	32,34
Perfume	q.s.

AEROSOL HAIR SPRAY WITH FLUOROCARBONS AND ETHANOL(01/010)

RAW MATERIALS	Parts
ULTRAHOLD 8	1,50
AMP	0,11
LUVITOL EHO	0,05
Ethanol abs.	38,34
Fluorocarbons 11/12 (50:50)	60,00
Perfume	q.s.

AEROSOL HAIR SPRAY WITH PROPANE/BUTANE, FLUOROCARBON 11 AND ETHANOL(01/011)

RAW MATERIALS	Parts
ULTRAHOLD 8	1,50
AMP	0,11
LUVITOL EHO	0,05
Ethanol abs.	38,34
Fluorocarbon 11	40,00
Propane/Butane (25:75)	20,00
Perfume	q.s.

SOURCE: BASF: ULTRAHOLD 8: Suggested Formulations

AEROSOL HAIR SPRAY WITH PROPANE/BUTANE, FLUOROCARBON 11
METHYLENE CHLORIDE AND ETHANOL(01/012)

RAW MATERIALS	% By Weight
ULTRAHOLD 8	1,50
AMP	0,11
LUVITOL EHO	0,10
Ethanol abs.	13,29
Methylene chloride	20,00
Fluorocarbon 11	35,00
Propane/Butane (25:75)	30,00
Perfume	q.s.

PUMP SPRAY WITH ETHANOL(01/013)

RAW MATERIALS	% By Weight
ULTRAHOLD 8	3,00
AMP	0,22
LUVITOL EHO	0,10
Ethanol, 96 Vol. %	96,68
Perfume	q.s.

HAIR FIXATIVE WITH ISOPROPANOL(02/021)

RAW MATERIALS	% By Weight
ULTRAHOLD 8	3,00
AMP	0,22
Isopropanol	40,00
Water, de-ion.	56,78
Perfume and color	q.s.

SOURCE: BASF: ULTRAHOLD 8: Suggested Formulations

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VA 28 I	5.0
HAIRSPRAY ADDITIVE S	0.3
Perfume	0.3
Methylene chloride	5.0
Abs. ethyl or isopropyl alcohol	49.4
Propellent 11/12 1090	40.0

SOURCE: BASF: HAIRSPRAY ADDITIVE S: Suggested Formulation

AEROSOL HAIRSPRAY-MIXED PROPELLANT

RAW MATERIALS	% By Weight
RESYN 28-2930	2.00
AMP	0.18
Monamid 716	0.10
Fragrance	Q.S.
Methylene Chloride	35.00
Isopropanol	10.00
Propellant 11	37.72
n-butane	3.75
Propane	11.25

Valve:

Manufacturer: Precision

Stem: .018"

Body: .080"

Actuator: .016"

Dip Tube: .12"

Spray Rate(g/sec): 1.0

Flame Extension (in.): 0

Flash Back (in.): 0

SOURCE: National Starch and Chemical Corp.: RESYN 28-2930:
Suggested Formulation

AEROSOL HAIRSPRAY-MIXED PROPELLANT

RAW MATERIALS	% By Weight
AMPHOMER	1.75
AMP	0.29
Monamid 716	0.10
Fragrance	Q.S.
Methylene Chloride	35.00
Isopropanol	10.00
Propellant 11	37.86
n-butane	3.75
Propane	11.25

Valve:

Manufacturer: Precision

Stem: .018"

Body: .080"

Actuator: .016"

Spray Rate(g/sec): 1.0

Flame Extension (in.): 0"

Flash Back (in.): 0"

SOURCE: National Starch and Chemical Corp.: AMPHOMER:
Suggested Formulation

AEROSOL HAIRSPRAY CONTAINING SUNSCREEN

RAW MATERIALS	% By Weight
VERSACRYL-40	2.00
Potassium Hydroxide	0.24
Monamid 716	0.05
Fragrance	Q.S.
Octyldimethyl PABA*	0.20
Anhydrous Ethanol	67.51
Hydrocarbon Propellant	30.00

* Available from National Starch and Chemical Corp.

AEROSOL HAIRSPRAY WITH MIXED PROPELLANTS*

RAW MATERIALS	% By Weight
VERSACRYL-40	2.50
Potassium Hydroxide	0.33
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Isopropanol	31.97
Propellant 11	35.00
Hydrocarbon Propellant	30.00

Cloud Point (C): <-30

* Suggested for use only in those countries allowing use of the ingredients.

SOURCE: National Starch and Chemical Corp.: VERSACRYL-40:
Suggested Formulation

AEROSOL HAIRSPRAY-MIXED PROPELLANT

RAW MATERIALS	% By Weight
RESYN 28-1310	2.00
AMP	0.18
MONAMID 716	0.10
Fragrance	Q.S.
Methylene Chloride	35.00
Isopropanol	10.00
Propellant 11	37.72
N-butane	3.75
Propane	11.25

Valve:

Manufacturer: Precision

Stem: .018"

Body: .080"

Actuator: .016"

Spray Rate (g/sec): 1.0

Flame Extension (in.): 0"

Flash Back (in.): 0"

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
Suggested Formulation

AEROSOL HAIRSPRAY-DIMETHYL ETHER-ETHANOL TYPE-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.21
Monamid 716	0.05
Fragrance	Q.S.
Anhydrous Ethanol	67.74
Dimethyl Ether	30.00
Cloud Point (C):	<-30

AEROSOL HAIRSPRAY-DIMETHYL ETHER-ETHANOL TYPE-DRY

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.21
Monamid 716	0.05
Fragrance	Q.S.
Anhydrous Ethanol	57.74
Dimethyl Ether	40.00
Cloud Point(C):	<-30

AEROSOL HAIRSPRAY FOR SPIKED HAIR

RAW MATERIALS	% By Weight
RESYN 28-2913	8.00
AMP-95	0.84
Ethanol, 190 proof	66.16
Fragrance	Q.S.
Hydrocarbon Propellant	25.00
Cloud Point(C):	<-30

Procedure:

1. Charge the mixing vessel with the required amount of anhydrous SDA-40.
2. Start agitation.
3. Add RESYN 28-2913 slowly - so that no accumulation of pearls occurs on the surface.
4. After all the pearls are added, slowly add AMP.
5. Continue mixing until all the pearls are in solution.
6. Add the rest of the ingredients in the formulation.
7. Pass the concentrate through 5-10 micron cartridge filters before filling aerosol containers.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2913:
Suggested Formulations

AEROSOL HAIRSPRAY-DME-ETHANOL TYPE-REGULAR

RAW MATERIALS	% By Weight
VERSACRYL-40	2.00
Potassium Hydroxide	0.26
Monamid 716	0.15
Fragrance	Q.S.
Anhydrous Ethanol	37.59
Dimethyl Ether	60.00
Cloud Point (C): <-35	
Valve: Precision with .018" stem	
.018" x .013" body	
.018" actuator	
Spray Rate (g/sec.): .59	

AEROSOL HAIRSPRAY-DME-ETHANOL TYPE-EXTRA

RAW MATERIALS	% By Weight
VERSACRYL-40	3.00
Potassium Hydroxide	0.40
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Ethanol	36.40
Dimethyl Ether	60.00
Cloud Point (C): <-35	
Valve: Precision with .018" stem	
.018" x .013 body	
.018" actuator	
Spray rate (g/sec.): .60	

AEROSOL HAIRSPRAY-DME-ETHANOL TYPE-SUPER

RAW MATERIALS	% By Weight
VERSACRYL-40	4.50
Potassium Hydroxide	0.60
Monamid 716	0.25
Fragrance	Q.S.
Anhydrous Ethanol	34.65
Dimethyl Ether	60.00
Cloud Point (C): <-35	
Valve: Precision with .018" stem	
.018" x .013" body	
.018" actuator	
Spray Rate (g/sec.): .55	

SOURCE: National Starch and Chemical Corp.: VERSACRYL-40:
Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.21
Monamid 716	0.05
Fragrance	Q.S.
Anhydrous Ethanol	67.74
Hydrocarbon Propellant	30.00
Cloud Point (C):	-8

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-EXTRA

RAW MATERIALS	% By Weight
RESYN 28-2913	3.00
AMP-95	0.32
Monamid 716	0.10
Fragrance	Q.S.
Anhydrous Ethanol	66.58
Hydrocarbon Propellant	30.00
Cloud Point (C):	-5

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-SUPER

RAW MATERIALS	% By Weight
RESYN 28-2913	4.50
AMP-95	0.47
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Ethanol	64.83
Hydrocarbon Propellant	30.00
Cloud Point (C):	+3

Procedure:

1. Charge the mixing vessel with the required amount of anhydrous SDA-40.
2. Start agitation.
3. Add RESYN 28-2913 slowly - so that no accumulation of pearls occurs on the surface.
4. After all the pearls are added, slowly add AMP.
5. Continue mixing until all the pearls are in solution.
6. Add the rest of the ingredients in the formulation.
7. Pass the concentrate through 5-10 micron cartridge filters before filling aerosol containers.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2913:
Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-ANHYDROUS

RAW MATERIALS	% By Weight
AMPHOMER	2.50
AMP	0.41
Monamid 716	0.10
Fragrance	Q.S.
Ethanol (Anhydrous SDA-40)	61.99
Propellant A-46	35.00
Valve:	
Manufacturer: Disp. Div. Ethyl	
Model: KN-38	
Stem: .020"	
Body: .025"	
Vapor Tap: .020"	
Dip Tube: .150"	
Actuator: RKN-36 (.020")	
Spray Rate(g/sec): 0.56	
Flame Extension (in.): 17"	
Flash Back (in.): 4"	

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
AMPHOMER	3.00
AMP	0.49
Monamid 716	0.10
Fragrance	Q.S.
Ethanol (190 proof SDA-40)	61.41
Propellant A-46	35.00
Valve:	
Manufacturer: Disp. Div. Ethyl	
Model: KN-38	
Stem: .020"	
Body: .025"	
Vapor Tap: .020"	
Dip Tube: .150"	
Actuator: RKN-36 (.020")	
Spray Rate (g/sec): 0.55	
Flame Extension (in.): 16"	
Flash Back (in.): 5"	

SOURCE: National Starch and Chemical Corp.: AMPHOMER:
Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-ANHYDROUS

RAW MATERIALS	% By Weight
RESYN 28-1310	3.00
AMP	0.24
Monamid 716	0.25
Fragrance	Q.S.
Methylene Chloride	20.00
Ethanol (anhydrous SDA-40)	56.51
Propellant A-46	20.00

Valve:

Manufacturer: Seaquist
 Stem: .013"
 Body: .013"
 Actuator: .013"
 Dip Tube: .161"

Spray Rate (g/sec): 0.48
 Flame Extension (in.): 15"
 Flash Back (in.): 5"

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
RESYN 28-1310	2.00
AMP	0.17
Monamid 716	0.20
Fragrance	Q.S.
Methylene Chloride	X
Ethanol (anhydrous SDA-40)	X
Ethanol (190 proof SDA-40)	77.63
Distilled water	X
Isopropanol	X
Propellant A-46	20.00

Valve:

Manufacturer: Seaquist
 Stem: .013"
 Body: .013"
 Actuator: .013"
 Dip Tube: .161"

Spray Rate (g/sec): 0.5
 Flame Extension (in.): 16"
 Flash Back (in.): 5"

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
 Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-ANHYDROUS

RAW MATERIALS	% By Weight
RESYN 28-2930	2.00
AMP	0.18
Monamid 716	0.15
Fragrance	Q.S.
Ethanol (Anhydrous SDA-40)	67.67
Propellant A-46	30.00

Valve:

Manufacturer: Disp. Div. Ethyl

Model: KN-38

Stem: .020"

Body: .025"

Vapor Tap: .020"

Actuator: Marc 40-1832

Dip Tube: .15"

Spray Rate (g/sec): 0.50

Flame Extension (in.): 10"

Flash Back (in.): 0"

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
RESYN 28-2930	2.00
AMP	0.17
Monamid 716	0.10
Fragrance	Q.S.
Ethanol (190 proof SDA-40)	77.73
Propellant A-46	20.00

Valve:

Manufacturer: Seaquist

Stem: .013"

Body: .013"

Actuator: .013"

Dip Tube: .161"

Spray Rate(g/sec): 0.45

Flame Extension (in.): 16"

Flash Back (in.): 5"

SOURCE: National Starch and Chemical Corp.: RESYN 28-2930:
Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-REGULAR

RAW MATERIALS	% By Weight
VERSACRYL-40	2.00
Potassium Hydroxide	0.26
Monamid 716	0.15
Fragrance	Q.S.
Anhydrous Ethanol	62.59
Hydrocarbon Propellant	35.00
Cloud Point (C): <-35	
Valve: Precision with .018" stem	
.018" x .013" body	
.018" actuator	
Spray Rate (g/sec.): .64	

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-EXTRA

RAW MATERIALS	% By Weight
VERSACRYL-40	3.00
Potassium Hydroxide	0.40
Monamid 716	0.20
Fragrance	Q.S.
Anhydrous Ethanol	61.40
Hydrocarbon Propellant	35.00
Cloud Point(C): <-35	
Valve: Precision with .018" stem	
.018" x .013" body	
.018" actuator	
Spray Rate (g/sec.): .66	

AEROSOL HAIRSPRAY-HYDROCARBON-ETHANOL TYPE-SUPER

RAW MATERIALS	% By Weight
VERSACRYL-40	4.50
Potassium Hydroxide	0.60
Monamid 716	0.25
Fragrance	Q.S.
Anhydrous Ethanol	59.65
Hydrocarbon Propellant	35.00
Cloud Point (C): <-35	
Valve: Precision with .018" stem	
.018" x .013" body	
.018" actuator	
Spray rate (g/sec.): .69	

SOURCE: National Starch and Chemical Corp.: VERSACRYL-40:
Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS ALCOHOLIC

RAW MATERIALS	% By Weight
RESYN 28-1310	2.25
AMP	0.22
Monamid 716	0.10
Fragrance	Q.S.
Ethanol (anhydrous SDA-40)	47.43
Distilled water	20.00
Propellant A-46	30.00

Valve:

Manufacturer: Seaquist
 Model: Aquamist NS 32/34
 Stem: 2 x .030"
 Body: .050"
 Vapor Tap: .025"
 Actuator: .025" misty
 Dip Tube: .050"

Spray Rate (g/sec): 0.50
 Flame Extension (in.): 5"
 Flash Back (in.): 0"

AEROSOL HAIRSPRAY-CARBON DIOXIDE

RAW MATERIALS	% By Weight
RESYN 28-1310	2.75
AMP	0.22
Monamid 716	0.14
Fragrance	Q.S.
Methylene Chloride	20.00
Ethanol (anhydrous SDA-40)	72.39
Carbon Dioxide	4.50

Valve:

Manufacturer: Precision
 Stem: .013"
 Body: .061"
 Actuator: .013"
 Dip Tube: .017"

Spray Rate (g/sec): 0.65
 Flame Extension (in.): 14"
 Flash Back (in.): 3"

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
 Suggested Formulation

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
RESYN 28-2930	2.00
AMP	0.17
Monamid 716	0.05
Fragrance	Q.S.
Ethanol (Anhydrous SDA-40)	47.78
Distilled Water	20.00
Propellant A-46	30.00

Valve:

Manufacturer: Seaquist
 Model: Aquamist NS 32/34

Stem: .030"

Body: .050"

Vapor Tap: .025"

Actuator: .025" Misty

Dip Tube: .050"

Spray Rate(g/sec): 0.60

Flame Extension (in.): 0"

Flash Back (in.): 0"

AEROSOL HAIRSPRAY-CARBON DIOXIDE

RAW MATERIALS	% By Weight
RESYN 28-2930	2.25
AMP	0.18
Monamid 716	0.12
Fragrance	Q.S.
Methylene Chloride	20.00
Ethanol (Anhydrous SDA-40)	72.95
Carbon Dioxide	4.50

Valve:

Manufacturer: Precision

Stem: .013"

Body: .061"

Actuator: .013"

Dip Tube: .017"

Spray Rate(g/sec): 0.65

Flame Extension (in.): 14"

Flash Back (in.): 3"

SOURCE: National Starch and Chemical Co.: RESYN 28-2930:
 Suggested Formulations

AEROSOL HAIRSPRAY-HYDROCARBON TYPE-AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
AMPHOMER	1.50
AMP	0.25
Monamid 716	0.10
Fragrance	Q.S.
Ethanol (Anhydrous SDA-40)	43.15
Distilled Water	15.00
Propellant A-46	40.00

Valve:

Manufacturer: Seaquist
 Model: Aquamist NS-32/34
 Stem: 2 x .030"
 Body: .050"
 Vapor Tap: .025"
 Dip Tube: .050"
 Actuator: .020"

Spray Rate (g/sec): .053
 Flame Extension (in.): 12"
 Flash Back (in.): 0"

AEROSOL HAIRSPRAY-CARBON DIOXIDE

RAW MATERIALS	% By Weight
AMPHOMER	1.75
AMP	0.29
Lanexol AWS	0.10
Fragrance	Q.S.
Methylene Chloride	20.00
Ethanol (Anhydrous SDA-40)	73.36
Carbon Dioxide	4.50

Valve:

Manufacturer: Precision
 Stem: .013"
 Body: .061"
 Dip Tube: .017"
 Actuator: .013"

Spray Rate (g/sec): 0.65
 Flame Extension (in.): 14"
 Flash Back (in.): 3"

SOURCE: National Starch and Chemical Corp.: AMPHOMER;
 Suggested Formulations

AEROSOL HAIRSPRAY-MIXED PROPELLANT SYSTEM*

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.21
Armeen CD	X
Anhydrous Ethanol	20.00
Anhydrous Isopropanol	X
Propellant-11	58.80
Hydrocarbon Propellant	25.00
Cloud Point (C):	-31

AEROSOL HAIRSPRAY-MIXED PROPELLANT SYSTEM*

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.13
Armeen CD	0.20
Anhydrous Ethanol	X
Anhydrous Isopropanol	24.67
Propellant-11	53.00
Hydrocarbon Propellant	20.00
Cloud Point(C):	-33

* Suggested for use only in those countries allowing use of the ingredients.

AEROSOL HAIRSPRAY WITH UV PROTECTION

RAW MATERIALS	% By Weight
RESYN 28-2913	2.00
AMP-95	0.19
Monamid 716	0.10
Fragrance	Q.S.
Octyldimethyl PABA**	0.20
Anhydrous Ethanol	72.51
Hydrocarbon Propellant	25.00

* Available from National Starch and Chemical Corp.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2913:
Suggested Formulations

AEROSOL HAIR SPRAY*

INGREDIENTS	% By Weight
Gantrez ES-225 or ES-425	4.00
AMP-95	0.09
AROSURF 66-E2	0.10
Isopropyl Lanolate	0.05
Fragrance	0.10
Ethanol, SDA Anhydrous	45.66
Propellant	50.00

Formulation PF-0103

* Formulation suggested by Sherex Chemical Co.

SUPER-HOLD HAIR SPRAY*

INGREDIENTS	% By Weight
SDA 40 Alcohol (190 Proof)	82.43
STEPANHOLD R-1	12.00
Deionized Water	5.00
AMP-95	0.37
Perfume	0.20

Formulation PF-0102

* Formulation suggested by Stepan Chemical Co.

HAIRSPRAY*
MECHANICALLY ACTUATED

INGREDIENTS	% by Weight
RESYN 28-2930	4.50
AMP-95	0.36
Emcol CC-9	0.15
Fragrance	q.s.
Ethanol (190 proof SDA-40)	94.99

Valve: Calmar M-2

Formulation PF-0117

* Formulation suggested by National Starch and Chemicals Corp.

SOURCE: Angus Chemical Co.: Suggested Formulations

AEROSOL SCULPTING MOUSSE 5361-67

MATERIALS	Parts by Weight
A)	
AMPHOMER	2.50
AMP	0.40
DC-929 Silicone	0.40
Triton X-100	0.30
Arquad T-50	0.20
Fragrance	Q.S.
Preservative	Q.S.
Anhydrous Ethanol SDA-40	10.00
Deionized Water	38.90
B)	
Natrosol 250 HHR	0.30
Deionized Water	37.00
C)	
Propellant A-46	10.00

Preparation:

Prepare portions A and B, when solutions are complete add solution A to B and mix until homogeneous. Filter and fill concentrate. Charge propellant.

STIFF-HOLDING CONDITIONING-STYLING MOUSSE: 5146-44E

INGREDIENTS	Parts by Weight
CELQUAT L-200	2.00
Sucrose	8.00
Distilled Water	63.50
Dimethicone	1.00
PEG-36 Castor Oil	0.50
Polysorbate 20	0.25
Anhydrous Ethanol, SDA-40	12.75
Preservative	Q.S.
Fragrance	Q.S.
A-46 Propellant	12.00

Processing:

Slowly sift CELQUAT and sucrose into distilled water while mixing. When homogeneous, add remaining ingredients. When solution is complete, filter and fill aerosols. Charge propellant.

SOURCE: National Starch and Chemical Corp.: Suggested Formulations

AEROSOL STYLING SPRAY
5659-72C

INGREDIENTS:	Parts by Weight
VERSACRYL-40	4.50
Potassium Hydroxide	0.56
Purcellin Oil 2/066210	0.10
Dow Corning 190 Surfactant	0.10
Monamid 716	0.10
Fragrance	0.10
Ethanol, SDA-40	49.54
Propellant A-46	45.00

Description:

5659-72C is formulated to give a very quick drying spray which gives a firm but unusually natural hold. The fast drying feature allows instant setting of curls. The spray also affords easy comb-out and washability.

Preparation:

Charge mixing vessel with SDA-40. While mixing, add potassium hydroxide. Sift VERSACRYL-40 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill aerosol containers. Charge propellant.

Can: Continental

Valve: Precision, 0.018" stem

ALCOHOL-FREE STYLING MOUSSE
5146-31

MATERIALS	Parts by Weight
AMPHOMER	3.000
AMP	0.550
Duoquad T-50	0.375
Alacsan 7LUF	1.125
Water, deionized	84.95
Preservative	Q.S.
Perfume	Q.S.
Propellant 12	6.000
Propellant 114	4.000

Preparation:

Dissolve Duoquad, Alacsan, and AMP in water. Slowly sift in AMPHOMER while mixing. When homogeneous, mix in preservative and perfume. Filter and fill concentrate. Charge propellants.

SOURCE: National Starch and Chemical Corp.: Suggested Formulations

AFTER SHAMPOO CONDITIONING TREATMENT(2889-092A)

RAW MATERIALS % By Weight

A.	
LANOQUAT 1756 Lanolin Quaternary	2.5
EMEREST 2355 Glycol Distearate	7.5
EMERY 1787 Cetyl Alcohol Flakes, NF	6.5
Jojoba oil	0.5
Sesame oil	1.5
EMEREST 2486 Pentaerythrityl Tetrapelargonate	1.0

B.	
Cremogen M-2 birch leaf extract	0.5
Sodium chloride	0.2
EMERCIDE 1199 Liquid Preservative System	0.5
Deionized water	79.3
Fragrance	q.s.

Especially good for dry or damaged hair. It may be used either as a cream rinse to be rinsed out of the hair after shampooing, or as a conditioner to be massaged into the hair to keep it soft and manageable.

COMB-OUT OIL SHEEN SPRAY(2889-094D)

RAW MATERIALS % By Weight

A.	
LANTROL AWS 1692 PPG-12-65 Lanolin Oil	3.0
EMERY 916 Glycerine, 99%	7.0
Hydrolyzed animal protein	0.5
EMEREST 2486 Pentaerthrityl Tetrapelargonate	0.3
Adogen 442 Quaternium 18	0.3

B.	
EMSORB 2726 PEG-40 Sorbitan Diisostearate	0.3
ETHOXYLAN 1686 PEG-75 Lanolin, 50%	6.0
TRYCOL 5964 Laureth-23	1.0
TRYCOL 5967 Pareth-25-12	2.0
Deionized water	79.1
Fragrance CE 1821	q.s.
EMERCIDE 1199 Liquid Preservative System	0.5

A spray is one of the easiest ways to coat the hair uniformly. This particular formulation incorporates glycerine to provide sheen, and lanolin derivatives coupled with EMEREST 2486 to replenish oils and restore body.

SOURCE: Quantum Chemical Corp.: EMERSET 2486: Suggested Formulations

ALCOHOL FREE CLEAR CREME RINSE #A64-41-3

RAW MATERIALS % By Weight

Phase A:	
CERAPHYL 65	3.00
CERAPHYL 60	1.50
FOAMOLE B	1.00
Standapol OLB-50	1.00

Phase B:	
Water, deionized	91.65
Cellosize QP 30,000	1.00
Lactic Acid 88%	0.70
BTC 2125M	0.15

Procedure:

In a suitable vessel weigh ingredients of Phase A. Heat to 80C with agitation and mix until uniform. In a second suitable vessel, large enough to contain the entire batch, weigh water and completely disperse Cellosize. Heat to 80C and add the rest of Phase B. Add Phase A to Phase B with agitation, cool to 25-28C, pass through finishing filter.

pH: 4.0

CLEAR CREME RINSE #A59-3-5

RAW MATERIALS % By Weight

Phase A:	
Ethyl Alcohol (SD 40, Anhyd.)	25.00
CERAPHYL 70 (liquefied at 35C)	3.00
FOAMOLE B	0.80
CERAPHYL 41	2.00
Arosurf CLA1	1.50

Phase B:	
Water, deionized	66.45
Cellosize QP 30,000	0.40
Lactic Acid 88%	0.75
BTC 2125M	0.10

Procedure:

Completely pre-disperse Cellosize in water then add the rest of ingredients of Phase B (in order written) and mix well until homogeneous. Mix together (in order written) all ingredients of Phase A and add to Phase B. Stir until uniform.

pH: 4.0

SOURCE: Van Dyk & Co., Inc.: After Shampoo Hair Conditioners:
Suggested Formulations

ALOPECIA TREATMENT-POLYSORBATE 80 BASE #134-1

INGREDIENT	% By Weight
Demineralized Water	QS
Cellose QP-4400 H	0.5000
Tween 80	5.0000
KALLIKREIN CP	0.0010
NEWSULFUR-W	0.1000
dl-Panthenol	1.0000
Biotin	0.0010
TRI-K Custom Blend 232	1.0000
JUNIPER HS	0.5000
Methyl Paraben	0.2000
Propyl Paraben	0.0500
ABIOL	0.2500
Fragrance	0.0250
Lactic Acid	QS

Code: 034

AMINO ACID/NUTRIENT POWDER FOR SCALP CONDITIONER

INGREDIENT	% By Weight
Nonfat Dry Milk Solids	25.0000
TRITEIN 100	15.0000
TRI-K HKP	15.0000
80:20 Paraben Blend	0.3000
1-Ascorbic Acid	0.0100
Menhaptan Na Bisulfite	0.0001
p-Aminobenzoic Acid	0.0001
Pydoxidal.HCl	0.0001
Pyroxidine.HCl	0.0001
Vitamin B1/B2	0.0001
dl-Tocopheryl Phosphate	0.0001
Vitamin A Acetate	0.0001
Adenine Sulfate	0.0001
ATP, Bisodic Salt	0.0001
2-Deoxyribose	0.0001
Guanine.HCl	0.0001
Hypoxanthane	0.0001
Ribose	0.0001
Thymidine	0.0001
Uracil	0.0001
Xanthine	0.0001
Folic Acid	0.0100
1-Inositol	0.0001
CANTAB PLUS	44.6782

Code: 004

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

"AMPHOMER" PUMP HAIR SPRAY

RAW MATERIALS	% By Weight
Amphomer	4.5
DM-AMP-80	0.75
SCHERCOMID AME-70	0.4
SCHERCEMOL DICA	0.9
SDA-40 Anhydrous	88.7
Water	4.65
Fragrance	0.1

This hair spray leaves a clear, hard, shiny film and does not clog the pump valve.

Formulation SG-0218

PUMP HAIR SPRAY

RAW MATERIALS	% By Weight
Gantrez ES-425	6.0
SCHERCEMOL DICA	0.8
AMP-95	0.2
Perfume	0.1
SDA-40 Anhydrous	87.9
Water	5.0

Add water last when dissolving above ingredients in the ethanol. This spray gives a hard, clear shiny film.

Formulation SG-0210

HAIR POMADE

RAW MATERIALS	% By Weight
SCHERCOMID AME-70	80.0
SCHERCEMOL MM	10.0
Coceth-6	10.0

Heat to 75C, stir and cool. This base should be diluted with either Carbowax or an aqueous dispersion of PEG 1000 monostearate for a finished product. This pomade has extraordinary holding power and a luxuriant feel.

Formulation SG-0204

SOURCE: Scher Chemicals, Inc.: Technical Bulletins

AQUEOUS SPRAY

RAW MATERIALS	Parts
LUVISKOL VA 55 E or LUVISKOL VA 55 I	3.0
LUTROL E 400	0.3
Essential oil	0.2
Ethanol or 2-propanol	56.5
Distilled water	20.0
Propellent 12/114 40:60	20.0

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulation

HAIR SPRAY

RAW MATERIALS	% By Weight
AMERCHOL L-101	0.3
SOLULAN PB-20	0.3
PVP, K-30	3.0
Ethanol, anhydrous	96.4
Above concentrate	50.4
Propellant 11/12 (58/42)	49.6

Moisture resistant, flexible film with exceptional gloss.

Procedure:

Mix ingredients well until uniform.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

HAIR SPRAY

RAW MATERIALS	% By Weight
ACETULAN	0.75
PVP K-30	3.00
Ethanol, anhydrous	26.25
Propellant 12/11 (40/60)	70.00

Forms a flexible, glossy film.

Procedure:

Add the ingredients in the order given, mixing well after each addition. If necessary, heat gently to clear.

Pressure fill.

SOURCE: Amerchol Corp.: ACETULAN: Suggested Formulation

ARIANOR HAIR COLOR GEL

INGREDIENT	% By Weight
A)	
Propylene Glycol	2.0000
Acetamide MEA 70	2.0000
Methylparaben	0.1500
B)	
AMIGEL	0.7500
C)	
Deionized Water	70.5000
Triethanolamine 99%	0.1000
dl-Panthenol	0.5000
Ammonyx Cetac	4.0000
Color Concentrate:	
D)	
Arianor Dye*	1.0000
Propylene Glycol	5.0000
Demineralized Water	14.0000
* Steel Blue	0.8800
Straw Yellow	-----
Mahogany	-----
Sienna Brown	-----
Madder Red	0.1200
Colorless Base	-----

Procedure:

1. Maserate the AMIGEL in Propylene Glycol, add Acetamide AMEA and Me Paraben.
2. Add the mascerate to stirring water at room temperature and heat to 70C.
3. Mix at 70C. until all dissolved, lump free and uniform.
4. Add the Panthenol, TEA and Cetac. Mix and cool to room temperature.
5. Prepare color concentrate by blending dye in glycol and adding water. Heat to a maximum of 50C while mixing. When dye is fully dissolved, add to batch.
6. Mix until fully dissolved and uniform.

Product Form: Gel

SOURCE: TRI-K Industries, Inc.: Code 2-40-2

"BALSAM" HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
SCHERCEMOL MM	2.0
SCHERCEMOL DICA	2.0
Glyceryl Monostearate (pure)	4.0
Promulgen D	3.5
Phase B:	
Lactic Acid (85%)	0.3
SCHERCOQUAT IIB	1.5
Preservative	0.2
Fragrance	0.2
Water	86.3

Mix Phase B to Phase A at 60C. Stir cool to 30C.

HAIR CONDITIONER
Short & Sassy Type

RAW MATERIALS	% By Weight
Phase A:	
Promulgen D	4.5
SCHERCOMID AME-70	12.0
Cetyl Alcohol	1.5
Phase B:	
SCHERCOQUAT IIB	0.5
Collagen Hydrolysate	3.0
Propylene Glycol	0.7
Preservative	0.3
Water	77.4
Perfume	0.1

Add Phase "B" to Phase "A" at 75C, then stir-cool to 30C.

Formulation SG-0213

HOT "NON" OIL HAIR TREATMENT

RAW MATERIALS	% By Weight
SCHERCOMID AME-70	5.5
SCHERCOQUAT IIB	1.0
Brij 98	1.5
Preservative	0.1
SCHERCOTERIC I-AN	3.0
FD & C Yellow 6	qs
Water	83.9
NaCl (25% solution)	5.0
Fragrance	qs

Formulation SG-0221

SOURCE: Scher Chemicals, Inc.: Technical Bulletins

BLOW-DRY LOTION

RAW MATERIALS	Parts
LUVISKOL VA 37 I (E)	1.5
LUVIQUAT FC 905	0.2
2-Propanol or ethanol	30.0
Distilled water	68.3
Formulation 1	

BLOW-DRY LOTION

RAW MATERIALS	Parts
LUVISKOL VA 64	0.7
LUVIQUAT FC 905	0.2
2-Propanol or ethanol	30.0
Distilled water	69.1
Formulation 2	

SOURCE: BASF Corp.: LUVISKOL VA grades: Suggested Formulation

BLOW-WAVE LOTION

RAW MATERIALS	% By Weight
Luviflex D 430 I	1.5
Dehyquart A	0.2
Ethanol or 2-propanol	20.0
Distilled water	78.3

SOURCE: BASF Corp.: LUVIFLEX Grades: Suggested Formulation

CATIONIC CREME HAIR RINSE - PEARLESCENT

RAW MATERIALS	Parts by Weight
EMCOL E-607S (Steapyrium Chloride)	2.0
Cetyl Alcohol	1.0
Sodium Chloride	0.5
Water	96.5

Add EMCOL E-607S to 30 percent of the water and heat to 60C. Melt cetyl alcohol and add to aqueous dispersion of EMCOL E-607S at elevated temperature.

Cool; add balance of water containing salt. Add perfume and preservative as desired.

Mix one tablespoon in one-half cup of water and comb through clean, wet hair.

Formulation 104D

PROTEIN CREME RINSE

RAW MATERIALS	Parts By Weight
Phase A:	
Solulan 25	1.0
Liquid Lanolin	0.5
EMCOL E-607S (Steapyrium Chloride)	1.5
Cerasynt 1000D	2.0
Cetyl Alcohol	0.5
Phase B:	
Water	91.3
Maypon 4CT	1.0
Polypeptide AAS, 20%	2.0
Phase C:	
Fragrance (Claudina M-1995)	0.2
D & C Yellow No. 10, 5%	3 drops

Add Phase B to Phase A, both at 70C, while stirring. Continue stirring; cool to 40C and add fregrance.

Product increases in wiscosity over 48 hours. Agitation after this time will prevent future viscosity changes.

Formulation 103D

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

CATIONIC & PROTEIN CONDITIONING HAIR RINSE NO. 402

RAW MATERIALS	% By Weight
A.	
VEEGUM K	1.0
Water	39.4
Jaquar HP-60	1.0
B.	
Citric acid	0.1
Polypeptide LSN	6.0
Water	40.0
C.	
Aldo MSA	1.5
Ammonyx 4B	7.0
Solulan 98	4.0
Preservative	q.s.

Procedure:

Heat water to 75C. Slowly add VEEGUM K to the water while agitating at maximum available shear. Continue mixing until smooth. Slowly add remaining A ingredient, mixing until uniformly dispersed. Add B to A and mix until uniform. Maintain at 75C. Heat C to 70C and add to A/B mixing until cool.

Consistency: Flowable liquid.

Suggested Packaging: Plastic bottle

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 402

OIL-FREE CLEAR RINSE 5659-20M

INGREDIENTS	Parts By Weight
A)	
CELQUAT SC-240	0.60
Natrosol 250HHR	0.80
B)	
Propylene Glycol	3.00
dl-Panthenol	0.20
Germall 115	0.20
Methyl Paraben	0.10
Distilled Water	95.10

Preparation:

Combine all ingredients in part B and mix until homogeneous. While mixing, sift in part A. Mix until solution is complete.

SOURCE: National Starch and Chemical Corp.: CELQUAT SC-240:
Formulation 5659-20M

CAUSTIC HAIR STRAIGHTENER NO. 280

RAW MATERIALS	% By Weight
A)	
VEEGUM HS	2
Water	53
B)	
Cetyl alcohol	15
Petrolatum	5
Carnation White Mineral Oil	8
Arlacel 165	5
C)	
Sodium hydroxide	2
Water	10
Preservative	q.s.

BISULFITE HAIR STRAIGHTENER NO. 281

RAW MATERIALS	% By Weight
A)	
VEEGUM HS	2
Water	57
B)	
Cetyl alcohol	10
Petrolatum	5
Carnation White Mineral Oil	5
Arlacel 165	5
C)	
Sodium bisulfite	2
Water	10
Ammonium carbonate	4
Preservative	q.s.

Procedure:

Slowly add VEEGUM HS to the water, while agitating at maximum available shear. Continue mixing until smooth. Heat A to 80C. Heat B to 70C. Add B to A with rapid agitation, cooling to 35C. Slowly dissolve C ingredients and add to A/B. Mix until smooth and uniform.

Consistency: Thick cream.

Suggested Packaging: Jar or squeeze tube.

Comments:

VEEGUM HS was selected for its superior stability with electrolytes and serves as an emulsion stabilizer.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulation

CLEAR CONDITIONER WITH PROTEIN

INGREDIENT	% By Weight
I.	
Deionized Water	47.2
Cellosize QP 100 M-H	0.8
II.	
Deionized Water	47.2
VARIQUAT 638	1.3
Glucam P-20	0.5
Solulan 575	1.0
Ameroxol OE-20	0.5
VARONIC LI-63	0.5
III.	
Crostein HKP	1.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	5.28%
pH:	4.5

Formulation Code: 6.6.3

CLEAN-HAIR CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	84.7
Natrosol 250 HR	0.6
Tetrasodium EDTA	0.1
II.	
ADOGEN 432-CG	2.8
ADOL 52	1.5
III.	
Crostein SPC	0.3
Deionized Water	10.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	4.46%
pH:	3.8
Viscosity:	2500 cps

Formulation Code: 6.7.3

SOURCE: Sherex Chemical Co.: Suggested Formulations

CLEAR GEL

RAW MATERIALS	% By Weight
Part A:	
CARNATION White Mineral Oil	16
Alkanolamide (EMCOL 5160)	3
Polyethylene glycol 400 mono-oleate (EMCOL H-31A)	3
Oleic Acid Amide (EMCOL 511)	4
Hexadecyl alcohol	4
Part B:	
Phosphate ester (EMCOL CS-1361)	10
Diethanolamine	1.8
Propylene glycol	1
Water, perfume, color & preservative to	100

Among the most popular new developments in hair preparations are the clear "ringing" hair gels.

Combine all ingredients but water and heat to 90C. Heat water to 90C in separate container. Add water to oil-surfactant phase slowly with good agitation avoiding excessive air entrapment. Maintain 90C temperature during entire addition. Maintaining agitation, allow to cool. Perfume and color at lowest temperature allowing tube fill.

Notes on Clear Gels:

- 1) Only water soluble colors can be added after emulsion is formed. If oil soluble colors are used, then it must be added to the oil phase at the start prior to water addition.
- 2) Certain perfumes will cause a clouding of the gel, but this can be cleared by maintaining agitation for several minutes after perfume addition. A permanent cloud can be eliminated by adding the perfume with approximately 1-2% polyethylene glycol 400 mono-oleate and all the propylene glycol. Thus the propylene glycol is not added in step 1 with the perfume.
- 3) Increasing propylene glycol up to 3% improves freeze thaw stability.
- 4) Increasing phosphate ester to 12% aids the relative ease of gel formation and decreases its sensitivity to most variations that may occur in the raw materials used.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics Industry: Suggested Formulation

CLEAR HAIR REPARATIVE AND CONDITIONER

INGREDIENTS	%W/W
A.	
Quaternary Ammonium Polypeptide Salt (1)	25.00
Ethoxylated (20 Mole) Oleyl Alcohol (2)	3.00
PATINIC ISL (3)	2.00
B.	
Deionized Water	69.80
C.	
Glydant 40-700 (4)	0.20
Perfume #D-78-315 (5)	q.s.
pH	6.7
Viscosity @ 80F	Less than 100 cps
Cloud Point	<-2C

Procedure:

Combine ingredients of Part A and heat to 45C. Add B (water) and stir down to room temperature. Add Part C.

(1) Croda Inc.	Crotein BTA
(2) Amerchol	Ameroxol OE-20
(3) Patco Cosmetic Products	Sodium Isostearoyl-2-Lactylate
(4) Glyco	Hydantoin DMDM
(5) Perry Brothers	

SOURCE: Patco Cosmetic Products; Patco Bulletin No. 185

RECONDITIONING PASTE/DAMAGED HAIR

INGREDIENT	% By Weight
I.	
Deionized Water	69.8
Glycerine	3.0
II.	
Amerlate LFA	2.0
Polawax	3.0
ADOL 90	1.0
Petrolatum	4.0
ADOL 62	4.0
VARISOFT 475	2.7
III.	
Deionized Water	10.0
Crotein SPC	0.5
IV.	
Preservative	qs
Solids:	19.5%
pH:	3.1
Viscosity:	24,500 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.7.6

CLEAR HAIR RINSE

RAW MATERIALS % By Weight

Phase A:	
Cocodimonium Hydrolyzed Collagen	5.0
PPG-5-Ceteth-10 Phosphate	1.0
Myrisylamine Oxide (and) Cetylamine Oxide	10.0
GERMABEN II	1.0
Phase B:	
Water	79.0
Hydroxypropylmethylcellulose	1.0
Lactamide MEA	3.0

Procedure:

Mix the Lactamide MEA and the Water and disperse the Hydroxypropylmethylcellulose with good agitation. When dispersed add Phase A.

OIL-FREE CLEAR RINSE

RAW MATERIALS % By Weight

Phase A:	
Propylene Glycol	2.9
dl-Panthenol	0.2
GERMABEN II	0.5
Water	95.0
Phase B:	
Hydroxyethylcellulose	0.8
Polyquaternium-10	0.6

Procedure:

Combine all ingredients in Phase A. While mixing sift in Phase B and mix until clear.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulations

CLEAR CONDITIONING HAIR RINSE

RAW MATERIALS Parts by Weight

EMCOL E-607S (Steapyrium Chloride)	2.0
Ethoxyl 16	6.0
Water	92.0
Perfume, preservative	q.s.

Mix ingredients and heat together until clear. Cool and pour into containers. Dissolve one tablespoon of rinse in one cup of water for final use.

SOURCE: Witco Chemical Corp.: Surfactants for Cosmetics and Toiletries: Formulation 101D

CLEAR HAIR RINSE

INGREDIENTS:	%W/W
Water	q.s. to 100.0
3 A Alcohol	6.0
COSMEDIA HSP-1180 (Polyacrylamido methylpropane Sulfonic Acid)	3.5
Polyquart H (PEG-15 Tallow Polyamine)	2.0
Fragrance, Dye and Preservative	q.s.

Procedure:

Combine ingredients in the above order under adequate agitation.

Comments:

This simple, effective formula can be used as either an after-shampoo rinse or as a Pre-Blow Dry Spray.

Formulation HOB-83-30

CLEAR HAIR RINSE WITH PROTEIN

INGREDIENTS:	%W/W
Part A:	
Water	q.s. to 100.0
Natrosol 250 HHR	0.5
Citric Acid, Anhydrous	0.5
VELVETEX AB-45 (Coco-Betaine)	5.0
DEHYQUART A (Cetrimonium Chloride)	5.0
Nutrilan L (Hydrolyzed Animal Protein)	1.0

Part B:

Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat water to 70-75C. Sprinkle in Natrosol under adequate agitation and continue blending until completely hydrated. Add remaining ingredients, one at a time, with stirring. Cool and at 40C add individual ingredients of Part B under agitation. Continue stirring until product reaches room temperature.

Comment:

The blend of quaternary and betaine provides emolliency and enhanced substantivity to the hair shaft. For further conditioning, substitute VELVETEX OLB-50 (Oleyl Betine) for the AB-45.
Formulation H-4449

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

COMB-OUT SHEEN SPRAY

INGREDIENT	% By Weight
I.	
Deionized Water	84.4
Glycerine	5.0
Sorbitol	2.0
Propylene Glycol	3.0
Tetrasodium EDTA	0.1
II.	
VARONIC LI-63	2.0
ADOGEN 432-CG	1.8
AROSURF 66-E20	0.5
Dow Corning 193	0.2
III.	
Croteen HKP	1.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	15.0%
pH:	3.8
Viscosity:	80 cps

Mixing Instructions:

Heat Phases I & II to 80C. Add Phase II to I while mixing. Cool to 40C and sprinkle in Croteen HKP with mixing. Cool to 30C while mixing. Adjust pH to 3.8 with Citric Acid.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.6.3

PUMP HAIR SET SPRAY

RAW MATERIALS	% By Weight
Water	93.80
Poly-MAPTAC	4.00
Cetrimonium Chloride	0.70
Polysorbate 20 (Tween 20)	0.60
Glycerin	0.20
GERMABEN II	0.50
Fragrance	0.20

Procedure:

Dissolve the fragrance in Tween 20. Add this to the water with the other ingredients.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formulation

CONDITIONER HC-2001

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 16	2.0
SOLULAN 25	2.5
SOLULAN 5	1.5
Arlacel 165	6.0
CETAL	2.0
Glycol stearate	5.0
Phase B:	
Water	71.0
Lexein X-250	1.0
Monateric ISA-35	2.0
GLUCAM P-20	2.0
Triton X-400	5.0
Perfume, preservative, color	q.s.

Description:

Firm cream rinse conditioner. Body provided by Triton X-400 and cetyl alcohol. SOLULANs provide manageability and luster. GLUCAM P-20 enhances fragrance duration and feel.

Variations:

For softer consistency, replace part of cetyl alcohol with myristyl alcohol.

For high gloss, add SOLULAN PB-5.

CONDITIONER HC-2002

RAW MATERIALS	% By Weight
Phase A:	
Water	89.8
Barquat CT-29	1.5
Alumina	0.5
Phase B:	
Petrolatum	1.5
Glyceryl stearate	0.2
ACETULAN	2.0
AMERCHOL L-101	2.0
STEARAL	2.5
Perfume, preservative, color	q.s.

Description:

Flowing cream rinse. Barquat CT-29 substantive to hair. ACETULAN, AMERCHOL L-101 and petrolatum provide body, styling and sheen.

Variations:

To improve wet comb and fragrance duration, add GLUCAM P-20.

To reduce viscosity, replace part of stearyl alcohol with cetyl alcohol.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

CONDITIONER HC-2003

RAW MATERIALS	% By Weight
Water Phase:	
GLUCAM P-20	2.0
Water	60.0
Acetamide MEA	15.0
Lexein X-250	5.0
Oil Phase:	
Glyceryl stearate	3.0
Myrj 59	5.0
Triton X-400	5.0
CETAL	2.0
STEARAL	1.0
ACETULAN	2.0
Perfume, preservative, color	q.s.

Description:

Cream rinse for fine, thin or limp hair. Good for blow-drying. ACETULAN imparts lubricity. GLUCAM P-20 affords good combing. Lexein X-250 repairs "split ends." Triton X-400 is substantive to hair.

Variations:

To reduce viscosity, replace stearyl alcohol with myristyl alcohol.

To impart greater gloss, add SOLULAN PB-20.

CONDITIONER HC-2004

RAW MATERIALS	% By Weight
Water Phase:	
Water	54.7
Propylene glycol	7.5
Specially denatured alcohol #40	6.0
Triton X-400	4.8
Monamid 718	5.0
Monamid 716	4.0
Lexein X-250	2.0
GLUCAM P-20	1.5
SOLULAN 16	2.0
Oil Phase:	
Arlacel 83	5.0
Laureth-4	5.0
Arlacel 60	1.5
Tween 40	1.0
Perfume, preservative, color	q.s.

Description:

Flowing cream rinse with body provided by Triton X-400 and Monamids. Luster provided by GLUCAM P-20 and SOLULAN 16.

Variations:

To thicken, increase Arlacel 60, decrease Arlacel 83.

To opacify, add GLUCATE SS.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

CONDITIONER HC-2005

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 25	2.5
SOLULAN 5	1.5
Arlacel 165	6.0
CETAL	2.0
Ammonyx 4	5.0
Water Phase:	
Lanasan CL	1.0
Dl-Panthenol	0.5
Glycerine	2.0
Water	79.5
Perfume, preservative, color	q.s.

Description:

Cream rinse conditioning lotion. SOLULAN 25 aids manageability. SOLULAN 5 adds gloss and lubricity.

Variations:

To improve fragrance duration and combing properties, replace glycerine with GLUCAM P-20.

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol.

CONDITIONER HC-2006

RAW MATERIALS	% By Weight
Water	77.75
Polymer JR-400	0.50
Natrosol 250	0.75
AMEROXOL OE-20	3.00
GLUCAM P-10	1.00
Acetamide MEA	12.00
Gafquat 755	5.00
Perfume, preservative, color	q.s.

Description:

Pre-shampoo conditioner. Repairs damaged hair prior to shampooing. Polymer JR-400 and Gafquat 755 are substantive to hair. GLUCAM P-10 provides good combing and luster. AMEROXOL OE-20 provides ease of distribution.

Variations:

For increased residual feel, add SOLULAN C-24.

For higher luster, increase GLUCAM P-10.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

CONDITIONER HC-2007

RAW MATERIALS	% By Weight
Water Phase:	
Natrosol 250	1.5
Water	81.5
GLUCAM P-10	2.0
Triton X-400	5.0
Oil Phase:	
CETAL	8.0
SOLULAN PB-20	2.0
Perfume, preservative, color	q.s.

Description:

Non-oily cream rinse conditioner. Triton X-400 is substantive to hair. GLUCAM P-10 provides combing properties. SOLULAN PB-20 provides gloss.

Variations:

For softer consistency, replace part of cetyl alcohol with myristyl alcohol.

For improved luster, add SOLULAN 16.

CONDITIONER HC-2008

RAW MATERIALS	% By Weight
Water Phase:	
Water	70.0
GLUCAM P-20	2.0
Lexein X-250	1.0
Henna extract	5.0
Triton X-400	3.0
Oil Phase:	
SOLULAN 16	2.0
SOLULAN 25	2.5
SOLULAN 5	1.5
Arlacel 165	6.0
CETAL	2.0
Kessco PEG-400 Distearate	5.0
Perfume, preservative, color	q.s.

Description:

Cream conditioner providing superior manageability and luster provided by Triton X-400 and SOLULAN 5, SOLULAN 16, SOLULAN 25. GLUCAM P-20 improves wet and dry comb and enhances fragrance duration. Contains henna extract.

Variations:

For increased repair to damaged hair, increase Lexein X-250.

For softer consistency, replace part of Arlacel 165 with Arlacel 186.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

CONDITIONER HC-2009

RAW MATERIALS	% By Weight
Water	96.5
GLUCAM E-10	1.0
Benzyl alcohol	0.4
Ethomeen 18/15	0.3
Isostearyl alcohol	0.3
Arquad 2HT-75	0.5
SOLULAN 98	1.0
Perfume, preservative, color	q.s.

Description:

Spray-on cream rinse. Removes snarls and tangles, provides ease of combing and manageability. SOLULAN 98 helps prevent precipitation of quaternary conditioners. GLUCAM E-10 provides luster and good combing properties.

Variations:

For higher viscosity, replace part of isostearyl alcohol with cetyl alcohol.

For greater clarity, replace part of water with specially denatured alcohol #40.

CONDITIONER HC-2010

RAW MATERIALS	% By Weight
Water	81.2
Polymer JR-30M	0.3
Hexylene glycol	6.0
Arquad 12-50	8.0
Arquad 2C-75	1.5
GLUCAM E-10	3.0
Perfume, preservative, color	q.s.

Description:

Oil-free, flowing clear rinse conditioner. Arquads and Polymer JR-30M substantive to hair. GLUCAM E-10 provides easy combing and luster.

Variations:

For greater clarity, replace part of water with ethyl or isopropyl alcohols.

For increased luster, add SOLULAN 16.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

CONDITIONER HC-2011

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 16	4.5
Arlacel 165	6.0
CETAL	4.5
Myrj 59	5.0
Water Phase:	
Water	60.0
Lexein X-250	4.0
Triton X-400	6.0
Acetamide MEA	10.0
Perfume, preservative, color	q.s.

Description:

Conditioning cream for troubled hair. High concentrations of quaternary, cetyl alcohol, SOLULAN 16 and protein hydrolyzates for bleached, dyed or otherwise abused hair.

Variations:

To prepare flowing cream, reduce cetyl alcohol concentration.

For firmer cream, increase cetyl alcohol.

To improve combing qualities, add GLUCAM E-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulation

CONDITIONER FOR PERMED HAIR
Regular Hold - 4697-66

INGREDIENTS	Parts by Weight
A.	
CELQUAT L-200	1.0
Propylene Glycol	2.25
Triethanolamine	0.50
Distilled Water	76.05
Dowicil 200	.20
Natrosol 250 HHR	.10
B.	
Acetulan	.50
Amerchol L-101	2.50
Stearic Acid XXX	1.25
Emerest 2407	1.00
Mineral Oil	14.75
C.	
Fragrance	q.s.

SOURCE: National Starch and Chemical Corp.: Formulation
 4697-66

CONDITIONER

RECIPE	% By Weight
A.	
GENAMIN KDM-F	3.75
HOSTAPHAT KL 340 N	1.00
Cetylalcohol	3.00
Paraffinoil, high viscosity	5.00
Lanolin Superfine	1.00
B.	
Water, preserving agent, dyestuff solution	85.75
C.	
Perfume	0.50

Procedure:

- I. Heat A and B to 80C.
- II. Stir B into A.
- III. Stir until cool.
- IV. Add C to III at 40C.

Formulation No. B II/1024

CONDITIONER

RECIPE	% By Weight
A.	
GENAMIN KDM-F	2.00
GENAMIN DSAC	1.00
HOSTACERIN DGS	1.50
Cetylalcohol	2.50
Paraffinoil, high viscosity	2.00
B.	
Water, preserving agent	90.60
C.	
Perfume	0.40
Dyestuff	q.s.

Procedure:

- I. Melt A at 80C.
- II. Heat B to 80C.
- III. Add B to I.
- IV. Stir until cool.
- V. Add the components of C to IV at 40C.

Formulation No. B II/1033

SOURCE: Hoechst Celanese Corp.: Cosmetics: Suggested Formulations

CONDITIONER

RECIPE	% By Weight
A.	
GENAMIN KSL	10.00
HOSTAPHAT KL 340 N	1.50
Cetylstearylalcohol	4.00
Paraffinoil, high viscosity	2.00
B.	
Water, preserving agent	82.20
C.	
Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I. Melt A at 75C.
- II. Heat B to 75C.
- III. Stir II into I.
- IV. Stir until cool.
- V. Add the components of C to IV at 40C.

SOURCE: Hoechst Celanese Corp.: Cosmetics: Formulation No.
B II/1037

PROFESSIONAL CONDITIONER

RAW MATERIALS	% By Weight
Part A:	
Polysorbate 20	1.0
INCROQUAT S-85 (stearalkonium chloride)	2.0
Cetyl Alcohol	2.5
Stearyl Alcohol	2.5
CRODAMOL W (stearyl heptanoate)	1.0
GERMABEN II	1.0
Part B:	
Water + NATROSOL 250HHR	77.5
Part C:	
KERASOL (soluble animal keratin)	3.0
Water	6.0
Part D:	
SM-2101 (trimethylsilylamodimethicone)	2.0
Part E:	
SF-2136 (dimethicone)	1.5

This conditioner is formulated for permed or otherwise damaged hair. SM-2101, an amine emulsion, provides improved shine and softness. SF-1236, a silicone gum/SF-96 (5) blend, coats the hair, giving it extra fullness and disguising damaged ends without weighing down the hair.

SOURCE: GE Silicones: Personal Care Formulary: Formula HP-102

CONDITIONER
(With pearl lustre effect)

RAW MATERIALS	% By Weight
A.	
GENAMIN KDM-F	3.75
B.	
Water	91.85
C.	
Genapol PGM Conc.	3.00
D.	
Tylose H 10,000 P	1.10
E.	
Perfume	0.30
Preserving agent	q.s.
Dyestuff	q.s.

Procedure:

- I. A is warm dissolved in B.
- II. At room temperature C is added to I.
- III. D, which is added in small portions by continuing stirring to II, should swell until a homogeneous Rinse free of lumps has been obtained.
- IV. Finally one after another the components of E are added to III.

Formulation No. B II/1034

CLEAR-RINSE

Recipe	% By Weight
A.	
HOE S 2650	3.00
B.	
Water	94.50
C.	
Tylose H 4,000 P	2.00
D.	
Perfume	0.50
Preserving agent	q.s.

Procedure:

- I. A is dissolved in B at 50C.
- II. C, which is added in small portions by continuing stirring to I, should swell until a homogeneous Rinse free of lumps has been obtained.
- III. One after another the components of D are added to II.

Formulation No. B II/1029

SOURCE: Hoechst Celanese Corp.: Cosmetics: Suggested Formulations

CONDITIONER FOR DRY HAIR

INGREDIENT	% By Weight
I.	
Emerest 2400	1.5
ADOL 63	4.0
VARISOFT 475	3.3
VARISOFT E-228	4.0
II.	
Deionized Water	87.2
III.	
Preservative	qs
Solids:	9.0%
pH:	3.2
Viscosity:	6250 cps

Formulation Code: 6.7.1

DETANGLING CONDITIONER

RAW MATERIALS	% By Weight
I.	
Deionized Water	79.1
Glycerine	11.0
II.	
AROSURF 66-PE12	1.5
AROSURF TA-100	2.2
Lantrol AWS	0.5
III.	
Crotein HKP	0.5
Panthenol	0.5
Deionized Water	2.0
IV.	
Dow Corning 193	1.0
V.	
Dow Corning 929	2.0
VI.	
Preservative	qs
Solids:	20.9%
pH:	5.1
Viscosity:	3500 cps

Formulation Code: 6.6.3

SOURCE: Sherex Chemical Co.: Suggested Formulations

CONDITIONER FOR DULL, LIMP HAIR

RAW MATERIALS	% By Weight
Part A:	
Ceteareth 20	1.0
Stearyl Alcohol	2.0
INCROMINE SB (stearamidopropyl dimethylamine)	.8
ARQUAD 2HT-75 (quaternium 18)	1.4
SF-1042 (cyclomethicone)	3.0
Part B:	
Water	90.2
Part C:	
SM-2101 (trimethylsilyl-amodimethicone)	1.5
KATHON	.1

Beautiful shine, softness, and body accompany this rinse-off conditioner.

Procedure:

1. Preheat Part A and Part B to 75C.
2. Add Part B to Part A with agitation.
3. Cool with mixing to 40-50C.
4. Blend in SM-2101 and then the preservative.
5. Cool to room temperature.

Formulation HP-101

HAIR CONDITIONER FOR SUPERIOR BODY

RAW MATERIALS	% By Weight
Part A:	
INCROPAL CS-20 (ceteareth 20)	.5
VOLPO S-20 (steareth 20)	.5
Stearyl Alcohol	2.0
INCROMINE SB (stearamidopropyl dimethylamine)	.8
ADOGEN 432 (decetyldimonium chloride)	1.5
Part B:	
Water	92.6
Natrosol 250 HHR (hydroxyethyl cellulose)	.5
Part C:	
SF-1214 Silicone (dimethicone (and) cyclomethicone)	1.5
KATHON	.1

The silicone fluid SF-1214 in this conditioner makes this hair fluffy, imparts softness and shine, and hides damaged, split ends.

Formulation HP-100

SOURCE: GE Silicones: Personal Care Formulary: Suggested Formulations

CONDITIONER FOR PERMANENT WAVED HAIR

RAW MATERIALS	% By Weight
Stearyl Dimethyl Benzyl Ammonium Chloride (Incroquat S-85)	1.00
Acetamide MEA (Incromectant AMEA 70)	0.50
Cocamidopropyl Betaine (Incronam 30)	10.00
Stearamidopropyl Dimethylamine Lactate (Incromate SDL)	3.70
Propylene Glycol	2.00
Cocodimonium Hydrolyzed Collagen (Croquat M)	1.00
Keratin Amino Acids (Crotein HKP/S.F.)	0.50
GERMABEN II	1.00
Water, Distilled	76.80
Guar-Hydroxypropyl Trimonium Chloride (Jaguar C13SD)	0.50
Cetearyl Alcohol (Crodacol CS-50)	3.00

Procedure:

Mix water and gum, add to that the propylene glycol, GERMABEN II, Croquat, AMEA and Crotein. Start heating to 75-80C. While heating add the remaining ingredients except the Crodacol. When well blended add Crodacol and heat to 80C. Cool with mixing to room temperature. Adjust pH to 4.8 with citric acid.

HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
Cyclomethicone (and) Dimethicone Copolyol (Silsoft Beauty Aid MG)	10.00
Myristyl Myristate (Ceraphyl 424)	0.50
Stearamidopropyl Dimethylamine (Lexamine S-13)	0.50
Sorbitan Oleate (Arlacel 80)	0.20
Phase B:	
Sodium Chloride	0.20
Deionized Water	87.60
Phase C:	
GERMABEN II	1.00
Perfume	qs

Procedure:

Weigh, and heat Phases A and B separately to 40C(104F). Add Phase B to Phase A slowly with good mixing under moderate shear. Continue mixing, and cool to 30C (86F). Add Phase C, and mix to 25C (77F).

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulations

CONDITIONER--SETTING LOTION

MATERIALS	Parts By Weight
RESYN 28-2930	3.00
Ammonia (28%)	0.21
Polypeptide AAS	3.00
Ammonyx 4002	0.45
Ethanol (190 proof SDA-40)	69.19
Distilled Water	24.15
Fragrance, Dye	Q.S.

Adjust pH to 7.2-7.5 with ammonia.

WAVE SET CONCENTRATE FOR 1:9 DILUTION

MATERIALS	Parts by Weight
RESYN 28-2930	20.00
AMP	1.69
Water Soluble Silicone	2.00
Carbowax 200	2.00
Sodium Bisulfite	0.03
Ethanol (SDA-40 anhydrous)	74.28
Fragrance	Q.S.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2930:
Suggested Formulations

BLOW WAVING LOTION

MATERIALS	% By Weight
CELQUAT H-100 or L-200	0.75
Lanoquat 1756	0.10
Water Soluble Silicone	0.05
Distilled Water	49.10
Ethanol (Anhydrous SDA-40)	50.00
Dye, Perfume, Preservative	Q.S.

Blow waving lotions formulated with CELQUAT cationic polymers create hair that is easier to style and "work"--and the polymer's superior curl retention characteristics help hair hold a natural style longer, without harsh crispness.

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100,
L-200 Polymers: BW-01-29/49

CONDITIONING CREAM RINSE(2244-90)

RAW MATERIALS	% By Weight
A)	
EMEREST 2410 Glyceryl Isostearate	5.0
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
EMERSOL 132 Stearic Acid	2.5
EMEREST 2384 Propylene Glycol Isostearate	3.5
Igepon TC-42	12.0
B)	
Apricot oil	0.8
Sesame oil	0.8
Propylene glycol	0.9
C)	
EMERCIDE 1199 Liquid Preservative System	0.5
LANOQUAT 1756 Lanolin Quaternary	1.0
Demineralized water (preheated to 65C)	71.0

This creamy protein rinse is very substantive to the hair. The inclusion of EMEREST 2410 helps to maintain a constant apparent viscosity. EMEREST 2384 provides lubricity to the hair while maintaining a high resistance to oxidation and rancidity.

PROTEIN CREME RINSE(32C)

RAW MATERIALS	% By Weight
A)	
EMEREST 2410 Glyceryl Isostearate	5.0
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
EMERSOL 132 Stearic Acid	2.5
EMEREST 2384 Propylene Glycol Isostearate	4.0
Igepon TC-42	12.0
B)	
Apricot oil	0.8
Sesame oil	0.8
Hydrolyzed animal protein	0.6
LANTROL AWS 1692 PPG-12-PEG-65 Lanolin Oil	1.2
C)	
Methyl paraben	0.2
Propyl paraben	0.2
Deionized water	70.7

This smooth textured hair conditioning rinse offers grooming as well as hair conditioning attributes. The inclusion of EMEREST 2410 helps to maintain constant apparent viscosity.

SOUREC: Emery Chemicals: EMERY Isostearate Esters: Suggested Formulations

CONDITIONING PERM

RAW MATERIALS	% By Weight
Phase A:	
Cetyl Alcohol	2.00
DEA-Oleth-10 Phosphate (Crodafos NION)	1.50
Steareth-2 (Volpo S-2)	0.50
Mineral Oil	13.00
Petrolatum	11.50
Stearic Acid	8.00
Phase B:	
Steareth-10 (Volpo S-10)	2.50
Cocodimonium Hydrolyzed Collagen (Croquat M)	1.00
Propylene Glycol	2.00
Trisodium HEDTA	0.50
GERMABEN II	1.00
Water	42.87
Ammonium Thioglycolate	9.00
Ammonium Hydroxide	4.63

Procedure:

Heat the oil phase to 80C. Heat the water phase to 80-85C. Add the water to the oils under good mechanical agitation. Pre-adjust the ammonium thioglycolate with ammonium hydroxide. Cool the emulsion to 45C, then add the ammonium thioglycolate solution. Fill off.

HAIR MOISTURIZER

RAW MATERIALS	% By Weight
Phase A:	
Quaternium-26 (Ceraphyl 65)	2.50
Propylene Glycol Stearate	7.50
Cetyl Alcohol	6.50
Isodecyl Oleate (Ceraphyl 140-A)	2.00
Phase B:	
Water, Deionized	78.30
Quaternium-22 (Ceraphyl 60)	2.00
Sodium Chloride	0.20
Phase C:	
GERMABEN II	1.00

Procedure:

Heat Phase A and Phase B to 80C. Add Phase A to Phase B. Cool to 60C and add GERMABEN II. Cool to room temperature with mixing.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

CONDITIONING--STYLING MOUSSE-NORMAL

MATERIALS	Parts by Weight
A)	
CELQUAT L-200	1.00
Distilled Water	73.45
DC Silicone Emulsion 929	0.15
Arquad T-50	0.10
Triton X-100	0.15
B)	
Polawax, A-31	0.15
Ethanol, Anhydrous SDA-40	15.00
C)	
Perfume	Q.S.
D)	
Propellant A-46	10.00

CONDITIONING--STYLING MOUSSE-FIRM

MATERIALS	Parts by Weight
A)	
CELQUAT L-200	2.00
Distilled Water	72.25
DC Silicone Emulsion 929	0.20
Arquad T-50	0.15
Triton X-100	0.30
B)	
Polawax, A-31	0.10
Ethanol, Anhydrous SDA-40	15.00
C)	
Perfume	Q.S.
D)	
Propellant A-46	10.00

Preparation:

Dissolve A in water. Heat to 50C. Heat B to 30C. Add B to A slowly while mixing. Cool and add C. When homogeneous, filter and fill concentrate. Charge D. Use Precision valve with 2 x .020" stem; inverted body with tailpiece; mars inverted spout.

Shake can well before applying to freshly shampooed and towel dried hair. Distribute evenly. Do not rinse out. Comb and style.

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100,
L-200 Polymers: Suggested Formulations

CONDITIONING STYLING MOUSSE-SOFT

RAW MATERIALS	% By Weight
Part A:	
CELQUAT L-200	.50
Deionized Water	73.95
Part B:	
MAZER MASIL 162-103	0.15
Jordaquat Dimer 18	0.10
MAZER MACOL OP-10	0.15
MAZER MACOL CPS	0.15
Ethanol	15.00
Perfume	q.s.
Propellant A-46	10.00

CONDITIONING STYLING MOUSSE-FIRM

RAW MATERIALS	% By Weight
Part A:	
Celquat L-200	1.00
Deionized Water	73.25
Part B:	
MAZER MASIL 162-103	0.20
Jordaquat Dimer 18	0.15
MAZER MACOL OP-10	0.30
MAZER MACOL CPS	0.10
Ethanol	15.00
Perfume	q.s.
Propellant A-46	10.00

Procedure:

1. Dissolve Part A and heat to 45C.
2. Dissolve Part B, MASIL 162-103, Arquad T-50, MACOL OP-10, MACOL CPS, Ethanol in a portion of the water from Part A and heat to 45C with CAUTION.
3. Add Part B to Part A and agitate until uniform.
4. Add Perfume and cool.
5. Charge into container and pressurize with Propellant A-46

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

CONDITIONING STYLING MOUSSE: QUICK DRYING

INGREDIENTS	% By Weight
A)	
CELQUAT SC-240	1.00
B)	
Ammonyx KP	0.10
Dow Corning 190 Silicone	0.10
Triton X-100	0.15
Propylene Glycol	0.30
Distilled Water	78.35
C)	
Ethanol, SDA-40	10.00
D)	
Propellant A-46	10.00

CONDITIONING STYLING MOUSSE: ALCOHOL-FREE

INGREDIENTS:	% By Weight
A)	
CELQUAT SC-240	1.00
B)	
Ammonyx KP	0.10
Dow Corning 190 Silicone	0.10
Triton X-100	0.15
Propylene Glycol	0.40
Germaben II	0.50
Distilled Water	82.75
C)	
Ethanol, SDA-40	----
D)	
Propellant A-46	15.00

SOURCE: National Starch and Chemical Corp.: CELQUAT SC-240:
Suggested Formulation 5659-18

HAIR STYLING GEL

MATERIALS	Parts by Weight
A)	
Carbopol 940	1.00
Carbowax 200	0.10
Distilled Water	92.40
Dye	q.s.
Perfume (water soluble)	q.s.
Preservative	q.s.
B)	
FLEXAN 130 (Solids equivalent)	1.00
Distilled Water	5.00
C) Triethanolamine	0.50

SOURCE: National Starch & Chemical Corp.: FLEXAN 130:
Suggested Formulation

CONDITIONING AND SPIKING SPRAY

RAW MATERIALS	% By Weight
Water	87.05
Glycerine	3.2
Acetamide MEA	2.0
PEG-15 Tallow Polyamine	2.0
GERMABEN II	0.25
Polmethacrylamidopropyl Trimonium Chloride	5.50
Fragrance	qs.

Procedure:

Mix all ingredients.

CONDITIONING STYLING GEL

RAW MATERIALS	% By Weight
Phase A:	
Water	50.0
Carbomer 1342	0.50
Triethanolamine, 99%	0.63
Phase B:	
Water	36.77
Oleth-20	5.00
N-Dodecylpyrrolidone	1.00
PVP K-30, 25% aqueous	4.00
Phase C:	
Fragrance	1.00
GERMABEN II-E	1.00
FD & C Blue #1, 0.6% aq.	0.10

Procedure:

Sprinkle the Carbomer into the water with rapid agitation and then neutralize with the triethanolamine. Heat the water in Phase B to 60C and add the Oleth-20 until clear. Add the other parts of B and mix until clear. Add Phase B to A and then add Phase C, one ingredient at a time.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulation

CREAM AFTER SHAMPOO CONDITIONER #A51-46-1

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	7.00
Promulgen D	3.00
Myrj 52S	1.50
Cetyl Alcohol	2.00
CERAPHYL 28	3.00
CERAPHYL IPL	3.00
Ceralan	3.00
Phase B:	
Water, deionized	69.70
Cellosize QP 30,000	0.40
CERAPHYL 60	2.00
CERAPHYL 65	3.00
Lactic Acid 88%	0.40
Phase C:	
Dowicil 200 (10% Aq.)	2.00(n)
(n) or BTC 2125M at 0.2% (increase water in Phase B by 1.8%)	
pH:	4.1

CREAM HAIR CONDITIONER #59-47-7

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	10.50
CERASYNT 303	1.00
CERAPHYL 41	2.50
CERAPHYL 424	2.50
Cetyl Alcohol	2.00
PRESERVATOL	0.15
Phase B:	
Water, deionized	70.75
Cellosize QP 30,000	0.30
Phosphoric Acid (85% Ortho)	0.30
CERAPHYL 70 (liquefied at 35C)	3.00
Glycerine	5.00
Arquad 2HT-75	2.00
pH:	3.0

SOURCE: Van Dyk: After Shampoo Hair Conditioners: Suggested Formulations

CREAM HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
CERAPHYL 41	2.50
CERASYNT SD	10.50
CERASYNT 303	1.00
CERAPHYL 424	2.50
PRESERVATOL	0.15
Cetyl Alcohol	2.00
Phase B:	
Water, deionized	70.75
Cellosize QP 30,000	0.30
Phosphoric Acid (85% Ortho)	0.30
CERAPHYL 70 (liquefied to 35C)	3.00
Glycerine	5.00
Arquad 2HT-75	2.00
pH:	3.0
SOURCE: Van Dyk: New Cationic Self-Emulsifying Systems: Formulation #A59-47-7	

PROTEIN HAIR CONDITIONER

INGREDIENTS:	%W/W
Part A:	
Water	91.50
DEHYQUART SP (Quaternium-52)	4.00
LANETTE O (Cetearyl Alcohol)	4.00
Part B:	
NUTRILAN L (Hydrolyzed Animal Protein)	0.50
Dyes, Fragrance and Preservatives	q.s.
Comments:	
DEHYQUART SP creates conditioners which are very low in irritation as compared to conventional "quat" based products.	
SOURCE: Henkel Corp.: Personal Care Products Formulary: Formula H-4875	

CREAM HAIR RINSE WITH PROTEIN NO. 172

RAW MATERIALS	% By Weight
A.	
VEEGUM K	1.0
Water	40.4
B.	
Citric acid	0.1
Polypeptide LSN	6.0
Water	40.0
C.	
Aldo MSA	1.5
Triton CG-400	7.0
Solulan 98	4.0
Preservative	q.s.

Procedure:

Slowly add VEEGUM K to the water, while agitating at maximum available shear. Continue mixing until smooth. Add B and heat to 75C. Heat C to 70C and add to A/B. Stir while cooling.
 Consistency: Fluid lotion.
 Suggested Packaging: Plastic bottle.

HAIR CREAM No. 234

RAW MATERIALS	% By Weight
A.	
VEEGUM	2.00
Water	75.25
B.	
Propylene glycol	5.00
Triethanolamine	1.00
C.	
Cosmetic Lanolin	2.00
Carnation White Mineral Oil	3.00
AA Castor Oil USP	4.00
Grococ 6000 S.E.	0.75
Isopropyl myristate	5.00
Stearic Acid xxx	2.00
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add B to A and heat to 70C. Heat C to 75C. Add C to A/B and mix until cool.
 Consistency: Soft cream.
 Suggested Packaging: Squeeze tube.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
 Formulary: Suggested Formulation

CREAM RINSE

RAW MATERIALS	% By Weight
Stearalkonium Chloride	1.5
Cetyl Alcohol	3.0
Glyceryl Stearate	0.5
Polysorbate 80	0.5
Hydroxyethylcellulose	1.0
GERMABEN II-E	1.0
Water	92.5

A basic formulation with excellent conditioning. It pours easily, yet is thick and concentrated in appearance.

Procedure:

Add the hydroxyethylcellulose to the water at room temperature while stirring. When hydration is complete, heat to 70-75C. Add the Stearalkonium Chloride and Polysorbate 80. Heat the GMS and Cetyl Alcohol to 70-75C and add with vigorous stirring. Cool to 35-40C and add GERMABEN II-E and perfume.

CREAM RINSE WITH SUNSCREEN

RAW MATERIALS	% By Weight
Phase A:	
Dimethyl PABA Ethyl Cetearyl dimonium Tosylate	0.25
Stearyl Alcohol	2.00
Cetyl Alcohol	2.00
Stearamidopropyl Cetearyl Dimonium Tosylate (and) Propylene Glycol	2.00
Phase B:	
Water	90.35
Hydroxyethylcellulose	0.30
Phase C:	
Quaternium-26	1.00
Lactic Acid	0.10
Water	1.00
Phase D:	
GERMABEN II-E	1.00

Procedure:

Combine Phase A and heat to 80C, mixing until completely melted. Disperse the hydroxyethylcellulose in water and heat to 80C. Combine Phase C and add to Phase B. Then add this to Phase A. Cool to 50C and add Phase D.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulations

CREAM-RINSE

RECIPE	% By Weight
A.	
GENAMIN DSAC	2.50
HOSTACERIN T-3	1.50
Cetyl-stearylalcohol	2.50
B.	
Water, preservative	93.20
C.	
Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formulation B II/1032

CREAM-RINSE

RECIPE	% By Weight
A.	
GENAMIN KDM-F	2.50
GENAMIN KSL	3.00
HOSTACERIN T-3	1.50
Cetylalcohol	3.00
B.	
Water, preservative	89.70
C.	
Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formulation B II/1038

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

CREAM-RINSE

RECIPE	% By Weight
A.	
GENAMIN DSAC	2.50
GENAMIN KSL	1.50
HOSTACERIN T-3	1.50
Cetylalcohol	3.00
Mineral oil, high viscosity	1.00
B.	
Water, preservative	90.20
C.	
Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formulation B II/1040

CREAM-RINSE

RECIPE	% By Weight
A.	
GENAMIN DSAC	2.50
GENAMIN CTAC	3.00
HOSTACERIN T-3	1.50
Cetylalcohol	3.00
B.	
Water, preservative	89.70
C.	
Perfume	0.30

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formulation B II/1043

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

CREAM-RINSE

Recipe:	% By Weight
GENAMIN KSE	10.00
Water, preserving agent, dyestuff solution	89.70
Perfume	0.30

Procedure:

- I Heat A and B to 80C.
- II Stir B into A.
- III Stir until cool.
- IV Add C to III at 40C.

SOURCE: Hoechst Celanese Corp.: Formulation No. B II/1016

CREME RINSE

RAW MATERIALS	% By Weight
Phase A:	
Water, D.I.	46.6
DESONIC CE-12 (Glycereth-12)	1.5
Methylparaben	0.1
Phase B:	
Maquat SC18-25 (Stearalkonium Chloride)	3.0
Adol 52 NF (Cetyl Alcohol)	1.0
Propylparaben	0.1
Phase C:	
Water, D.I.	46.9
Natrosol 250 HHR (Hydroxyethylcellulose)	0.8
Phase D:	
Perfume and Dye:	q.s.

Blending Procedure:

Combine Phases A and B separately and heat to 70-75C. Add Phase B to Phase A with high speed agitation. Prepare Phase C by dispersing Natrosol in D.I. Water, then add to above mixture. Continue agitation and cool to 40C before adding Phase D.

Comment:

DESONIC CE-12 is a colorless, odorless conditioner for the hair and scalp which exhibits excellent humectant and emollient properties. It softens and lubricates the hair for ease of combing.

SOURCE: DESOTO, INC.: Suggested Formulation

CREAM RINSE

INGREDIENTS	% By Weight
ALOE VERAGEL Liquid 1:1	94.9
Bromat	1.5
Stearyl Alcohol	3.5
Panthenol	0.1

Procedure:

Blend together, with mixing heat to 80C. Cool with mixing to 38C.

SOURCE: Dr. Madis Laboratories Inc.: Formulating with Aloe Vera: Suggested Formulation

NATURAL MOISTURIZING FACTOR FOR HAIR

INGREDIENTS	% By Weight
A.	
Deionized Water	86.3
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Stearylalkonium Chloride	3.0
Stearyl Alcohol	1.0
Glyceryl Stearate and PEG 100 Stearate	1.5
C.	
LIPITEIN P	3.0
SOLLAGEN	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a lotion, after-shampoo creme rinse.

SOURCE: Geo. A. Hormel & Co.: Formulation Guide: Formula 614-42

CREME RINSE - CONDITIONER

RAW MATERIALS	% By Weight
A.	
CELQUAT H-100	2.00
Distilled Water	97.00
Adogen 432	1.00
Dye, Preservative	Q.S.
C.	
Fragrance	Q.S.

Formulation CR-01-49

CREME RINSE - CONDITIONER

RAW MATERIALS	% By Weight
A.	
CELQUAT L-200	1.00
Propylene Glycol	2.25
Triethanolamine	0.50
Distilled Water	76.25
Dye, Preservative	Q.S.
B.	
Acetulan	0.50
Amerchol L-101	2.50
Stearic Acid XXX	1.25
Emerest 2407	1.00
Mineral Oil (Low viscosity)	14.75
C.	
Fragrance	Q.S.

Formulation CR-01-29

Creme rinse - conditioners that offer non-oily, healthy-looking, more lush hair, with noticeable sheen and no "frizzies." Wet combability and manageability are also enhanced.

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100, L-200 Polymers: Suggested Formulations

CREAM RINSE AND CONDITIONER

RAW MATERIALS % By Weight

A.	
EMEREST 2400 Glyceryl Stearate	2.5
EMSORB 2505 Sorbitan Stearate	1.0
Mineral oil	2.0
NIMLESTEROL 1732 Liquid Absorption Base	2.5
EMERSOL 132 Stearic Acid	2.0
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
Methyl paraben	0.1
B.	
Propylene glycol	3.5
EMSORB 2720 Polysorbate 20	2.0
LANOQUAT 1756 Lanolin Quaternary	3.5
Propyl paraben	0.2
Demineralized water	78.7
Fragrance	q.s.

In this "super" conditioning cream rinse, NIMLESTEROL 1732 provides excellent lubricity for ease of wet combing. NIMLESTEROL 1732 has been shown to penetrate into the hair shaft to provide good sheen without an overly greasy feel. It is advisable that this conditioner be allowed to stay on the hair at least five to ten minutes before rinsing out.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol: Formulation
2244-143

HAIR CONDITIONER

RAW MATERIALS % By Weight

A.	
EMEREST 2400 Glyceryl Stearate	3.5
EMERY 1787 Cetyl Alcohol Flakes, NF	2.0
EMERSOL 132 Stearic Acid	2.0
EMID 6515 Cocamide DEA	2.5
EMSORB 2720 Polysorbate 20	1.5
EMSORB 2505 Sorbitan Stearate	1.0
LANTROL 1673 Lanolin Oil	6.5
Propyl paraben	0.2
B.	
Demineralized water	80.7
Methyl paraben	0.1

This formulation helps repair damaged bleached ends of hair, helps restore luster and permits easy combing of hair without excessive breakage.

SOURCE: Emery Chemicals: LANTROL Lanolin Oil: Formulation
2244-102-1

CREME HAIR RELAXER

INGREDIENTS:	%W/W
Part A:	
Mineral Oil	5.0
Petrolatum	10.0
EMULGADE 1000NI (Cetearyl Alcohol (and) Ceteareth-20)	20.0
Part B:	
Water	62.0
Sodium Hydroxide (50% aqueous)	3.0
Part C:	
Preservative	q.s.
Fragrance	q.s.

Comments:

EMULGADE 1000NI is an extremely versatile product. It forms elegant skin care products which are easy to prepare. In addition, as the above formula shows, it has excellent stability characteristics in products with extreme acidic and alkaline requirements as well as in standard skin care products.

Formula H-4872

PHYTOSTEROL HAIR RELAXER

INGREDIENTS:	%W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	15.0
EUTANOL G (Octyldodecanol)	3.0
Petrolatum	10.0
GENEROL 122 (Soya Sterol)	2.0
Part B:	
Water	64.0
Sodium Hydroxide (50% aqueous)	3.0
LANETTE E (Sodium Cetearyl Sulfate)	3.0
Part C:	
Preservative	q.s.
Fragrance	q.s.

Creamy smooth emulsion with a glossy appearance.

GENEROL 122 is very similar in chemical structure to cholesterol and enhances the emulsion's quality.

Formula H-4836

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

CREME RINSE: 5659-20E
Normal to Dry Hair

INGREDIENTS	Parts by Weight
A)	
CELQUAT SC-240	1.00
Natrosol 250HHR	0.50
Propylene Glycol	4.00
Distilled Water	44.80
B)	
Drakeol 21	3.00
Glyceryl Monostearate	1.00
Arquad 2HT-75	0.50
Distilled Water	44.70
C)	
Germaben IIE	0.50

CREME RINSE: 5629-20F
Normal to Oily Hair

INGREDIENTS:	Parts by Weight
A)	
CELQUAT SC-240	0.50
Natrosol 250HHR	0.70
Propylene Glycol	2.00
Distilled Water	46.00
B)	
Drakeol 21	3.00
Glyceryl Monostearate	1.00
Arquad 2HT-75	0.30
Distilled Water	46.00
C)	
Germaben IIE	0.50

Preparation:

Prepare part A by sifting a mixture of CELQUAT and Natrosol into a solution of propylene glycol in water. In a separate vessel, blend ingredients in B. Heat both A and B to 80C. When both solutions are homogeneous, add B to A while mixing vigorously. When emulsion is homogeneous, cool and add C.

SOURCE: National Starch and Chemical Corp.: CELQUAT SC-240:
Formulations 5659-20E/F

CREME RINSE

INGREDIENTS:	%W/W
Part A:	
Water	95.75
STANDAMUL CONC. 1002 (Cetearyl Alcohol (and) PEG-40 Hydrogenated Castor Oil (and) Stearalkonium Chloride)	4.00
Part B:	
NUTRILAN I (Hydrolyzed Animal Protein)	0.25
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat water to 75-80C. Keep temperature constant. Add remainder of Part A, blend until uniform. Cool and at 40C add individual components of Part B under agitation. Adjust pH to 5.0+0.5 with 50% citric acid aqueous solution. Continue stirring until product reaches room temperature.

Comment:

The quaternary/fatty alcohol blend provides conditioning in a simple low actives formula.

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulation H-4701

HAIR RINSE

INGREDIENTS:	%W/W
Deionized Water	97.50
Jaquar C-13-S (1)	0.75
PATONIC ISL (2)	0.50
PATLAC IL (3)	0.40
Oleth-20 (4)	0.30
Cetyl Alcohol (5)	0.25
Sorbic Acid (6)	0.20
Methyl Paraben	0.10
Lactic Acid (44%) (7)	q.s.
Perfume	q.s.
Viscosity (24 hours after making)	1,000 cps
pH	4.5+-0.2

- (1) Celanese Chemical: Guar Hydroxypropyltrimonium Chloride
- (2) Patco Cosmetic Products: Sodium Isostearyl-2-Lactylate
- (3) Patco Cosmetic Products: Isostearyl Lactate
- (4) Amerchol: Ameroxol OE-20
- (5) Sherex Chemical: Adol 52 NF
- (6) Pfizer: Sorbistat
- (7) Patco Cosmetic Products: Lactic Acid

SOURCE: PATCO Cosmetic Products: Bulletin No. 187

CURL ACTIVATOR GEL MICROEMULSION

RAW MATERIALS	% By Weight
DEA-Oleth-3 Phosphate (Crodafos N3N)	7.48
Oleth-5 (Volpo 5)	10.88
Mineral Oil	16.05
Acetamide MEA (Incromectant AMEA-70)	.20
Sorbitol	15.00
Hexylene Glycol	5.00
Polyquaternium-10 (Polymer JR-30M)	.10
GERMABEN II	1.00
Water	44.29

HAIR RELAXER

RAW MATERIALS	% By Weight
Phase A:	
Cetyl Alcohol	2.00
DEA-Oleth-10 Phosphate (Crodafos NION)	1.50
Steareth-2 (Volpo S-2)	0.50
Mineral Oil	13.00
Petrolatum	11.50
Stearic Acid, triple pressed	8.00
Phase B:	
Steareth-10 (Volpo 5-10)	2.50
Cocodimonium Hydrolyzed Collagen (Croquat M)	1.00
Propylene Glycol	2.00
Trisodium HEDTA	1.00
GERMABEN II	1.00
Water	42.87
Ammonium Thioglycolate	9.00
Ammonium Hydroxide	4.63

Procedure:

Heat Phase A to 80C. Heat Phase B to 80-85C. Add Phase B to Phase A under good mechanical agitation. Preadjust the ammonium thioglycolate and ammonium hydroxide. Cool the emulsion to 45C, then add the ammonium thioglycolate solution. Fill off.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

CURL MOISTURIZING SPRAY(2743-077)

RAW MATERIALS	% By Weight
A)	
EMERY 916 Glycerine, 99%	20.0
Propylene glycol	1.0
B)	
EMTHOX 2730 PEG-75 Cocoa Butter	6.0
Deionized water	52.9
Methocel K4M (2% aq. solution)	20.0
Croteen SPA (hydrolyzed animal protein)	0.1
Preservative	q.s.
Fragrance	q.s.

This formulation utilizes a combination of humectants for maximum moisturizing. EMTHOX 2730 works well with glycerine and propylene glycol to provide moisture and sheen without oiliness.

Procedure:

Combine (B), except for the fragrance, and heat to 60C. Combine (A) and add it to (B) with stirring. Cool to 35C and add fragrance.

MICROEMULSION SHEEN ACTIVATOR AND MOISTURIZER(2889-103A)

RAW MATERIALS	% By Weight
A)	
EMERY 1732 Liquid Absorption Base	13.0
EMTHOX 2738 PEG-25 Hydrogenated Castor Oil	13.0
EMERY 916 Glycerine, 99%	13.5
EMTHOX 5967 Pareth-25-12	5.5
EMTHOX 5882 Laureth-4	6.0
EMTHOX 5964 Laureth-23	3.0
EMID 6515 Cocamide DEA	2.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
B)	
EMTHOX 2730 PEG-75 Cocoa Butter	1.0
Deionized water	42.0
Fragrance	q.s.

This product can be used alone for daily maintenance to promote and maintain curl, provide sheen and lubricity, and to restore natural oils that can be lost in chemical processing.

Procedure:

Heat (A) and (B) separately to 90C with agitation. Add (B) to (A) with mild agitation. Continue agitation until the mixture begins to gel. Perfume and package.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730 PEG-75 Cocoa Butter for Ethnic Products: Suggested Formulations

DEEP CONDITIONER WITH HMF COMPLEX

INGREDIENT	% By Weight
A)	
Water	65.75
Ucare Polymer JR 30M	0.50
TRISEPT M	0.15
B)	
MAQUAT SC-18 (25%)	4.00
Ammonyx Cetac	4.00
C)	
TRISEPT P	0.10
Catamol 220B	2.00
T-WAX	7.00
T-BASE	2.00
Cetearyl Alcohol	3.00
SQUALANE	1.00
RICE BRAN OIL	3.00
HMF COMPLEX	5.00
Abiol	0.30
V4166	0.20
E)	
DC Q2-7224 Emulsion	2.00
Formulation MS-2-31-1	

INTENSIVE CONDITIONER WITH HMF COMPLEX

INGREDIENT	% By Weight
A)	
Water	62.55
Ucare Polymer JR 30M	0.50
TRISEPT M	0.15
B)	
MAQUAT SC-18 (25%)	4.00
Ammonyx Cetac	4.00
C)	
TRISEPT P	0.10
Catamol 220B	2.00
T-WAX	7.00
T-BASE	2.00
Cetearyl Alcohol	3.00
SQUALANE	1.00
Avocado Oil	3.00
Vitamin E Acetate	
D)	
HMF Complex	5.00
Herbal Tea E-6367	0.20
Abiol	0.30
TRIQUAT S	3.00
E)	
DC 929 Emulsion	2.00
Formulation Code MS-2-28-1	
SOURCE: TRI-K Industries, Inc.: Suggested Formulations	

DEEP PENETRATING HAIR CONDITIONER WITH PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Amerchol L-101	6.000
Solulan 16	1.000
Modulan	1.000
Cetyl Alcohol, NF	1.500
Hyamine 10X	0.100
Emcol E-607S	0.600
Propyl Parasept	0.125
Part II:	
Deionized Water	72.000
Propylene Glycol, USP	6.000
Part III:	
Sodium Chloride	0.125
Sodium Benzoate	0.125
Deionized Water	10.725
Part IV:	
Perfume Oil	0.200
dl-Panthenol, Cosmetic Grade (Code 63920)	0.500
Part V:	
Citric Acid, USP-FCC (Code 69941)	q.s.

Formulation HC 204

MOISTURIZING HAIR CONDITIONER WITH VITAMIN E AND PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Vitamin E Acetate, USP-FCC (Code 60526)	0.5000
1,3-Butylene Glycol	5.0000
Stearyl Alcohol	1.0000
Ammonyx 4	2.7500
Tween 80	2.5000
Cetyl Alcohol	1.0000
Nimlesterol D	0.4000
Methyl Parasept	0.2000
Propyl Parasept	0.0500
Part II:	
Citric Acid USP-FCC (Code 69941)	0.4400
Deionized Water	35.0000
Part III:	
Croteen SPC	1.0000
FD & C Yellow #5	0.0003
dl-Panthenol, Cosmetic Grade (Code 63920)	0.5750
Disodium EDTA	0.0100
Deionized Water	49.4747
Part IV:	
Perfume Oil	0.1000

Formulation HC 206

SOURCE: Roche Chemical Division: Vitamins for Cosmetics &
Toiletries: Suggested Formulations

DETANGLING SPRITZ

MATERIALS	% By Weight
CELQUAT L-200	0.60
Brij 58	0.50
Germaben II	0.50
Fragrance	0.04
Deionized Water	98.36

Formulated to improve the combability of unmanageable, tangled hair. The non-alcoholic formulation imparts excellent wet and dry combing characteristics to the hair while giving dry hair body and softness.

Preparation:

Combine water, Brij 58 and Germaben II. Mix until solution is complete. With continued mixing, sift CELQUAT into solution.

Mix until completely dissolved. Add fragrance; filter and fill.

Valve: Calmar Mark II

Formulation 5415-143

SETTING LOTION

MATERIALS	% By Weight
CELQUAT L-200	2.50
Distilled Water	77.40
Ethanol (Anhydrous SDA-40)	20.00
Tween 20	0.10
Dye, Perfume, Preservative	Q.S.

Even with daily use, CELQUAT-based setting lotions consistently deliver the kind of performance that helps to maintain customer loyalty. The lack of buildup, the elimination of "the greasies," the day-in, day-out fresh, vibrant and healthy look of the hair all combine to preclude brand switching.

Formulation SE-02-29

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100,
L-200 Polymers: Suggested Formulations

ECONOMY CONDITIONER

INGREDIENT	% By Weight
I.	
Natrosol 250 HHR	1.3
VARISOFT TSC	4.0
PEG-40 Lanolin	0.3
Deionized Water	94.4
II.	
Preservative	qs
Solids:	2.6%
pH:	4.6
Viscosity:	9500 cps

Formulation Code: 6.7.1

FOAMING CLEAR CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	92.5
Cellose QP 100 M-H	1.0
II.	
Solulan 575	1.0
Cetareth 20	1.0
Glucam P-20	0.5
III.	
ADOGEN 432-CG	1.0
VAROX 365	3.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	5.1%
pH:	4.5

Formulation Code: 6.7.2

SOURCE: Sherex Chemical Co.: Suggested Formulations

ECONOMY HAIR CONDITIONER WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	84.4
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Stearylalkonium Chloride	3.0
Stearyl Alcohol	2.0
Cottonseed Oil	1.0
Glyceryl Stearate and PEG 100 Stearate	1.5
C.	
PF-6 PROTEIN	2.0
PEPTEIN KC	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

This is a lotion, after-shampoo creme rinse with conditioning properties suitable for all hair types.

Formula: 614-36

PREMIUM HAIR CONDITIONER WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	86.1
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Stearyl Alcohol and Cetrimonium Bromide	3.0
Glyceryl Stearate and PEG 100 Stearate	0.5
dl-Panthenol	0.2
Dimethicone	1.0
C.	
PEPTEIN 2000	2.0
LIPITEIN P	1.0
PEPTEIN TEAC	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a premium lotion, after-shampoo creme rinse with superb hair conditioning properties.

Formula: 614-37

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

EMOLLIENT HAIR DRESSING

RAW MATERIALS	% By Weight
Beeswax	12.0
Mineral oil (355 visc.)	45.0
Emerest 2325 Butyl Stearate	10.0
Nimcolan 1740 Solid Absorption Base	20.0
PEG-8 Dioleate	3.0
Multiwax ML-445	10.0

This anhydrous hair dressing compound possesses the proper consistency for a tube-type disperser. A small amount, applied to the hair and brushed through, will restore natural luster and body to hair that has been damaged by frequent shampooing and blow drying.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol: Formulation
No. 2252-4-01

HAIR TONIC 03/001

RAW MATERIALS	% By Weight
Ethanol	40.0
Vitamin E Nicotinate C	0.5
Cremophor RH 40	2.0
D-Panthenol 50 P	0.5
Water	ad 100
Perfume	

SOURCE: BASF: Vitamin E Nicotinate C: Suggested Formulation

HAIR TONIC

RAW MATERIALS	Parts
KATORAN AF	5.0
LUVITOL EHO	6.0
Glyceryl stearate	2.0
Citric acid	3.0
Water	84.0

SOURCE: BASF: KATORAN AF: Suggested Formulation

FIXATIVE HF-3001

RAW MATERIALS	% By Weight
Mineral oil, 70 wt.	92.0
ACETULAN	8.0
Perfume and color	q.s.

Description:

Liquid brilliantine. Moisturizing dressing, treats dry scalp, controls dry scalp, controls hair. ACETULAN sharply reduces "greasy" feel, improves emollient qualities.

Procedure:

Mix all ingredients; stir until uniform.

Variations:

For higher viscosity, use higher weight mineral oil.

For better spreading, add AMERXOL OE-2.

FIXATIVE HF-3002

RAW MATERIALS	% By Weight
Mineral oil, 80/90 wt.	30.0
OHLAN	27.0
Petrolatum	28.0
Kessco PEG 400 Dilaurate	8.0
Paraffin	6.0
Isopropyl myristate	1.0
Perfume and color	q.s.

Description:

Soft pomade. Excellent for dry hair. Retains moisture, conditions, imparts sheen. OHLAN controls consistency, blends with, rather than repels, moisture.

Procedure:

Combine all ingredients, heat with stirring until clear and uniform (approx. 80C). Cool with stirring to 40C.

Variations:

To reduce oily character, add ACETULAN.

To improve lubricity, add AMERLATE P.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3003

RAW MATERIALS	% By Weight
GLUCAM P-20	10.0
SOLULAN PB-2	3.0
Japan wax	6.0
Candelilla wax	2.0
Castor oil	79.0
Perfume, color, antioxidant	q.s.

Description:

Soft, translucent dressing. Spreads to a thin film with high gloss. SOLULAN PB-2 contributes gloss; GLUCAM P-20 aids combing and increases lasting power of fragrance.

Procedure:

Heat all ingredients with stirring until clear and uniform. Fill while warm.

Variations:

To harden, replace part of castor oil with OHLAN.

To gel, add GLUCAMATE SSE-20.

For reduced tack and greater slip, replace part of castor oil with cetyl alcohol.

FIXATIVE HF-3004

RAW MATERIALS	% By Weight
AMEROXOL OE-2	5.0
MODULAN	10.0
Mineral oil, 70 wt.	25.0
Petrolatum	55.0
Ozokerite	5.0
Perfume and color	q.s.

Description:

Soft pomade that spreads to thin, glossy film. AMEROXOL OE-2 permits easy spreading. MODULAN provides body, moisturization and plasticity.

Procedure:

Melt all ingredients and stir until uniform. Fill while warm.

Variations:

To reduce greasy character, add ACETULAN.

For improved moisturization, replace part of petrolatum with AMERCHOL CAB.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3005

RAW MATERIALS	% By Weight
Specially denatured alcohol #40	79.5
Ucon LB-1715	13.0
SOLULAN PB-2	2.0
GLUCAM P-20	0.5
OHLAN	0.5
Water	4.5
Perfume, color	q.s.

Description:

Greaseless hair groom. Dressing achieved by combination of Ucon LB-1715, SOLULAN PB-2 and OHLAN. GLUCAM P-20 aids in combing.

Procedure:

Combine Ucon LB-1715, SOLULAN PB-2, GLUCAM P-20 and OHLAN with stirring and gentle heat. Add to alcohol, stir until uniform. Add water slowly with stirring. Chill and filter.

Variations:

To increase lasting power of fragrance, increase concentration of GLUCAM P-20.

For increased body, add myristyl alcohol.

For velvety feel, add ACETULAN.

FIXATIVE HF-3006

RAW MATERIALS	% By Weight
Specially denatured alcohol #40	66.0
SOLULAN PB-20	4.0
GLUCAM P-20	4.0
Water	26.0
Perfume, color	q.s.

Description:

Greaseless hair dressing. Good light control exerted by SOLULAN PB-20 and GLUCAM P-20. GLUCAM P-20 also increases fragrance duration.

Procedure:

Mix all ingredients except water until uniform. Add water slowly with stirring. Chill and filter.

Variations:

For increased body, add OHLAN.

To aid clarity, add GLUCAMATE SSE-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3007

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL CAB	16.0
Mineral oil, 350 wt.	20.0
Beeswax, USP	5.0
PROMULGEN D	5.0
Petrolatum	25.0
Water Phase:	
Borax	0.5
Water	28.5
Perfume, preservative	q.s.

Description:

Cream emulsion that provides desnarling, easy combing, firm fixation for dry or damaged hair. AMERCHOL CAB lends gloss and helps hold moisture.

Procedure:

Heat both phases to 75C. Add oil to water with good stirring. Cool and stir to 38C.

Variations:

To cut greasy feel, add ACETULAN and use lighter weight of mineral oil.

For added moisture retention, add GLUCAM E-20.

FIXATIVE HF-3008

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL CAB	13.0
Mineral oil, 350 wt.	20.0
Beeswax, USP	5.0
Petrolatum	25.0
GLUCATE SS	3.0
GLUCAMATE SSE-20	3.0
Water Phase:	
Borax	0.5
Water	30.5
Perfume, preservative	q.s.

Description:

Flowing lotion hair dressing for dry hair. Provides good combing and fixation. AMERCHOL CAB provides gloss and moisture retention. GLUCATE SS/GLUCAMATE SSE-20 provides elegant emulsion system.

Procedure:

Heat both phases to 75C. Add oil to water with good stirring. Stir and cool to 30C.

Variations:

To reduce tack, add ACETULAN.

To increase lubricity, add AMERLATE P.

For improved slip, replace part of petrolatum with myristyl alcohol.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3009

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.00
AMERLATE P	1.00
GLUCAM P-10	15.00
Kessco PEG-1000 Monostearate	3.00
Water Phase:	
Carbopol 934	0.75
Triethanolamine	0.75
Water	74.50
Perfume, preservative	q.s.

Description:

Soft, white cream dressing that liquefies to a transparent film. AMERCHOL L-101 provides gloss and auxiliary emulsification. AMERLATE P provides lubricity. GLUCAM P-10 provides combing ease and luster.

Variations:

For additional conditioning effect, add SOLULAN 16.

FIXATIVE HF-3010

RAW MATERIALS	% By Weight
Oil Phase:	
Petrolatum	40.0
AMERCHOL CAB	29.0
Multiwax W-180	10.0
Arlacel 83	6.0
Water Phase:	
Water	14.0
Tween 81	1.0
Perfume, preservative	q.s.

Description:

Stiff cream dressing for crew-cut and other very short hair styles. AMERCHOL CAB provides luster and conditioning.

Procedure:

Heat both phases to 60C with stirring. Add water to oil with stirring. Stir and cool to 40C.

Variations:

To improve slip, add AMERLATE P and replace part of MULTIWAX W-180 with cetyl alcohol.

For increased luster, add GLUCAM E-10.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3012

RAW MATERIALS	% By Weight
Carbopol 940, 3% slurry in water	25.0
Triethanolamine, 10% in water	7.5
GLUCAM P-10	3.0
Sorbitol, 70%	2.0
PVP K-30	3.0
Water	59.5
Perfume, preservative, color	q.s.

Description:

Soft, clear styling gel that sets. Works well with blow-drying. PVP K-30 and Carbopol 940 serve to set and hold GLUCAM P-10 and Sorbitol, 70% plasticize the polymers and serve to retain moisture.

Procedure:

Prepare Carbopol 940 slurry (lump free), add triethanolamine solution with stirring. Combine remaining ingredients in separate vessel, stirring until completely dissolved and add to Carbopol 940 solution. Avoid incorporating excess air.

Variations:

For improved spreading, add SOLULAN L-575.

For greater body, add GLUCAMATE SSE-20.

FIXATIVE HF-3013

RAW MATERIALS	% By Weight
Dicrylan 325-50	4.0
AMEROXOL OE-10	0.5
Lexein X-250	0.5
Specially denatured alcohol #40	10.0
Water	85.0
Perfume, preservative, color	q.s.

Description:

Thin setting lotion for pump spray application. Setting effected by acrylate/acrylamide copolymer, plasticized by protein hydrolyzate and AMEROXOL OE-10, which also serves as a perfume solubilizer.

Procedure:

Mix all ingredients until clear and uniform.

Variations:

For improved comb-out and luster, add GLUCAM E-10.

For increased body, add GLUCAMATE SSE-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

FIXATIVE HF-3014

RAW MATERIALS	% By Weight
Aminomethyl propanol	0.2
Isopropyl alcohol	6.0
Specially denatured alcohol #40	81.6
Gantrez ES-225	5.0
SOLULAN L-575	1.5
Diisopropyl adipate	0.5
dl-Panthenol	0.2
Water	5.0
Perfume, color	q.s.

Description:

Pump spray synthetic resin fixative. Provides all the properties of previous alcohol-based hair sprays except for evenness of spray possible only with pressurized systems used prior to chlorfluorocarbon ban. Fixation due to resin, plasticized by SOLULAN L-575, diisopropyl adipate and panthenol.

Procedure:

Combine alcohols and aminomethyl propanol. Add GANTREZ ES-225, stir until completely dissolved. Add remaining ingredients in order listed. Stir until clear and uniform.

Variations:

For variations in quality of deposited film, replace diisopropyl adipate in whole or in part with ACETULAN, AMERLATE P, SOLULAN PB-20 or SOLULAN 5.

For greater water resistance, replace GANTREZ ES-225 with GANTREZ ES-425 or Amphomer.

HAIR FIXATIVE

RAW MATERIALS	% By Weight
Luviskol VA 64	2.0
Isopropanol	38.0
Water	ad 100.0
SOFTIGEN 767	1.5
Lactic acid	1.5
Perfume	1.0

Preparation:

All the materials are stirred together cold until homogeneous.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formula 6.3.4

GELATIN SCULPTING GEL*

INGREDIENTS	% By Weight
Carbopol 940	0.4
HYDROCOLL G-40	3.0
HYDROKERATIN AL-30	0.5
Gafquat 775N	1.0
AMP-95	0.2
BROX OL-40	0.2
Fragrance MF 2724	0.1
PEG 75 Lanolin (50% sol'n)	0.5
Deionized Water	94.1

Procedure:

Slurry CARBOPOL in water. Neutralize with AMP-95. Add the HYDROCOLL, HYDROKERATINE and GAFQUAT. Mix fragrance with BROX and PEG 75 lanolin to solubilize and add to the mixture.

Formulation PF-0113

* Formulation suggested by Brooks Industries Inc.

SPIKING & STYLING SHINING GEL*

INGREDIENTS	% By Weight
Carbopol 940	1.0
Deionized Water	47.8
Alcohol SD-40-2	45.0
PVP/VA ES-535	4.0
ETHA-KERATIN A-20	1.0
COLLAMINO COMPLEX L/O	0.1
Laureth 23	0.5
AMP-95	0.5
Fragrance	0.1

Procedure:

Disperse the Carbopol in the water and add the bulk of the alcohol followed by the PVP/KA & ETHAKERATIN. Mix the Laureth 23, AMP, COLLAMINO COMPLEX L/O & fragrance together. Add to gel the batch.

Formulation PF-0126

* Suggested by Brooks Industries, Inc.

SOURCE: Angus Chemical Co.: Suggested Formulations

GEL HAIR COLOR

INGREDIENT	% By Weight
Demineralized Water	40.0000
Arianor Dye Combination	0.6000
AMIGEL, A.M.I.	1.0000
Acetamide MEA 100%	5.0000
Propylene Glycol, USP	2.0000
TRI-SEPT M	0.2000
Demineralized Water	49.4500
ABIOL	0.2500
Triethanolamine 99%	0.5000
Urea	1.0000

Procedure:

1. Maserate the AMIGEL in propylene glycol/acetamide/paraben...
...set aside.
2. Dissolve the ARIANOR dye combination in water, heating only if necessary @ 45C (Benzyl alcohol or other solvent assistant may be added at this time)
3. Combine the remainder of batch water with ABIOL, TEA, and Urea
4. Add the AMIGEL mascerate slowly to the stirring batch heating to 45C.
5. When fully dissolved and lump free, cool batch to 35C.
6. Add the ARIANOR Dye Solution and mix until uniform.
7. Adjust pH to 8.0-8.5 with TEA.

Code: 002

MONOCHROMATIC HAIR COLOR GEL II

INGREDIENT	% By Weight
Demineralized Water	
Acetamide MEA 70	2.0000
Methylparaben	0.2000
AMIGEL	0.4000
Propylene Glycol	2.0000
Triethanolamine 99%	0.1000
dl-Panthenol	0.5000
	Total
	90.0000
Color Concentrate:	
ARIANOR Dye *	0.5000
Propylene Glycol	5.0000
Demineralized Water	4.5000
	Total
	10.0000
*Steel Blue	= 094-A
Straw Yellow	= 094-B
Mahogany	= 094-C
Sienna Brown	= 094-D
Madder Red	= 094-E
Colorless Base	= 094-F

Code: 094

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

HAIR-BALSAM

RECIPE	% By Weight
A.	
GENAMIN KDM-F	6.00
GENAMIN DSAC	5.00
HOE S 2721	1.50
Cetylalcohol	2.00
Mineral oil, high viscosity	3.00
Lanolin	1.00
B.	
Water, preservative	81.00
C.	
Perfume	0.50
Dyestuff solution	q.s.

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formulation B II/1030

HAIR-BALSAM

RECIPE	% By Weight
A.	
GENAMIN KDM-F	5.00
HOSTACERIN T-3	2.00
Cetylalcohol	3.50
Vitamin oil	3.00
B.	
Glycerol	1.00
Water, preservative	83.20
C.	
Nutrilan L	2.00
Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I Melt A at 75C.
- II Heat B to 75C.
- III Stir II into I.
- IV Stir until cool.
- V At 40C, stir the components of C into IV.

Formulation B II/2017

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

HAIR CONDITIONER

RAW MATERIALS	% By Weight
JORDAQUAT JS-25	10.0
MAZER MAZOL 165C	1.0
NaCl	1.0
Perfume	0.2
Preservative, Dye	q.s.
Water	87.8
Formulation 32	

HAIR CONDITIONER

RAW MATERIALS	% By Weight
JORDAQUAT Dimer 18	5.0
Cetyl Alcohol	2.0
Hydroxyethyl Cellulose	2.0
Citric Acid (50% Solution)	To adjust pH to 4.5-5.5
Perfume	q.s.
Preservative, Dye	q.s.
Water	91.0
Formulation 33	

CONDITIONER

RAW MATERIALS	% By Weight
JORDAQUAT 1033	2.0
JORDAQUAT 522	1.0
Cetyl Alcohol	2.0
Hydroxyethyl Cellulose	2.5
Citric Acid (50% Solution)	To adjust pH to 5.0-6.0
Perfume	q.s.
Preservative, Dye	q.s.
Water	92.5
Formulation 34	

CONDITIONER

RAW MATERIALS	% By Weight
JORDAQUAT Dimer 18	5.0
MAZER MAPEG 200 DS	1.5
Sodium Chloride	0.5
Citric Acid (50% Solution)	To adjust pH to 4.5-5.5
Perfume	q.s.
Preservative, Dye	q.s.
Water	93.0
Formulation 35	

SOURCE: MAZER Chemicals, Inc.: Cosmetic Formularies T-20D

HAIR CONDITIONER

INGREDIENTS:	%W/W
Part I:	
Water	91.0
STANDAMUL CONC. 1002 (Cetearyl Alcohol (and) PEG-40 Hydrogenated Castor Oil (and) Stearalkonium Chloride)	5.0
GENEROL 122 E-5 (PEG-5 Soya Sterol)	1.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	3.0
Part II:	
Fragrance, Dye and Preservative	q.s.
Comments:	
This elegant conditioner contains an ethoxylated soya sterol which aids in providing a glossy appearance to the hair.	
Formulation HOB-83-33	

HAIR CONDITIONER

INGREDIENTS:	%W/W
Part A:	
Water	q.s. to 100.00
Methylparaben	0.15
Propylparaben	0.05
EMULGADE 1000NI (Cetearyl Alcohol (and) Ceteareth-20)	3.00
Stearalkonium Chloride, 25%	4.00
CETIOL LC (Coco-Caprylate/Caprates)	0.75
Part B:	
Fragrance	q.s.
Comment:	
This elegant after shampoo conditioner provides an anti-static, de-tangling effect combined with pleasant, non-oily emolliency.	
Formula H-4829	
SOURCE: Henkel Corp.: Personal Care Products Formulary: Suggested Formulations	

HAIR CONDITIONER

INGREDIENTS:	%W/W
Part A:	
Water	87.0
STANDAMUL CONC. 1002 (Cetearyl Alcohol (and) PEG-40 Hydrogenated Castor Oil (and) Stearalkonium Chloride)	5.0
POLYQUART H (PEG-15 Tallow Polyamine)	5.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	3.0
Part B:	
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Comment:

The quaternary/fatty alcohol blend provides conditioning. The ethoxylated cocoate and polyamine provide both added emolliency and substantivity to the hair shaft.

Formulation H-4704

HAIR CONDITIONER FOR NORMAL HAIR

INGREDIENTS:	%W/W
Water	87.35
STANDAMUL CONC. 1002 (Cetearyl Alcohol (and) PEG-40 Hydrogenated Castor Oil (and) Stearalkonium Chloride)	3.62
Kathon CG	0.05
AETHOXAL B (PPG-5-Laureth-5)	0.88
Part B:	
Hexaplant Richter	3.00
ELASTIN CLR	5.00
Fragrance (Noville #88770)	0.10

Comments:

STANDAMUL CONC. 1002 can be used for simple, economic systems or, as in this case, more complex higher priced formulas.

Formulation HOB-229-4B

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

HAIR CONDITIONER/GLOSSER GEL-NO. 320

RAW MATERIALS	% By Weight
Propylene Glycol	11.5
Glycerine	5.0
Carnation Mineral Oil	9.0
Isostearyl Alcohol	5.0
LIPOCOL IS-20	17.5
LIPAMIDE L-9	3.0
Silicone 193 Surfactant	1.0
Propylparaben	0.15
Butylparaben	0.05
Deionized Water	45.7
Methylparaben	0.3
Phenoxyethanol	0.8
LIPOQUAT R	0.5
Merquat 100	0.5

HAIR CONDITIONER/GLOSSER GEL-NO. 321

RAW MATERIALS	% By Weight
Propylene Glycol	13.0
Glycerine	5.0
Carnation Mineral Oil	9.0
Isostearyl Alcohol	5.0
LIPOCOL IS-20	17.5
LIPAMIDE L-9	2.5
Silicone 193 Surfactant	1.0
Propylparaben	0.15
Butylparaben	0.05
Deionized Water	44.7
Methylparaben	0.3
Phenoxyethanol	0.8
LIPOQUAT R	0.5
Merquat 100	0.5

Formulation Notes:

1. To make product softer and thinner, increase propylene glycol and decrease mineral oil.
2. To make less tacky, increase silicone to 1.5%. Do not exceed 2.0%

SOURCE: Lipo Chemicals, Inc.: Formulations Nos. 320, 321

HAIR CONDITIONER(05/016)

RAW MATERIALS	% By Weight
CREMOPHOR A 6	1.5
CREMOPHOR A 25	1.5
LUVITOL EHO	6.0
Cetylstearyl alcohol	3.0
Citric acid	0.5
LUVIQUAT FC 550	3.0
1,2-Propylene Glycol USP	2.0
Preservative	q.s.
Essential oil	q.s.
Water	82.5

SOURCE: BASF: CREMOPHOR A grades: Formulation 05/016

QUICK-BREAK FOAM CONDITIONER WITH SETTING EFFECT

RAW MATERIALS	% By Weight
LUVIQUAT FC 550	5.00
LUVISKOL VA 64 Powder	1.00
CREMOPHOR NP 14	0.05
Essential oil + CREMOPHOR RH 40 1:1	0.10
2-Propanol	12.00
Distilled water	71.85
Propellent 12 or propane/butane 40:60	10.00

SOURCE: BASF: LUVISKOL VA Grades: Suggested Formulation

SCALP AND HAIR CONDITIONER

RAW MATERIALS	% By Weight
EMEREST 1723 Isopropyl Lanolate	20.5
EMEREST 2316 Isopropyl Palmitate	14.5
Petrolatum	47.0
EMSORB 2500 Sorbitan Oleate	6.5
EMERWAX 1266 Emulsifying Wax BP Type	10.5
EMEREST 2486 Pentaerythrityl Tetrapelargonate	1.0
Fragrance	q.s.

This is a light brilliantine that can be used to condition the scalp and hair. It lubricates the scalp which helps to prevent dryness and flaking.

SOURCE: Quantum Chemical Corp.: EMEREST 2486: Formulation 2889-092B

HAIR CONDITIONER/GLOSSER GEL-NO. 322

RAW MATERIALS	% By Weight
Propylene Glycol	15.0
Glycerine	5.0
Carnation Mineral Oil	7.0
Isostearyl Alcohol	5.0
LIPOCOL IS-20	17.5
LIPAMIDE L-9	2.25
Silicone 193 Surfactant	1.25
Propylparaben	0.15
Butylparaben	0.05
Deionized Water	44.7
Methylparaben	0.3
Phenoxyethanol	0.8
LIPOQUAT R	0.5
Merquat 100	0.5

Formulation Notes:

1. To make product softer and thinner, increase propylene glycol and decrease mineral oil.
2. To make less tacky, increase silicone to 1.5%. Do not exceed 2.0%.

SOURCE: Lipo Chemicals Inc.: Formulation No. 322

KERATIN THERAPY HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
Water	85.50
Hydroxypropyl Methylcellulose (Methocel F4M)	0.50
Phase B:	
Behentrimonium Methosulfate (and) Cetearyl Alcohol (Incroquat BTQ-25)	4.00
Acetamide MEA	5.00
Hydrolyzed Animal Keratin (Crotein K)	1.00
Animal Keratin Amino Acids (Crotein-HKP)	1.00
Isostearamidopropylamine Oxide (Inchromine Oxide I)	2.00
Phase C:	
GERMABEN II	1.00

Procedure:

Disperse the Methocel in the water and then heat to 75C. Add the Incroquat BTQ-25, amine oxide and Acetamide MEA to Phase A. Cool to 40C and add the Keratin and Phase C.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formulation

HAIR CONDITIONING CREAM

RAW MATERIALS	Parts by Weight
Phase A:	
EMCOL E-607S (Steapyrium Chloride)	1.0
Water, Perfume, Preservative	86.3
Phase B:	
WITCONOL MST (Glyceryl Stearate)	8.0
Lanolin Alcohols	1.5
Carnation White Mineral Oil	3.0
Stearic Acid	0.2

Dissolve EMCOL E-607S in water at 85C. Melt ingredients of Phase B together and add to Phase A slowly with agitation.

Cool to 40C; add preservative and perfume and pour into containers.

Formulation 102D

HAIR SET AND CONDITIONER

RAW MATERIALS	Parts by Weight
EMCOL E-607S (Steapyrium Chloride)	0.15
Water	61.88
Polypeptide AAS	3.00
Solulan 25	2.00
PVP/VA E-735	2.50
Alcohol SD-40	30.00
Antifoam 60	0.01
D & C Yellow No.10, 5%	0.05
D & C Blue No. 1, 5%	0.01

Combine water and EMCOL E-607S. Heat with agitation until dissolved, and add Polypeptide AAS.

Melt Solulan 25 and dissolve in alcohol. Add perfume and the PVP/VA E-735, agitating to dissolve.

Add water phase to alcohol phase with stirring. Add color and Antifoam 60. Cool and filter, if necessary, using Celite as a filter aid.

This quality hair-set/conditioner provides, on drying, a medium hold. About one-half to one ounce should be combed through wet or dry hair which is then set and styled.

Formulation 112D

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

HAIR CONDITIONER WITH PROTEIN--FOR NORMAL HAIR

INGREDIENTS	% By Weight
A.	
Deionized Water	84.8
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Stearyl Alcohol and Cetrimonium Bromide	3.0
Glyceryl Stearate and PEG 100 Stearate	1.5
PEG 75 Lanolin Oil	0.5
C.	
PEPTEIN 2000	3.0
LIPITEIN P	2.0
PEPTEIN TEAC	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a lotion, after-shampoo creme rinse with conditioning properties designed for those with normal hair.

Formula: 614-39

HAIR CONDITIONER WITH PROTEIN--FOR DRY HAIR

INGREDIENTS	% By Weight
A.	
Deionized Water	83.6
Hydroxyethylcellulose	1.0
Sorbitol	1.0
B.	
Stearyl Alcohol and Cetrimonium Bromide	4.0
Glyceryl Stearate and PEG 100 Stearate	1.5
Jojoba Oil	2.0
PEG 75 Lanolin Oil	0.5
dl-Panthenol	0.2
C.	
PEPTEIN CAA	3.0
PEPTEIN KC	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3 (0.01%)	0.1

This is a lotion, after-shampoo creme rinse with conditioning properties designed for those with dry hair.

Formula: 614-40

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

HAIR CONDITIONER WITH PROTEIN--FOR OILY HAIR

INGREDIENTS	% By Weight
A.	
Deionized Water	89.9
Hydroxyethylcellulose	0.5
Propylene Glycol	0.5
B.	
Stearamidopropyl PG-Dimonium Chloride Phosphate	3.0
Stearyl Alcohol	1.0
C.	
PEPTEIN AH	2.0
LIPITEIN P	1.0
PEPTEIN KC	1.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

This is a lotion, after-shampoo creme rinse with light conditioning properties designed for those with oily hair.

Formula: 614-38

INTENSIVE HAIR TREATMENT WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	87.6
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Stearyl Alcohol	1.0
Glyceryl Stearate and PEG 100 Stearate	1.5
PEG 75 Lanolin Oil	0.5
dl-Panthenol	0.2
C.	
PROLAGEN MP-1	4.0
LIPITEIN P	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a rich creme, after-shampoo treatment with conditioning properties designed for those with very dry hair.

Formula: 614-41

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

HAIR CONDITIONING - STYLING GEL
5146-110P

INGREDIENTS:	Parts by Weight
A:	
CELQUAT H-100	1.00
B:	
Carbomer 940	0.36
C:	
Diisopropanolamine	1.00
Laureth-23	0.2
Tetrasodium EDTA	0.3
Benzophenone-4	q.s.
Perfume	q.s.
Preservative	q.s.
Water	97.14

Preparation:

Disperse B in 3/4 of water. Mix until dispersion is uniform. In remainder of water, dissolve C. When solution containing C is complete, slowly mix in A. Mix until solution is complete.

Allow both solutions to stand until air bubbles are released. With slow mixing, add solution containing A and C to solution containing B. Mix slowly until solution clears.

SETTING AND CONDITIONING STYLING FOAM
(Alcohol Free)
5132-88

INGREDIENTS	Parts by Weight
RESYN 28-2930	3.00
AMP-95	0.33
Crotein SPO	0.20
DC 193 Surfactant	0.20
Tween 20	0.20
Monamid 150 ADD	0.30
Glycerin	0.50
Triton X-100	0.50
Deionized Water	85.07
Perfume	Q.S.
Preservative	Q.S.
Propellant 114	5.00
Propellant 12	5.00

Preparation:

Mix AMP-95 in water; add RESYN 28-2930 slowly with agitation. When solution is complete add remaining ingredients except propellants. Continue mixing until solution is complete. Filter and fill concentrate. Charge propellants.

SOURCE: National Starch and Chemical Corp.: Suggested Formulations

HAIR CREAM

RAW MATERIALS	% By Weight
KATORAN AF	10.0
Isopropyl myristate	4.0
Microcrystalline wax	1.0
Beeswax	5.0
Glyceryl oleate	3.0
Paraffin oil, mobile	20.0
Water	57.0

SOURCE: BASF: KATORAN AF: Suggested Formulation

HAIR CREAM

RAW MATERIALS	% By Weight
A.	
WHITE PROTOPET No. 1S	7.5
CARNATION or BLANDOL White Mineral Oil	37.5
Lanolin	3.0
Sorbitol Sesquioleate	3.0
Beeswax (white)	2.0
B.	
Borax	0.5
Water	to make 100
Color & Perfume	q.s.

An extremely popular hair preparation is the hair cream dispensed from either a tube or a bottle.

Bring A to 75C. Bring B to 75C. Add B to A stirring with moderate but thorough agitation. Perfume at 45C and agitate until cold.

BUTCH STICK

RAW MATERIALS	% By Weight
WHITE PROTOPET No. 1S	29
CARNATION White Mineral Oil	15
MULTIWAX 835 Microcrystalline Wax	12
Paraffin Wax (125 mp)	44
Color & Perfume	q.s.

A rather popular preparation prior to the advent of the "Mod" look for men is the butch stick. The butch stick is designed for use on "crew cut" style hair cuts and helps to keep the hair bristly.

SOURCE: Witco Chemical: SONNEBORN Products for the Cosmetics Industry: Suggested Formulation

HAIR DRESSING

INGREDIENTS	% W/W
A.	
Alcohol SD 40	69.0
PEG 40 Butyl Ether (1)	19.0
PATONIC ISL (2)	1.5
Perfume F77 315 (3)	0.2
B.	
Deionized Water	10.3
Color	q.s.

Procedure:

Combine A and stir at room temperature.

Add Part B to A with stirring package.

- | | |
|-----------------------------|--------------------------------|
| (1) Union Carbide | UCON LB-1715 |
| (2) Patco Cosmetic Products | Sodium Isostearoyl-2-Lactylate |
| (3) Perry Brothers | |

SOURCE: Patco Cosmetic Products: Bulletin No. 194

HAIRDRESSING CREAM - NO. 150 (ST9) OR NO. 554 (ST37)

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS ST	3
PEG 1000 monostearate	3
Liquid paraffin	10
Vaseline	4
Preservative	0,2
Water Phase:	
Triethanolamine	0,75
Water	78
Carbomer 934	0,75
Perfume oil	0,3

This O/W cream is a basis for non fatty hairdressing creams.

Manufacturing:

The oil and water phase are heated to 75C separately. The water phase is added to the oil phase with rapid stirring and then cooled down.

At 45C the perfume oil is added.

It is recommended that the finished emulsion be homogenized using a stator-rator homogenizer.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200:
Suggested Formulation

HAIR DRESSING CREAM

RAW MATERIALS	% By Weight
AMEROXOL OE-2	5.00
AMEROXOL OE-20	1.00
Petrolatum, USP white	5.00
Carbopol 934	0.75
Water	82.25
Sodium hydroxide (10% aq.)	2.25
Ethomeen C-25 (10% aq.)	3.75
Perfume and Preservative	q.s.

Soft, white liquid cream for gloss and grooming.

Procedure:

Disperse the Carbopol in the water using high speed mixing. Heat to 70C and continue mixing while adding the sodium hydroxide solution, then the Ethomeen solution. Add the oil phase at 70C and continue mixing while cooling to 30C.

TOP DRESSING

RAW MATERIALS	% By Weight
AMEROXOL OE-2	5.0
MODULAN	10.0
Mineral oil, 70 vis.	25.0
Ozokerite	5.0
Petrolatum, USP white	55.0
Perfume and Preservative	q.s.

Procedure:

Weigh ingredients together, heat where necessary, and mix until uniform.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

OPAQUE PEROXIDE

RAW MATERIALS	% By Weight
AMERCHOL L-101	2.50
SOLULAN C-24	1.50
Cetyl alcohol	1.25
Stearyl alcohol	1.25
Water, deionized	76.35
Hydrogen peroxide, prestabilized, 35%	17.15

Fluid, 20 volume peroxide with conditioners.

Procedure:

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

SOURCE: Amerchol Corp.: Amerchol: Suggested Formulation

HAIR AND SKIN LOTION CONDITIONER #A56-48-2A

RAW MATERIALS % By Weight

Phase A:

CERASYNT SD	3.50
FOAMOLE B	0.60
CERAPHYL 424	1.00
CERAPHYL 28	2.00
Cetyl Alcohol	0.50

Phase B:

Water, deionized	86.55
Cellosize QP 30,000	0.50
CERAPHYL 60	1.00
CERAPHYL 65	2.00
Lactic Acid 88% USP (10% Aq. Soln.)	2.25
BTC 2125M	0.10

pH: 4.5

LOTION HAIR CONDITIONER (FOR DRY DAMAGED HAIR) #A51-21-6

RAW MATERIALS % By Weight

Phase A:

CERASYNT SD	4.00
Promulgen D	2.00
Myrj 52S	1.00
Cetyl Alcohol	1.00-1.50 (n)
CERAPHYL 28	2.00
CERAPHYL IPL	2.00

Phase B:

Water, deionized	83.80-83.30
Cellosize QP 30,000	0.30
CERAPHYL 60	1.00
CERAPHYL 65	2.50
Lactic Acid 88%	0.30
BTC 2125M	0.10

(n) - the more cetyl alcohol used, the higher the final viscosity

pH: 3.7

SOURCE: Van Dyk: After Shampoo Hair Conditioners: Suggested Formulations

HAIR GROOM LIQUID CREAM

RAW MATERIALS	% By Weight
AMERCHOL L-101	5.00
AMERLATE P	1.00
GLUCAM P-10	15.00
PEG 100 monostearate	3.00
Carbopol 934	0.75
Triethanolamine	0.75
Water	74.50
Perfume and Preservative	q.s.

Procedure:

Disperse the Carbopol in water using high speed mixing. Add the triethanolamine and humectant. Add the water phase at 75-80C to the oil phase at 75-80C while mixing. Continue mixing while cooling to 40C. Add the ethanol, where necessary, at 40C and continue mixing to below 30C.

SOURCE: Amerchol Corp.: Suggested Formulation

HYDROALCOHOLIC CLEAR LIQUID HAIR-GROOM(NONGREASY)

RAW MATERIALS	Parts by Weight
WITCONOL F26-46 (PPG-36 Oleate)	17.0
SDA-40 Alcohol	50.0
Perfume, Color	q.s.
Water	33.0

Mix at room temperature until clear. Protein or alcohol-soluble resins may be added as desired.

Formulation 128D

NONGREASY HAIR-GROOM

RAW MATERIALS	Parts by Weight
WITCONOL APS (PPG-11 Stearyl Ether)	30.0
SDA-3 or SDA-40 Alcohol	60.0
Water	10.0
Color, Fragrance	q.s.

Combine ingredients; mix until clear.

Formulation 113D

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

HAIR POLISH

RAW MATERIALS % By Weight

Phase A:	
Pentaerythritol Tetra Caprate/Caprylate	5.0
Oleth-20	2.0
Evening Primrose Oil	0.5
PEG-15 Cocamine	1.0
Phase B:	
Water	88.5
Carbomer 941	0.6
Triethanolamine	0.4
Phase C:	
Alcohol Soluble Keratin	0.5
Cocodimonium Hydroxyethylcellulose	0.5
GERMABEN II	1.00

Procedure:

Dispense the Carbomer in water & heat to 75C. Add the tri-ethanolamine. Heat Phase A to 75C. Add B to A. Cool with stirring to 40C and add Phase C.

SCALP TREATMENT FLUID

RAW MATERIALS % By Weight

Water	94.04999
Butylene Glycol	1.0000
Lactic Acid	0.0500
Panthenol	0.5000
Biotin	0.0001
Serum Protein	1.000
Magnesium (and) Iron (and) Zinc (and) Copper (and)	
Silicone Glyconucleopeptides	0.5000
Soluble Glycoprotein	1.0000
Tissue Respiratory Factors	0.7000
GERMABEN II	1.0000
Niacinamide	0.2000

Procedure:

Mix well at room temperature. Filter if necessary for clarity.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulations

HAIR POMADE

RAW MATERIALS	% By Weight
A.	
EMEREST 2400 Glyceryl Stearate	6.00
EMERSOL 132 LILY Stearic Acid	2.50
EMERY 1740 Absorption Base	6.00
LANTROL 1673 Lanolin Oil	2.00
EMEREST 2486 Pentaerythrityl Tetrapelargonate	7.00
EMERY 1787 Cetyl Alcohol Flakes, NF	3.00
Coconut oil	5.00
Benzophenone-11	0.20
Propyl paraben	0.10
BHA	0.05
B.	
Deionized water	60.75
EMERY 916 Glycerine, 99%	5.00
Triethanolamine	1.20
Methyl paraben	0.30
C.	
Vitamin A	0.40
Vitamin E	0.50
Fragrance	q.s.

This formulation is an opaque, light yellow cream that spreads easily through the hair to the scalp to condition both, and leaves a healthy sheen on the hair.

HOT OIL TREATMENT

RAW MATERIALS	% By Weight
A.	
LANTROL AWS 1692 PPG-12-PEG-65 Lanolin Oil	7.5
EMSORB 2722 Polysorbate 80	8.5
LANOQUAT 1756 Lanolin Quaternary	5.0
TRYCOL 5964 Laureth-23	3.4
TRYCOL 5967 Pareth-25-12	6.6
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
EMEREST 2486 Pentaerythrityl Tetrapelargonate	2.0
B.	
Triethanolamine	0.1
Deionized water	65.9
Fragrance	q.s.

Especially effective in restoring life to hair damaged by wind and sun or chemical processing. It should be worked into the hair and scalp, capped, and then heated with a hair dryer for about 20 minutes.

SOURCE: Quantum Chemical Corp.: EMEREST 2486: Suggested Formulations

HAIR PREPARATION: CONDITIONER

The constant search for cleaner and softer hair has resulted in a variety of hair conditioners both solid and liquid. The following are some suggested formulas for both solid and liquid conditioners.

LIQUID

RAW MATERIALS	% By Weight
KLEAROL White Mineral Oil	70
Isopropylan (lanolin derivative)	30
Perfume	q.s.
Color	q.s.

All the above are miscible at room temperature.

SOLID

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	16.8
WHITE PROTOPET No. 1S Petrolatum	11.2
Stearic Acid, double pressed	11.2
Lanolin	1.4
Cetyl Alcohol	0.3
Span 60	1.4
Tween 60	1.4
Water	56.2
Preservative	0.1
Perfume	q.s.

Heat water phase (water, preservative, Tween 60) to 65C. Blend other ingredients except perfume. Add water phase to oil phase with stirring and allow to cool to 40C. Add perfume, continue stirring and pour into jars at about 35C.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics Industry: Suggested Formulations

HAIR CONDITIONER

(approx. 1% quaternary active substances)

RAW MATERIALS	% By Weight
Water dist. or demineralised	93.00
Cetyl Dimethyl Ammonia Chloride (approx. 25%)	0.60
Mixture of Cetyl Dimethyl Benzyl Ammonia Bromide, emulsifying agent, and fatty alcohol	4.00
Preserving Agent Euxyl K 100	0.10
Cremogene Henna neutral 714 691 H&R	2.00
Fragrance H&R	0.30

SOURCE: Haarman & Reimer: Formula K 9/14 - 45 249 D/E

HAIR RINSE EMULSION(THICKLY LIQUID)

RAW MATERIALS	% By Weight
Phase A:	
TEGINACID X	6.0
Phase B:	
ABIL B 9950	3.0
Genamin KDM	1.0
Water	90.0
Perfume	q.s.
Preserving agent	q.s.

Preparation:

Heat A and B separately to 65-70C. Stir together and homogenize. Stir until cool, adding perfume at app. 45C.

Formulation E 3.1

SETTING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Perfume	0.1
TAGAT L2	1.0
Ethanol	10.0
Phase B:	
Merquat 550	2.0
ABIL B 9950	2.0
Water	84.9
Preserving agent	q.s.

Preparation:

Mix A and B in the given order at room temperature. Stir B into A.

Formulation E 3.2

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

COLD WAVE CREAM

RAW MATERIALS	% By Weight
Katioran AF	3.0
Ammonia 25 Be'	10.0
Thioglycolic acid 80%	7.5
Water	79.5

SOURCE: BASF: KATIORAN AF: Suggested Formulation

HAIR SETTING LOTION

RAW MATERIALS	Parts
LUVISKOL VA 73 E	3.0
Essential oil	0.3
Ethanol	5.0
Distilled water	91.7

HAIR SETTING LOTION

RAW MATERIALS	Parts
LUVISKOL VA 64 Powder	2.0
LUTROL E 400	0.2
Essential oil (water-soluble)	0.3
Distilled water	97.5

Liquid setting lotions with a little alcohol
Preservatives must be added in these two formulations.

HAIR SETTING LOTION

RAW MATERIALS	Parts
LUVISKOL VA 64 Powder	2.0
LUTROL E 400	0.2
Essential oil	0.3
Ethanol or 2-propanol	37.5
Distilled water	60.0

HAIR SETTING LOTION

RAW MATERIALS	Parts
LUVISKOL VA 55 E or LUVISKOL VA 55 I	6.0
Essential oil	0.2
Ethanol or 2-propanol	40.0
Distilled water	53.8

Liquid setting lotions with alcohol.

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulations

HAIR SETTING LOTION

RAW MATERIALS	Parts
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Ethanol or 2-propanol	35-50
Distilled water	ad 100

SOURCE: BASF Corp.: LUVISKOL VAP grades: Suggested Formulation

SETTING LOTION

RAW MATERIALS	% By Weight
LUVIFLEX D 430 I	6.0
Dehyquart A	0.4
ethanol or 2-propanol	30.0
distilled water	63.6

Formulation 1

SOURCE: BASF: LUVIFLEX Grades: Formulation 1

HAIRSETTING LOTION

RAW MATERIALS	% By Weight
Distilled Water	77.90
Ethanol (Anhydrous SDA-40)	20.00
Guar Hydroxypropyltrimonium Chloride (Jaguar C-17)	1.00
GERMABEN II	1.00
Polysorbate 20 (Hetsorb L-20)	0.10
Fragrance	q.s.
Color	q.s.
Citric acid (50% solution)	q.s.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

SETTING LOTION

RAW MATERIALS	% By Weight
LUVIFLEX D 455 I	6.0
Genamin KS 5	0.5
Cremophor RH 40	0.1
distilled water	93.4
preservative	q.s.

Formulation 2

SOURCE: BASF Corp.: LUVIFLEX Grades: Suggested Formulations

HAIR SHAMPOO, ACID

INGREDIENTS	% By Weight
Alpha Olefin Sulfonate (40%) a	42.50
Coconutdiethanolamide	3.00
ACRYSOL ICS-1 Thickener (30%)	5.00
Sodium Hydroxide (10%)	1.40
Water	48.10

a Siponate A-246L: Alcolac, Inc.

Citric Acid to pH 4.5-5.2

Brookfield Viscosity, cps.
 @ 12 rpm 600
 pH 5

Mixing Procedure:

To a dispersion of ACRYSOL ICS-1 in deionized water, add the two surfactants with stirring. Neutralize with caustic and stir 15 minutes. Acidify with citric acid to the required pH.

Lit. Ref: CS-505

HAIR SHAMPOO, ACID

INGREDIENTS	% By Weight
Triethanolamine (40%)	42.50
Coconutdiethanolamide	3.00
Miranol C2M-SF (70%)	1.40
ACRYSOL ICS-1 Thickener (30%)	6.70
Sodium Hydroxide (10%)	1.80
Water	44.60

Citric Acid to pH 4.5-5.2

Brookfield Viscosity, cps.
 @ 12 rpm: 1500
 pH: 5

Mixing Procedure:

To a dispersion of ACRYSOL ICS-1 Thickener in deionized water, add the two surfactants with stirring. Neutralize with caustic and stir 15 minutes. Acidify with citric acid to the required pH.

Lit. Ref.: CS-505

SOURCE: Rohm and Haas Co.: Suggested Formulations

HAIR SHAMPOO, ACID

INGREDIENTS	% By Weight
Sodium Lauryl Sulfate (29%) a	58.60
Lauricdiethanolamide	3.00
ACRYSOL ICS-1 Thickener (30%)	3.30
Sodium Hydroxide (10%)	0.90
Water	34.20
Citric Acid to pH 4.5-5.2	

a Sipon LSB: Alcolac Inc.

Brookfield Viscosity, cps.	
@ 12 rpm:	2100
pH:	5

Mixing Procedure:

To a dispersion of ACRYSOL ICS-1 Thickener in deionized water, add the two surfactants with stirring. Neutralize with caustic and stir 15 minutes. Acidify with citric acid to the required pH.

Lit. Ref: CS-505

HAIR SHAMPOO, ACID

INGREDIENTS	% By Weight
Sodium Lauryl Ether Sulfate (27%)	63.00
Lauricdiethanolamide	3.00
ACRYSOL ICS-1 Thickener (30%)	5.00
Sodium Hydroxide (10%)	1.40
Water	27.60
Citric Acid to pH 4.5-5.2	

Brookfield Viscosity, cps	
@ 12 rpm:	5700
pH:	5

Mixing Procedure:

To a dispersion of ACRYSOL ICS-1 Thickener in deionized water, add the two surfactants with stirring. Neutralize with caustic and stir 15 minutes. Acidify with citric acid to the required pH.

Lit. Ref: CS-505

SOURCE: Rohm and Haas Co.: Suggested Formulations

HAIR SHAMPOO, CREAM

INGREDIENTS	% By Weight
TRITON X-200 Surfactant (28%)	50.00
Clindrol Superamide 100L	5.00
Isopropyl Myristate	0.50
KATHON CG Microbiocide	0.06
Trisodium Ethylenediaminetetraacetate (Versene 100)	0.05
Water	44.39

Mixing Instructions:

Combine and mix all ingredients, except water, for five minutes. Add a solution of the KATHON CG Microbiocide in the water at 135F and stir the batch for 30 minutes at 135F. Let cool to ambient temperature.

Directions for Use:

Apply 1-2 capsful to hair. Gives heavy soapy lather. Rinses easily.

Lit. Ref: CS-420 CS-465

HAIR SHAMPOO, CREAM

INGREDIENTS	% By Weight
TRITON X-200 Surfactant (28%)	36.0
Sodium Lauryl Sulfate (30%) a	32.0
TRITON X-15 Surfactant	2.0
Water	30.0

a Duponol WAQ: E. I. Dupont

Mixing Instructions:

Add TRITON X-15 Surfactant to TRITON X-200 Surfactant with slow stirring. Add SLS and water in order with thorough mixing to prevent separation of the shampoo during storage.

Use Dilution:

1-2 capsful/application. Particularly effective in washing oily hair.

Lit. Ref: CS-40, CS-420

SOURCE: Rohm and Haas Co.: Suggested Formulations

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Methylene chloride	0-35
Propane/butane 40:60	25-30
Ethanol or 2-propanol	ad 100

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Propellant 11	0-20
Methylene chloride	0-35
Propane/butane 40:60	25-30
Ethanol or 2-propanol	ad 100

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Distilled water	0-10
Propane/butane 40:60	25-35
Ethanol or 2-propanol	ad 100

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Propellant 11	0-20
Methylene chloride	0-35
Dimethyl ether	30
Ethanol or 2-propanol	ad 100

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VAP 343 E or	
LUVISKOL VAP 343 I	4- 6
Methylene chloride	0-35
Propellant 11/12 50:50	50-60
Ethanol or 2-propanol	ad 100

SOURCE: BASF: LUVISKOL VAP grades: Suggested Formulations

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00- 3.00
AMP	0.16- 0.24
Dichloromethane	0-35.00
Propane/butane or isobutane	25.00-30.00
Ethanol, anhydrous	ad 100

Formulation 1

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00- 3.00
AMP	0.16- 0.24
Dichloromethane	20.00-35.00
Propellant	20.00
Propane/butane or isobutane	25.00-30.00
2-Propanol	ad 100

Formulation 2

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00- 3.00
AMP	0.16- 0.24
Dichloromethane	10.00-35.00
Propellant 11	20.00
Propane/butane or isobutane	25.00-30.00
Ethanol, anhydrous	ad 100

Formulation 3

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00- 3.00
AMP	0.16- 0.24
Dichloromethane	15.00-35.00
Propellant 11	20.00
Propane/butane or isobutane	25.00-30.00
2-Propanol	ad 100

Formulation 4

SOURCE: BASF: LUISET CAP: Suggested Formulations

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00- 3.00
AMP	0.16- 0.24
Dichloromethane	0-35.00
Propellant 11/12 50:50	50.00
Ethanol, anhydrous or 2-propanol	ad 100

Formulation 5

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	Parts
LUISET CAP	2.00
AMP	0.16
Dichloromethane	34.84
Ethanol, anhydrous	7.00
Propellant 11	26.00
Propane/butane or isobutane	30.00

Cloud point: -32C

Formulation 6

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00
AMP	0.16
Dichloromethane	34.84
2-Propanol	12.00
Propellant 11	20.00
Propane/butane or isobutane	31.00

Cloud point: -25C

Formulation 7

SOURCE: BASF: LUISET CAP: Suggested Formulations

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	Parts
LUISET CAP	2.00
AMP	0.16
Propellant 11/12 50:50	55.00
Dimethyl ether	27.00
Ethanol, anhydrous	15.84

Cloud point: <-35C

Formulation 5

HAIRSPRAY FOR NORMAL HAIR

RAW MATERIALS	% By Weight
LUISET CAP	2.00
AMP	0.16
Dimethyl ether	50.00-60.00
Ethanol, anhydrous	ad 100

Cloud point: <-35C

Formulation 6

SOURCE: BASF: LUISET CAP: Suggested Formulations

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VA 64	3.0
HAIRSPRAY ADDITIVE S	0.3
Perfume	0.3
Ethyl or isopropyl alcohol	46.4
Methylene chloride	10.0
Propellant 11/12 1090	40.0

HAIRSPRAY

RAW MATERIALS	% By Weight
LUVISKOL VA 37 E or I	4.0
HAIRSPRAY ADDITIVE S	0.4
Perfume	0.2
Abs. Ethyl or Isopropyl Alcohol	45.4
Propellant 11/12 5050	50.0

SOURCE: BASF: HAIRSPRAY ADDITIVE S: Suggested Formulations

HAIR SPRAY PREPARATION

- * With fluorocarbon propellents
without dichloromethane

RAW MATERIALS	Parts
LUVISKOL VA 37 E or	
LUVISKOL VA 37 I	4.0
Essential oil	0.3
Absolute ethanol or 2-propanol	35.7
Propellent 11/12 50:50	60.0

HAIR SPRAY PREPARATION

- * With fluorocarbon/propane/butane
without dichloromethane

RAW MATERIALS	Parts
LUVISKOL VA 37 E	4.0
Essential oil	0.2
Absolute ethanol	40.8
Propellent 11	35.0
Propane/butane 40:60	20.0

HAIR SPRAY PREPARATION

- * With fluorocarbon/propane/butane
without dichloromethane

RAW MATERIALS	% By Weight
LUVISKOL VA 37 I	4.0
Essential oil	0.2
2-Propanol	50.8
Propellent 11/12 50:50	35.0
Propane/butane 40:60	10.0

In those recipes marked with *: LUVISKOL VA 28 E or
LUVISKOL VA 28 I can be used for very damp climates.

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulations

HAIR SPRAY PREPARATION

- * With fluorocarbon
with dichloromethane

RAW MATERIALS	Parts
LUVISKOL VA 37 or LUVISKOL VA 37 I	4.0
Essential oil	0.2
Absolute ethanol or 2-propanol	20.8
Dichloromethane	25.0
Propellent 11/12 50:50	50.0

HAIR SPRAY PREPARATION

- * With fluorocarbon/propane/butane
with dichloromethane

RAW MATERIALS	Parts
LUVISKOL VA 37 E or LUVISKOL VA 37 I	4.0
Essential oil	0.2
Absolute ethanol or 2-propanol	15.8
Dichloromethane	35.0
Propellent 11	20.0
Propane/butane 40:60	25.0

HAIR SPRAY PREPARATION

- * With propane/butane
with dichloromethane

RAW MATERIALS	Parts
LUVISKOL VA 37 E or LUVISKOL VA 37 I	4.0
Essential oil	0.2
Absolute ethanol or 2-propanol	30.8
Dichloromethane	35.0
Propane/butane 40:60	30.0

In those recipes marked with *: LUVISKOL VA 28 E or LUVISKOL VA 28 I can be used for very damp climates.

SOURCE: BASF: LUVISKOL VA Grades: Suggested Formulations

HAIR SPRAY PREPARATION

With fluorocarbon
with a little alcohol

RAW MATERIALS	Parts
LUVISKOL VA 37 E or LUVISKOL VA 37 I	4.0
Essential oil	0.2
Absolute ethanol or 2-propanol	10.0
Dichloromethane	15.0
Propellent 11/12 50:50	70.8

HAIR SPRAY PREPARATION

With fluorocarbon/propane/butane
with a little alcohol

RAW MATERIALS	Parts
LUVISKOL VA 37 E or LUVISKOL VA 37 I	4.0
Essential oil	0.2
Absolute ethanol or 2-propanol	10.8
Dichloromethane	35.0
Propellent 11	20.0
Propane/butane 40:60	30.0

HAIR SPRAY PREPARATION

* With dimethyl ether
with a little alcohol

RAW MATERIALS	Parts
LUVISKOL VA 37 E or LUVISKOL VA 37 I	6.0
Essential oil	0.1
Absolute ethanol or 2-propanol	8.9
Dichloromethane	35.0
Dimethyl ether	50.0

In those recipes marked with *: LUVISKOL VA 28 E or
LUVISKOL VA 28 I can be used for very damp climates.

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulations

HAIRSPRAY (MECHANICALLY ACTUATED) -REGULAR

RAW MATERIALS	% By Weight
AMPHOMER	3.50
AMP	0.57
Monamid 716	0.20
Water Soluble Silicone	0.10
Fragrance	Q.S.
Ethanol (190 proof SDA-40)	95.63
Valve: Calmar M-2	

HAIRSPRAY (MECHANICALLY ACTUATED) -EXTRA

RAW MATERIALS	% By Weight
AMPHOMER	4.50
AMP	0.74
Monamid 716	0.25
Water Soluble Silicone	0.20
Fragrance	Q.S.
Ethanol (190 proof SDA-40)	94.31
Valve: Calmar M-2	

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-REGULAR

RAW MATERIALS	% By Weight
AMPHOMER	1.25
AMP	0.21
Solulan 75	0.10
Butyl Stearate Tegester	0.10
Ethanol (190 proof SDA-40)	98.24
Fragrance	Q.S.
Valve: Calmar	
Model: M-2	

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-EXTRA

RAW MATERIALS	% By Weight
AMPHOMER	1.40
AMP	0.23
Solulan 75	0.10
Butyl Stearate Tegester	0.25
Ethanol (190 Proof SDA-40)	98.02
Fragrance	Q.S.
Valve: Calmar	
Model: M-2	

SOURCE: National Starch and Chemical Corp.: AMPHOMER: Formulas

HAIR SPRAY*

INGREDIENTS	% By Weight
Luviset CA 66	2.00
AMP-Regular	0.16
Dichloromethane	35.00
Ethanol, anhydrous or isopropyl alcohol	32.84
Propane/butane or isobutane	30.00
CO2 (to saturation)	
Essential Oil	as desired

The degree of neutralization of Luviset CA 66 for normal hair is 75%.

Formulation PF-0119

* Formulation suggested by BASF Wyandotte Corp.

PUMP SPRAY HAIR FIXATIVE*

INGREDIENTS	% By Weight
AMP-95	0.2
Isopropyl alcohol	6.0
SDA 40 alcohol	81.6
Gantrez ES-225	5.0
Solulan L-575	1.5
Diisopropyl adipate	0.5
di-Panthenol	0.2
Water	5.0
Perfume, color	q.s.

Combine alcohols and AMP-95. Add Gantrez ES-225, stir until completely dissolved. Add remaining ingredients in the order listed. Stir until clear and uniform.

For variations in quality of deposited film, replace diisopropyl adipate, in whole or in part, with ACETULAN, AMERLATE P, SOLULAN PB-20 or SOLULAN 5.

For greater water resistance, replace Gantrez ES-225 with Gantrez ES-425 or Amphomer.

Formulation PF-0104

* Formulation suggested by Amerchol

SOURCE: Angus Chemical Co.: Suggested Formulation

HAIRSPRAY(MECHANICALLY ACTUATED)*

INGREDIENTS	% By Weight
RESYN 28-1310	5.00
AMP-Regular	0.40
5% Ammonium Hydroxide	X
Carbowax 200	X
Emcol CC-9	0.15
Ethanol (190 proof SDA-40)	X
Ethanol (Anhydrous SDA-40)	94.45
Distilled Water	X
Dye	q.s.
Perfume	q.s.
Preservative	X

Valve: Calmar M-2

SETTING LOTION

INGREDIENTS	% By Weight
RESYN 28-1310	3.00
AMP-Regular	0.21
5% Ammonium Hydroxide	0.49
Carbowax 200	0.15
Emcol CC-9	X
Ethanol (190 proof SDA-40)	40.00
Ethanol (Anhydrous SDA-40)	X
Distilled Water	56.15
Dye	q.s.
Perfume	q.s.
Preservative	q.s.

Formulation PF-0116

* Formulations suggested by National Starch and Chemicals Corp.

WAVE-SET CONCENTRATE FOR 1:9 DILUTION*

INGREDIENTS	% By Weight
RESYN 28-2930	20.00
AMP-Regular	1.69
Water Soluble Silicone	2.00
Carbowax 200	2.00
Sodium Bisulfite	0.03
Ethanol (SDA-40 anhydrous)	74.28
Fragrance	q.s.

Formulation PF-0118

* Formulation suggested by National Starch and Chemicals Corp.

SOURCE: Angus Chemical Co.: Suggested Formulations

HAIR STRAIGHTENER WITH LITHIUM HYDROXIDE NO. 363

RAW MATERIALS	Sequence	% By Weight
LIPOWAX NI	1	16.0
LIPOCOL C	1	1.0
LIPOCOL S-2	1	0.5
Britol 7	1	11.0
Perlatum 410	1	11.0
Water	2	50.0
LIPOCOL S-20	2	1.5
LIPOLAN 31	2	2.0
Propylene Glycol	2	2.0
Sipon 201-10	2	0.25
Lithium Hydroxide Monohydrate	3	3.5
Water	4	1.25

Manufacturing Procedure:

1. In main kettle, combine Sequence 1 ingredients and heat to 75C with good mixing.
2. In a side kettle, combine Sequence 2 ingredients and heat to 75C with mixing.
3. Add combined Sequence 2 to Sequence 1 at 75C with constant agitation.
4. Cool to 65C with mixing and sprinkle in Sequence 3.
5. Cool to 50C and add cold Sequence 4. Cool to 42C and fill.

Note: Reducing LIPOWAX NI level to 12% results in a softer cream.

LEAVE-ON HAIR TREATMENT SPRAY WITH SUNSCREEN NO. 357

RAW MATERIALS	Sequence	% By Weight
LIPONIC EG-1	1	3.00
LIPOPHOS TA	1	5.00
Water	2	3.00
UNIPABOL U-17	2	7.50
SD Alcohol 40-B, 200 proof	3	72.50
UNITRIENOL T-27	4	2.00
LIPOVOL J	4	1.00
LIPONATE NPGC-2	4	6.00

Manufacturing Procedure:

1. Mix Sequence 1 ingredients.
2. Premix Sequence 2 ingredients and add to combined Sequence 1 with good mixing.
3. Add combined Sequences 1 and 2 to Sequence 3.
4. Add premixed Sequence 4 and mix thoroughly.
5. Package.

SOURCE: Lipo Chemicals, Inc.: Suggested Formulations

HAIR STYLING GEL

MATERIALS	% By Weight
Water	89.0
Natrosol 250 HHR (hydroxyethylcellulose)	1.0
Sodium Hydroxide (20%)	1.4
GAFFIX VC713	7.5
SF-1188 (dimethicone copolyol)	.5
SM-2101 (trimethylsilyl-amodimethicone)	.5
Kathon	.1

Procedure:

- 1) Disperse the Natrosol into the water.
- 2) Add the sodium hydroxide, the resin, and the two silicones, mixing between each.
- 3) Add the preservative.

Comments:

- Carbomer 940 can be used in place of the Natrosol.
- SM-2059, a curable amine emulsion can be used in place of SM-2101.

Formulation HP-300

PUMP SUPER-HOLD HAIR SPRAY

MATERIALS	% By Weight
Aminomethylpropanol (AMP)	.25
Ethanol SDA40	86.25
Gantrez ES225 (ethyl ester of PVM/MA copolymer)	11.00
SF-1202 (cyclomethicone)	2.00
SF-1188 (dimethicone copolyol)	.50

Procedure:

- 1) Mix the AMP into the alcohol.
- 2) While mixing, add the Gantrez ES225 resin.
- 3) Add SF-1202, then SF-1188 (If desired, formulation can be aerosolized.)

Comments:

- For a softer hold use .35% AMP.
- For greater conditioning, use more SF-1188.

Formulation HP-301

SOURCE: GE Silicones: Personal Care Formulary: Suggested Formulations

HAIR-TONIC
With antidandruff agent

RECIPE	% By Weight
A.	
Perfume	0.30
B.	
Isopropyl alcohol	40.00
C.	
Water, preservative	59.30
GENAMIN KSL	0.30
D.	
OCTOPIROX	0.10

Procedure

- I Dissolve A in B.
- II Add one after another, the components of C to I.
- III Dissolve D in II.

Formulation B III/3002

O/W-HAIR-DRESSING-CREAM

RECIPE	% By Weight
A.	
HOSTAPHAT KW340N	3.00
Petrolatum	13.00
Mineral oil, high viscosity	4.00
B.	
HOSTACERIN PN 73*	1.50
C.	
Water, preservative	78.20
D.	
Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.

Formulation B III/1016

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

HARD TO HOLD PUMP HAIRSPRAY
5132-132

RAW MATERIALS	% By Weight
AMPHOMER	4.25
AMP	0.70
Monamid 716	0.25
DC-190	0.15
Fragrance	q.s.
Ethanol (190 Proof SDA-40)	94.65

NON-AEROSOL STYLING SPRITZ
5536-42C

MATERIALS	% By Weight
AMPHOMER	8.00
AMP-95	1.38
D.C. 190 Silicone	0.20
Fragrance	Q.S.
Ethanol (190 Proof SDA-40)	90.42

SOURCE: National Starch and Chemical Corp.: Suggested Formulations

WAVE SET CONCENTRATE
WC-01-130

MATERIALS	Parts by Weight
FLEXAN 130 (solids equivalent)	16.00
Carbowax 200	1.60
Lanasan CL	0.80
Water (Distilled)	66.60
Ethanol (95% SDA-40)	15.00
Dye	q.s.
Perfume	q.s.
Preservative	q.s.

Intended to be packaged in 16 ounce containers. Dilution of the contents of each container to one gallon with water prepared the styling lotion ready for use.

SOURCE: National Starch and Chemical Corp.: FLEXAN 130: Formulation WC-01-130

HOT OIL HAIR TREATMENT MOUSSE

RAW MATERIALS	% By Weight
Water	57.80
Disodium EDTA	0.20
Mineral Oil	10.00
Avocado Oil	5.00
Dimethicone	2.00
Cetearyl Alcohol (and) Ceteareth-20 (Promulgen D)	5.00
Jojoba Oil	1.00
Mink Oil	1.00
Castor Oil	5.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	10.00
Quaternium 26 (Ceraphyl 65)	2.00
GERMABEN II	1.00

Procedure:

Combine all ingredients except the GERMABEN II and heat to 80C. Cool to 50C and add the GERMABEN II. Cool to room temperature and fill. 95% concentrate/5% Propellant A-46.

Application:

Apply small amount to wet hair. Cover hair with hot towel for 15-20 minutes. Rinse well.

SEMI-PERMANENT COLORING SHAMPOO MUSEE

RAW MATERIALS	% By Weight
Phase A:	
Basic Yellow 57 (Arianor Straw Yellow)	1.00
Water	61.80
Phase B:	
Cocodimonium Hydrolyzed Animal Collagen	1.00
Sucrose Cocoate	1.50
Cocamidopropyl Betaine	27.00
Cocamidopropylamine Oxide	3.00
Cocamide DEA	4.00
GERMABEN II	0.50
Fragrance	0.20
TEA to pH 8.0	
Phase C:	
Concentrate	95
Propellant	5

The use of an aerosol is a cleaner alternative to regular shampoos for coloring hair. The surfactant is a mild amphoteric system with excellent foam stability and thickness.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formulations

HYDROCARBON-PROPELLED SUPER-HOLD HAIRSPRAY SYSTEM-A

INGREDIENTS	% By Weight
GANTREZ ES-225 resin (as supplied) 1	5.00
AMP-95	0.11
Ethoxylan 100	0.10
Perfume 2	0.10
SDA-40 Anhydrous Ethanol	67.22
Water	7.47
Isobutane/Propane (90/10)	20.00

HYDROCARBON-PROPELLED SUPER-HOLD HAIRSPRAY SYSTEM-B

INGREDIENTS	% By Weight
GANTREZ ES-425 (as supplied) 1	5.00
AMP-95	0.10
Ethoxylan 100	0.10
Perfume 2	0.10
SDA-40 Anhydrous Ethanol	67.23
Water	7.47
Isobutane/Propane (90/10)	20.00

- 1 GANTREZ ES-225 is the monomethyl ester and ES-425, the monobutyl ester, respectively, of poly(methyl vinyl ether/maleic acid). These GAF resins are supplied as 50% solutions in alcohol.
- 2 The selection of the perfume can be critical in formulating with GANTREZ ES resins. ES-425 has an inherent butyl odor which can be overcome easily by the proper fragrance. However, since perfumes tend to modify film properties, complete systems (including perfume) should be tested when evaluating end product properties. Most fragrance suppliers are familiar with GANTREZ ES resins and can make recommendations.

Procedure:

For both formulations, first dissolve the neutralizer (AMP) in the ethanol. Add the GANTREZ ES resin. When the resin is thoroughly mixed, add the other ingredients in the order listed.

SOURCE: Angus Chemical Co.: Formulation PF-0101: Formulation Suggested by GAF Corp.

INSTANT CURL MOISTURIZER NO. 319

RAW MATERIALS	Sequence	% By Weight
Water	1	87.85
Stearalkonium Chloride	1	0.20
LIPONIC EG-1	2	10.00
Arnica 5:1 in PG	2	0.25
Calendula 5:1 in PG	2	0.25
Nettles 5:1 in PG	2	0.25
Rosemary 5:1 in PG	2	0.25
Methylparaben	2	0.20
Propylparaben	2	0.05
LIPOQUAT R	3	0.50
Fragrance	3	0.10
Hydrocoll EN-55	4	0.10

Manufacturing Procedure:

1. Combine Sequence 1 ingredients and heat to 60C under Lightnin' mixing.
2. Add Sequence 2 ingredients under Lightnin' mixing and cool to 40C.
3. Combine Sequence 3 ingredients and add to batch under Lightnin' mixing. Add Sequence 4.

INSTANT CURL MOISTURIZER WITH SILICONE NO. 334

RAW MATERIALS	% By Weight
Water	86.85
Stearalkonium Chloride	0.20
LIPONIC EG-1	10.00
Silicone Copolymer F-754	1.00
Methylparaben	0.20
Propylparaben	0.05
Arnica 5:1 PG	0.25
Calendula 5:1 PG	0.25
Nettle 5:1 PG	0.25
Rosemary 5:1 PG	0.25
Hydrocoll EN-55	0.10
Lipoquat R	0.50
Fragrance	0.10

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

LOTION CREME RINSE #A60-38-1

RAW MATERIALS % By Weight

Phase A:	
CERASYNT SD	3.20
FOAMOLE B	0.80
CERAPHYL 41	2.00
Stearyl Alcohol	0.50

Phase B:	
Water, deionized	68.95
Cellose QP 30,000 (2% Aq.)	20.00
Lactic Acid 88%	0.45
CERAPHYL 65	1.00
CERAPHYL 70 (liquefied at 35C)	3.00
BTC 2125M	0.10

Procedure:

Heat Phases A and B to 80C. Add Phase A slowly to Phase B with constant agitation. Mix ten minutes at 80C, then cool with constant agitation to 25-28C.

pH: 3.0

LOTION CREME RINSE #A61-15-6B

RAW MATERIALS % By Weight

Phase A:	
CERASYNT SD	3.20
FOAMOLE B	0.80
CERAPHYL 41	2.00
Stearyl Alcohol	0.50

Phase B:	
Water, deionized	68.30
Cellose QP 30,000 (2% Aq.)	20.00
Lactic Acid 88%	0.60
Arquad 2HT-75	1.50
CERAPHYL 70 (liquefied at 35C)	3.00
BTC 2125M	0.10

Procedure:

Heat Phase A and B to 80C. Add Phase A slowly to Phase B with constant agitation. Mix ten minutes at 80C, then cool with continuous agitation to 25-28C.

pH: 3.0

SOURCE: Van Dyk & Co., Inc.: After Shampoo Hair Conditioners:
Suggested Formulations

LOTION HAIR CONDITIONER #H126-20-1

INGREDIENTS	%W/W
Phase A:	
CERASYNT SD (Glyceryl Stearate)	4.00
Promulgen D (Cetearyl Alcohol (and) Ceteareth-20)	2.00
Myrj 52S (PEG-40 Stearate)	1.00
Cetyl Alcohol	1.00
CERAPHYL 28 (Cetyl Lactate)	2.00
CERAPHYL GA (Maleated Soybean Oil)	5.00
Phase B:	
Water, deionized	80.80
Cellosize QP 30,000 (Hydroxyethyl Cellulose)	0.30
CERAPHYL 60 (Quaternium-22)	1.00
CERAPHYL 65 (Quaternium-26)	2.50
Lactic Acid 88%	0.30
BTC 2125M (Myristalkonium Chloride (and) Quaternium-14)	0.10
pH:	3.7

LOTION HAIR CONDITIONER #H126-20-2

INGREDIENTS	%W/W
Phase A:	
CERASYNT SD (Glyceryl Stearate)	4.00
Promulgen D (Cetearyl Alcohol (and) Ceteareth-20)	2.00
Myrj 52S (PEG-40 Stearate)	1.00
Cetyl Alcohol	1.00
CERAPHYL 28 (Cetyl Lactate)	2.00
CERAPHYL GA (Maleated Soybean Oil)	5.00
Phase B:	
Water, deionized	81.30
Cellosize QP 30,000 (Hydroxyethyl Cellulose)	0.30
CERAPHYL 65 (Quaternium-26)	1.00
Lactic Acid 88%	0.30
BTC 2125M (Myristalkonium Chloride (and) Quaternium-14)	0.10
CERAPHYL 85 (Stearamidopropyl Dimethyl Cetearyl Ammonium Tosylate)	2.00
pH:	3.7

SOURCE: Van Dyk; CERAPHYL GA: Lotion Hair Conditioner
#H126-20-1 & 2

MICROEMULSION

RAW MATERIALS	% By Weight
A.	
EMERY 1732 Liquid Absorption Base	13.0
EMTHOX 2738 PEG 25 Hydrogenated Castor Oil	13.0
EMERY 916 Glycerine, 99%	13.5
TRYCOL 5964 Laureth-23	2.9
TRYCOL 5967 Pareth-25-12	5.6
EMTHOX 5882 Laureth-4	6.0
EMEREST 2486 Pentaerythityl Tetrapelargonate	2.0
EMID 6515 Cocamide DEA	2.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
B.	
Deionized water	41.0
Fragrance	q.s.

This formulation yields a soft, clear gel with moisturizing properties suitable for the hair and scalp. It leaves the hair feeling smooth, moist and conditioned, not greasy.

SOURCE: Quantum Chemical Corp.: EMEREST 2486: Formulation
2880-103A

OIL IN WATER HAIR DRESSING

RAW MATERIALS	% By Weight
A.	
Petrolatum	25.0
Mineral oil, 70 visc.	25.0
EMERWAX 1253 Synthetic Beeswax	8.0
Synthetic spermaceti wax	4.0
EMSORB 2505 Sorbitan Stearate	3.0
EMSORB 2728 Polysorbate 60	2.5
EMERY 1787 Cetyl Alcohol Flakes, NF	1.0
B.	
EMTHOX 2730 PEG-75 Cocoa Butter	3.0
EMERCIDE 1199 Liquid Preservative System	0.5
Sorbitol, 70% aq. solution	0.5
Borax (sodium borate)	0.5
Distilled water	27.0
Fragrance	q.s.

EMTHOX 2730 provides sheen and body to the hair in this formulation without a heavy afterfeel. This product is ideal for chemically processed hair.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730: Formulation
2889-082

MOISTURIZING SPRAY CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	96.2
PVP/K30	0.5
II.	
ADOGEN 432-CG	1.5
AROSURF 66-E10	0.3
III.	
Deionized Water	1.0
Croton SPC	0.5
IV.	
Preservative	qs
Solids:	3.3%
pH:	5.0
Viscosity:	15 cps

Formulation Code: 6.7.4

PROTEIN CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	95.2
II.	
ADOGEN 432-CG	1.5
VARISOFT E-228	1.0
ADOL 52	0.6
Myristyl Alcohol	1.2
Leximine S-13	0.2
III.	
Croton HCP	0.3
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	3.6%
pH:	4.5
Viscosity:	3500 cps

Formulation Code: 6.7.5

SOURCE: Sherex Chemical Co.: Suggested Formulations

MOUSSE CONDITIONER WITH HAIR-SETTING EFFECT

RAW MATERIALS	% By Weight
LUVIQUAT FC 550	5.00
LUVISKOL VA 64 Powder	1.00
CREMOPHOR A25	0.10
CREMOPHOR NP 14	0.05
Essential oil + Cremophor RH 40 1:1	0.10
Distilled water	83.75
Propellant 12 or propane/butane 40:60	10.00

Formulation 1

MOUSSE CONDITIONER WITH HAIR-SETTING EFFECT

RAW MATERIALS	% By Weight
LUVIQUAT FC 550	5.00
LUVISKOL VA 64 Powder	1.00
CREMOPHOR A 25	0.10
CREMOPHOR NP 14	0.05
LUTENSIT TC-KD	0.10
Essential oil + Cremophor RH 40 1:1	0.10
Ethanol	10.00
Distilled water	63.65
Propellant 12/114 40:60	20.00

Formulation 2 (firm foam)

MOUSSE CONDITIONER WITH HAIR-SETTING EFFECT

RAW MATERIALS	% By Weight
LUVIQUAT FC 550	5.00
LUVISKOL VA 64 Powder	1.00
CREMOPHOR A 25	0.10
CREMOPHOR NP 14	0.05
LUTENSIT TC-KD	0.10
Essential Oil + Cremophor RH 40 1:1	0.10
Ethanol	10.00
Distilled water	63.65
Propane/butane 40:60	10.00

Formulation 3

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulations

MOUSSE HAIR-SETTING LOTION(FIRM FOAM)

RAW MATERIALS	% By Weight
LUVISKOL VA 64 Powder	3.00
CREMOPHOR A 25	0.10
CREMOPHOR NP 14	0.05
Lutensit TC-KD	0.10
Essential oil + Cremophor RH 40 1:1	0.10
Ethanol	10.00
Distilled water	66.65
Propellent 11/114 40:60	20.00

Formulation 1

MOUSSE HAIR-SETTING LOTION(FIRM FOAM)

RAW MATERIALS	% By Weight
LUVISKOL VA 64 Powder	3.00
CREMOPHOR A 25	0.10
CREMOPHOR NP 14	0.05
Lutensit TC-KD	0.10
Essential oil + Cremophor RH 40 1+1	0.10
Ethanol	10.00
Distilled water	76.65
Propane/butane 40:60	10.00

Formulation 2

SETTING LOTION IN GEL FORM

RAW MATERIALS	% By Weight
LUVISKOL VA 64 Powder	2.5
Carbopol 940	0.4
Triethanolamine	0.9
Ethanol or 2-propanol	15.0
Cremophor RH 40	0.5
Essential oil	0.2
Distilled water	80.5

SOURCE: BASF: LUVISKOL VA grades: Suggested Formulations

NEW GENERATION-TYPE HAIR RESTORER

INGREDIENT	% By Weight
Demineralized Water	96.0000
Cellose QP 4400 H	0.5000
Dowicil 200	0.1000
Maquat B-50	0.1000
Tween 60	3.3000

Product Form: Lotion
Code: 029

POLYSORBATE-TYPE HAIR RESTORER WITH VASODILATOR

INGREDIENT	% By Weight
Demineralized Water	93.7000
Cellose QP 4400 H	0.5000
Abiol	0.2000
TRI-K HMP	2.0000
Tween 60 **	3.3000
KALLIKREIN (1000 U/ml)*	0.1000
Methylparaben	0.2000

Procedure:

1. Dissolve the Cellose in water, heating to 50C.
2. Add the polysorbate and blend until uniform.
3. Add the methylparaben and mix until fully dissolved.
4. Cool to room temperature and adjust pH to 5.5-6.0 with anything appropriate.
5. Add the Abiol, TRI-K HMP, and KALLIKREIN...mix until uniform.
6. Add fragrance of choice if required.

*Note: The level of KALLIKREIN has been adjusted to yield approximately 10 international units per ounce of finished product, considering the above.

** Increase polysorbate as you see fit.

Functionalities:

KALLIKREIN...Potent vasodilator and moderator of cell membrane permeability...Increases peripheral blood flow and nutrient transport across cell membrane.

TRI-K HMP...Nutrient medium and hair substantive protein. Increases nutrient value of product as determined by cell culture studies. Part of glycosaminoglycan structure of protein matrix.

Polysorbate-60...Sebum solvent and agent able to remove dehydrotestosterone from scalp. "DHT" causes follicular atrophy and is directly attributable to levels of testosterone in blood. This is the association between male hormone levels and baldness.

Code: 088

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

NON-AEROSOL HAIR SPRAY WITH PROTEIN

INGREDIENTS	% By Weight
A.	
SD Alcohol 40	72.5
Ethyl Ester of PVM/MA Copolymer	5.0
B.	
AMP-95	0.2
Dimethicone Copolyol	0.2
Fragrance	0.1
C.	
ELASTEIN 5000	2.0
Deionized Water	20.0

This formula is designed for excellent style retention for those with normal hair.

Formula: 614-47

NON-AEROSOL HAIR SPRAY WITH PROTEIN--SOFT HOLD

INGREDIENTS	% By Weight
A.	
SD Alcohol 40	94.2
Ethyl Ester of PVM/MA Copolymer	3.0
B.	
Dimethicone Copolyol	0.5
PEG 75 Lanolin Oil	0.2
Fragrance	0.1
C.	
PEPTEIN TEAC	2.0

This Soft Hold formula is designed for excellent style retention, leaving the hair natural and manageable.

Formula: 614-48

NON-AEROSOL HAIR SPRAY WITH PROTEIN--STRONG HOLD

INGREDIENTS	% By Weight
A.	
SD Alcohol 40	63.9
Ethyl Ester of PVM/MA Copolymer	7.0
B.	
AMP-95	0.2
Dimethicone Copolyol	0.5
PEG 75 Lanolin Oil	0.3
Fragrance	0.1
C.	
PROLAGEN MP-1	3.0
Deionized Water	25.0

This Strong Hold formula is designed for excellent style retention, leaving the hair natural and manageable.

Formula: 614-49

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

NON-AEROSOL MOUSSE WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	79.4
Polyquaternium 11	3.0
B.	
Acetamide MEA	4.0
Polymethoxy Bicyclic Oxazolidine	0.5
Propylene Glycol	1.0
C.	
PEPTEIN TEAC	10.0
Fragrance	0.1
PEPTEIN 2000	2.0

This non-aerosol styling formula is designed to be used with the new Calmar Cosvell Foamer.

Procedure:

Add Polyquaternium 11 to water slowly; mix until uniform. Add Part B ingredients in order; mix well. Premix fragrance and PEPTEIN TEAC, add to batch slowly; watch foam! Add PEPTEIN 2000; mix until clear and homogeneous.

Formula: DG 614-23

PRE-BLOW DRY HAIR PROTECTANT

INGREDIENTS	% By Weight
A.	
SD Alcohol 40	49.9
Fragrance	0.1
B.	
Deionized Water	45.0
Propylene Glycol	1.0
Aloe Vera	1.0
C.	
PROLAGEN MP-1	2.0
PEPTEIN TEAC	1.0

This non-aerosol formula is designed to protect hair from the damaging effects of blow drying and styling.

Procedure:

Add Fragrance to Alcohol; mix until clear. Combine Part B ingredients in separate vessel; mix until clear. Add PROLAGEN MP-1 and PEPTEIN TEAC to Part B slowly; mix until uniform. Add Parts B/C to Part A. Mix until homogeneous.

Formula: 614-46C

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

NON-ALCOHOL STYLING MOUSSE CONCENTRATE

RAW MATERIALS	% By Weight
Water	93.0
Gafquat 755N (polyquaternium 11)	5.8
Emulphor ON870 (oleth 20)	.6
SM-2101 (trimethylsilyl-amodimethicone)	.6

Procedure:

- 1) Heat the water to 45C.
- 2) Add Gafquat and mix.
- 3) Add the Emulphor and stir until dissolved.
- 4) Add SM-2101.
- 5) Cool.
- 6) Charge into containers and pressurize with suitable propellant

Comments:

- For enhanced conditioning, use amine fluid SM-2059 in place of SM-2101.
- For aerosol formulation, use 85 parts above concentrate and 15 parts A-46 propellant.

SOURCE: GE Silicones: Personal Care Formulary: Formulation HP-302

STYLING GEL

RECIPE	% By Weight
Ethanol	32.00
Water, preserving agent	65.20
Luviskol VA 37 I	1.20
Hostacerin PN 73	1.30
Perfume	0.30

Procedure:

- I Mix A and B.
- II C is dissolved in 10% of I, then the rest of I is added.
- III Under stirring D is added to II and the product stirring continues until a clear gel has been obtained.
- IV E is added to III.

SOURCE: Hoechst Celanese Corp.: Cosmetics: Formulation No. B V/3003

NON-AQUEOUS CONDITIONER-SETTING LOTION

CS-01-130

Normal Hold

MATERIALS	Parts by Weight
FLEXAN 130 (solids equivalent)	2.00
Carbowax 200	0.40
Water (Distilled)	57.60
Ethanol (95%)	40.00
Dye	q.s.
Perfume	q.s.
Preservative	q.s.

NON-AQUEOUS CONDITIONER-SETTING LOTION

CS-02-130

Extra Hold

MATERIALS	Parts by Weight
FLEXAN 130 (solids equivalent)	3.00
Carbowax 200	0.60
Water (Distilled)	56.40
Ethanol (95%)	40.00
Dye	q.s.
Perfume	q.s.
Preservative	q.s.

SOURCE: National Starch and Chemical Corp.: FLEXAN 130:
Suggested Formulations

SETTING LOTION

RAW MATERIALS	% By Weight
RESYN 28-1310	3.00
AMP	0.21
5% Ammonium Hydroxide	0.49
Carbowax 200	0.15
Ethanol (Anhydrous SDA-40)	40.00
Distilled Water	56.15
Dye	Q.S.
Perfume	Q.S.
Preservative	Q.S.

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
Suggested Formulation

OIL FREE CLEAR HAIR CONDITIONER

INGREDIENTS	% By Weight
SCHERCOMID AME-70	10.0
Arlasolve 200	3.0
SCHERCOQUAT 21AE	1.0
PEG-400	3.0
Water	82.5
Fragrance	0.1
Glycolic Acid (70% Tech)	0.4
Preservative	qs

Procedure:

1. Heat water to 40-50C. With stirring, add SCHERCOQUAT 21AE until it is dissolved.
 2. With continuous agitation, add SCHERCOMID AME-70, Arlasolve 200, and PEG-400.
 3. Adjust pH if necessary to 4.5 with Glycolic Acid.
 4. QS with fragrance and preservative.
- | | |
|----------------|--------------|
| Appearance 25C | Clear Liquid |
| Activity, % | 14.0 |
| pH 25 | 4.5 |

Formulation SO-009

OIL FREE CLEAR HAIR CONDITIONER

INGREDIENTS	% By Weight
SCHERCOMID AME-70	10.0
Arlasolve 200	1.0
SCHERCOQUAT 21AP	1.0
SCHERCAMOX DMO-50%	5.0
Water	82.5
Fragrance	0.1
Glycolic Acid (70% Tech)	0.4
Preservative	qs

Procedure:

1. Heat water to 40-50C. With stirring, add SCHERCOQUAT 21AP until it is dissolved.
 2. With continuous agitation, add SCHERCOMID AME-70, Arlasolve 200, and SCHERCAMOX DMO.
 3. Adjust pH if necessary to 4.5 with Glycolic Acid.
 4. QS with fragrance and preservative.
- | | |
|-----------------|--------------|
| Appearance 25C: | Clear Liquid |
| Activity, % | 12.0 |
| pH 25 | 4.5 |

Formulation SO-010

SOURCE: Scher Chemicals, Inc.: Formulary: Suggested Formulations

"OIL FREE" CREME RINSE #A63-6-7

RAW MATERIALS	% By Weight
Phase A:	
Water, deionized	87.40
Cellosize QP 30,000	0.30
CERAPHYL 70 (liquefied at 35C)	2.50
Arguad 2HT-75	1.50
Promulgen D	2.50
Phase B:	
Perfume	0.15
Phase C:	
Formaldehyde 37%	0.15
Phase D:	
Sodium Chloride	0.30
Water, deionized	5.20

Procedure:

Completely pre-disperse Cellosize in water, then add the rest of ingredients of Phase A. Heat to 80C, making sure all is melted and completely dispersed, then cool with constant agitation to 45-50C. Add Phase B. Mix and continue to cool to 40C, and add Phase C. Stir well and cool with continuous mixing to 25-28C. Then slowly add Phase D into the batch with constant agitation. Continue mixing until the consistency of the product is uniform.

pH: 3.0

SOURCE: Van Dyk & Co., Inc.: After Shampoo Hair Conditioners:
Formulation #A63-6-7

"SUPER" ACTIVE CREME RINSE

RAW MATERIALS	% By Weight
Phase A:	
Behenyl Trimethyl Ammonium Methosulfate/Cetearyl Alcohol (Incroquat Behenyl TMS)	6.50
Stearamidopropyl Dimethylamine Lactate (Incromate SDL)	5.00
Phase B:	
Acetamide MEA (Incromectant AMEA-70)	7.00
Silk Amino Acids (Crosilk Liquid)	3.00
GERMABEN II	1.00
Water	77.50

Procedure:

Heat Phase B with protein and humectant to 75-80C. Add the Incroquat BTQ-25%. When uniform add the Incromate DSL. Continue stirring and fill at 25-30C.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formula

PERMANENT WAVE LOTION

INGREDIENTS	% By Weight
A.	
Deionized Water	71.9
Steareth-21	2.0
Steareth-2	3.0
Stearyl Alcohol	1.0
Jojoba Oil	3.0
B.	
Ammonium Thioglycolate, 60%	12.0
Ammonium Hydroxide, 28%	2.0
C.	
PEPTEIN CAA	4.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

During permanent waving hair is weakened. PEPTEIN CAA, unaffected by the high pH, strengthens hair. Actually becoming a part of the hair, PEPTEIN CAA penetrates into the hair restoring moisture and elasticity.

Formula: 621-04

PERMANENT WAVE NEUTRALIZER

INGREDIENTS	% By Weight
A.	
Deionized Water	85.7
Laureth-23	1.2
Sodium Bromate	9.0
B.	
PEPTEIN CAA	3.0
C.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1

Permanent waving damages hair. PEPTEIN CAA, unaffected by the low pH of the neutralizer, helps restructure and strengthen hair. Actually becoming a part of the hair, PEPTEIN CAA penetrates into the hair restoring moisture and elasticity.

Formula: 621-05

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

PERMANENT WAVE LOTION NO. 285

RAW MATERIALS	% By Weight
A.	
VEEGUM HS	1
Water	69
B.	
Cetyl alcohol	1
Carnation white mineral oil	5
Amerchol L-101	5
Solulan 98	2
Arlacel 165	3
C.	
Ammonium thioglycolate 60%	12
Ammonium hydroxide	2
Preservative	q.s.

Procedure:

Slowly add VEEGUM HS to the water, while agitating at maximum available shear. Continue mixing until smooth. Heat A to 80C. Heat B to 75C. Add B to A and mix until 35C. Add C and mix until smooth and uniform.

Consistency: Viscous lotion.

Suggested Packaging: Opaque plastic bottle.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 285

PRE-BLOW DRY LOTION

INGREDIENTS:	%W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	0.50
CETIOL 1414E (Myreth-3 Myristate)	3.00
Part B:	
Water	77.85
Carbopol 934 (2% Soln.) (Carbomer 934)	15.00
Glycerine	2.00
Part C:	
TEA (99%)	0.45
Part D:	
Fragrance	0.20
Germaben II	1.00

Comments:

Simple, economical to use formula which even exhibits setting effect.

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formula
HOB-215-38B

PUMP TYPE HAIRSPRAY - REGULAR

RAW MATERIALS	% By Weight
RESYN 28-2913	4.50
AMP-95	0.47
Monamid 716	0.10
DC 190 Silicone	0.10
Fragrance	Q.S.
Ethanol, 190 proof	94.83

PUMP TYPE HAIRSPRAY - EXTRA

RAW MATERIALS	% By Weight
RESYN 28-2913	6.00
AMP-95	0.63
Monamid 716	0.10
DC 190 Silicone	0.10
Fragrance	Q.S.
Ethanol, 190 proof	93.17

STYLING "SPRITZ"

RAW MATERIALS	% By Weight
RESYN 28-2913	7.50
AMP-95	0.79
Monamid 716	0.25
Fragrance	Q.S.
Ethanol, 190 proof	91.46

Procedure:

1. Charge the mixing vessel with the required amount of anhydrous SDA-40.
2. Start agitation.
3. Add RESYN 28-2913 slowly - so that no accumulation of pearls occurs on the surface.
4. After all the pearls are added, slowly add AMP.
5. Continue mixing until all the pearls are in solution.
6. Add the rest of the ingredients in the formulation.
7. Pass the concentrate through 5-10 micron cartridge filters before filling aerosol containers.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2913:
Suggested Formulations

PUMP TYPE HAIRSPRAY-REGULAR

RAW MATERIALS	% By Weight
VERSACRYL-40	4.00
Potassium Hydroxide	0.48
Monamid 716	0.20
DC 190 Surfactant	0.20
Fragrance	Q.S.
Ethanol, 190 Proof	95.12

PUMP TYPE HAIRSPRAY-EXTRA

RAW MATERIALS	% By Weight
VERSACRYL-40	5.50
Potassium Hydroxide	0.67
Monamid 716	0.30
DC 190 Surfactant	0.20
Fragrance	Q.S.
Ethanol, 190 Proof	93.33

STYLING SPRITZ

RAW MATERIALS	% By Weight
VERSACRYL-40	7.00
Potassium Hydroxide	0.85
Monamid 716	0.40
DC 190 Surfactant	0.10
Fragrance	Q.S.
Ethanol, 190 Proof	91.65

SOURCE: National Starch and Chemical Corp.: VERSACRYL-40:
Suggested Formulation

REMOISTURIZING CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	71.0
Veegum	1.0
Crotein Q	1.5
Glycerine	1.0
VARONIC LI-42	3.0
II.	
ADOGEN 432-CG	3.0
Amerchol L101	2.0
Cyclochem GMS 165	7.5
Mineral Oil	3.6
AROSURF 66-E2	1.5
Nimco 1795	0.9
ADOL 90	1.0
III.	
Preservative	qs

Solids: 25.1%
 Viscosity: 9000 cps

Formulation Code: 6.6.3

VARIABLE CONDITIONER

INGREDIENT	% By Weight
I.	
Deionized Water	92.4
II.	
ADOGEN 432-CG	3.5
ADOL 52	1.1
AROSURF 66-PE12	0.6
Leximine S-13	1.0
ADOL 62	1.1
III.	
Panthenol	0.3
IV.	
Preservative	qs
V.	
Citric Acid (25%)	qs
VI.	
Sodium Hydroxide (10%)	qs

Solids: 6.55%
 pH: 5.0
 Viscosity: 950 cps

Formulation Code: 6.6.3

SOURCE: Sherex Chemical Co.: Suggested Formulations

RICH CREAM MOISTURIZING TREATMENT(2889-093B)

RAW MATERIALS	% By Weight
A)	
Petrolatum	25.0
Mineral oil	25.0
EMERWAX 1253 Synthetic Beeswax	5.0
Ross Spermaceti Wax Substitute #573 (synthetic spermaceti)	2.0
ETHOXYLAN 1686 PEG 75 Lanolin, 50%	6.0
EMSORB 2728 Polysorbate 60	2.5
EMERY 1787 Cetyl Alcohol Flakes, NF	1.0
Propyl paraben	0.1
Emerest 2486 Pentaerthrityl Tetrapelargonate	1.0
B)	
Methyl paraben	0.2
Sorbitol (70%)	0.7
Sodium borate	0.5
Deionized water	31.0
Fragrance	q.s.

This is a good general moisturizer for the hair. It restores vitality and manageability lost in normal shampooing. Its oils and emollients strengthen and protect hair during the course of a normal day's activities. It may be used daily, as necessary.

SPRAY MIST MOISTURIZER (2889-099B)

RAW MATERIALS	% By Weight
A)	
ETHOXYLAN 1685 PEG 75 Lanolin	2.75
TRYCOL 5964 Laureth-23	1.00
TRYCOL 5967 Pareth-25-12	2.00
EMSORB 2726 PEG-40 Sorbitan Diisostearate	1.00
Hydrolyzed animal protein (Lexein 170)	0.30
Adogen 442 Quaternium 18	0.30
EMEREST 2486 Pentaerythrityl Tetrapelargonate	0.50
B)	
Propylene glycol	5.00
EMERY 916 Glycerine, 99%	1.00
Distilled water	85.15
Fragrance	q.s.
EMERCIDE 1199 Liquid Preservative System	1.00

This product was designed in spray form to allow for thorough saturation of the hair for maximum moisturizing. It can be used as a pre-treatment in a "soft curl" conditioning regimen.

SOURCE: Quantum Chemical Corp.: EMEREST 2486 Pentaerythrityl Tetrapelargonate in Ethnic Formulations: Suggested Formulations

SCALP CONDITIONER W/ETHYL NICOTINATE & KALLIKREIN

INGREDIENT	% By Weight
Demineralized Water	86.4999
TRI-K HMP	1.5000
WATERCRESS EXTRACT HS	0.5000
Methylparaben	0.2000
ABIOL	0.2000
Ethyl Alcohol SD 40 Anh	10.0000
Ethyl Nicotinate	0.0250*
Tween 60	0.5000
Fragrance #M-5574	0.0250
Biotin	0.0001
KALLIKREIN	0.0500
Sodium Hydroxide	QS--->pH
dl-Panthenol	0.5000

Procedure:

1. Add HMP, Abiol, Biotin, Panthenol, Watercress to Water... mix until dissolved.
2. Dissolve the methylparaben in alcohol, add to batch & mix until clear.
3. Dissolve the fragrance and ethyl nicotinate in polysorbate 60 & add to batch.
4. Mix until uniform and adjust pH to 5-6 with NaOH if necessary.

* Note: The level of ethyl nicotinate yields the desired level of scalp stimulation...it is solubilized by the ethyl alcohol and polysorbate-60, but may require use of additional solubilizer if higher levels of scalp stimulation are desired. Adequate safety testing is necessary to insure safety.

Kallikrein stimulates peripheral circulation via vasodilation with only a moderate sensation compared to the nicotinates.

SOURCE: TRI-K Industries, Inc.: Code 0086002

SCALP CONDITIONER WITH VASODILATOR & RUBIFACIENT

INGREDIENT	% By Weight
Demineralized Water	QS
HMP	1.5000
ABIOL	0.2000
Methylparaben	0.2000
Watercress HS	0.5000
Alcohol SD 40 Anh.	10.0000
Ethyl Nicotinate	0.0250
Sodium Hydroxide	QS pH 5-6
Tween 60	0.5000
Tween 20	0.2000
Biotin	0.0001
KALLIKREIN 1000ku/ml	0.1000
dl-Panthenol	0.5000

Procedure:

1. Add HMP, ABIOL, biotin, panthenol, watercress to water... mix until dissolved.
2. Dissolve the methyl paraben in alcohol, add to batch and mix until clear.
3. Dissolve the fragrance and ethyl nicotinate in mixture of both polysorbates and add to batch.
4. Mix until uniform and adjust pH to 5-6 with NaOH if necessary
5. Add the KALLIKREIN...mix until clear.

Note:

The level of ethyl nicotinate yields the desired level of scalp stimulation...it is solubilized by the ethanol and polysorbates, but may require use of additional solubilizer to produce a clear solution if higher levels of scalp stimulation are desired. Adequate safety testing is necessary to insure safety.

KALLIKREIN stimulates periperal circulation via vasodilation with only a moderate sensation compared to the nicotinates.

SOURCE: Tri-K Industries, Inc.: Code: 002

SETTING-CONDITIONING MOUSSE: AQUEOUS-ALCOHOLIC

RAW MATERIALS	% By Weight
RESYN 28-2913	3.00
AMP-95	0.33
Crotein SPO	0.10
DC-193 Surfactant	0.10
Tween 20	0.20
Monamid 150 ADD	0.20
Glycerine	0.10
Triton X-100	0.50
Anhydrous Ethanol	20.00
Deionized Water	65.47
Fragrance	Q.S.
Preservative	Q.S.
Propellant	10.00

SETTING-CONDITIONING MOUSSE: ALCOHOL FREE

RAW MATERIALS	% By Weight
RESYN 28-2913	3.50
AMP-95	0.38
Crotein SPO	0.05
DC-193 Surfactant	0.10
Tween 20	0.20
Monamid 150 ADD	0.20
Triton X-100	0.30
Deionized Water	85.27
Fragrance	Q.S.
Preservative	Q.S.
Propellant	10.00

Preparation:

Mix AMP-95 in water. Add Resyn 28-2913 slowly while maintaining good agitation. When solution is complete add remaining ingredients in the concentrate. Filter and fill concentrate when uniform. Charge propellant.

SOURCE: National Starch and Chemical Corp.: RESYN 28-2913:
Suggested Formulations

SILKY HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
Cetyl Alcohol	4.0
C10-C30 Cholesterol/Lanosterol Esters	1.5
PPG-2 Myristyl Ether Propionate	3.0
C18-C36 Acid Glycol Ester	1.0
Behenyl Trimethyl Ammonium Methosulfate/Cetearyl Alcohol	3.0
Stearoxy Dimethicone	0.5
Phase B:	
Glycerine	4.0
GERMABEN II	1.0
Water	81.5
Hydrolyzed Silk	0.5

Procedure:

Combine Phase A and heat with mixing to 75C. Combine Phase B and heat with mixing to 75C. Add B to A and mix and cool to room temperature.

STYLING GEL

RAW MATERIALS	% By Weight
Phase A:	
Polyquaternium-4	1.00
Tetrasodium EDTA	0.05
Triethanolamine	0.80
Benzophenone-4	0.05
GERMABEN II	0.50
Polysorbate 20	0.05
Fragrance, dye	q.s.
Deionized water	28.91
Phase B	
Carbomer 940	0.40
Deionized Water	68.24

This is a high viscosity, alcohol-free styling gel which provides excellent manageability and hair setting properties.

Procedure:

Combine all ingredients in (A) except the polyquaternium-4. Mix until solution is complete. While continuing mixing, slowly add the polyquaternium-4. when solution is complete, slowly add previously prepared solution of (B). Mix until uniform.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulation

SOFT HAIRSPRAY-AEROSOL-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-2930	1.60
AMP	0.14
Solulan 75	0.25
Ethanol (Anhydrous SDA-40)	58.01
Methylene Chloride	10.00
Fragrance	Q.S.
Propellant A-46	30.00

Valve:

Manufacturer: Disp. Div. Ethyl

Model: KN38

Stem: .020"

Vapor Tap: .020"

Body: .025"

Dip Tube: .150"

Actuator: .016"

Spray Rate (g/sec): 0.45

SOFT HAIRSPRAY-AEROSOL-EXTRA

RAW MATERIALS	% By Weight
RESYN 28-2930	1.70
AMP	0.14
Solulan 75	0.05
Butyl Stearate Tegester	0.20
Ethanol (Anhydrous SDA-40)	57.91
Methylene Chloride	10.00
Fragrance	Q.S.
Propellant A-46	30.00

Valve:

Manufacturer: Disp. Div. Ethyl

Model: KN38

Stem: .020"

Vapor Tap: .020"

Body: .025"

Dip Tube: .150"

Actuator: .018"

Spray Rate (g/sec): 0.55

SOURCE: National Starch and Chemical Corp.: RESYN 28-2930:
Suggested Formulations

SOFT HAIRSPRAY-AEROSOL-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-1310	1.60
AMP	0.14
Solulan 75	0.25
Butyl Stearate Tegester	X
Ethanol (Anh. SDA-40)	58.01
Ethanol (190 proof SDA-40)	X
Methylene Chloride	15.00
Fragrance	Q.S.
Propellant A-46	25.00

Valve:

Manufacturer:	Disp. Div. Ethyl
Model:	KN38
Stem:	.020"
Vapor tap:	.020"
Body:	.025"
Dip tube:	.150"
Actuator:	.016"

Spray rate (g/sec): 0.45

SOFT HAIRSPRAY-AEROSOL-EXTRA

RAW MATERIALS	% By Weight
RESYN 28-1310	1.70
AMP	0.14
Solulan 75	0.05
Butyl Stearate Tegester	0.20
Ethanol (Anh. SDA-40)	57.91
Ethanol (190 proof SDA-40)	X
Methylene Chloride	15.00
Fragrance	Q.S.
Propellant A-46	25.00

Valve:

Manufacturer:	Disp. Div. Ethyl
Model:	KN38
Stem:	.020"
Vapor tap:	.020"
Body:	.025"
Dip tube:	.150"
Actuator:	.018"

Spray Rate (g/sec): 0.55

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
Suggested Formulations

SOFT HAIRSPRAY-AEROSOL-REGULAR

RAW MATERIALS	% By Weight
AMPHOMER	1.00
AMP	0.17
Butyl Stearate Tegester	0.13
Ethanol (Anh. SDA-40)	58.70
Methylene Chloride	10.00
Fragrance	Q.S.
Propellant A-46	30.00

Valve:

Manufacturer: Disp. Div. Ethyl

Model: KN38

Stem: .020"

Vapor Tap: .020"

Body: .025"

Dip Tube: .150"

Actuator: .016"

Spray Rate (g/sec): 0.45

SOFT HAIRSPRAY-AEROSOL-EXTRA

RAW MATERIALS	% By Weight
AMPHOMER	1.20
AMP	0.20
Butyl Stearate Tegester	0.15
Ethanol (Anh. SDA-40)	58.45
Methylene Chloride	10.00
Fragrance	Q.S.
Propellant A-46	30.00

Valve:

Manufacturer: Disp. Div. Ethyl

Model: KN38

Stem: .020"

Vapor Tap: .020"

Body: .025"

Dip Tube: .150"

Actuator: .018"

Spray Rate (g/sec): 0.55

SOURCE: National Starch and Chemical Corp.: AMPHOMER:
Suggested Formulations

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-1310	2.00
AMP	0.17
Solulan 75	0.10
Butyl Stearate Tegester	0.20
Ethanol (Anh. SDA-40)	X
Ethanol (190 proof SDA-40)	97.53
Methylene Chloride	X
Fragrance	Q.S.
Propellant A-46	X

Valve:

Manufacturer: Calmar

Model: M2

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-EXTRA

RAW MATERIALS	% By Weight
RESYN 28-1310	2.25
AMP	0.19
Solulan 75	0.10
Butyl Stearate Tegester	0.25
Ethanol (Anh. SDA-40)	X
Ethanol (190 proof SDA-40)	97.21
Methylene Chloride	X
Fragrance	Q.S.
Propellant A-46	X

Valve:

Manufacturer: Calmar

Model: M2

HAIRSPRAY(MECHANICALLY ACTUATED)

RAW MATERIALS	% By Weight
RESYN 28-1310	5.00
AMP	0.40
Emcol CC-9	0.15
Ethanol (190 proof SDA-40)	94.45
Dye	Q.S.
Perfume	Q.S.

Valve: Calmar M-2

SOURCE: National Starch and Chemical Corp.: RESYN 28-1310:
Suggested Formulations

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-REGULAR

RAW MATERIALS	% By Weight
RESYN 28-2930	2.00
AMP	0.17
Solulan 75	0.10
Butyl Stearate Tegester	0.20
Ethanol (190 proof SDA-40)	97.53
Fragrance	Q.S.

Valve:

Manufacturer: Calmar

Model: M-2

SOFT HAIRSPRAY-MECHANICALLY ACTUATED-EXTRA

RAW MATERIALS	% By Weight
RESYN 28-2930	2.25
AMP	0.19
Solulan 75	0.10
Butyl Stearate Tegester	0.25
Ethanol (190 proof SDA-40)	97.21
Fragrance	Q.S.

Valve:

Manufacturer: Calmar

Model: M-2

HAIRSPRAY

(Mechanically Actuated)

RAW MATERIALS	Parts by Weight
RESYN 28-2930	4.50
AMP	0.36
Emcol CC-9	0.15
Fragrance	Q.S.
Ethanol (190 proof SDA-40)	94.99

Valve: Calmar M-2

SOURCE: National Starch and Chemical Corp.: RESYN 28-2930:
Suggested Formulations

SPRAY DETANGLER

INGREDIENT	% By Weight
I.	
Deionized Water	99.1
II.	
AROSURF 66-PE12	0.1
ADOGEN 432-CG	0.7
III.	
Dow Corning 193	0.1
IV.	
Citric Acid (25%)	qs
Solids:	0.75
pH:	3.2
Viscosity:	50 cps

Mixing Instructions:

Heat Phase I to 75-80C. Mix and heat Phase II to 75-80C. Add Phase II to I. Cool to 45C and add Phase III. Cool to 30C and adjust pH to 3.2 with Citric Acid.

Formulation Code: 6.7.4

SPRAY DETANGLER FOR OILY HAIR

INGREDIENT	% By Weight
I.	
Deionized Water	99.5
VAROX 1770	0.3
VARONIC LI-63	0.1
Dow Corning 193	0.1
II.	
Citric Acid (25%)	qs
III.	
Preservative	qs
Solids:	0.3%
pH:	3.2
Viscosity:	50 cps.

Mixing Instructions:

With adequate mixing, combine Phase I ingredients. Adjust to pH 3-3.5 with Citric Acid.

Formulation: Code: 6.7.4

SOURCE: Sherex Chemical Co.: Suggested Formulations

SPRAY ON/LEAVE ON HAIR CONDITIONER WITH BODY #A57-7-2

RAW MATERIALS	% By Weight
CERAPHYL 60	0.25
CERAPHYL 65	0.50
Lactic Acid 88% USP	0.30
BTC 2125M	0.10
FOAMOLE B	0.30
Water, deionized	93.55
Ethyl Alcohol (SD 40, Anhyd.)	5.00

Note: This formulation has retained its initial pH of 3.6 after one year storage at 45C.

pH: 3.6

STEARALKONIUM CHLORIDE CREAM HAIR CONDITIONER #A64-50-1

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	10.50
CERASYNT 303	1.00
CERAPHYL 41	2.50
CERAPHYL 424	2.50
Cetyl Alcohol	2.00
PRESEVATOL	0.15
Phase B:	
Water, deionized	69.75
Cellosize QP 30,000	0.30
Phosphoric Acid (85% Ortho)	0.30
CERAPHYL 70 (liquefied at 35C)	3.00
Glycerine	5.00
Stearalkonium Chloride	3.00

pH: 3.0

Procedure:

Completely pre-disperse Cellosize in water, then add the rest of ingredients of Phase B. Heat Phases A and B to 80C. Add slowly Phase A to Phase B with constant agitation at 80C and cool with continuous stirring to 25-28C.

SOURCE: Van Dyk: After Shampoo Hair Conditioners: Suggested Formulations

STYLING GEL WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	87.3
Carbomer 940	1.0
Propylene Glycol	1.0
B.	
Triethanolamine	1.0
C.	
Polyquaternium 11	5.0
D.	
PEPTEIN 2000	2.0
E.	
Dimethicone Copolyol	0.5
Polysorbate 80	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3 (0.01%)	0.1

This clear gel formula provides excellent style retention.
Formula: 614-43

STYLING GEL WITH PROTEIN--SOFT HOLD

INGREDIENTS	% By Weight
A.	
Deionized Water	88.2
Carbomer 940	0.8
Propylene Glycol	1.0
B.	
Triethanolamine	0.8
C.	
Polyquaternium 11	3.0
D.	
PEPTEIN AH	3.0
E.	
Dimethicone Copolyol	0.5
PEG 75 Lanolin Oil	0.5
Polysorbate 80	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3 (0.01%)	0.1

Description:

This light, clear gel formula provides excellent style retention while maintaining a soft, natural look to the hair.
Formula: 614-44

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

STYLING GEL WITH PROTEIN--HARD HOLD

INGREDIENTS	% By Weight
A.	
Deionized Water	85.8
Carbomer 940	1.0
Propylene Glycol	1.0
B.	
Triethanolamine	1.0
C.	
Polyquaternium 11	2.0
PVP/VA Copolymer	4.0
D.	
ELASTEIN 5000	2.0
E.	
Dimethicone Copolyol	0.5
PEG 75 Lanolin Oil	0.5
Polysorbate 80	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3 (0.01%)	0.1

This clear gel formula is designed for durable style retention
Formula: 614-45

HAIR WEATHER PROTECTANT 'SPRITZ'

INGREDIENTS	% By Weight
A.	
Deionized Water	95.2
Propylene Glycol	0.5
Aloe Vera	0.5
B.	
PEPTEIN CAA	2.0
C.	
Polysorbate 20	0.5
Fragrance	0.1
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Dimethicone Copolyol	0.2

This non-aerosol spray formula demonstrates the moisture
binding effect of PEPTEIN CAA.
Formula: 621-01

SOURCE: Geo. A. Hormel & Co.: Formulation Guides

STYLING GLAZE
4694-54

MATERIALS	Parts by Weight
A)	
CELQUAT L-200	1.50
Deionized Water	76.75
B)	
Natrosol 250 HHR	0.75
C)	
Arguad T-50	0.50
Triton X-100	0.50
Ethanol, Anhydrous SDA-40	20.00
Preservative	Q.S.
Viscosity = 1900 cps. pH = 6.95	

Preparation:

Prepare solution (A). Add (B) to (A) slowly while mixing until homogeneous. Prepare solution (C) and slowly add, while mixing, to solution (A) + (B) until homogeneous.

STYLING SPRITZ
5659-72D

Ingredients	Parts by Weight
VERSACRYL-40	6.00
Potassium Hydroxide	0.74
Monamid 716	0.20
Ivarlan AWS	0.20
Dow Corning 190 Surfactant	0.10
Fragrance, Chemia #4015	0.20
190 Proof Ethanol, SDA-40	92.56

Description:

This salon-type, non-aerosol spray gives a very firm hold and excellent humidity resistance. The spritz dries quickly and is not sticky.

Preparation:

Charge mixing vessel with 190 proof SDA-40. While mixing, add potassium hydroxide. Sift VERSACRYL-40 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill.

Bottle: 8 oz. cylindrical, 24-410 neck finish

Valve: Calmar Mark II, 24/410 closure

SOURCE: National Starch and Chemical Corp.: Suggested Formulations

STYLING MOUSSE WITH PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Celquat L-200 (2% Aqueous Solution)	50.00
Ceraphyl 65	3.50
Glycerin, USP	7.00
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Deionized Water	15.70
Part II:	
Alcohol SDA 40, 95%	20.00
PVP/VA E735	2.00
Lanexol AWS	0.50
Perfume Oil	0.30

Procedure:

Mix all ingredients in Part I in the order listed. Mix all ingredients in Part II in the order listed. Add Part I to Part II and mix thoroughly. pH should be between 6.5 to 7.0.

Aerosol Fill	% By Wt.
Concentrate	94.00
Propellant A-46	6.00

Formulation MU 505

VITAMIN CONDITIONING & SETTING LOTION WITH PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Specially Denatured Alcohol #40, 95%	50.00
Lanexol AWS	0.20
dl-Panthenol, Cosmetic Grade (Code 63920)	0.25
Propylene Glycol, USP	0.50
Part II:	
PVP/VA E-535	10.00
Part III:	
Deionized Water	39.05

Procedure:

Mix together the ingredients in Part I until dissolved. Add Part II and then Part III to Part I mixing well between each addition until uniform.

Formulation HC 207

SOURCE: Roche Chemical Division: Vitamins for Cosmetics & Toiletries: Suggested Formulations

VARIABLE CONDITIONING

INGREDIENT	% By Weight
I.	
Deionized Water	89.6
II.	
ADOL 52	3.7
ADOGEN 432-CG	3.2
Dow Corning 344 Fluid	0.6
ADOL 63	0.6
Propylene Glycol	0.8
Leximine S-13	0.5
Panthenol	0.1
Ceteareth 20	0.8
III.	
KCl	0.1
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	9.44%
pH:	5.6
Viscosity:	16,000 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.7.1

WATER-IN-SILICONE VITAMINIZED HAIR CONDITIONER WITH UV-A AND UV-B PROTECTION(W/O)

RAW MATERIALS	% W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
Silicone Q2-3225C (CTFA: Cyclomethicone (and) Dimethicone Copolyol)	10.00
Silicone 344 fluid (CTFA: Cyclomethicone)	7.00
Silicone 556 fluid (CTFA: Phenyl Dimethicone)	3.00
Silicone 929 Cationic Emulsion (CTFA: Amodimethicone (and) Tallowtrimonium Chloride (and) Nonoxynol-10)	0.50
Cetiol LC (CTFA: Coco-Caprylate/Caprates)	2.50
Vitamin E Acetate (CTFA: Tocopheryl Acetate)	0.50
Butylated Hydroxytoluene (CTFA: BHT)	0.05
b)	
Deionized water	65.45
Sodium Chloride	2.00
Glycerin	5.00
PANTHENOL (CTFA: Panthenol)	0.50
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
c) Perfume, preservatives, Silicone 344 fluid	q.s. to 100

SOURCE: Givaudan: PARSOL MCX: Suggested Formulation

VITAMIN STYLING GEL

INGREDIENTS	% By Weight
Part I:	
Deionized Water	97.24
dl-Panthenol, Cosmetic Grade (Code 63920)	0.50
Carbopol 940	0.50
Crostein SPA	0.10
Methyl Parasept	0.10
Propyl Parasept	0.05
Germall 115	0.10
Part II:	
Biotin, FCC (Code 63344)	0.20
Tween 60	0.10
Vitamins A & D3 Blend (5:1 Ratio) (Code 63857)	0.20
Vitamin E Acetate, USP-FCC (Code 60526)	0.10
Solulan 25	0.10
Maypon 4CT	0.10
Tenox BHT	0.06
Part III:	
Triethanolamine, 98%	0.50
Perfume Oil	0.05
Formula HC 202	

VITAMIN MEN'S STYLING GEL
(With Panthenol)

INGREDIENTS	% By Weight
Part I:	
Deionized Water	50.00
dl-Panthenol, Cosmetic grade (Code 63920)	0.50
Solan	2.50
Glycerin, USP	10.00
Ucon 50-HB-660	10.00
Part II:	
Carbopol 940	2.00
Part III:	
Triethanolamine, 98%	q.s. to pH 6.5
Part IV:	
SD Alcohol #40, 95%	25.00
Perfume Oil	q.s.
Formulation HC 203	

SOURCE: Roche Chemical Division: Vitamins for Cosmetics and Toiletries: Suggested Formulations

Section VIII

Insect Repellents

INSECT REPELLENT CREAM(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2155	7.0
Isopropyl myristate	10.5
Mineral oil (app. 200 mPa-s)	8.0
Stearyl alcohol	5.0
Repellent 790	10.0
ABIL 100	0.5
Phase B:	
Water	39.0
Carbopol 934 solution (1,5%)	20.0
Perfume	q.s.
Preserving agent	q.s.

SOURCE: Goldschmidt Chemical Corp.: Formulation E 2.1.12

INSECT REPELLENT/SUNSCREEN LOTION

INGREDIENTS	% By Weight
Water, deionized	50.56
ESCALOL 507 (Sunscreen)	6.00
Carbomer 934 (2% Soln.)	15.00
N,N-diethyltoluamide	12.00
NaOH (10%)	2.50
Cetyl Alcohol	3.00
CERAPHYL 368	5.00
Kathon CG	0.04
Fragrance V-3514	0.50
CERASYNT Q	2.00
Myrj 52	1.00
Liqua Par	0.40
EMULSYNT GDL	2.00

Procedure:

Combine Carbomer solution and water. Stir while heating to 75C. Add--all other materials except--NaOH, and fragrance. When uniform add NaOH. Cool to 40C--add fragrance. Package at 30C.

SOURCE: Van Dyk & Co., Inc.: The Preparation of a Sunscreen Product: Formulation #K-77-3A

REPELLENT CREAM

RAW MATERIALS	% By Weight
Part A:	
DEET	17.50
MGK 264	5.00
MGK Repellent 326	2.50
Brij 700	1.50
Brij 72	3.80
Stearyl alcohol	2.00
Part B:	
Deionized Water	67.20
Sodium benzoate	.20
Carbopol 934	.20
Part C:	
NaOH (10% solution in water)	(solution) .20

To make a cream, first dissolve the sodium benzoate in the water in Part B and then completely dissolve the Carbopol at room temperature. Next heat Part B to approximately 65C and add to Part A, which also has been heated to approximately 65C, under agitation. When completely blended and the emulsion has formed, add Part C and blend in. When cream is completely uniform, pour into containers and allow to cool.

This recipe will make thick creamy lotion that is pleasant to apply to the skin and will work well in plastic squeeze bottles.

REPELLENT GEL

RAW MATERIALS	% By Weight
MGK Intermediate 5734	10.00-15.00
Isopropanol	50.00
Water	31.00-36.00
Carbopol 940	2.00
Ethomeen C-25	2.00

1% of Solulan 98 may be included in the recipe to increase clarity. This also serves as an emollient.

If the gel is marketed in a clear plastic tube or a clear glass jar, it is suggested that 0.1% Escalol 106 or other sunscreen agent be added to prevent adverse effects on the formula from ultra-violet light.

The viscosity of the gel can be varied by changing the Carbopol and Ethomeen content, but the ratio of these two ingredients should be maintained at 1:1.

SOURCE: McLaughlin Gormley King: Suggested Formulations

REPELLENT ROLL ON

RAW MATERIALS	% By Weight
MGK Intermediate 5734	20.00
Isopropyl alcohol	51.00
Deionized Water	28.45
Carbopol 940	0.25
Ethomeen C-25	0.25
BHT (Butylated hydroxy toluene)	0.05

The roll-on applicator is a convenient way to apply a repellent to exposed skin--particularly the arms.

The levels of Carbopol 940 and Ethomeen C-25 can be varied to change the viscosity of the formulation.

REPELLENT TOWELETTE

RAW MATERIALS	% By Weight
PYROCIDE Intermediate 5734	10 -25
Isopropanol	56- 50
Water	34.95-24.95
BHT (butylated hydroxy toluene)	0.05

Repellent-saturated paper towelettes, for applying repellent preparations, have become increasingly popular. An all-day supply of inexpensive towelettes to treat the whole family can be conveniently carried in one's pocket or purse.

Individual paper towelettes, saturated with Intermediate 5734, are sealed in small, non-porous envelopes. Normally, several envelopes are sold in a conveniently-priced package. The consumer tears open an individual envelope and wipes his face, hands and other exposed skin with the towelette to obtain protection against mosquitoes, flies, chiggers, etc.

In production, enough of the above solution is injected into the unsealed envelope to saturate the dry towelette - then the envelope is sealed. The filling and sealing operation is best done on specialized, high-speed equipment.

SOURCE: McLaughlin Gormley King: Suggested Formulations

REPELLENT STICK

RAW MATERIALS	% By Weight
Part A:	
Intermediate 6561	20.00
Ethanol, SDA-40	64.50
Glycerin	5.00
Sorbo	4.00
Part B:	
Sodium stearate	6.00
Stearyl alcohol	.50

Experience has shown that Repellent 326 decomposes rapidly in sticks made with a soap base. Therefore, the stick was developed without R-326. It remains firm at elevated temperatures and is semi-clear.

To make a stick, blend Parts A and B separately. Heat and stir Part A to uniformity at 55-65C. Add Part B to A and heat (65-70C) with agitation or stirring until clear. Immediately pour into stick container and cool to room temperature.

Sticks made in this manner have held up well, both physically and chemically after one year's storage at ambient temperature and 100F.

REPELLENT STICK

RAW MATERIALS	% By Weight
Intermediate 2364	20
Isopropyl alcohol	55
Glycerin	4
Beeswax *	20
Stearyl alcohol	1

* Synthetic Beeswax Beads: WAXENOL 820

For those who wish to produce a stick without using a soap base.

Blend all liquid ingredients together, heat to ca 45C, then add solids. Agitate until all ingredients are dissolved.

Immediately pour into stick container and cool to room temperature.

Sticks of this type have held up physically and chemically after one year's storage at 100F.

SOURCE: McLaughlin Gormley King: Suggested Formulations

SPRAY PUMP FORMULATION

RAW MATERIALS	% By Weight
Formula 2007	32.50
to give: DEET (95% meta)	25.00
MGK 264	5.00
MGK R-11	1.25
MGK R-326	1.25
Isopar E	15.00
Isopropyl alcohol	52.45
BHT (Butylated hydroxy toluene)	0.05
Crimp-On Pump	
Pump-Emson	
Actuator: "Extractor-Mist" actuator	

SCREW-ON PUMP FORMULATION

RAW MATERIALS	% By Weight
Int. 5734	15
to give: DEET (95% meta)	10.50
MGK 264	3.00
MGK R-11	0.75
MGK R-326	0.75
Isopar E	15
Isopropanol	69.95
BHT (Butylated hydroxy toluene)	0.05

SCREW-ON PUMP FORMULATION

RAW MATERIALS	% By Weight
Int. 2007	32.5
to give: DEET (95% meta)	25.00
MGK 264	5.00
MGK R-11	1.25
MGK R-326	1.25
Isopar E	15.0
Isopropanol	52.45
BHT (Butylated hydroxy toluene)	.05

Containers:

- White, translucent dense polyethylene from Monsanto Chemical
- White, opaque dense polyethylene from Continental Can Co.
- Green, translucent (almost clear) high nitrile polymer
- Cyclopac from Borg Warner.

Pumps:

- Ethyl/VCA (Bridgeport)
- Risdon Pump Valve SL-200

SOURCE: McLaughlin Gormley King: Suggested Formulations

Section IX

Lotions

ACID PH CONDITIONING LOTION

RAW MATERIALS	% By Weight
Phase A (Oil phase):	
Di-2-Ethyl Hexyl Adipate	3.50
Cetyl Alcohol	0.40
Glycerol Monostearate	1.00
Isocetyl Stearate	1.50
Emulsifying Wax, N.F. (Polawax)	2.00
Propylparaben	0.10
Phase B (Water phase):	
PEG-40 Stearate	3.00
Sentry Grade Propylene Glycol	4.00
Polyquaternium 10 (Ucare Polymer JR-125)	0.30
Yeast	0.10
Methylparaben	0.20
GERMALL II	0.20
Water, Fragrance	q.s.
Citric Acid	q.s. to pH 5-5.5
SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Suggested Formulation	

CLEANSING LOTION

INGREDIENT	% By Weight
I.	
Mineral Oil	11.0
HYDROFOL ACID 1655	3.0
ADOL 52	1.0
II.	
Deionized Water	79.9
Glycerine	4.0
Triethanolamine	1.1
III.	
Preservative	qs
Mixing Instructions:	
Heat pre-mixed Phases I & II to 75-80C. Add Phase I to Phase II with rapid agitation. Cool to 30C with mixing.	
Solids:	20.1%
pH:	8.1
Viscosity:	6000 cps
SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.7	

ACID-PH LOTION, SOAP-FREE-A

RAW MATERIALS	Parts By Weight
WITCONOL MST (Glyceryl Stearate)	5.0
WITCONOL H35-A (PEG-8 Stearate)	2.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	1.0
Isopropyl Palmitate	3.5
Glycerine	5.0
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	3.0
Perfume, Preservative	q.s.
Water	qs to 100

ACID-PH LOTION, SOAP-FREE-B

RAW MATERIALS	Parts By Weight
WITCONOL MST (Glyceryl Stearate)	3.0
WITCONOL H35-A (PEG-8 Stearate)	2.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	1.0
Isopropyl Palmitate	3.5
Carnation White Mineral Oil	3.0
Glycerine	5.0
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	3.0
Perfume, Preservative	q.s.
Water	q.s. to 100

These emulsions have a glossy texture with quick rub-in characteristics. They have an elegant after-feel with some similarity to the feel of cationic lotions.

Viscosity and emulsion stability have been found to be excellent, and the emulsions exhibited no signs of separation after storage at 45C for 30 days and after freeze-thaw recycling.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 121C

ACID-PH MOISTURIZING LOTION

RAW MATERIALS	Parts by Weight
Oil Phase:	
WITCONOL MST (Glyceryl Stearate)	4.0
Carnation White Mineral Oil	5.0
Lanolin, USP	0.5
Cetyl Alcohol	1.0
WITCONOL H-35A (PEG-8 Stearate)	0.5
EMCOL E-607S (Steapyrium Chloride)	0.5
Silicone, 250 cs	0.4
Water Phase:	
Water	82.1
Propylene Glycol	6.0
Lactic Acid	q.s. to pH 4.5-5.0
Perfume, Preservative	

Heat oil and water phases separately to 75 to 80C. Add oil phase to water phase with moderate agitation. Add fragrance at 40C. Maintain agitation while cooling to below 30C.

This lotion is characterized by a viscous, smooth consistency with excellent emulsion and viscosity stability.
Formulation 106C

ACID-PH MOISTURIZING LOTION

RAW MATERIALS	Parts By Weight
Oil Phase:	
WITCONOL APM (PPG-3 Myristyl Ether)	6.0
WITCONOL MST (Glyceryl Stearate)	3.5
EMCOL E-607S (Steapyrium Chloride)	0.5
WITCONOL H-35A (PEG-8 Stearate)	1.0
Cetyl Alcohol	0.5
Anhydrous Lanolin USP	0.5
Sono Jell No. 9	2.0
Water Phase:	
Glycerin	5.0
Dowicil	0.1
Lactic Acid USP	0.05
FD & C Yellow No. 5	0.1
Deionized water	q.s.
Perfume	q.s.

Heat each phase separately to 80-85C. Add the Oil Phase slowly to the Water Phase with good agitation. Stir for 15 minutes at 80-85C. Cool with stirring to 45C and add perfume. Continue cooling to 25-30C and package.
Formulation 110C

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

ACID-PH OIL-IN-WATER LOTION-A

RAW MATERIALS Parts by Weight

Oil Phase:

WITCONOL MST (Glyceryl Stearate)	5.0
WITCONOL H-35A (PEG-8 Stearate)	2.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	1.0
Isopropyl Palmitate	3.5

Water Phase:

Glycerine USP	5.0
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	3.0
Fragrance, Preservative	q.s.
Water	q.s. to 100

ACID-PH OIL-IN-WATER LOTION-B

RAW MATERIALS Parts by Weight

Oil Phase:

WITCONOL MST (Glyceryl Stearate)	3.0
WITCONOL H-35A (PEG-8 Stearate)	2.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	1.0
Isopropyl Palmitate	3.5
Carnation White Mineral Oil	3.0

Water Phase:

Glycerine USP	5.0
EMCOL 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	3.0
Fragrance, Preservative	q.s.
Water	q.s. to 100

Heat each phase to 70-75C and stir until uniform. Add the Water Phase to the Oil Phase at 70 to 75C with moderate agitation, and maintain agitation and temperature for 15 minutes. Let cool, with slow stirring; avoid air entrainment during the cooling cycle. Pour at or below 28C.

These lotions have a glossy texture, nongreasy feel with nontacky, quick rub-in characteristics.

Emulsion A is a heavy lotion, whereas Emulsion B is a thin lotion suitable as a "milk"-type moisturizing formulation. Laboratory preparations of these emulsions exhibited no signs of separation after storage at 45C for 30 days and after freeze-thaw recycling. After 30 months, Emulsion A exhibited a very slight increase in viscosity, whereas Emulsion B had the same low viscosity. Both emulsions retained their excellent emulsion stability.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 145C

AFTER BATH LOTION WITH TALC

RAW MATERIALS	% By Weight
Phase A:	
Water, Deionized	45.84
Carbomer-941 (Carbopol 941) (2% sol'n)	15.00
Propylene Glycol	5.00
Phase B:	
Glyceryl Stearate (and) Laureth-23 (Cerasynt 945)	4.00
Isodecyl Oleate (Ceraphyl 140)	12.00
Cetyl Alcohol	1.00
Octyl Dimethyl PABA (Escalol 507)	3.00
Cyclomethicone (Siloxane SWS-03314)	5.00
Cetearyl Alcohol (and) Ceteareth-20 (Promulgen D)	2.00
GERMABEN II	1.00
Phase C:	
Talc 141	5.00
Phase D:	
Sodium Hydroxide (10% Sol'n)	1.16

EMOLLIENT LOTION

RAW MATERIALS	% By Weight
Phase A-1:	
Deionized Water	79.60
Glycerine	3.00
Phase A-2:	
Carbomer 934 (Carbopol 934)	0.15
Magnesium Aluminum Silicate (Veegum)	0.25
Phase B:	
Deionized Water	4.00
Triethanolamine	1.00
Phase C:	
Mineral Oil	3.00
Stearic Acid	1.00
Coco-Caprylate-Caprates (Cetiol LC)	2.00
Stearyl Stearoyl Stearate (Hetester SSS)	1.00
Glyceryl Stearate	1.00
Cetyl Alcohol	0.70
Dimethicone (Dow Corning 200)	0.30
GERMABEN II	1.00
SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Suggested Formulations	

ALCOHOL LOTION

RAW MATERIALS	% By Weight
A.	
MIGLYOL 812 Neutral Oil	8.5
IMWITOR 780K	5.0
SOFTIGEN 701	1.5
B.	
Carbopol-Gel 1%	12.5
Preservative	q.s.
Water	62.5
C.	
Ethanol 96%	10.0
Perfume	q.s.

Preparation:

A is melted and heated up to 75-80C.

B is heated to the same temperature and gradually stirred into A.

C is added at about 30C.

Formulation 1.3.11

W/O-LOTION

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	4.0
MIGLYOL 840	7.5
MIGLYOL 812 Neutral Oil	5.0
Arlacel 481	3.0
Arlacel 989	5.0
Isopropyl myristate	5.0
White soft paraffin	2.0
B.	
Glycerin	5.0
Carbopol 934	0.2
Preservative	q.s.
Magnesium sulphate	0.7
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is mixed and heated to 75-80C.

B is mixed with a high-speed mixer, heated to 75-80C and is gradually emulsified into A with a high-speed mixer.

Formulation 1.3.10

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

ALL-PURPOSE SKIN CONDITIONING LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
PROMULGEN G (Stearyl Alcohol and Ceteareth-20)	5.0
GLUCATE SS (Methyl Glucose Sesquistearate)	2.0
GLUCAMATE SSE-20 (PEG-20 Methyl Glucose Sesquisterate)	2.0
SOLULAN 5 (Laneth-5 and Ceteth-5 and Oleth-5 and Steareth-5)	0.5
Mineral Oil, 70 vis.	2.0
Water Phase:	
BIOCARE Polymer HA-24 (2.6%)	3.8
GLUCAM E-10 (Methyl Gluceth-10)	3.5
Water	80.2
Germaben IIE	1.0

Description:

White, glossy, medium viscosity, nonionic o/w lotion. BIOCARE Polymer HA-24 is substantive to the skin and forms a uniform viscoelastic matrix which moisturizes the skin. Stable and mild system.

SOURCE: Amerchol Corp.: BIOCARE Polymer HA-24: Formulation T56-28-3

DRY SKIN BEAUTY LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
Propylene Glycol Monostearate	3.0
CETAL (Cetyl Alcohol)	1.0
Stearic Acid	2.5
PROMYR (Isopropyl Myristate)	1.0
Water Phase:	
GLUCAM E-10	5.0
Triethanolamine	0.8
Water	86.7
Perfume and Preservative	q.s.

Description:

High viscosity, flowing, glossy lotion for daily skin care. GLUCAM E-10 provides an emollient afterfeel and humectancy as well as enhancing stability over an extended temperature range. Procedure:

Heat the oil and water phases to 80C. Add water phase to the oil phase with moderate agitation. Mix while cooling to room temperature. Add perfume below 40C and pack.

SOURCE: Amerchol Corp.: GLUCAM: Formulation T49-62-1

ALL PURPOSE W/O LOTION

RAW MATERIALS	% By Weight
A.	
NIMCO 1795 Lanolin Alcohol	2.0
Mineral oil (70 visc.)	53.0
EMERSOL 132 Stearic Acid	3.0
B.	
Triethanolamine	1.5
Demineralized water	40.3
Methyl paraben	0.2

Rather simple, but effective, pourable lotion for persistently dry skin. In addition, it provides for a more pleasing emollient feel.

Procedure:

Heat A to 62C and B to 65C. Add B to A and mix while cooling to room temperature. Thoroughly homogenize the batch before packaging.

Formulation 2235-1071-1

SKIN CARE LOTION

RAW MATERIALS	% By Weight
A.	
Propylene glycol	5.0
EMSORB 2728 Polysorbate 60	1.0
Demineralized water	56.7
Methyl paraben	0.2
B.	
NIMCOLAN 1740 Solid Absorption Base	10.0
Silicone fluid, 350 cSt	2.5
EMSORB 2502 Sorbitan Sesquioleate	3.5
TRISOLAN 1720 Lanolin Oil Blend	3.0
Propyl paraben	0.1
C.	
Methocel K4M Premium (2% aqueous solution)	18.0

Thick, creamy appearance of this super emollient lotion. Rub-out is accomplished very quickly leaving a noticeable, but non-greasy, after-feel. This formula is recommended for use on chronically dry skin.

Procedure:

Heat A and B separately to 78C. Add A to B with moderately fast agitation. Then add C to AB and continue mixing while cooling to room temperature. Add fragrance and package.

Formulation 2555-1-01

SOURCE: Emary Chemicals: EMERY Lanolin Alcohol: Formulations

ALMOND LOTION

RAW MATERIALS	% By Weight
Phase A:	
Water	91.10
Carbomer 934 (Carbopol 934)	0.30
Phase B:	
Cetyl Esters (Rosswax 573)	0.60
Glyceryl Stearate, SE	0.60
Almond Oil	2.60
Coconut Oil	2.60
Jojoba Oil	0.60
Triethanalamine	0.60
Phase C:	
GERMABEN II-E	1.00

Procedure:

Heat the water to 60C and slowly add the Carbopol. Heat Phase B to 65C and add to Phase A. Cool to 40C and add Phase C.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formulation

POMADE LOTION

RAW MATERIALS	% By Weight
Phase A:	
Petrolatum	30.0
PPG-2 Myristyl Ether Propionate	10.0
Oleth-3	2.3
Phase B:	
Water	45.35
Carbomer 941	0.13
Sodium Hydroxide, 10%	0.52
Phase C:	
Glycerine	5.0
Steareth-10	5.70
GERMABEN-II	1.00

Procedure:

Disperse the Carbomer in Water (Phase B) and heat to 80C, then add the Sodium Hydroxide Solution. Heat Phase C to 80C and add to Phase B. Heat Phase A to 80C and when dissolved, add the water phases to the oil slowly with mixing.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested
Formulation

ALOE VERA MOISTURIZING LOTION

INGREDIENTS:	% By Weight
A. Oil Phase:	
Cyclochem SS (Stearyl Stearate)	3.0
Cyclochem GMS-165 (Glyceryl Stearate and PEG-100 Stearate)	2.5
Cyclochem GTIS Trisostearin	1.0
Cetyl Alcohol NF	2.0
Mineral Oil (Carnation)	8.0
B. Water Phase:	
ALOE VERAGEL	80.0
Glycerine USP, 96%	3.0
Methyl Paraben NF	0.2
Propyl Paraben NF	0.1
C. Thickener	
Xanthan Gum (Keltrol)	0.2
Fragrance and Color	Q.S.

ALOE VERA LOTION SCRUB

INGREDIENTS:	% By Weight
A. Deionized water	
Aloe Vera 200 Powder	29.90
	1.00
B. Veegum regular	1.00
C. Propylene glycol	
Methylparaben	3.00
Ethylparaben	0.20
	0.10
D. Glycol stearate	
Sesame oil	5.00
Safflower oil	0.50
METHOCEL 40-100	0.50
Propylparaben	0.10
E. Sodium lauryl ether sulfate	20.00
F. Sodium lauryl sulfate	18.00
G. Cocamide DEA	
Perfume oil (herbal)	0.50
	0.10
H. Color	q.s.
I. Cocamidopropyl betaine	5.00
J. Deionized water	
DOWICIL 200 antimicrobial	1.00
	0.10
K. Polyethylene #9A	13.50

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ALL-PURPOSE LOTION(HAND, BODY, SUNSCREEN VEHICLE)

RAW MATERIALS	Parts by Weight
Skliro	2.00
Polawax	1.00
Super Hartolan	0.25
Carnation White Mineral Oil	2.00
EMCOL E-607S (Steapyrium Chloride)	1.00
Water	83.55
Glycerin	10.00
EMCOL E-607L (Lapyrium Chloride)	0.20
Color, Perfume, Preservative	q.s.

Heat oil and water phases separately to 75 to 80C. Add water to oil phase with agitation. Maintain agitation while cooling to room temperature.; add fragrance at 30-40C.

Formulation 104C

ALL-PURPOSE CATIONIC LOTION

RAW MATERIALS	Parts by Weight
Amerchol 1.101	6.00
Solulan 16	1.00
Modulan	1.00
Cetyl Alcohol	1.50
Methyl Benzethonium Chloride	0.10
EMCOL E-607S (Steapyrium Chloride)	0.60
Propylparaben	0.13
Propylene Glycol	6.00
Water	72.42
Salt Solution:	
Sodium Chloride	0.125
Sodium Benzoate	0.125
Water	11.0

Heat oil and water phases separately to 75 to 80C and combine them with agitation. Add salt solution at 70C after emulsion has been formed. Maintain agitation while cooling to room temperature.

Formulation 105C

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

ANIONIC MOISTURIZING LOTION

INGREDIENTS:	% By Weight
A.	
Water	Q.S.
Propylene Glycol	3.0
Aloe Vera Aqueous Extract 1:10	1.0
Versene 220	0.08
Methylparaben	0.2
Propylparaben	0.1
Allantoin	0.2
2% Carbopol 940 Solution	10.2
Lecithin, Granular	0.25
B.	
Isopropyl Myristate	8.5
Stearic Acid	2.5
Steareth-10	1.5
Polawax, Regular	1.0
Isopropyl Lanolate	2.25
Cetyl Alcohol	0.5
Cetyl Palmitate	5.0
Oleic Acid	0.5
C.	
Triethanolamine-99	1.0

CATIONIC MOISTURIZING LOTION

INGREDIENTS	% By Weight
A.	
Water	Q.S.
Generol E-10	1.0
Propylene Glycol	3.0
Phosphoric Acid, 85%	0.31
Methylparaben	0.25
DMDMH-55	0.33
Glucam E-10	2.0
B.	
Mineral Oil	5.0
Stearic Acid	2.0
Isopropyl Myristate	1.5
Glyceryl Mono-Stearate	2.0
Generol E-122	0.2
Lexamine M-13	3.0
Paricin 9	1.0
A-C Polyethylene 617A	1.0
C.	
Aloe Vera 200 Powder	0.075
Water	14.925

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ANTI-AGING FACE LOTION**

RAW MATERIALS	% By Weight
Sequence 1:	
Deionized Water	3.00
Propylene Glycol	1.95
Glycosaminoglycans Solution*	0.10
Sequence 2:	
LIPOPHOS TA	15.00
Sequence 3:	
LIPONATE NPGC-2	77.90
Sequence 4:	
UNITRIENOL T-27	2.00
Vitamin E Acetate	0.05

* Sodium Hyaluronate (and) Sodium Chondroitin Sulfate

** Patent Application No. 185-860

Manufacturing Procedure:

1. Premix Sequence 1 ingredients at room temperature. Add Sequence 2 and stir with Lightnin' mixing.
2. Add Sequence 3 and stir well.
3. Add combined Sequence 4 ingredients and stir.

Formulation No. 367

HYDROALCOHOLIC T-ZONE CONTROL LOTION

RAW MATERIALS	% By Weight
Sequence 1:	
SD-Alcohol 40-B, 200 proof	75.00
Klucel H	0.25
Sequence 2:	
LIPONIC EG-1	5.00
Sequence 3:	
LIPONATE NPGC-2	5.00
UNITRIENOL T-27	2.00
Sequence 4:	
Balm Mint, F.E.	0.50
Water	12.25

Manufacturing Procedure:

1. Disperse Klucel H into alcohol with vigorous Lightnin' mixing until totally homogeneous (approximately 1 hour).
2. Add Sequence 2 ingredient with mixing.
3. Add premixed Sequence 3 ingredients with mixing.
4. Add premixed Sequence 4 ingredients. Mix until product is completely homogeneous. Package.

Formulation No. 356

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

BODY LOTION

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	4.0
MIGLYOL 840	7.0
Hostaphat KL 340 N	5.0
Cetyl alcohol	2.0
B.	
Carbopol-Gel 1%	12.5
Karion F	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.
Preparation of Carbopol-Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Preparation:

A is melted and heated up to 75-80C. B is heated to the same temperature and is gradually stirred into A.

C is added at about 40C

Formulation 1.3.1

BODY LOTION WITH AVOCADO OIL, OILY

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	3.0
MIGLYOL 829	5.0
IMWITOR 375	3.0
Emulgade F	3.0
Avocado oil	5.0
Antioxidants	q.s.
B.	
Carbopol-Gel 1%	10.0
Glycerin	10.0
Preservative	q.s.
Water	ad 100.0
C.	
Isopropyl alcohol	1.0
Perfume oil	q.s.

Preparation of the lotion:

A is heated to 75-80C. B is mixed and brought to the same temperature. B is emulsified into A, at 30C. C is added.

Formulation 1.3.2

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulations

BODY LOTION(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2155	6.0
Isopropyl myristate	10.0
Stearyl alcohol	1.0
Mineral oil (app. 30 mPa-s)	3.0
ABIL 100	0.5
Phase B:	
Glycerol	3.0
Water	76.5
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.1.15

BODY LOTION(O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGINACID H	2.0
EMULGATOR E2155	3.0
Isopropyl stearate	3.0
Caprylic/capric acid triglyceride	7.0
Mineral oil (app. 200 mPa-s)	4.0
Cetyl alcohol	1.0
Phase B:	
Water	70.0
Carbopol 941 solution (1,5%)	10.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.1.16

BODY LOTION(O/W)

RAW MATERIALS	% By Weight
Phase A:	
EMULGATOR E2149	7.0
TEGOSOFT 189	1.0
ABIL-Wax 2434	2.5
Isopropyl myristate	7.0
Perhydrosqualene	2.0
Caprylic/capric acid triglyceride	2.0
Phase B:	
Water	68.5
Carbopol 934 solution (1.5%)	10.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.1.17

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulation

BODY LOTION(W/O)

RAW MATERIALS	% By Weight
Phase A (cold):	
ABIL WE09	5.0
Isopropyl myristate	6.0
Mineral oil (app. 200 mPa-s)	6.0
TEGOSOFT 189	3.0
Caprylic/capric acid triglyceride	4.0
Vaseline DAB 8	3.0
ABIL-Wax 9800	3.0
Phase B (cold):	
Water	63.0
Sodium chloride	2.0
Glycerol	5.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.3.9	

BODY LOTION(W/O)

RAW MATERIALS	% By Weight
Phase A (cold):	
ABIL WE 09	5.0
ABIL K4	9.0
TEGOSOFT 189	6.5
Mineral oil (app. 200 mPa-s)	6.0
Phase B (cold):	
Water	66.5
Sodium chloride	2.0
Glycerol	5.0
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.3.10	

BODY LOTION(W/O)

RAW MATERIALS	% By Weight
Phase A (cold):	
ABIL WE 09	5.0
Mineral oil (app. 30 mPa-s)	9.5
Oleic acid decylester	9.5
Phase B (cold):	
Water	75.5
Sodium chloride	0.5
Perfume	q.s.
Preserving agent	q.s.
Formulation E 2.3.11	

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas

BODY LOTION(50/014)

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL HP	8.0
LUVITOL EHO	8.0
Glyceryl monostearate	6.0
Cetyl alcohol	1.0
ABIL 100	0.2
D-Panthenol	1.0
1,2-Propylene Glycol USP	3.0
(-)-ALPHA-BISABOLOL	0.2
Preservative	q.s.
Essential oil	q.s.
Water	68.6

SOURCE: BASF: CREMOPHOR A Grades: Suggested Formulation

BODY LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	7.0
(+)-ALPHA-BISABOLOL rac.	0.2
Glycerol monostearate	6.0
Cetyl alcohol	1.0
Hydrogenated polyisobutylene, e.g. LUVITOL HP	8.0
Abil 350	0.5
Hamamelis	1.0
1,2-Propylene Glycol USP	3.0
Water	69.3

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

BODY LOTION W/O

RAW MATERIALS	% By Weight
Phase A:	
Hostacerin WO	6.0
Arlacel 989	3.0
Paraffin oil	15.0
Isopropylpalmitate	10.0
Isopropylmyristate	5.0
Phase B:	
Water, preservative	57.6
Phase C:	
PLACENTOL	3.0
Phase D:	
Perfume oil	0.4

SOURCE: Pentapharm AG Basel: Formulation Code PL 1312

BODY LOTION

RAW MATERIALS	% By Weight
AMERCHOL 400	1.0
SOLULAN 5	1.0
Stearic acid, xxx	3.0
Glyceryl monostearate, neut.	2.0
Mineral oil, 70 vis.	9.0
Propylene glycol	5.0
Triethanolamine	1.0
Water	78.0
Perfume and Preservative	q.s.

Medium viscosity o/w lotion with extended rubout.

SOURCE: Amerchol Corp.: Suggested Formulation

LOTION BASE, NONIONIC

RAW MATERIALS	% By Weight
AMERCHOL L-101	3.0
SOLULAN 98	2.0
Stearic acid, xxx	4.0
Ceresin	1.0
Paraffin, 133F m.p.	0.3
Arlacel 165	4.0
Veegum	0.5
Propylene glycol	5.0
Water	80.2
Perfume and Preservative	q.s.

Procedure:

Disperse the Albagel or Veegum in the water with high speed mixing. Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing and cool to 30C. Homogenize.

SOURCE: Amerchol Corp.: Suggested Formulation

BODY LOTION

RAW MATERIALS	Parts By Weight
Phase A:	
Carbopol 934, 5% aqueous solution	3.0
Water	87.0
Phase B:	
Isopropyl Myristate	3.0
WITCONOL H-35A (PEG-8 Stearate)	1.0
WITCONOL MS (Glyceryl Stearate)	1.0
Phase C:	
Isopropanolamine, Water	q.s. to 100
Fragrance	q.s.

Heat Phase A to 90C using agitation to attain complete dispersion; heat Phase B to 90C. Add Phase B to Phase A at 90C, cool to 50C and add Phase C. Agitate for 15 minutes, then neutralize to pH 7 with monoisopropanolamine.

Formulation 118C

SOAP-FREE, ACID-PH VEGETABLE OIL LOTION

RAW MATERIALS	Parts by Weight
Oil Phase:	
WITCONOL MST (Glyceryl Stearate)	5.0
WITCONOL APM (PPG-3 Myristyl)	4.0
Vegetable Oil	10.0
WITCONOL H-35A (PEG-8 Stearate)	2.0
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	0.5
Cetyl Alcohol	1.0
Propylparaben	0.1
Water Phase:	
WITCONATE 4072 (Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate)	5.0
Glycerine USP	5.0
Methylparaben	0.15
Water	q.s. to 100
Fragrance, Color	q.s.

This emulsion has a glossy texture with quick rub-in characteristics. It has an elegant after-feel with some similarity to the feel of cationic lotions.

Viscosity and emulsion stability have been found to be excellent, and the emulsion exhibited no signs of separation after storage at 45C for 30 days and after freeze-thaw recycling.

Formulation 139C

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

CATIONIC FLOWING LOTION #A65-10-4B

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	3.50
FOAMOLE B	1.00
Cetyl Alcohol	1.00
CERAPHYL 847	4.00
Dow Corning 200 Fluid (100 cs)	1.00
Propyl Paraben	0.10
Phase B:	
Water, deionized	84.30
Natrosol 250 HR	0.50
Methyl Paraben	0.20
Lactic Acid 88%	0.40
Glycerine	3.00
CERAPHYL 70 (liquefied at 35C)	1.00

Procedure:

Completely pre-disperse Natrosol in water, then add the rest of the ingredients of Phase B. Heat Phases A and B to 80C. Add Phase A slowly to Phase B with constant agitation at 80C and cool with continuous stirring to 25-28C.

HAIR AND SKIN LOTION CONDITIONER #A56-48-2A

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	3.50
FOAMOLE B	0.60
CERAPHYL 424	1.00
CERAPHYL 28	2.00
Cetyl Alcohol	0.50
Phase B:	
Water, deionized	86.55
Cellosize QP 30,000	0.50
CERAPHYL 60	1.00
CERAPHYL 65	2.00
Lactic Acid 88% USP (10% Aq. Soln.)	2.25
BTC 2125M	0.10

Procedure:

Completely pre-disperse Cellosize in water, then add the rest of ingredients of Phase B. Heat Phase A and B to 80C. Add Phase A slowly to Phase B with constant agitation at 80C. Cool with stirring to 25-28C.

SOURCE: Van Dyk & Co., Inc.: New Cationic Self-Emulsifying Systems: Suggested Formulations

CATIONIC LOTION

INGREDIENT	% By Weight
I.	
Deionized Water	80.4
Glycerine	7.0
II.	
AROSURF TA-100	5.0
Petrolatum	3.0
STARFOL OS	3.0
ADOL 52	1.5
DC 200 Fluid (200cs)	0.1
III.	
Preservative	qs
Solids:	19.6%
pH:	3.5
Viscosity:	3800 cps

Formulation Code: 6.4.3

NON-IONIC LOTION

INGREDIENT	% By Weight
I.	
Deionized Water	91.0
Carbopol 934	0.2
II.	
ADOL 52	3.0
STARFOL IS	3.0
AROSURF 66-PE12	1.0
AROSURF 66-E2	0.5
III.	
Deionized Water	1.0
Triethanolamine	0.3
IV.	
Preservative	qs
Solids:	8.0%
pH:	6.5
Viscosity:	17,000 cps

Formulation Code: 6.4.3

SOURCE: Sherex Chemical Co.: Suggested Formulations

CLEANSING LOTION

INGREDIENTS:	% By Weight
A.	
Deionized Water	77.05
METHOCEL 40-202	0.20
B.	
Deionized Water	1.00
Triethanolamine	0.75
C.	
Propylene Glycol	3.00
Methylparaben	0.20
D.	
Mineral Oil	8.00
Petrolatum	3.00
Stearic Acid	2.00
Glyceryl Stearate SE	3.00
Dimethicone	0.50
E.	
Color FD&C Yellow #5	qs
F.	
Fragrance	0.10
G.	
Deionized Water	1.00
DOWICIL 200	0.20

A smooth, inexpensive cleansing soap with moisturizing lotion.

This skin cleansing soap contains a lotion that provides excellent penetration. This simple, inexpensive liquid soap is easy to formulate yet it has the feel of expensive lotions.

Variations:

1. Add unique characteristics to the formula by adding collagen, elastin, or other popular protein complexes.
2. Try substituting vegetable oils for mineral oil for an even lighter feel.
3. For health oriented products, add herbal extracts.
4. Increase the oil phase for dry skin or decrease the oil phase and add esters for oily skin.

SOURCE: Dow Chemical Co.: Suggested Formulation

CLEANSING LOTION

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	3.0
Emulgade F	3.0
MIGLYOL 812 Neutral Oil	5.0
Isopropyl myristate	5.0
IMWITOR 375	1.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and then slowly emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the lotion.

Formulation 1.4.5

CLEANSING LOTION

RAW MATERIALS	% By Weight
A.	
IMWITOR 900	8.0
MIGLYOL 840	7.0
Cremophor A6	2.0
Cremophor A25	3.0
B.	
Karion F	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

At about 30C the perfume is added.

Formulation 1.4.6

SOURCE: Dynamit Nobel: Coemstic Formulas: Suggested Formulas

CLEANSING LOTION

RAW MATERIALS	% By Weight
ACETULAN	2.0
AMERCHOL L-101	3.0
SOLULAN 16	2.0
Stearic acid, xxx	2.0
Glyceryl monostearate, neut.	2.5
Mineral oil, 70 vis.	15.0
Glycerine	4.0
Triethanolamine	0.4
Water	69.1
Perfume and Preservative	q.s.

Medium viscosity white o/w lotion that lifts surface dirt and makeup.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

SOURCE: Amerchol Corp.: Suggested Formulations

NONIONIC CLEANSING LOTION

RAW MATERIALS	% By Weight
AMEROXOL OE-10	0.3
AMERCHOL L-500	1.0
Beeswax, USP	2.0
Sperm wax	2.0
Mineral oil, 70 vis.	16.0
Sorbitan monostearate	2.4
Carbopol 941	0.2
Triethanolamine (10% aq.)	2.0
Polysorbate 60	3.6
Dowicil 200	0.1
Water	70.4
Perfume	q.s.

Glossy, medium viscosity o/w lotion for cleansing dry skin

Procedure:

Disperse the Carbopol in the water with high speed mixing. Add the water phase at 70-85C to the oil phase at 70-85C while mixing. Continue mixing for ten minutes. Neutralize. Mix while cooling to 30-35C.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

CLEANSING LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	1.5
CREMOPHOR A25	1.5
LUVITOL EHO	4.0
Glyceryl monostearate	2.5
Cetyl alcohol	1.5
Liquid paraffin	4.0
1,2-Propylene Glycol USP	3.0
Preservative	q.s.
Essential oil	q.s.
Water	82.0

SOURCE: BASF CREMOPHOR A grades: Formulation 52/026

PERFUME LOTION

RAW MATERIALS	% By Weight
CREMOPHOR RH 40	2.0
LUVITOL EHO	3.0
Perfume oil	5.0
Ethanol	25.0
Carbopol 934/1% in water	40.0
Triethanolamine	0.5
Water	24.5

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

SPORTS LOTION

RAW MATERIALS	% By Weight
Ethanol	20.0
Camphor	0.2
Vitamin E Nicotinate C	0.3
D-Panthenol 50 P	1.0
Cremophor RH 40	2.0
Water	ad 100
Perfume	

SOURCE: BASF: Vitamin E Nicotinate C: Formulation 55/001

COCOA BUTTER MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
Cocoa butter	3.50
LANTROL 1673 Lanolin Oil	5.00
NIMLESTEROL 1732 Liquid Absorption Base	3.50
EMEREST 2400 Glyceryl Stearate	3.50
EMERSOL 132 Stearic Acid	2.50
EMSORB 2505 Sorbitan Stearate	1.00
Methyl paraben	0.10
B.	
Methocel E4M Premium	0.15
EMSORB 2728 Polysorbate 60	2.00
EMERY 916 Glycerine	2.50
Propyl paraben	0.20
Demineralized water	76.05
Fragrance	q.s.

Superior high temperature stability of this nonionic emulsion.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol: Formulation
2244-148

NON-IONIC MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
LANACET 1705 Acetylated Lanolin	2.0
NIMLESTEROL 1732 Liquid Absorption Base	3.0
EMERSOL 132 Stearic Acid	4.0
Ozokerite 180F	1.0
EMSORB 2505 Sorbitan Stearate	1.7
EMSORB 2726 PEG-20 Sorbitan Diisostearate	1.7
Propyl paraben	0.1
B.	
Veegum (4% water dispersion)	12.5
Propylene glycol	5.0
Demineralized water	68.1
Methyl paraben	0.2
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7

Superior high temperature stability of this non-ionic emulsion. It is a free flowing lotion with a glossy appearance and excellent emolliency.

SOURCE: Emery Chemicals: EMERY Acetylated Lanolin Derivatives:
Formulation 2252-131-B2

COLLAGEN SKIN LOTION

RAW MATERIALS	% By Weight
Phase A:	
PROTO-LAN 8	1.00
GLUCATE SS	0.50
GLUCAMATE SSE-20	0.50
ACETULAN	2.00
ANHYDROUS LANOLIN U.S.P. DEODORIZED AAA	1.50
CETAL	1.50
Glyceryl Stearate	0.50
GLUCAM P-20 DISTEARATE	0.75
Phase B:	
Glycerin	2.50
Carbomer 934	0.30
Deionized Water	83.50
Phase C:	
Triethanolamine	0.45
Phase D:	
Soluble Animal Collagen	5.00
Perfume and Preservative	q.s.

This glossy, viscous lotion forms a protective film on the skin to help it retain moisture. Non-greasy, emollient feel to the skin. Emulsion with excellent stability. Use this lotion wherever troublesome dry skin exists.

COLLAGEN AND COCOA BUTTER SKIN LOTION

RAW MATERIALS	% By Weight
Phase A:	
PROTO-LAN 8	1.00
GLUCATE SS	0.50
GLUCAMATE SSE-20	0.50
ACETULAN	2.00
ANHYDROUS LANOLIN U.S.P. DEODORIZED AAA	1.50
CETAL	1.50
Glyceryl Stearate	0.50
Cocoa Butter	0.75
Phase B:	
Glycerin	2.50
Carbomer 934	0.30
Deionized Water	83.50
Phase C:	
Triethanolamine	0.45
Phase D:	
COLLAGEN NATIVE EXTRA	5.00
Perfume and Preservative	q.s.

This glossy, viscous lotion forms a protective film on the skin to help it retain moisture. Nongreasy, emollient feel to the skin. An emulsion with excellent stability.

SOURCE: Amerchol Corp.: AMERCHOL Proteins: Formulas T52-212-1&2

CONDITIONING MILK LOTION

RAW MATERIALS	% By Weight
AMERCHOL OE-10	0.3
AMERCHOL L-500	1.0
Beeswax, USP	2.0
Sperm wax	2.0
Mineral oil, 70 vis.	16.0
Sorbitan monostearate	2.4
Hyamine 10X	0.1
Carbopol 941	0.2
Triethanolamine (10% aq.)	2.0
Polysorbate 60	3.6
Cosmerlac	0.5
Germall 115	0.5
Methylparaben	0.2
Propylparaben	0.1
Water	69.1
Perfume	q.s.

Glossy, medium viscosity o/w lotion

Procedure:

Disperse the Carbopol in the water with high speed mixing. Add the water phase at 70-85C to the oil phase at 70-85C while mixing. Continue mixing for ten minutes. Neutralize. Mix while cooling to 30-35C.

SOURCE: Amerchol Corp.: AMEROXOL OE: Suggested Formulation

MILD LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS (Methyl Glucose Sesquistearate)	0.5
GLUCAMATE SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	1.5
CETAL (Cetyl Alcohol)	0.5
Mineral Oil, 70 vis.	5.0
Squalane	0.9
Water Phase:	
Water	73.8
Carbomer 934 (3%)	10.0
Triethanolamine (10% aq. soln.)	3.0
BIOCARE Polymer HA-24 (2.6%)	3.8
Germaben IIE	1.0

Description:

Gentle nonionic lotion for sensitive skin. BIOCARE Polymer HA-24 is substantive to the skin. It imparts a soft, lubricious, velvety feel to skin while maintaining moisture. This formula is stable at temperature extremes (freezing, 50C).

SOURCE: Amerchol Corp.: BIOCARE Polymer HA-24: Suggested Formulation T56-28-3

EMOLLIENT LOTION

RAW MATERIALS	% By Weight
AMERLATE LFA	3.0
MODULAN	1.0
AMERCHOL L-101	8.0
Glyceryl monostearate, neut.	5.0
Mineral oil, 70 vis.	4.5
Triethanolamine	1.0
Propylene glycol	4.5
Water	73.0
Perfume and Preservative	q.s.

Glossy, white medium viscosity o/w lotion.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

HYDROALCOHOLIC LOTION

RAW MATERIALS	% By Weight
AMERLATE P	1.0
AMERCHOL L-101	5.0
SOLULAN 25	3.0
Carbopol 934	0.5
Natrosol 250 HR	0.2
Water	55.3
Triethanolamine, 10% aq.	5.0
Ethanol, 95%	30.0
Perfume and Preservative	q.s.

Elegant o/w emulsion skin freshener with persistent lubricity

Procedure:

Disperse the Carbopol in a portion of the water with high speed mixing. Disperse the Natrosol in another portion of water with high speed mixing. Combine the two gel dispersions and heat to 75C. Add the water phase to the oil phase at 75C while mixing. Continue mixing for five minutes. Add the triethanolamine. Continue mixing and cool to 38C. Add the alcohol and mix until uniform.

SOURCE: Amerchol Corp.: AMERLATE: Suggested Formulations

SP-101 EUROPEAN BODY LOTION (WATER/OIL)-1

MATERIALS	% By Weight
Part A:	
Arlacel 60	0.91
Super Corona	0.96
Part B:	
Glycerin	1.05
Sodium Chloride	1.80
GERMABEN II	0.60
Water	54.69
Part C:	
SF-1228	25.24
SF-1202	14.75

SP-101 EUROPEAN BODY LOTION(WATER/OIL)-2

RAW MATERIALS	% By Weight
Part A:	
Crodesta F-10	0.40
Arlacel 60	0.50
Super Corona	0.80
Fomblin	0.50
Part B:	
Magnesium Aluminum Silicate	0.30
Glycerin	2.50
Sodium Chloride	1.80
GERMABEN II	0.60
Water	64.60
Part C:	
SF-1228	14.00
SF-1202	14.00

Procedure:

- 1) Add Part B to Part C with high-speed mixing.
- 2) Melt Part A and quickly add to BC emulsion with continued high-speed mixing.
- 3) Homogenize to a stable emulsion

Comments:

- Improve freeze-thaw stability by using 1% Crill-61.
- Increase viscosity with lower SF-1202 level and/or increased magnesium aluminum silicate.

SOURCE: GE Silicones: Personal Care Formulary: Formulation SP-101

FACE LOTION

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	8.0
MIGLYOL 812 Neutral Oil	5.0
SOFTIGEN 701	2.0
MIGLYOL 840	2.0
Paraffin oil	4.0
Cremophor RH 40	2.0
B.	
Glycerin	3.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature, and emulsified into A.

C is stirred in at about 40C. Before filling it is beneficial to homogenize the lotion.

Note: This lotion is also suitable for children.

Formulation 1.3.4

FACE LOTION, MATT, WITH ALMOND OIL

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	6.0
SOFTISAN 649	1.0
Almond oil	8.0
Cetyl alcohol	1.0
Antioxidants	q.s.
B.	
Carbopol-Gel 1%	10.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation of the lotion:

A is heated to 75-80C.

B is mixed, brought to the same temperature and emulsified into A.

At about 30C the perfume is added.

Formulation 1.3.3

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

FACE LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A 11	4.0
LUVITOL EHO	5.0
Glycerol monostearate	6.0
Isopropyl myristate	2.0
Lanacet	3.0
Karion F	5.0
Water	75.0

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

FACE LOTION FOR DRY SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	30.0
Arlatone 970	1.0
Locron L	1.0
Allantoin	0.2
Water	ad 100.0
Perfume oil	q.s.

Preparation:

All ingredients are stirred together at room temperature.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 1.5.11

TRF FACIAL LOTION

RAW MATERIALS	% By Weight
Phase A:	
Cetearyl Alcohol (and) Cetareth-20	0.80
Sorbitan Stearate (Arlacel 60)	0.50
Stearic Acid, triple pressed	0.50
Glyceryl Stearate (Emerest 2400)	1.00
Cetearyl Alcohol	1.40
Cetyl Acetate (and)	
Acetylated Lanolin Alcohol	0.50
C12-15 Alcohols Benzoate (Finsolv TN)	0.40
PPG-15 Stearyl Ether (Arlamol E)	0.40
Dimethicone	0.20
Mineral Oil	3.00
Phase B:	
Carbomer 941 (2% Disp.) (Carbopol 941)	7.50
Magnesium Aluminum Silicate (Veegum)	0.30
Potassium Hydroxide (pellets)	0.15
Tetrasodium EDTA	0.10
Glycerin	3.00
Water	78.55
Phase C:	
Tissue Respiratory Factors (Biodynes TRF)	0.70
GERMABEN II	0.50
Fragrance	0.50

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formula

FACE LOTION

RAW MATERIALS	% By Weight
Allantoin	0.3
Water	88.0
SOFTIGEN 767	3.0
Hydroviton	2.0
Hamamelis dest. colourless special (witch hazel)	2.0
Ethanol 96%	5.0
Perfume	q.s.

Preparation:

Allantoin is dissolved in water, the other ingredients are added.

Formulation 1.5.8

FACE LOTION FOR NORMAL SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	5.0
Arlatone 970	5.0
Locron L	1.0
Allantoin	0.2
Water	ad 100.0
Perfume oil	q.s.

Preparation:

All ingredients are stirred together at room temperature.

Formulation 1.5.9

FACE LOTION FOR OILY SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	5.0
Arlatone 970	5.0
Locron L	1.0
Texapon ASV	1.0
Hydrolastan	0.5
Menthol	0.2
Ethanol 96%	5.0
Water	ad 100.0
Perfume oil	q.s.

Formulation 1.5.10

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

GLYCERIN HAND LOTION

RAW MATERIALS	% By Weight
Phase A:	
Isoceteth-20 (Arlasolve 200)	0.20
Fragrance	0.04
Phase B:	
Water	53.91
Phase C:	
Hydroxyethylcellulose (Natrosol 250 HR)	0.85
Glycerin	25.00
Phase D:	
Polyquaternium-19 (Arlatone PQ 220)	20.00
GERMABEN II	1.00

Procedure:

Disperse the Natrosol in glycerin. Mix (A) until uniform and add water slowly to A with agitation. When uniform add AB to C. Apply heat and stir until a uniform gel develops. Add D and stir until uniform.

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formulation

HAND LOTION

RAW MATERIALS	% By Weight
Phase A:	
Methyl Glucose Sesquistearate (Glucate SS)	1.0
Acetylated Lanolin Alcohol (Acetulan)	2.0
Cetyl Alcohol	2.0
Glyceryl Monostearate (Neut.)	0.5
Sesame Oil	10.0
Phase B:	
Methyl Gluceth-20 Sesquistearate (Glucamate SSE-20)	3.0
Methyl Gluceth-20 (Glucam E-20)	5.0
Water	75.5
GERMABEN II	1.0

Procedure:

Heat Phase A and Phase B to 75C and combine with stirring. Cool and fill.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

HAND LOTION

INGREDIENTS	% As Supplied
A)	
Water	91.0
Propylene glycol	3.0
Acrysol ICS-1 Thickener (30%)	1.0
Triethanolamine	0.5
B)	
Lanolin	2.0
Cetyl Alcohol	2.0
Ethomeen C-25	0.5
Brookfield Viscosity, cps.	
@ 0.5 rpm - 265,000	
@ 12 rpm - 21,000	
pH - 8.2	

Mixing Procedure:

Combine ingredients of part B to part A with high-shear agitation. Heat each part separately to 70C (158F.). Cool the formulation quickly to 30C. (86F.).

SOURCE: Rohm and Haas Co.: Lit. Ref.: CS-505

HAND LOTION

INGREDIENT	% By Weight
I.	
HYDROFOL ACID 1895	3.0
ADOL 52	1.5
Mineral Oil	1.5
VARONIC LI-48	0.3
DC 200 Fluid (200 cs)	0.2
AROSURF 66-E2	0.1
VARONIC LI-67	0.1
Glycerine	2.0
II.	
Triethanolamine	0.8
Deionized Water	90.5
III.	
Preservative	qs

Mixing Instructions:

Heat Phase I & II to 80C. Phase I is slowly added to Phase II with good agitation. Cool to 30C with good agitation.

Solids: 9.5% pH: 7.5 Viscosity: 6,000 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.3

HAND LOTION

RAW MATERIALS	% By Weight
ACETULAN	1.0
AMERCHOL L-101	8.0
Stearic acid, xxx	2.5
Glyceryl monostearate, neut.	2.0
Mineral oil, 70 vis.	4.5
Propylene glycol	4.5
Triethanolamine	1.0
Water	76.5
Perfume and Preservative	q.s.

White, medium viscosity o/w lotion with nontacky velvety afterfeel.

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

SOURCE: Amerchol Corp.: ACETULAN: Suggested Formulation

HAND LOTION

RAW MATERIALS	% By Weight
AMERCHOL L-99	3.0
ACETULAN	1.0
SOLULAN C-24	0.3
Stearic acid, xxx	3.0
Glyceryl monostearate, neut.	2.0
Triethanolamine	1.0
Propylene glycol	5.0
Water	84.7
Perfume and Preservative	q.s.

Medium viscosity o/w lotion with smooth texture.

Procedure:

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

SOURCE: Amerchol Corp.: AMERCHOL: Suggested Formulation

HAND LOTION

RAW MATERIALS	% By Weight
AMERLATE P	0.5
Glyceryl monostearate, neut.	2.0
Stearic acid, xxx	3.0
Triethanolamine	1.0
Propylene glycol	5.0
Water	88.5
Perfume and preservative	q.s.

Excellent slip and lubricity in a medium viscosity o/w lotion

Procedure:

Add the water phase at 85C to the oil phase at 85C while mixing. Continue mixing while cooling to 25-30C.

SOURCE: Amerchol Corp.: AMERLATE: Suggested Formulation

HAND LOTION

RAW MATERIALS	% By Weight
Cremophor A6	1.0
Cremophor A25	1.0
Glycerol monostearate	3.5
Liquid paraffin	5.0
Carbopol 940/1% in water	10.0
Triethanolamine Pure C	0.1
Glycerol	2.0
(+)-ALPHA-BISABOLOL rac.	0.2
1,2-Propylene Glycol USP	3.0
Water	74.2

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

HAND LOTION

RAW MATERIALS % By Weight

Part A:

CARNATION White Mineral Oil	3.0
Cetyl Alcohol	1.5
Stearic Acid	2.0

Part B:

Glycerol	7.0
Methyl P-hydroxybenzoate	0.1
N (Lauroyl Colamino Formyl Methyl) Pyridinium Chloride	1.5
Water	84.9

Heat A and B to 70C. Add A to B with constant stirring. Cool to 45C and add perfume and color as desired. Cool to 30C and package.

Hand lotions are used for a variety of purposes--the most important of which is refreshing the hands. In addition, however, the lotion should have an antiseptic effect, be easy to apply and not leave a greasy film.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics Industry: Suggested Formulation

HAND LOTION

RAW MATERIALS % By Weight

A.

LANTROL 1673 Lanolin Oil	10.0
Cocoa butter	3.5
EMEREST 2400 Glyceryl Stearate	2.5
EMERSOL 132 Stearic Acid	2.0
NIMLESTEROL 1732 Liquid Absorption Base	2.5
EMSORB 2505 Sorbitan Stearate	2.0
Propyl paraben	0.2

B.

Methocel E4M (2% aq. soln.)	7.5
EMID 6515 Cocamide DEA	1.0
EMSORB 2720 Polysorbate 20	2.5
EMSORB 2728 Polysorbate 60	2.0
Methyl paraben	0.1
Deminerlized water	64.2

This formula is a free flowing lotion with a very glossy appearance and an excellent emollient feel.

SOURCE: Emery Chemicals: LANTROL Lanolin Oil: Formulation 2244-92-01

HANDLOTION - NO. 149 (ST9) OR NO. 553 (ST37)

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS ST	3
Amphisol	1,5
Stearic acid	3
Glycerol monostearate, pure	2
Preservative	0,2
Glycerol	5
Water phase:	
Triethanolamine	1
Water	84
Perfume oil	0,3

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200

HAND LOTION NO. 306

RAW MATERIALS	% By Weight
LIPOMULSE 165	8.50
Silicone 200 Fluid (200 cts)	0.80
LIPOWAX P-31	2.25
LIPONATE GC	4.50
LIPONATE IPP	5.00
Robane	0.40
Stearamide MEA-Stearate	0.50
Propylparaben	0.10
Water	55.35
Veegum K (4% disp'n)	5.00
Propylene Glycol	6.00
Aloe Vera Gel	5.00
Allantoin	0.10
Methylparaben	0.30
UNICIDE U-13	0.35
Sodium Dehydroacetate	0.25
Urea (40% aq. sol'n)	5.00
Slippery Elm Ext. 5:1 PG	0.25
Calendula Ext. 5:1 PG	0.25
Fragrance	0.10

SOURCE: Lipo Chemicals, Inc.: Formulation No. 306

HAND LOTION

MATERIALS	% By Weight
Part A:	
Deionized Water	85.89
Triethanolamine	0.42
Glycerine	4.00
Methyl Paraben	0.10
BENTONE EW Rheological Additive	1.50
Part B:	
Ceraphyl 424	3.00
Stearic Acid XXX	0.79
Isopropyl Lanolate Distilled	1.00
Pluronic F-127	1.00
Glyceryl Monostearate	2.00
Propyl Paraben	0.10
Part C:	
Fragrance	0.20

Manufacturing Directions:

1. Part A - In a stainless steel steam jacketed kettle, add item 1 to 4 and heat to 60C. Using a homomixer, add item 5 slowly to avoid lumps and mix for 20 minutes or until homogeneous. Heat to 80C.
2. Part B - In a separate vessel, add items 6 to 11 and heat to 80C. Mix until completely melted and homogeneous.
3. Mix Part B slowly in Part A at 80C using sweep blades.
4. Cool to 50C. Add Part C, mix and cool to room temperature.

SOFT HAND LOTION

MATERIALS	% By Weight
Deionized Water	84.1
BENTONE LT Rheological Additive	0.5
Glycerine	2.5
Triethanolamine	0.7
Methyl Paraben	0.1
Ceraphyl 424	1.5
Isocetyl Stearate	1.0
Acetol	1.7
Stearic Acid	4.0
Lexemul 55G	3.4
Volatile Silicone 7158	0.2
Propyl Paraben	0.1
Fragrance	0.2

SOURCE: NL Chemicals: Suggested Formulations

HAND & BODY LOTION

INGREDIENTS	% By Weight
A.	
Deionized water	72.15
B.	
Polysorbate-20	2.00
Methylparaben	0.20
Ethylparaben	0.15
C.	
Glycerin	3.00
Xanthan gum	0.12
D.	
Safflower oil	4.00
Sesame oil	4.00
Mineral oil	1.00
Glyceryl stearate and PEG-100 stearate	3.00
Sorbitan stearate	2.00
Cetyl alcohol	1.00
Mineral oil (and) lanolin alcohol	3.00
Dimethicone	0.50
BHA	0.05
METHOCEL 40-100	0.10
Vitamin E oil	0.01
Stearic acid	1.50
E.	
Deionized water	1.00
DOWICIL 200 preservatives	0.10
F.	
Deionized water	1.00
Collagen	0.01
Elastin	0.01
G.	
Fragrance (floral)	0.10

Cream-like lotion increases the sensation of moisturizing.

Procedure:

1. Meter water (Phase A) into a compounding vessel and heat to 75-80C.
2. Combine Phase B ingredients and warm to dissolve. Add to water phase (Phase A) at 75-80C.
3. Combine Phase C ingredients and mix well to prewet xanthan. Allow the mixture to set for 15 minutes, then add to Phase A batch at 75-80C.
4. Weigh Phase D ingredients into a steam-jacketed kettle. Heat to 80C while mixing. Then add to water phase (at 75-80C) with good agitation. Turn heat off and mix emulsion down to 45C.
5. Prepare Phase E by dissolving DOWICIL 200 antimicrobial in water. Then add to batch at 45C (or lower).
6. Add Phase F at 45C or lower.
7. Add fragrance (Phase G) to the emulsion at 45C (or lower).

SOURCE: Dow Chemical Co.: Suggested Formulation

HAND AND BODY LOTION

INGREDIENT	% By Weight
I.	
Deionized Water	79.9
Glycerine	2.0
Triethanolamine	1.0
II.	
Propylene Glycol	2.0
Keltrol	0.4
III.	
ADOL 52	1.0
HYDROFOL ACID 1655	3.0
Mineral Oil	4.0
STARFOL OS	3.0
Clearlan	0.5
DC 200 Fluid (10 cs)	1.0
Arlacel 165	2.0
VARONIC LI-67	0.2
IV.	
Preservative	qs
Solids:	20.1%
pH:	8.0
Viscosity:	9,250 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.3

HAND AND BODY LOTION

RAW MATERIALS	% By Weight
Phase A:	
Cyclomethicone (and) Dimethicone Copolyol (Silsoft Beauty Aid MG)	15.00
Stearic Acid	2.75
Butyl Stearate	1.50
Stearyl Stearate	0.50
Glyceryl Stearate	0.25
Phase B:	
Cellulose Gum (2% aq. sol'n CMC)	79.0
GERMABEN II	1.0
Phase C:	
Fragrance	q.s.

Procedure:

Weigh and heat Phase A and Phase B separately to 55C. Add Phase B slowly to Phase A with good mixing under moderate shear. Continue mixing and cool to 40C. Add Phase C. Mix and cool to 25C.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

HAND AND BODY LOTION NO. 319

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.5
CMC 7MF	0.5
Water	67.9
Glycerin	6.0
Allantoin	0.1
B.	
Carnation White Mineral Oil	5.0
Petrolatum	4.0
Acetulan	6.0
Amerchol L-101	4.0
Arlacel 165	5.0
A	
Preservative	q.s.

Procedure:

Blend VEEGUM and CMC. Slowly add to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the glycerin and allantoin and heat A to 70-75C. Add B to A and mix to room temperature.

Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottle.

HAND AND BODY LOTION NO. 370

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.00
CMC 7MF	0.15
Water	80.75
Dow Corning Antifoam FG-10 Emulsion	0.10
B.	
Marcol 130	5.00
Amerchol L-101	4.00
Stearic acid xxx	3.00
Arlacel 165	4.00
Lantrol	2.00
Preservative	q.s.

Procedure:

Blend VEEGUM and CMC. Slowly add to the water, while agitating at maximum available shear. Continue mixing until smooth. Add antifoam at slow mixing speed. Heat A to 70C and B to 75C. Add B to A and mix until cool. Pour off at 40C.

Consistency: Medium viscosity lotion

Suggested Packaging: Squeeze or pump bottle.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

HAND AND BODY LOTION WITH ALOE VERA AND JOJOBA

INGREDIENTS	% By Weight
Part A:	
Deionized Water	82.15
CARBOPOL 1342	0.15
Glycerin	5.00
Propylene Glycol	0.80
Aloe Vera Concentrate (40%)	2.30
Methyl Paraben	0.20
Propyl Paraben	0.10
Disodium EDTA	0.10
Part B:	
Mineral Oil	2.00
Lanolin Alcohol	1.50
Paraffin Wax (Refined)	1.00
Glycol Stearate	1.50
Cetyl Alcohol	0.20
Jojoba Oil	2.00
Triethanolamine (99%)	1.00
Fragrance	Q.S.

A light hand and body lotion formulated with aloe vera and jojoba oil. Aloe vera and jojoba oils are often used in cosmetic products because of their consumer appeal.

Quick Break CARBOPOL Resin Formulation #2

MOISTURIZING HAND LOTION

INGREDIENTS	% By Weight
Part A:	
Deionized Water	85.0
Glycerin	5.0
Propylene Glycol	1.0
Methyl Paraben	0.2
Propyl Paraben	0.1
Part B:	
Mineral Oil	5.0
Paraffin Wax (Refined)	1.0
Glycol Stearate	1.0
Acetylated Lanolin Alcohol	0.6
Dimethicone	0.5
CARBOPOL 1342	0.2
Part C:	
Triethanolamine (99%)	0.2
PEG-15-Cocamine	0.2
Fragrance	Q.S.

This rich, creamy emulsion breaks rapidly on the skin to release oils and emollients essential for moisturization. Yet the feel on the skin is light and non-greasy.

Quick Break CARBOPOL Resin Formulation #1

SOURCE: BF Goodrich Co.: CARBOPOL: Suggested Formulations

IN-SHOWER MOISTURIZING LOTION

INGREDIENTS:	%W/W
Part A:	
CETIOL LC (Coco Caprylate/Caprata)	1.50
MYRITOL 318 (Caprylic/Capric Triglyceride)	4.00
Mineral Oil	7.50
EMULGADE F (Cetearyl Alcohol (and) PEG-40 Castor Oil (and) Sodium Cetearyl Sulfate)	6.00
Part B:	
Water	77.70
COSMEDIA POLYMER HSP-1180 (Polyacrylamidomethylpropane Sulfonic Acid)	3.00
Part C:	
Triethanolamine	0.30
Dyes, Fragrance & Preservatives	q.s.

Procedure:

Mix and heat Part A to 75C. Mix and heat Part B to 75C and add to Part A. Cool to 45C and add individual components of Part C. Continue stirring until product reaches room temperature. Fill off.

Comments:

After showering apply In-Shower Moisturizing Lotion. When the lotion is rinsed off, the skin feels smooth and conditioned. The COSMEDIA POLYMER HSP-1180 contributes lubricity and a talc-like residual feel.

Suggested Formula H-4812

LOTION WITH NATURAL MOISTURIZING FACTOR

INGREDIENTS:	%W/W
Part A:	
Stearic Acid XXX	2.00
LANETTE O (Cetearyl Alcohol)	1.00
EUTANOL G-16 (Isocetyl Alcohol)	5.00
Part B:	
Water	72.45
Carbopol 934 (2% soln) (Carbomer 934)	15.00
Triethanolamine (99%)	1.25
Part C:	
Dowicil 200 (Quaternium-15)	0.10
Hygroplex HHG	3.00
Fragrance	0.20

Comments:

EUTANOL G-16 is a mild non-greasy liquid fatty alcohol which can easily be emulsified. This light lotion rubs in easily without whitening and leaves a non-oily feel on the skin.

Suggested Formula H-4818

SOURCE: Henkel: Personal Care Products Formulary: Suggested Formulations

LOTION L-1001

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	1.0
GLUCAMATE SSE-20	1.5
MODULAN	2.0
Stearic acid, xxx	2.0
Mineral oil, 70 vis.	6.0
Water Phase:	
GLUCAM E-20	5.0
Water	82.5
Perfume and Preservative	q.s.

Description:

Low viscosity, hand and body lotion. Basic model for GLUCATE SS/GLUCAMATE SSE-20. System recovers initial viscosity after "work".

Variations:

Formula is well balanced and modifications of oil phase will require adjustment of the emulsifier ratio and concentrations. For example--replacement of mineral oil with vegetable oils.

LOTION L-1002

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	1.5
GLUCAMATE SSE-20	1.5
MODULAN	1.0
Mineral oil, 70 vis.	4.0
Glyceryl monostearate, neut.	2.0
Water Phase:	
Emcol E-607S	1.0
Glycerine	5.0
Methocel 65HG	0.2
Water	83.8
Perfume and Preservative	q.s.

Description:

Rich, nongreasy high viscosity lotion for all skin types. Suitable for dispensing from plastic package. Unique emulsifying system provides viscosity recovery after working.

Variations:

To reduce viscosity, replace mineral oil with a mixture of AMERLATE P and isopropyl myristate. Replace glycerine with GLUCAM E-10.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1003

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	3.0
ACETULAN	2.0
Stearic acid, xxx	2.0
Glyceryl monostearate, neut.	2.5
SOLULAN 16	2.0
Mineral oil, 70 vis.	15.0
Water Phase:	
Glycerine	4.0
Triethanolamine	0.4
Water	69.1
Perfume and Preservative	q.s.

Description:

Rich, high oil content, cleansing lotion. Lubricating and moisturizing.

Variations:

To reduce oily feel, replace part of the mineral oil with AMERLATE P and cetyl alcohol.

To improve rinsability, replace half the mineral oil with diglycol laurate.

To reduce tack, replace glycerine with GLUCAM P-20.

LOTION L-1004

RAW MATERIALS	% By Weight
Oil Phase:	
MODULAN	2.0
Cetyl alcohol	2.0
Mineral oil, 70 vis.	10.0
Brij 76	2.0
Water Phase:	
Water	76.8
Carbopol 941	0.2
GLUCAM E-20	5.0
Triethanolamine, 10% in water	2.0

Description:

Medium viscosity lotion for hands. Dries to light film. Protective, easily rinsed off.

Variations:

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol. To decrease viscosity, replace part of cetyl alcohol with myristyl alcohol.

To improve lubricity, replace part of mineral oil with AMERLATE P.

To add body replace part of mineral oil with PPG-36 oleate.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1005

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-99	4.0
Polysorbate 80	1.0
Stearic acid, xxx	4.0
Paraffin	1.3
Glyceryl monostearate, neut.	2.0
SOLULAN 25	2.0
Water Phase:	
Propylene glycol	5.0
Albangel	0.5
Water	80.2
Perfume and Preservative	q.s.

Description:

Low viscosity pearlescent hand lotion for dry skin. Suitable for acid pH applications.

Variations:

To increase body and reduce tack, replace propylene glycol with GLUCAM E-20.

To improve slip, replace paraffin with mixture of AMERLATE P and cetyl alcohol.

To impart satiny feel, replace part of stearic acid with PPG-36 oleate.

LOTION L-1006

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	8.0
MODULAN	1.0
Stearic acid, xxx	2.5
Glyceryl monostearate, neut.	2.0
Mineral oil, 70 vis.	4.5
Water Phase:	
Water	76.5
Propylene glycol	4.5
Triethanolamine	1.0
Perfume and Preservative	q.s.

Description:

A smooth, medium viscosity, moderately residual lotion. Recommended for dry skin.

Variations:

To reduce oily feeling, replace part of mineral oil with isopropyl myristate, or ACETULAN.

Mineral oil can be increased up to 15% without upsetting emulsifier balance.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1007

RAW MATERIALS	% By Weight
Oil Phase:	
AMEROXOL OE-10	0.3
AMERCHOL L-500	1.0
Beeswax	2.0
Spermwax	2.0
Mineral oil, 70 vis.	16.0
Sorbitan monostearate	2.4
Water Phase:	
Carbopol 941	0.2
Triethanolamine, 10% in water	2.0
Polysorbate 60	3.6
Cosmerlac	0.5
Water	70.0
Perfume and Preservative	q.s.

Low viscosity, moderately residual hand lotion. Contains non-fat milk protein.

To improve slip, replace beeswax with cetyl alcohol.

GLUCATE SS and GLUCAMATE SSE-20 can function as alternates to the sorbitan monostearate/polysorbate 60 emulsifiers, but will require rebalancing.

LOTION L-1008

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
Petrolatum	5.0
Mineral oil, 70 vis.	33.5
Lanolin	3.0
Sorbitan sesquioleate	2.5
Beeswax	4.0
GLUCATE SS	0.5
Water Phase:	
Veegum Regular	0.5
Borax	0.5
GLUCAM E-20	2.0
Water	43.5
Perfume and Preservative	q.s.

Very rich, high viscosity water-in-oil emollient lotion. Recommended for very dry skin and skins exposed to excessive sun, wind or cold.

To achieve more complete rub-in on skin, replace large part of mineral oil with AMERLATE P, ACETULAN and cetyl alcohol mixture.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1009

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	6.0
MODULAN	2.0
Stearic acid, xxx	2.0
Glyceryl monostearate, acid stable	2.0
Water Phase:	
Propylene glycol	5.0
Sodium lauryl sulfate	1.0
Veegum	0.5
Water	81.5

Description:

Hand and body lotion. Medium viscosity. pH 5 to 6. Recommended acid-mantle formulation.

Variations:

To improve body, replace propylene glycol with GLUCAM P-10.

To increase lubricity, replace stearic acid with mixture of AMERLATE P and AMERLATE LFA.

LOTION L-1010

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 5	0.5
Mineral oil, 70 vis.	2.0
Stearic acid, xxx	5.0
Cetyl alcohol	1.0
Glyceryl monostearate, self-emulsifying	1.5
Water Phase:	
Triethanolamine	1.0
Propylene glycol	3.5
Water	85.5
Perfume and Preservative	q.s.

Description:

Medium viscosity hand lotion of popular market leader type. Rich, emollient feel with smooth residual feel.

Variations:

To increase gloss, replace part of stearic acid with AMERLATE LFA.

To decrease viscosity, replace part of cetyl alcohol with myristyl alcohol.

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol.

To reduce tack of residual feel, replace propylene glycol with GLUCAM E-20 and part of mineral oil with AMERLATE P.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1011

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
SOLULAN 98	2.0
Cetyl alcohol	1.0
Monamid 718	1.0
Arlacel 165	4.0
Water Phase:	
Water	87.0
Citric acid solution, 20% in water	q.s. to pH 5.5
Perfume and Preservative	q.s.

Description:

Low viscosity, velvety feel, nongreasy lotion. Low pH. For all skin types.

Variations:

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol. To decrease viscosity, replace part of cetyl alcohol with myristyl alcohol.

To provide humectancy, add GLUCAM E-20 to water phase.

LOTION L-1012

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE P	0.5
Stearic acid, xxx	3.0
Glyceryl monostearate, neut.	2.0
Water Phase:	
GLUCAM E-10	15.0
Triethanolamine	1.0
Water	78.5
Perfume and Preservative	q.s.

Description:

Medium viscosity, slightly translucent, moisturizing lotion. Good lubricity. Rich feel.

Variations:

Consistency and lubricity can be increased by raising concentration of AMERLATE P.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1013

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-500	0.80
SOLULAN PB-20	7.50
SOLULAN C-24	0.30
Isopropyl palmitate	10.00
Stearic acid, xxx	2.00
Glyceryl monostearate, neut.	1.00
Water Phase:	
Water	77.28
Carbopol 941	0.12
Triethanolamine	1.00
Perfume and Preservative	q.s.

Description:

Thin to medium viscosity emollient lotion with complete rub-in. For all skin types.

Variations:

To impart satiny-feel, with heavier body, replace 1-2 parts of isopropyl palmitate with PPG-36 oleate.

To impart slip, replace 1-2 parts of isopropyl palmitate with cetyl alcohol.

These additions will also increase viscosity.

LOTION L-1014

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL 400	1.0
SOLULAN 5	1.0
Stearic acid, xxx	3.0
Glyceryl monostearate, neut.	2.0
Mineral oil, 70 vis.	9.0
Water Phase:	
Water	78.0
Propylene glycol	5.0
Triethanolamine	1.0
Perfume and Preservative	q.s.

Description:

Rich, emollient hand lotion. Superior coverage. Lasting conditioning effect.

Variations:

To improve lubricity, replace part of mineral oil with AMERLATE P.

To reduce oiliness, replace part of mineral oil with ACETULAN and isopropyl myristate.

LOTION L-1015

RAW MATERIALS	% By Weight
Oil Phase:	
SOLULAN 98	2.0
SOLULAN 5	1.0
Arlacel 165	4.0
Cetyl alcohol	1.0
Mineral oil, 70 vis.	4.0
Water Phase:	
EMCOL E607S	0.1
Glycerine	2.0
Water	85.9
Perfume and Preservative	q.s.

Description:

Medium viscosity hand lotion with residual properties and mild substantivity.

Variations:

To increase substantivity, increase EMCOL 607S.

To reduce tack, replace glycerine with GLUCAM E-20.

To reduce viscosity, replace part of cetyl alcohol with myristyl alcohol.

To increase viscosity, replace part of cetyl alcohol with stearyl alcohol.

LOTION L-1016

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE P	2.0
Stearyl alcohol	2.0
Mineral oil, 70 vis.	4.0
Propylene glycol monostearate	1.5
Polyethylene glycol 1500 monostearate	1.0
Water Phase:	
Carbopol 941	0.2
Triethanolamine, 10% in water	2.0
Sorbitol	3.5
Water	83.8
Perfume and Preservative	q.s.

Description:

Rich, medium heavy viscosity hand lotion with good slip and residual feel.

Variations:

To reduce viscosity, replace part of stearyl alcohol with cetyl alcohol.

To reduce tack, replace sorbitol with GLUCAM E-20.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1017

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	8.0
MODULAN	1.0
AMERLATE LFA	3.0
Glyceryl monostearate, neut.	5.0
Mineral oil, 70 vis.	4.5
Water Phase:	
Triethanolamine	1.0
Propylene glycol	4.5
Water	73.0
Perfume and Preservative	q.s.

Description:

Rich, emollient lotion. High gloss, non-greasy. Medium viscosity. Recommended for dry skin without excessive oiliness.

Variations:

For more complete rub-in, replace part of mineral oil with isopropyl palmitate and propylene glycol with GLUCAM E-10.

For greater skin treatment increase MODULAN.

LOTION L-1018

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	1.0
ACETULAN	2.0
Cetyl alcohol	2.0
Glyceryl monostearate, neut.	0.5
Sesame oil	10.0
Water Phase:	
GLUCAMATE SSE-20	3.0
GLUCAM E-20	5.0
Water	76.5
Perfume and Preservative	q.s.

Description:

Moderately heavy hand lotion with recovery of viscosity after work.

Major emollient is a natural vegetable oil modified by ACETULAN to cut greasiness and by GLUCAM E-20 for nontacky, residual effect.

Variations:

To reduce viscosity, replace part of cetyl alcohol with myristyl alcohol.

Other natural oils such as peanut, avocado, corn, etc. can replace sesame oil in whole or in part, but may require emulsifier rebalancing.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulations

LOTION L-1019

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCATE SS	1.2
AMERCHOL L-500	1.0
Beeswax	2.0
Spermwax	2.0
Mineral oil, 70 vis.	16.0
Water Phase:	
GLUCAMATE SSE-20	2.0
Carbopol 941	0.2
Water	73.6
Triethanolamine (10% aqueous)	2.0
Perfume and Preservative	q.s.

Description:

High viscosity cleansing lotion with relatively nongreasy feel. Utilizes unique GLUCATE SS/GLUCAMATE SSE-20 nonionic emulsifier system with recovery of viscosity after work.

Variations:

To impart improved rinse-off properties to cleanser, replace part of mineral oil with diglycol laurate.

To improve spreading characteristics, replace part of mineral oil with AMERLATE P.

To reduce viscosity, replace beeswax with cetyl alcohol.

SOURCE: Amerchol Corp.: Lotions: Suggested Formulation

COSMETIC CLEANSING LOTION

RAW MATERIALS	% By Weight
Phase A:	
PROMULGEN D (Cetearyl Alcohol and Ceteareth-20)	3.0
ANHYDROUS LANOLIN U.S.P. DEODORIZED AAA (Lanolin)	1.1
Mineral Oil	22.8
Glyceryl Stearate	3.0
Phase B:	
MAY-TEIN CT (TEA-Coco-Hydrolyzed Animal Protein)	5.0
Deionized Water	65.1
Perfume and Preservative	q.s.

Description:

This is a glossy, viscous lotion with good spreading character. Cleansing action without defatting the skin is provided by MAY-TEIN CT, a mild protein surfactant.

Procedure:

Heat phases A and B separately to 70C. At 70C slowly add phase A to phase B with agitation. Mix and cool to 30C.

SOURCE: Amerchol Corp.: AMERCHOL Proteins: Formulation
T52-229-2

LOTION WITH CAMOMILE EXTRACT

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	3.0
Emulgade F	3.0
MIGLYOL 829	5.0
IMWITOR 375	3.0
Isopropyl myristate	5.0
B.	
Carbopol-Gel 1%	10.0
Glycerin	20.0
Isopropyl alcohol	1.0
Preservative	q.s.
Water	ad 100.0
C.	
Extrapon Camomile Special	1.0
Perfume oil	q.s.

Preparation of the lotion:

A and B are heated separately to 75-80C and B is emulsified into A.

C is stirred in below 40C.

Formulation 1.3.8

LOTION WITH WHEATGERM OIL

RAW MATERIALS	% By Weight
A.	
IMWITOR 370	6.0
MIGLYOL 812 Neutral Oil	7.0
MIGLYOL 840	3.0
Wheatgerm oil	5.0
Antioxidants	q.s.
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into A.

At about 30C the perfume is added.

Formulation 1.3.9

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

LOW-PH (3.8) SUGAR ESTER REPLENISHING PREPARATION WITH SOLUBLE COLLAGEN

RAW MATERIALS	% By Weight
EMCOL E-607S (Steapyrium Chloride)	0.9
Crodesta F110	1.5
Crodesta F50	0.5
Procetyl 10	3.0
Novol	2.0
Crodamol IPM	8.0
Glycerine	5.0
Water	69.1
Collasol	10.0
Perfume, Preservative, Antioxidant	q.s.

LOW-PH (3.8) SUGAR ESTER REPLENISHING PREPARATION WITH SOLUBLE COLLAGEN

RAW MATERIALS	Parts by Weight
EMCOL E-607S (Steapyrium Chloride)	0.9
Crodesta F110	1.5
Crodesta F50	0.5
Procetyl 10	3.0
Neobee 18	6.0
Novol	2.0
Glycerine	5.0
Water	71.1
Collasol	10.0
Perfume, Preservative, Antioxidant	q.s.

Heat oil and water phases separately to 65C. Add water to oil phase with high speed agitation. When uniform, cool to 30C and add Collasol. Stir until uniform.

For additional smoothness, emulsions can be homogenized. The viscosity of these emulsions can be varied from liquid to solid by relatively minor variations in the sugar ester concentrations.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 113C

LUXURIANT LOTION

INGREDIENTS	% By Weight
A.	
Deionized Water	71.000
METHOCEL 40-202	0.200
Triethanolamine	0.050
B.	
Carbomer 934 (2%)	10.000
C.	
Propylene Glycol	2.000
Methylparaben	0.200
Ethylparaben	0.100
D.	
Mineral Oil	7.000
Glyceryl Monostearate--SE	3.000
Stearic Acid	3.500
Dimethicone	0.500
E.	
Deionized Water	1.000
Triethanolamine	0.750
F.	
Color FD&C Yellow #6 (3%)	qs
Color FD&C Yellow #5 (3%)	qs
G.	
Perfume Oil	0.100
H.	
Deionized Water	0.500
DOWICIL 200	0.100

A smooth, inexpensive lotion with a rich, luxuriant feel.

This lotion applies smoothly and provides excellent penetration. While simple and inexpensive to create, this formula gives the feel of more expensive lotions. The METHOCEL cellulose ether helps leave skin with a silky feel. It gives the sensation of moisturizing and protection but with no greasy afterfeel.

Variations:

1. Add unique characteristics to the formula by adding collagen, elastin, or other popular protein complexes.
2. Try substituting vegetable oils for mineral oil for an even lighter feel.
3. For health oriented products, add herbal extracts.
4. Increase the oil phase for dry skin or decrease the oil phase and add esters for oily skin.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

MOISTURE LOTION

RAW MATERIALS	% By Weight
SCHERCOMID AME-70	6.5
SCHERCEMOL MM	1.5
Glyceryl Stearate, pure	4.5
Stearic Acid (TPSA)	2.0
Lanolin Alcohols	0.8
Triethanolamine	0.5
Carbowax 400	5.0
Water	79.0
Methyl Paraben	.1
Fragrance	.1

Procedure:

Heat SCHERCOMID AME-70, SCHERCEMOL MM, GMS, Stearic Acid, and Lanolin Alcohols to 70-75C. Heat TEA, Carbowax 400, Methyl Paraben, and water to 70-75C. Add water phase to oil phase with agitation. Cool to 40C and add perfume. Cool and allow to set overnight.

The resulting lotion has a velvety skin feel and leaves the skin moist, but not tacky.

SOURCE: Scher Chemicals, Inc.: SCHERCOMID AME-70: Formulation SG-0202

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Water, D.I.	84.4
DESONIC CE-12 (Glycereth-12)	3.0
Sodium Borate Decahydrate	1.4
Phase B:	
Mineral Oil #7 NF	7.0
Starfol Wax CG (Cetyl Esters)	1.0
Adol 52 NF (Cetyl Alcohol)	0.7
Adol 62 NF (Stearyl Alcohol)	0.5
Emersol 132 (Stearic Acid)	2.0
Phase C:	
Perfume, Dye and Preservative	q.s.

Blending Procedure:

Combine Phases A and B separately and heat to 70-75C. Add Phase B to Phase A with high speed agitation. Cool to 35-40C and add Phase C.

SOURCE: DeSoto, Inc.: Formulation

MOISTURIZING HAND LOTION WITH ELASTIN

INGREDIENTS:	%W/W
Part A:	
LANETTE SX (Cetearyl Alcohol (and) Sodium Lauryl Sulfate)	5.00
CETIOL 868 (Octyl Stearate)	5.00
Part B:	
Water	81.00
Glycerine	3.00
Part C:	
Germaben II-E	1.00
Fragrance and Dyes	q.s.
Part D:	
ELASTIN CLR	5.00

Comments:

CETIOL 868 is an inexpensive non-oily emollient (IPM substitute) with good spreading power. The combination of CETIOL 868 and ELASTIN provides a lotion that rubs in easily and leaves the skin feeling and looking nice.

Formula H-4843

MOISTURIZING LOTION

INGREDIENTS:	%W/W
Part A:	
CUTINA GMS (Glyceryl Stearate)	5.00
EUMULGIN B-1 (Cetareth-12)	1.00
EUMULGIN B-2 (Cetareth-20)	1.00
CETIOL 868 (Octyl Stearate)	10.00
Avocado Oil CLR	1.00
Part B:	
Water	76.70
Sorbitol	5.00
Dowicil 200 (Quaternium-15)	0.10
Part C:	
Fragrance	0.20

Comments:

CETIOL 868 is an inexpensive non-oily emollient (IPM substitute) with good spreading power. The lotion rubs in easily and leaves an emollient non-greasy feel.

Suggested Formula H-4816

SOURCE: Henkel: Personal Care Products Formulary: Suggested Formulation

MOISTURIZING LOTION

INGREDIENT	% By Weight
I.	
Deionized Water	86.6
Carbopol 934	0.2
Glycerine	3.0
II.	
STARFOL IS	4.0
Finsolv TN	2.0
ADOL 52	0.8
AROSURF 66-E2	0.8
AROSURF 66-E20	1.5
III.	
Deionized Water	2.0
Triethanolamine	0.3
IV.	
Preservative	qs
Solids:	11.4%
pH:	6.9
Viscosity:	15,000 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.3

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Nonfat Dry Milk (and) Xanthan Gum (and) Propylene Glycol Alginate (and) Glyceryl Stearate (and) Sodium Glyceryl Oleate Phosphate (Ches 500)	2.0
Octyl Palmitate (Wickenol 155)	2.5
Myristyl Myristate (Waxenol 810)	10.0
Octyl Hydroxystearate (Wickenol 171)	2.5
Phase B:	
Deminerlized Water	76.3
Disodium EDTA	0.2
Sodium Magnesium Silicate (Laponite XLS)	1.0
Phase C:	
Propylene Glycol	4.5
GERMABEN II	1.0

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
Amerchol L-101	8.00
Solulan 98 (Laneth-10 Acetate)	0.50
Klearol (Mineral Oil)	15.00
Propylene Glycol	5.00
Arlacel 165	1.00
Cetyl Alcohol	0.50
B.	
Water, Deionized	61.25
Carbopol 941 (Carbomer-941)	0.50
C.	
Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E.	
Water, Deionized	1.80
Germall 115 (Imidazolinidyl Urea)	0.20
F.	
Perfume Oil	0.25
Formulation SK-104	

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
Schercemol DID (Diisopropyl Dimerate)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B.	
Water, Deionized	76.25
Carbopol 941 (Carbomer-941)	0.50
C.	
Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E.	
Water, Deionized	1.80
Germall 115 (Imidazolinidyl Urea)	0.20
F.	
Perfume Oil	0.25
Formulation SK-105	

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Lanolin Alcohol	0.50
PEG-75 Lanolin (Solulan 98)	0.50
Diisopropyl Lanolin (Schercemol DID)	8.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	1.00
Cetyl Alcohol	1.00
Phase B:	
Deionized Water	76.25
Carbomer 941 (Carbopol 941)	0.50
Phase C:	
Propylene Glycol	0.70
Methylparaben	0.20
Propylparaben	0.10
Phase D:	
Calendula Extract	2.00
Chamomile Extract	2.00
Phase E:	
Deionized Water	4.50
Potassium Hydroxide, 40%	0.50
Phase F:	
Deionized Water	1.80
GERMALL II	0.20
Phase G:	
Fragrance	0.25

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formula

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Petrolatum	2.00
PPG-15 Stearyl Ether (Arlamol E)	2.00
Stearyl Alcohol	1.00
Steareth-2 (Brij 72)	3.00
Steareth-20 (Brij 78)	1.00
Dimethicone	0.10
Phase B:	
Water	50.00
Carbomer 940 (Carbopol 940)	0.10
Phase C:	
Polyquaternium-19 (Arlatone PQ220)	10.00
Water	30.20
Triethanolamine	0.10
Phase D:	
GERMABEN II	0.50

SOURCE: Sutton Laboratories, Inc.: Sutton Cosmetic Formulary:
Suggested Formula

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
Klearol (Mineral Oil)	15.00
Stearic Acid (TP)	5.00
Acetulan (Acetylated Lanolin Alcohol)	2.00
Propylene Glycol	7.00
Cetyl Alcohol	1.00
B.	
Water, Deionized	66.20
Potassium Hydroxide (40% Sol.)	0.50
C.	
Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
E.	
Perfume Oil	0.30
Formulation SK-107	

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
SCHERCHEMOL DID (Diisopropyl Dimerate)	8.00
Stearic Acid (TP)	5.00
Acetulan (Acetylated Lanolin Alcohol)	2.00
Propylene Glycol	7.00
Cetyl Alcohol	1.00
B.	
Water, Deionized	73.20
Potassium Hydroxide (40% Sol.)	0.50
C.	
Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
E.	
Perfume Oil	0.30
Formulation SK-108	

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A.	
Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
SCHERCEMOL AME-70 (Acetamide MEA)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B.	
Water, Deionized	76.25
Carbopol 941 (Carbomer - 941)	0.50
C.	
Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E.	
Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F.	
Perfume Oil	0.25

Formulation SK-106

Manufacturing Procedure(Formulation SK-104, SK-105, SK-106):

1. Prepare Phase "A" by heating the ingredients to 75C to dissolve the solids.
2. Prepare the Carbopol solution by dispersing Carbopol 941 into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion at about 80C until a smooth viscous solution is formed.
3. Dissolve the Parabens in Propylene Glycol by warming solution to 55C. Add phase "C" to "B".
4. Add phase "B & C" to "A" with mixing.
5. When base is at 55C, add in phase "D" stirring until the base is completely mixed in.
6. Add Germall solution and perfume when cool.

Formulation SK-106

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

MOISTURIZING LOTION(50/038)

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	6.0
Cetylstearyl alcohol	0.5
Glyceryl monostearate	6.0
Liquid paraffin	6.0
Vitamin E acetate	3.0
1,2-Propylene Glycol USP	3.0
Preservative	q.s.
Essential oil	q.s.
Water	71.5

SOURCE: BASF: CREMOPHOR A grades: Suggested Formulation

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	1.0
CREMOPHOR A25	1.0
LUVITOL EHO	7.0
Paraffin oil	3.0
Cetyl alcohol	1.5
Glycerol monostearate	2.5
Tegiloxan 350	0.1
Hygroplex HHG	3.0
Water	80.9

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

MOISTURIZING LOTION T-56-26-3

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE P (Isopropyl Lanolate)	0.5
Stearic Acid	3.0
Glyceryl Stearate	2.0
Water Phase:	
GLUCAM E-20 (Methyl Gluceth-20)	5.0
Triethanolamine	1.0
Water	83.7
BIOCARE Polymer HA-24 (2.6%)	3.8
Germaben IIE	1.0

Description:

Medium viscosity, slightly translucent, moisturizing lotion with good lubricity and rich feel.

SOURCE: Amerchol Corp.: BIOCARE Polymer HA-24: Formulation T56-26-3

NON-GREASY HAND LOTION

RAW MATERIALS	% By Weight
A.	
EMEREST 2388 Propylene Glycol Dipelargonate	3.0
NIMLESTEROL 1732 Liquid Absorption Base	3.5
EMERSOL 132 Stearic Acid	2.0
EMEREST 2400 Glyceryl Stearate	3.5
EMSORB 2500 Sorbitan Oleate	1.0
EMERY 1787 Cetyl Alcohol Flakes, NF	2.5
Methyl paraben	0.1
B.	
EMSORB 2726 PEG-40 Sorbitan Diisostearate	2.5
Triethanolamine	0.2
Propyl paraben	0.2
Demineralized water	81.5
Fragrance	q.s.

An emollient feel without the tackiness and greasy feel usually associated with lanolin. The emulsion is a free-flowing lotion with very good "rub in" properties.

Procedure:

Heat A and B separately to 75C. Add B to A with fast agitation. Continue mixing at moderate speed while cooling to 35C. Perfume and package.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol: Formulation 2643-022

SOLID HAND-LOTION

RAW MATERIALS	Parts by Weight
WITCONOL APM (PPG-3 Myristyl Ether)	73.0
Propylene Glycol	10.0
Witco Sodium Stearate C-1	8.0
Water	3.0
Perfume Oil	6.0

Dissolve WITCO Sodium Stearate C-1 in WITCONOL APM, propylene glycol and water at 80 to 85C; stir until clear. Cool with stirring to 77C and add perfume. Package at 73C.

Appropriate oil-soluble dyes can be added if blusher formulation is desired.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries: Formulation 109C

NONIONIC LOTION

RAW MATERIALS	% By Weight
A.	
EMEREST 2486 Pentaerythrityl Tetrapelargonate	5.0
EMSORB 2505 Sorbitan Stearate	3.5
EMSORB 2728 Polysorbate 60	1.5
EMEREST 2350 Glycol Stearate	4.0
EMEREST 2715 PEG-40 Stearate	2.0
B.	
EMERY 916 Glycerine	3.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized water	80.0

This viscous creamy lotion imparts a satiny, cushioned after-feel, while leaving a matte finish on the skin.

Procedure:

Heat (A) and (B) separately to 75C. Add (B) to (A) at 75C with stirring. Continue stirring and cool to room temperature.

SOURCE: Emery Chemicals: EMEREST 2486: Formulation 2643-127D

SKIN CARE LOTION

RAW MATERIALS	% By Weight
A.	
EMEREST 2400 Glyceryl Stearate	3.5
EMEREST 2384 Propylene Glycol Isostearate	1.3
LANTROL 1673 Lanolin Oil	1.0
Mineral oil	7.0
EMERY 1787 Cetyl Alcohol Flakes, NF	1.3
Dow Corning 200 Fluid (100 cSt.) (Dimethicone)	0.1
B.	
LANOQUAT 1756 Lanolin Quaternary	2.5
EMERY 916 Glycerine	3.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Boric acid	0.5
Methocel K15M Premium (1% aqueous)	45.0
Deionized water	33.8

Procedure:

Heat parts A and B separately to 75-80C. Add B to A with agitation. Cool to 35C and add fragrance.

SOURCE: Emery Industries: LANOQUAT 1756: Formulation 2248-149

O/W - LOTION
Manufacturing at room temperature

RECIPE	% By Weight
A.	
Hostaphat KL 340 N	3.00
Paraffin oil, high viscosity	10.00
Isopropylpalmitate	5.00
B.	
HOSTACERIN PN 73	0.60
C.	
1,2-Propylenglycol	3.00
Water, preserving agent	78.10
D.	
Perfume	0.30

Procedure:

- I Mix A and B.
- II Stir C into I.
- III Add D to II.
- IV Homogenization is necessary.

Formulation No. A VI/1101

O/W LOTION

RECIPE	% By Weight
A.	
HOSTAPHAT KW 340 N	3.00
Paraffin oil, low viscosity	3.00
Isopropylpalmitate	3.00
Jojoba oil	5.00
B.	
HOSTACERIN PN 73	0.60
C.	
Glycerol	3.00
Water, preserving agent	82.10
D.	
Perfume	0.30

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenization is necessary.

Formulation No. A VI/1301

SOURCE: Hoechst Celanese Corp.: Cosmetics: Suggested Formulations

O/W-LOTION-CATIONIC

RECIPE	% By Weight
A.	
GENAMIN DSAC	1.00
HOSTACERIN DGS	3.00
Paraffin oil, low viscosity	10.00
Isopropylpalmitate	10.00
B.	
Water, preserving agent	75.70
C.	
Perfume	0.30

Procedure:

- I Heat A and B to 80C.
- II Stir B into A.
- III Stir until cool.
- IV Add C to III at 40C.
- V Homogenize if necessary.

Formulation No. A VI/1400

O/W MOISTURIZING LOTION

RECIPE	% By Weight
A.	
HOSTAPHAT KL 340 N	1.0
HOSTACERIN DGS	4.0
Paraffin oil, high viscosity	8.0
Isopropylpalmitate	4.0
Cetiol V	3.0
B.	
HOSTACERIN PN 73	0.3
C.	
Hydroviton	2.0
1,2-Propylene glycol	2.0
Water, preserving agent	73.4
D.	
Collagen	2.0
Perfume	0.3

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into A.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenization is necessary.

Formulation No. A VI/3002

SOURCE: Hoechst Celanese Corp.: Cosmetics: Suggested Formulations

OIL-FREE LOTION

INGREDIENTS	% By Weight
A.	
Deionized Water	65.54
METHOCEL 40-202	0.20
B.	
Triethanolamine	0.01
C.	
Carbomer 934 (2%)	10.00
D.	
Propylene Glycol	3.00
Methylparaben	0.20
Ethylparaben	0.15
E.	
Dimethicone	3.00
Octylpalmitate	6.00
Squalane	3.00
Promulgen D	1.00
Stearic Acid	2.00
Glyceryl Stearate	2.50
Laureth-23	0.50
F.	
Deionized Water	1.00
Triethanolamine	0.70
G.	
Fragrance	0.10
H.	
Deionized Water	1.00
DOWICIL 200	0.10

A light natural lotion that protects dry skin.

This very light lotion provides excellent penetration and leaves no greasy afterfeel. The skin is left feeling dry but with a light barrier due to the dimethicone. Because there are no animal oils or petroleum distillates such as mineral oil in this formulation, it's perfect for the health-oriented market.

Variations:

1. Make unique formulations for specific market segments by adding proteins or herbal extracts.
2. Increase the wax phase to create an oil free cream.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

PH BALANCED LOTION

INGREDIENT		% By Weight
I.		
DC 200 Fluid (200cs)		0.7
Petrolatum		3.0
Mineral Oil		6.0
ADOL 52		1.0
HYDROFOL ACID 1655		4.5
II.		
Glycerine		5.0
Triethanolamine		1.2
Veegum HV		0.5
Deionized Water		78.1
III.		
Preservative		qs
Solids:	21.9%	
pH:	5.7	
Viscosity:	19,000 cps	
Formulation: Code:	6.4.3	

PROTECTIVE LOTION

INGREDIENT		% By Weight
I.		
Deionized Water		80.4
Carbopol 934		0.2
Glycerine		3.0
II.		
Propylene Glycol		2.0
Keltrol		0.2
III.		
STARFOL OS		3.0
STARFOL IS		3.0
HYDROFOL ACID 1655		2.0
ADOL 52		1.0
Arlacel 165		1.0
AROSURF 66-E20		1.0
VARONIC LI-67		0.5
Silicone 225		0.3
IV.		
Deionized Water		2.0
Triethanolamine		0.4
V.		
Preservative		qs
Solids:	19.6%	
pH:	6.9	
Viscosity:	10,500 cps	
Formulation Code:	6.4.3	

SOURCE: Sherex Chemical Co.: Suggested Formulations

PROTECTIVE EMOLLIENT LOTION

INGREDIENTS	%W/W
Phase A:	
Glyceryl Stearate	3.5
Myrj 52 (PEG-40 Stearate)	2.0
Promulgen D (Cetearyl Alcohol and Ceteareth-20)	1.5
Cetyl alcohol	1.0
VELSAN P8-16 (Cetyl C12-15 Pareth-9-Carboxylate)	4.0
Escalol 507 (Octyl Dimethyl PABA)	5.0
Dow 200 Fluid (Dimethicone)	0.5
Phase B:	
Natrosol HHR 250 (Hydroxyethylcellulose)	0.5
Propylene glycol	3.0
CARTARETIN F-4 (Adipic acid/dimethylamino Hydroxy-propyl diethylenetriamine copolymer)	2.0
BTC-2125M (Benzalkonium chloride)	0.1
Water, fragrance	Q.S.
Perfume	0.2
Properties:	
pH:	7.06
Viscosity:	1560 cps
Appearance:	Creamy, white lotion

A velvety smooth, nonionic, emollient lotion which provides moisturization from VELSAN P8-16 and incorporates light sun protection.

SOURCE: Sandoz Chemicals: VELSAN: Formulation No. CSC-08

TRANSLUCENT PERFUMING EMOLLIENT LOTION

RAW MATERIALS	Parts By Weight
Phase A:	
Carbopol 934	0.33
Water	62.41
Phase B:	
WITCONOL 14 (Polyglyceryl-4 Oleate)	0.42
WITCONOL F26-46 (PPG-36 Oleate)	0.83
Phase C:	
SDA Alcohol	33.26
Perfume	2.50
D and C Yellow No. 10	0.03
Monoisopropanolamine	0.22

Slowly add Carbopol 934 to water with good agitation until complete dispersion is attained. Add Phase B and mix for 5 minutes. Add Phase C and monoisopropanolamine, mix for 20 minutes.

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries: Formulation 111C

PROTECTIVE LOTION WITH UV-A AND UV-B FILTERS(O/W)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.0
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.0
Stearic Acid XXX	3.0
DELTYL EXTRA (CTFA: Isopropyl Myristate)	3.0
Cetiol A (CTFA: Hexyl Laurate)	8.0
Sweet Almond Oil	2.5
Butylated Hydroxytoluene (CTFA: BHT)	0.1
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.0
c)	
PANTHENOL (CTFA: Panthenol)	1.0
Propylene Glycol	3.0
Sequestrene Na2 (CTFA: Disodium EDTA)	0.1
Deionized Water	74.3
d)	
Perfume, preservatives, deionized water	q.s. to 100

WATER-IN-SILICONE BODY LOTION WITH UV-A AND UV-B PROTECTION

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	1.5
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.5
Silicone Q2-3225 C (CTFA: Cyclomethicone (and) Dimethicone Copolyol)	10.0
Silicone 344 fluid (CTFA: Cyclomethicone)	3.0
Silicone 566 fluid (CTFA: Phenyl Dimethicone)	7.0
Jojoba Oil	0.2
Cetiol LC (CTFA: Coco-Caprylate/Caprate)	2.5
b)	
Herbasol Aloe Extract	10.0
Glycerin	3.0
Deionized water	58.2
Sodium Chloride	2.0
Sequestrene Na2 (CTFA: Disodium EDTA)	0.1
c)	
Perfume, preservatives, Silicone 344 fluid	q.s. to 100

SOURCE: Givaudan Corp.: PARSOL MCX: Suggested Formulations

PROTECTIVE MOISTURIZING LOTION (O/W)
(UV-A and UV-B Protection)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	1.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
Silicone fluid 556 (CTFA: Phenyl Dimethicone)	0.50
Elfacos ST9 (CTFA: PEG-45/Dodecyl Glycol Copolymer)	1.00
Stearic acid T.P. (CTFA: Stearic Acid)	4.00
Cetyl Alcohol Extra (CTFA: Cetyl Alcohol)	0.50
Cetiol LC (CTFA: Coco-Caprylate/Caprate)	6.00
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Glycerine (CTFA: Glycerin)	10.00
Carbopol 940 dispersion (2%) (CTFA: Carbomer 940)	5.00
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
Deionized water	65.75
d)	
Triethanolamine (99%) (CTFA: Triethanolamine)	0.10
Deionized water	1.00
e)	
Perfume, preservatives, deionized water	qs to 100

PROTECTIVE LOTION WITH VITAMINS (O/W)
(UV-A and UV-B protection)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.00
Vitamin E acetate (CTFA: Tocopheryl Acetate)	0.50
Sweet almond oil (stabilized) (CTFA: Sweet Almond Oil)	2.50
Stearic acid T.P. (CTFA: Stearic Acid)	3.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	3.00
Cetiol A (CTFA: Hexyl Laurate)	8.00
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
c)	
d-PANTHENOL (CTFA: Panthenol)	1.00
Propylene glycol (CTFA: Propylene Glycol)	3.00
Trilon BD (CTFA: Disodium EDTA)	0.10
Deionized water	70.85
d)	
Perfume, preservatives, deionized water	qs to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

SKIN MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Polypentaerythrityl Tetralaurate (Miranol Ester PO-LM4)	4.00
Glyceryl Stearate (and) PEG 100 Stearate (Arlacel 165)	5.00
Mineral Oil	3.50
Isopropyl Myristate	2.00
Propylene Glycol Dipelargonate (Emerest 2388)	1.00
Beeswax	2.00
Stearic Acid	1.00
Stearyl Alcohol	0.50
Cyclomethicone (Dow Corning Fluid 344)	0.50
Phase B:	
Water	67.70
Carbomer 934, 3% solution (Carbopol 934)	7.50
Propylene Glycol	3.50
Phase C:	
Triethanolamine	0.80
Phase D:	
GERMABEN II-E	1.00

Procedure:

Heat Phase A & Phase B separately to 75C and add B to A with agitation. Then add Phase C. Cool to 40C and add Phase D.

SOURCE: Sutton Chemical Co.: Sutton Cosmetic Formulary

SKIN FRESHENING LOTION

RAW MATERIALS	Parts by Weight
Phase A:	
EMCOL E-607L (Lapyrium Chloride)	1.0
EMCOL CC-42 (PPG-40 Diethylmonium Chloride)	4.0
Water	69.5
Phase B:	
WITCONOL F26-46 (PPG-36 Oleate)	12.0
WITCONOL MST (Glyceryl Stearate)	12.0
WITCONOL 14 (Polyglyceryl-4 Oleate)	1.5

Heat Phase A and Phase B separately to 85C. Add Phase B to Phase A and mix until cool.

SOURCE: Witco Chemical Corp.: Surfactants for Cosmetics and Toiletries: Formulation 107C

W/O LOTION - NO. 1220

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS E200	3
ELFACOS ST37	3
Oxynex 2004	0,02
ELFACOS C26	3
Paraffin oil	10
Isocetyl stearate	10
Nipasteril 30K	0,2
Water Phase:	
Dowicil 200	0,1
Water	65,28
Sorbitol 70%	5
Perfume oil	0,4

W/O LOTION - NO. 3112 (ST9) OR NO. 3184 (ST37)

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS ST	3
Vaseline	5
Armotan MO (Sorbitan Oleate)	3
Lanolin alcohol	5
Liquid paraffin	14
Water Phase:	
Sorbitol 70%	5
Preservative	0,2
Perfume oil	0,4
Water	64,4

These stable W/O lotions are excellent bases for waterproof suntan products.

SOFT LOTION - NO. 2201

RAW MATERIALS	% By Weight
Oil Phase:	
ELFACOS E200	5
ELFACOS C26	2
ELFACOS ST9	1
Paraffin oil	20
Nipasteril 30K	0,2
Water Phase:	
Sorbitol 70%	5
Water, perfume oil up to	100

This soft, white, easily spreadable emulsion is similar to formula 2111, an excellent basis for a sun protecting emulsion.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200

Section X

Shampoos

ACID-PH CONDITIONING SHAMPOO

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	21.2
WITCAMIDE 5133 (Cocamide DEA)	2.0
WITCAMIDE 61 (Oleamide MIPA)	1.0
EMCOL CC37-18 (Coco-Betaine)	2.0
Neo-Fat 12	0.5
Preservative	q.s.
Ammonium Chloride, 25% aqueous solution:	q.s to desired viscosity
Perfume, Color	q.s.
Water	q.s. to 100

Charge WITCONATE AOS, WITCAMIDE 5133, WITCAMIDE 61, EMCOL CC37-18, Neo-Fat 12 and water. Heat with stirring to 70 to 80C until dissolved. At 45C add preservative.

Adjust batch to pH 6.5 with dilute phosphoric, citric, lactic or hydrochloric acid. Add ammonium chloride solution for desired viscosity. Add perfume and color. Cool and package.

Formulation 130D

CATIONIC CONDITIONING SHAMPOO

RAW MATERIALS	Parts by Weight
EMCOL CC37-18 (Coco-Betaine)	20.0
EMCOL E-607S (Steapyrium Chloride)	1.0
WITCAMIDE 5195 (Lauramide DEA)	4.0
Ammonium Chloride, 25% aqueous solution:	q.s. to desired viscosity
Fragrance, Preservative	q.s.
Water	q.s. to 100

Heat all ingredients except fragrance and preservative to 70C. Add ammonium chloride solution to obtain desired viscosity. Cool to 40C. Add preservative and fragrance; package.

This shampoo has excellent foaming and lathering properties and typically leaves the hair in a glossy and well-conditioned state normally characterized by cationic conditioners.

Formulation 129D

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries: Suggested Formulations

ACID PH MILD SHAMPOO

RAW MATERIALS	% By Weight
Standopol ES-40	6.0
Maprofix NH	20.0
SCHERCOMID AME-70	7.5
SCHERCOTERIC MS-SF-2 75% Super Conc.	8.6
Dowicil-200	0.2
Glycolic Acid 70% Tech	2.2
Water (Deionized)	55.5
Sodium Chloride	qs

Procedure:

Heat water to 40-50C and add Dowicil 200 and glycolic acid. Next, add SCHERCOMID AME-70 and Maprofix NH. Add Standapol ES-40 very slowly to avoid gel body formation. Finally add, very slowly, SCHERCOTERIC MS-SF-2 Super Conc. Sodium Chloride may be added to adjust viscosity.

Typical pH: 5.4
 Typical viscosity: 1200 cps @ 25C

SOURCE: Scher Chemicals, Inc.: SCHERCOMID AME-70: Formulation SG-0200

LOW PH MILD SHAMPOO

RAW MATERIALS	% By Weight
Water (Deionized)	55.5
Dowicil 200	0.2
Glycolic Acid (70% Tech.)	2.2
SCHERCOMID AME-70	7.5
Maprofix NH* (30%)	20.0
Standopol ES-40** (60%)	6.0
SCHERCOTERIC MS-SF-2 Super Conc. (75%)	8.6

Viscosity @ 25C 1200 cps

* Ammonium Lauryl Sulfate 30%

** Sodium Myristoyl Ether (3.0 EO) Sulfate 60%

Manufacturing Procedure:

1. Heat Water to 40-50C with stirring add Dowicil 200 and Glycolic Acid.
2. Now add SCHERCOMID AME-70, Maprofix NH. Each of these goes in quite readily.
3. Add Standopol ES-40 very slowly to avoid gel body formation.
4. Finally add, very slowly, SCHERCOTERIC MS-SF-2 Super Conc.

SOURCE: Scher Chemicals, Inc.: Formulation SG-0200

ALL PURPOSE SHAMPOO

INGREDIENTS:	%W/W
Part A:	
Water	q.s. to 100.00
STANDAPOL ES-2 (Sodium Laureth Sulfate)	40.00
VELVETEX BA-35 (Cocamidopropyl Betaine)	5.00
STANDAMID SD (Cocamide DEA)	3.00
NaCl	0.75
Part B:	
Kathon CG	0.05
Fragrance	q.s.

Procedure:

Add ingredients in Part A individually, under agitation. When homogeneous, add individual ingredients of Part B to Part A. Adjust pH to 6.3 with 50% citric acid solution.

Comments:

This solution exhibits good cleansing coupled with a degree of conditioning due to the presence of the VELVETEX BA-35.

Formula H-4867

AMPHOTERIC GEL SHAMPOO

INGREDIENTS:	%W/W
Water	36.8
STANDAPOL ES-2 (Sodium Laureth Sulfate)	50.0
VELVETEX AB-45 (Coco-Betaine)	13.2
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Blend ingredients in order listed at 55C, until uniform. Cool to 50C with sweep-type agitation to prevent air entrapment.

Comment:

The betaine provides emolliency and unique reduction of irritation effects of the anionic in this low actives (18%) system, while also aiding in building gel structure.

Formula H-4369

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

ALOE VERA PREMIUM-TYPE SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
ALOE VERAGEL 1:1	28.0
Cycloryl WAT	60.0
Cycloteric BET-C30	5.0
Peptein 2000	1.0
Cyclomide DC212S	4.0
NaCl	1.0
Citric Acid	Q.S.
Perfume, Preservative, Color	Q.S.

Procedure:

Warm ALOE VERAGEL and WAT to 40C, and blend in ingredients as listed. Adjust viscosity with NaCl and adjust pH with Citric acid.

ALOE VERA SHAMPOO

INGREDIENTS:	% By Weight
A.	
D. I. Water	64.84
ALOE VERAGEL 200 Powder	0.1
Sodium Chloride	1.3
Hydrolyzed animal protein	1.0
B.	
Sodium lauryl sulfate	26.0
Citric acid	0.40
Fragrance	0.15
D.M.D.M. Hydantoin	0.20
Germall 115	0.10
C.	
Richamide liquid	6.0

Procedure:

Mix phase "A" together. Mix phase "B" together and add to phase "A". Blend together. Add phase "C" and mix together.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ANTIDANDRUFF-SHAMPOO
Clear, liquid, 14.4% active detergent

RAW MATERIALS	% By Weight
A)	
GENAPOL LRO liquid	40.00
B)	
GENAPOL AMS	8.00
C)	
OCTIPIROX	0.75
D)	
Perfume	0.30
Water	46.85
Dyestuff solution	q.s.
Preservative	q.s.
E)	
Citric acid--->pH 6-7	q.s.
F)	
Sodium chloride	4.10

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/6097

ANTIDANDRUFF-SHAMPOO
Cream type

RAW MATERIALS	% By Weight
A)	
HOSTAPON CT-paste	70.00
HOSTAPON STT-paste	15.00
MEDIALAN KA conc.	3.00
OCTOPIROX	0.75
Water	10.75
B)	
Perfume	0.50
Dyestuff solution	q.s.
C)	
Citric acid--->pH 6-7	q.s.

Procedure:

- I Melt A at 70C, then stir until cooled to 40C.
- II Add the components of B to I.
- III Adjust the pH with C.
- IV Cease stirring to allow for maximum crystallisation.

Formulation B I/6113

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

ANTI-DANDRUFF SHAMPOO

INGREDIENT	% Wt/Wt
Sodium Lauryl Sulfate (29% active)	60.0
Lauric diethanolamide	4.0
Ethylene Glycol Distearate	2.0
Magnesium Aluminum Silicate (suspending aid)	1.0
Zinc Pyrithione (48% dispersion)	2.1
Sodium Chloride	To desired viscosity
Citric Acid	To pH 7.0 + 0.5
Deionized Water	Balance

Basic Characteristics

1. Contains an approved (OTC Panel) active ingredient (e.g. Zinc Pyrithione)
2. Usually based on an alcohol sulfate (e.g. Sodium Lauryl Sulfate).
3. High surfactant concentration.

ANTI-DANDRUFF LOTION SHAMPOO

INGREDIENTS:	%W/W
Water	49.10
Veegum Regular	1.00
Zinc Omadine, 48%	2.10
NITRENE L-90 (Lauramide DEA)	4.50
STANDAPOL WAQ-LC (Sodium Lauryl Sulfate)	40.00
FD & C, Blue #1 (0.2%)	1.50
FD & Yellow #5 (0.1%)	0.40
Sodium Chloride	1.40

Procedure:

1. Heat water to 70C. Begin rapid stirring.
2. Add Veegum and stir for 15 minutes.
3. Add Zinc Omadine and stir for 15 minutes.
4. Reduce speed and add NITRENE L-90 (Pre-melted).
5. Take heat off and while cooling, add STANDAPOL WAQ-LC.
6. While cooling, add remaining ingredients, (except fragrance) one at a time, under agitation.
7. At 35C add fragrance.
8. Continue stirring until product reaches room temperature. Fill off.

Comments:

This is a high performance shampoo containing an FDA approved active ingredient for the control of scalp dandruff.

Formula H-4837

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

ANTIDANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
Water	47.0
Magnesium Aluminum Silicate (Magnabrite S)	0.5
Phase B:	
Cocobetaine	6.0
Ammonium Lauryl Sulfate	25.0
Disodium Oleamido PEG-2 Sulfosuccinate	15.0
GERMABEN II	1.0
Hydroxypropyl Guar	0.5
Cocamide DEA	3.0
Zinc Pyrithione	2.0
Color, fragrance	q.s.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formula

BODY AND SPORT SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	45.0
II.	
SLS (28%)	23.3
EGMS	1.0
III.	
Glycerine	2.0
VAROX 1770	3.0
VARAMIDE MA-1	3.0
IV.	
VARISULF SBU-185	3.0
VARISULF SBFA-30	9.7
V.	
VARION CADG-HS	10.0
VI.	
Citric Acid (25%)	qs
VII.	
Preservative	qs
Solids:	22.1%
pH:	6.5

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.2

ANTI-DANDRUFF SHAMPOO
Cream Type

RAW MATERIALS	% By Weight
A.	
HOSTAPON CT Paste	85.0
MEDIALAN KA Conc.	3.0
Zinc Omadine	1.0
Water	10.5
B.	
Perfume	0.5
Dyestuff	q.s.
Preserving agent	q.s.

* Exclusive license for applications patent

Procedure:

I Melt A at 70C.

II At 40C, the components of B are added to I.

III The stirring is then stopped to allow for maximum crystallization.

Formulation No. B I/6055

CONDITIONING SHAMPOO
Clear, liquid

RAW MATERIALS	% By Weight
A.	
Coconut fatty acid diethanolamide	2.00
HOE S 2650	1.00
B.	
Water	46.20
C.	
GENAPOL LRO Liquid	40.00
GENAMINOX KC	10.00
Perfume	0.30
Dyestuff	q.s.
Preserving agent	q.s.
D.	
Common salt	0.50

If GENAPOL LRO Paste is being used instead of GENAPOL LRO Liquid, 0.4 times the quantity of GENAPOL LRO Liquid is diluted with water to the required amount.

Procedure:

I A is warm dissolved in B.

II One after another the components of C are stirred in I.

III Finally the viscosity is adjusted with D.

Formula No. B I/6085

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

ANTI-DANDRUFF SHAMPOO WITH OCTOPIROX

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	0.5
Perfume	0.5
Sodium lauryl ether sulphate (28%)	35.0
Octipirox	1.0
Phase B:	
Water	51.0
TEGO-Betain L7	12.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.9

ANTI-DANDRUFF SHAMPOO WITH ZINC PYRITHIONE

RAW MATERIALS	% By Weight
Phase A:	
TEGIN D 6100	3.0
Sodium lauryl ether sulphate (28%)	25.0
Triethanolamine lauryl sulphate (47%)	12.0
TEGO-Betain L7	12.0
Zinc pyrithione (48%)	2.0
Phase B:	
Carbopol solution (1.5%)	9.0
Water	37.0
Perfume, preserving agent, colouring	q.s.
Preparation of the Carbopol solution:	
Carbopol 934	1.5
Solution of sodium hydroxide (25%)	q.s.
Water	97.0

Briskly stir the water phase and add slowly the Carbopol. Once the solution takes on a uniform consistency add the 25% solution of sodium hydroxide drop-by-drop until a pH-value of 5.5 is reached.

Preparation:

Heat A and B to 70C. Stir B into A. Stir until cool, adding perfume at 45C.

Formulation E 1.1.10

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulations

ANTI-DANDRUFF SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	34.6
Magnesium Aluminum Silicate	1.5
Hydroxypropylmethylcellulose	1.5
Sorbitol	1.0
B.	
Cocoamidopropylhydroxysultaine	8.0
TEA Lauroyl Sarcosinate	22.0
TEA Lauryl Sulfate	18.0
Lauramide DEA	6.0
C.	
Zinc Pyrithione, 48%	4.2
D.	
PEPTEIN 2000	3.0
E.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Blue No. 1 (0.01%)	0.1

This is a rich, lotion, anti-dandruff shampoo with the added benefit of conditioning from PEPTEIN 2000. Hydrolyzed Animal Protein also acts to reduce the irritation potential of the product.
Formula: 614-35

CONDITIONING SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	37.8
Hydroxypropylmethylcellulose	1.0
Propylene Glycol	1.0
Glycol Stearate	1.0
B.	
C14-C16 Olefin Sulfonate	20.0
Triethanolamine Lauroyl Sarcosinate	20.0
Cocoamidopropylhydroxysultaine	8.0
Lauramide DEA	6.0
C.	
PEPTEIN 2000	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Citric Acid	1.0
Fragrance	0.1
F, D & C Blue No. 1 (0.01%)	0.1

This is a pearly lotion shampoo with rich lather and conditioning benefits attributed to the highly substantive effects of HORMEL PEPTEIN 2000. Hydrolyzed Animal Protein will add body, shine and manageability, mend split ends, repair damage and restore health to the hair with no build-up.
Formula: 614-26

SOURCE: Geo. A. Hormel & Co.: Suggested Formulations

ANTI-DANDRUFF SHAMPOO WITH PYRITHIONE DISULFIDE

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulfate (28%)	30.0
Phase B:	
Water	55.0
Pyrrithione Disulfide	0.5
TEGO-Betain L7	12.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.11

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Suggested Formulation

ANTIDANDRUFF SHAMPOO FOR OILY HAIR

RAW MATERIALS	% By Weight
HAMPOSYL L-30	10.0
TEA Lauryl Sulfate, 40%	25.0
Zinc Pyrithione, 48%	2.1
Magnesium Aluminum Silicate (Veegum)	1.0
Hydroxypropylmethyl cellulose, E4000	1.25
Water, perfume, color (D & C Green #5)	q.s.

Disperse the last two dry ingredients in hot water and allow to mix overnight. Add rest of ingredients.

Lathers richly even on oily hair. A creamy, flowable thick liquid.

SOURCE: Hampshire Division: HAMPOSYL Surfactants: Suggested Formulation

ANTI-DANDRUFF SHAMPOO NO. 432

INGREDIENT	% By Weight
A. VEEGUM PRO	1.20
Tetrasodium Pyrophosphate	0.06
Deionized Water	51.64
B. Sodium Laureth Sulfate	40.00
Myristamide DEA	5.00
C. Zinc Pyrithione (48% Dispersion)	2.10
Citric Acid to pH 7	q.s.
Preservative, Color, Fragrance	q.s.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 432

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
Water	49.95
Hydroxypropyl Guar (Jaguar HP-60)	0.50
Magnesium Alumimim Silicate (Veegum)	0.50
Phase B:	
Ammonium Lauryl Sulfate (Sipon L-22)	40.00
Phase C:	
PPG-5-Ceteth-10 Phosphate (Crodafos SG)	1.80
Lauramide DEA (Hetamide MOC)	4.00
Zinc Pyrithione (Zinc Omadine, 48%)	2.10
GERMABEN II	1.00
Fragrance	0.15
Color	qs

Procedure:

Add the Veegum to the water slowly, agitating with good shear until smooth. Add the Jaguar HP-60 and mix until uniformly dispersed. With slow agitation add Phase B. Now add the Crodafos SG and mix until dissolved. Add remaining ingredients from Phase C, preservative and fragrance. No heating is required.

ASTM MODEL SHAMPOO

RAW MATERIALS	% By Weight
TEA-Lauryl Sulfate	25.0
Lauramide DEA	5.0
Cocoamphocarboxyglycinate	5.0
PEG-75 Lanolin (50%)	3.0
Phosphoric Acid	0.2
GERMALL II	0.1
Water	q.s. to 100.0

Procedure:

Mix all ingredients and warm to 45C, until complete solution is reached. Cool.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulation

ANTIDANDRUFF SULFUR SHAMPOO NO. 335

RAW MATERIALS	% By Weight
A)	
VEEGUM	1.0
Water	53.3
B)	
Colloidal sulfur	1.0
C)	
Sipon L-22	40.0
Monamid 716	4.5
Sodium chloride	0.2
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add B and C in order, mixing after each addition until smooth and uniform.

Consistency: Pourable lotion

Suggested Packaging: Plastic squeeze bottle

Comments: This cold process shampoo is a rich, free flowing lotion showing good stability and excellent suspension of the antidandruff active by VEEGUM. Good flash foam and cleansing action without excessive drying of the hair.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 335

DANDRUFF CONTROL SHAMPOO

INGREDIENTS:	%W/W
Part A:	
Water	41.9
Veegum HV	0.5
STANDAPOL WAQ-SPECIAL (Sodium Lauryl Sulfate)	50.0
Ethylene Glycol Monostearate	3.0
Part B:	
Standamid LD (Pre-melted at 45C)	3.0
BIOSULPHUR Fluid CLR	1.0
Sodium Chloride	0.6
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Comment:

This high lathering shampoo contains pre-solubilized sulfur which aids in the control of sebacious secretions of the scalp.

Formulation H-4739

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

CATIONIC SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	24.7
VARISOFT BT-85	1.4
VARSULF SBFA-30	12.0
II.	
Deionized Water	24.6
PEG 6000 DS	0.3
ALS (28%)	26.0
VARION CADG-HS	5.7
VAROX 1770	4.0
Dow Corning 193	0.5
III.	
Crotein HKP	0.5
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	18%
pH:	6.5
Viscosity:	7000 cps

CONDITIONING SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	49.4
ALES (27%)	33.5
VARION CADG-HS	6.4
VARONIC LI-63	1.7
VAROX 365	3.0
II.	
VARONIC LI-67	6.0
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
Solids:	19.8%
pH:	5.5

Mixing Instructions:

Blend Phase I and heat to 70C with good agitation. Add Phase II to I, melting the VARONIC LI-67 before adding. Cool to 35C and adjust pH to 5.5 with Citric Acid.

SOURCE: Sherex Chemical Co.: Formulations Code: 6.6.1

CLEAN HAIR SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	51.3
II.	
ALS (28%)	45.4
VAROX 365	2.3
III.	
Citric Acid (25%)	qs
IV.	
Ammonium Chloride	1.0
V.	
Preservative	qs
Solids:	14.4%
pH:	4.5
Viscosity:	3500 cps

Formulation Code: 6.3.2

DRY HAIR SHAMPOO WITH LANOLIN

INGREDIENT	% By Weight
I.	
Deionized Water	62.7
II.	
SLES (60%)	11.5
TEALS (40%)	8.8
VARISULF SBL-203	10.0
VARISULF S-1333	3.0
PEG-75 Lanolin	1.0
VARAMIDE MA-1	3.0
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
V.	
Sodium Chloride	qs
Solids:	19.6%
pH:	6.5
Viscosity:	1500 cps

Formulation Code: 6.3.3

SOURCE: Sherex Chemical Co.: Suggested Formulations

CLEAR LIQUID CONDITIONING SHAMPOO

INGREDIENTS:	% W/W
Water	55.00
STANDAPOL ES-1 (Sodium Laureth Sulfate)	30.00
VELVETEX BK-35 (Cocamidopropyl Betaine)	6.50
STANDAMOX CAW (Cocamidopropylamine Oxide)	3.00
STANDAMID SD (Cocamide DEA)	1.50
CETIOL HE (PEG-7 Glyceryl Cocoate)	2.00
POLYQUART H (PEG-15 Tallow Polyamine)	2.00
Fragrance, Dyes and Preservatives	q.s.

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, in the order given, under agitation. Continue stirring and adjust pH to 6.5 + 0.5 with 50% citric acid.

Note: Small additions of sodium chloride can be used to adjust viscosity.

Comments:

This medium foaming shampoo provides a creamy, lather type foam with excellent hair conditioning properties.

Formula H-4832

PEARLESCENT CONDITIONING SHAMPOO

INGREDIENTS:	%W/W
Water	q.s.
STANDAPOL ES-2 (Sodium Laureth Sulfate)	56.00
STANDAMOX CAW (Cocamidopropylamine Oxide)	3.00
CETIOL HE (PEG-7 Glyceryl Cocoate)	1.50
COSMEDIA GUAR C-261 (Guar Hydroxylpropyl Trimonium Chloride)	1.00
STANDAPOL PEARL CONC. 7130	4.00
Fragrance	q.s.
Preservative	q.s.
Citric Acid (50% soln)	q.s. to 6.0-6.5

Procedure:

Charge kettle with water. Pre-wet Guar Gum in CETIOL HE and add to water under agitation. When completely hydrated, add remaining ingredients individually in the order listed. Continue mixing until homogeneous. Adjust pH to 6.0-6.5 with a 50% solution of citric acid. Fill off.

Comments:

This is a truly high performance shampoo in terms of both foaming and conditioning. The combination of CETIOL HE and GUAR C-261 provides highly beneficial effects on even difficult to manage hair.

Formula H-4863

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulas

CLEAR LIQUID SHAMPOO

INGREDIENTS:	%W/W
Water	q.s. to 100.00
DERIPHAT 151-C (Lauraminopropionic Acid)	7.00
STANDAPOL T (TEA Lauryl Sulfate)	28.00
STANDAMID LD (Lauramide DEA)	4.00
Fragrance	0.25
Sodium Chloride	0.25
Kathon CG	0.05

Procedure:

Add ingredients in the order given under adequate agitation; pre-mixing the fragrance in the LD in a separate vessel before adding. Adjust to pH 6.5 with 50% citric acid solution.

pH:	6.5
Viscosity at 25C:	1,300 cps

Comments:

The addition of DERIPHAT 151-C to shampoo systems results in an elegant feel to the hair after rinsing. Furthermore, it provides a richer, smaller-bubbled foam.

Formula H-4866

CLEAR LIQUID SHAMPOO

INGREDIENTS:	%W/W
Water	50.00
Sodium Chloride	0.50
Lantox 55 (PEG-75 Lanolin)	0.50
STANDAPOL T (TEA Lauryl Sulfate)	30.00
STANDAMID SD (Cocamide DEA)	4.00
STANDAPOL ES-2 (Sodium Laureth Sulfate)	15.00
Fragrance, Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Adjust the pH to 6.5 + 0.5 with 50% citric acid aqueous solution. Continue stirring until product is homogeneous.

Comment:

This high foaming shampoo formula is excellent for normal to slightly dry hair.

Formula H-4830

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

CLEAR LIQUID SHAMPOO

INGREDIENTS:	%W/W
Water	49.0
Sodium Chloride	0.5
Lantox 55 (PEG-75 Lanolin)	0.5
STANDAPOL T (TEA Lauryl Sulfate)	30.0
STANDAMID SD (Cocamide DEA)	5.0
STANDAPOL ES-40 (Sodium Myreth Sulfate)	15.0
Fragrance	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat water to 50C. Add remaining ingredients in order listed one at a time, under agitation. Continue stirring until product is homogeneous. Adjust pH to 6.5-7.0 with citric acid.

Comments:

This high actives (26%) anionic blend is an efficient foamer and cleanser particularly for oily hair.

Formulation H-4122

CREAM SHAMPOO

INGREDIENTS:	%W/W
STANDAPOL WAQ-SPEC (Sodium Lauryl Sulfate)	45.0
Stearic Acid, USP	7.5
GENEROL 122 E-5 (PEG-5 Soya Sterol)	1.0
Part B:	
Water	43.5
Sodium Hydroxide	1.0
Sodium Chloride	2.0
Part C:	
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat Part A to 70C with agitation. Heat Part B to 70C with agitation and add Part A to Part B. Cool, continue stirring and at 45C add individual components of Part C.

Comments:

The addition of an ethoxylated Soya Sterol to this simple, yet elegant, shampoo provides a desirable after shampoo sheen to the hair coupled with somewhat of an emollient effect.

Formula H-4764

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

COLD-BLEND AOS SHAMPOO

RAW MATERIALS	Parts By Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	26.0
EMPHOS PS-810	3.5
WITCAMIDE 5133 (Cocamide DEA)	3.5
Oleic Acid	0.4
Deriphath 160C	3.4
Preservative	0.2
Ammonium Chloride	To desired viscosity
Perfume, Color	q.s.
Water	q.s. to 100

Dissolve all raw materials in water with stirring. Adjust pH to 5.5 to 6.5 with acid (dilute phosphoric, citric, lactic or hydrochloric acid).

Add ammonium chloride for desired viscosity.

Ammonium Chloride, %: 1: Approximate Viscosity at 25C, cps: 1,600

Ammonium Chloride, %: 2: Approximate Viscosity at 25C, cps: 4,800

Ammonium Chloride, %: 3: Approximate Viscosity at 25C, cps: 8,000

Formulation 120D

PROTEIN SHAMPOO(AOS)

RAW MATERIALS	Parts by Weight
Lauric Acid	0.25
WITCONATE AOS (Sodium C14-16 Sulfonate)	25.0
WITCAMIDE 5133 (Cocamide DEA)	2.0
WITCAMIDE 5195 (Lauramide DEA)	1.0
WITCAMIDE 61 (Oleamide MIPA)	1.5
EMCOL CC37-18 (Coco-Betaine)	2.0
EMPHOS PS-810 (Oleth-3 Phosphate)	1.0
Lexein X250	2.0
Preservative	q.s.
Sodium Chloride, 20% aqueous solution	2.5
Perfume	0.4
Deionized water	q.s. to 100

Mix WITCONATE AOS, WITCAMIDE 5133, WITCAMIDE 5195, WITCAMIDE 61, EMCOL CC37-18, EMPHOS PS-810, and lauric acid with half the water. Heat to 70 to 75C with stirring approximately 15 minutes.

Add remaining water and cool to 45C. Add preservative at 40C; add perfume.

Adjust pH to 6.0 with dilute phosphoric, citric, lactic or hydrochloric acid. Add sodium chloride solution and Lexein X250. Cool and package.

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

CONDITIONER SHAMPOO

INGREDIENTS	%W/W OILY
A.	
Sodium C14-16 Olefin Sulfonate (40%) (1)	26.25
Sodium Cocoyl Sarcosinate (30%) (2)	25.00
B.	
Sodium Isostearoyl-2-Lactylate (3)/Propylene Glycol 3/1 Blend	4.00
Lauramide DEA (4)	3.00
PEG-150 Distearate (5)	2.00
Perfume D-78-315 (6)	0.30
Benzophenone-1 (7)	0.10
C.	
Deionized Water	39.15
DMDM Hydantoin (8)	0.20
Color Cert. FDC, Yellow #5	q.s.
Lactic Acid (44%) (9)	q.s.
Cloud Point	Less than -2C
Viscosity	3,800 cps

Procedure:

Combine ingredients of Part A at room temperature stirring slowly until clear. Combine ingredients of Part B to form a slurry (warming to 45C to increase pourability). Add Part B to Part A while stirring at moderate speed (mixture becomes viscous and slightly opaque). Add water from Part C to mixture A/B at room temperature and stir for 30 minutes to give a clear solution. Add color and preservative. Adjust pH with lactic acid (44%) to pH 5.4 to 5.5.

(1) Lakeway Chemicals	Lakeway 301-10
(2) Hampshire	Hamosyl C-30
(3) Patco Cosmetic Products	PATIONIC ISL
(4) Mona Industries, Inc.	Monamid 716
(5) Mazer Chemicals, Inc.	Mapeg 6000 DS
(6) Perry Brothers, Inc.	
(7) GAF Corp.	Uvinul 400
(8) Glyco Chemicals Inc.	Glydant
(9) Patco Cosmetic Products	

SOURCE: Patco Cosmetic Products: Bulletin No. 172

CONDITIONER SHAMPOO

INGREDIENTS	%W/W Dry
A.	
Sodium C14-16 Olefin Sulfonate (40%) (1)	18.75
Sodium Cocoyl Sarcosinate (30%) (2)	25.00
B.	
Sodium Isostearoyl-2-Lactylate (3)/Propylene Glycol 3/1 Blend	5.00
Lauramide DEA (4)	3.00
PEG-150 Distearate (5)	2.00
Methyl Gluceth-10 (6)	3.00
Perfume D-78-315 (7)	0.30
Benzophenone-1 (8)	0.10
C.	
Deionized Water	42.65
DMDM Hydantoin (9)	0.20
Color Cert. FDC, Blue #1	q.s.
Lactic Acid (44%) (10)	q.s.
Cloud Point	Less than -2C
Viscosity	2,500 cps

Procedure:

Combine ingredients of Part A at room temperature stirring slowly until clear. Combine ingredients of Part B to form a slurry (warming to 45C to increase pourability). Add Part B to Part A while stirring at moderate speed (mixture becomes viscous and slightly opaque). Add water from Part C to mixture A/B at room temperature and stir for 30 minutes to give a clear solution. Add color and preservative. Adjust pH with lactic acid (44%) to pH 5.4 to 5.5.

(1) Lakeway Chemicals	Lakeway 301-10
(2) Hampshire	Hamposyl C-30
(3) Patco Cosmetic Products	PATINIC ISL
(4) Mona Industries, Inc.	Monamid 716
(5) Mazer Chemicals, Inc.	Mapeg 6000 DS
(6) Amerchol	Glucam E-10
(7) Perry Brothers, Inc.	
(8) GAF Corp.	Uvinul 400
(9) Glyco Chemicals, Inc.	Glydant
(10) Patco Cosmetic Products	

SOURCE: Patco Cosmetic Products: Bulletin No. 171

CONDITIONER SHAMPOO

INGREDIENT	%W/W Normal
A.	
Sodium C14-16 Olefin Sulfonate (40%) (1)	18.75
Sodium Cocoyl Sarcosinate (30%) (2)	25.00
B.	
Sodium Isostearoyl-2-Lactylate (3)/Propylene Glycol 3/1 Blend	4.00
Lauramide DEA (4)	3.00
PEG-150 Distearate (5)	2.00
Perfume D-78-315 (6)	0.30
Benzophenone-1 (7)	0.10
C.	
Deionized Water	46.65
DMDM Hydantoin (8)	0.20
Color Cert. FDC Green #3	q.s.
Lactic Acid (88%)	q.s.

Cloud Point Less than -2C
 Viscosity 3,200 cps

Procedure:

Combine ingredients of Part A at room temperature stirring slowly until clear. Combine ingredients of Part B to form a slurry (warming to 45C to increase pourability). Add Part B to Part A while stirring at moderate speed (mixture becomes viscous and slightly opaque). Add water from Part C to Mixture A/B at room temperature and stir for 30 minutes to give a clear solution. Add color and preservative. Adjust pH with lactic acid (44%) to pH 4.5 to 5.5.

- | | |
|-----------------------------|----------------|
| (1) Lakeway Chemicals | Lakeway 301-10 |
| (2) Hampshire | Hamosyl C-30 |
| (3) Patco Cosmetic Products | PATIONIC ISL |
| (4) Mona Industries, Inc. | Monamid 716 |
| (5) Mazer Chemicals, Inc. | Mapeg 6000 DS |
| (6) Perry Brothers, Inc. | |
| (7) GAF Corporation | Uvinyl 400 |
| (8) Glyco Chemicals, Inc. | Glydant |

SOURCE: Patco Cosmetic Products: Bulletin No. 170

CONDITIONER THAT SHAMPOOS

RAW MATERIALS	% By Weight
Water	39.6
Jortaine CSB-50	20.0
Jordamox LDA	34.0
MAZER MAZAMIDE CS-148	2.0
Jordaquat 1033	0.4
Jordaquat 522	0.2
Citric Acid (50% Solution)	2.0
NaCl	q.s.
Perfume	q.s.
Preservative, Dye	q.s.

Formula 26

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
TEA Lauryl Sulfate (40%)	35.0
Jortaine CSB	5.0
Jordamox LDA	2.0
Jordaquat 522	1.0
Citric Acid (50% Solution):	To adjust pH to 6.0-7.0
Perfume	q.s.
Preservative, Dye	q.s.
Water	57.0

Formula 25

PEARLESCENT SHOWER SHAMPOO

RAW MATERIALS	% By Weight
PEG 60 LANOLIN	5.0
Sodium Laurteth Sulfate	20.0
MAZER MAFO CAB	7.0
MAZER MAZASMIDE CS-148	1.5
MAZER MAPEG EGDS	1.0
Sodium Chloride	q.s.
Dye, Preservative	q.s.
Perfume	q.s.
Deionized Water	to 100.0%

Formula 27

Procedure:

Heat all components while stirring to 75C. When homogeneous stir to cool, adding perfume at 40-45C.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

CONDITIONING SHAMPOO

MATERIALS	% By Weight
CELQUAT H-100	0.50
Distilled Water	50.65
Varion CADG	8.60
Stepanol AM-V	40.00
Versene 100	0.25
Dye, Perfume, Preservative	Q.S.

Formulation CS-01-49

CONDITIONING SHAMPOO

MATERIALS	% By Weight
CELQUAT L-200	0.30
Distilled Water	47.45
Varion CADG	15.00
Stepanol WAT	35.00
Monamid 716	2.00
Versene	0.25
Dye, Perfume, Preservative	Q.S.

Formulation CS-01-29

CONDITIONING SHAMPOO

MATERIALS	% By Weight
CELQUAT L-200	0.50
Distilled Water	30.04
Varion CADG	13.33
Hamosyl L-30	50.00
Sandopan DTC	5.88
Versene 100	0.25
Dye, Perfume, Preservative	Q.S.

Formulation CS-03-29

Use of CELQUAT conditioning shampoos results in wet hair that combs through and blow dries easily; finished styles that are lush, healthy in appearance and feel, much longer lasting, and free of buildup or oiliness.

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100, L-200
Polymers: Suggested Formulations

CONDITIONING SHAMPOO

INGREDIENT	%wt/wt
Ammonium Lauryl Ether Sulfate (2 E.O.; 25% active)	40.0
Imidazoline Amphoteric (40% active)	8.0
Polymeric Quaternary	1.0
Citric Acid	to pH 5.5-6.0
NaCl (if needed)	to desired viscosity
Quaternium-15 (Preservative)	0.2
Deionized Water	Balance

Basic Characteristics:

1. Contain low to medium concentration of anionic surfactants.
2. Conditioning can be several "types".
 - a) Super-fattening effects
 - b) Enhanced wet and/or dry combing
 - c) Enhanced gloss/luster
 - d) Reduced fly-away (i.e. anti-static effect)
3. In order to "condition" something must be adhered to the hair. Therefore, a "conditioning shampoo" must represent a compromise situation.

CONDITIONING SHAMPOO

INGREDIENTS:	%W/W
Part A:	
Water	61.0
STANDAPOL ES-2 (Sodium Laureth Sulfate)	30.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	5.0
STANDAMID LD (Pre-melted at 45C) (Lauramide DEA)	4.0
Citric Acid	to pH 6.5
Part B:	
Fragrance	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat water to 50C. Add other ingredients of Part A in above listed order of addition. Cool with sweep-type agitation and at 45C, add individual components of Part B. Continue low agitation until product is uniform. Adjust pH and fill off.

Comment:

The blend of ethoxylated lauryl sulfate and ethoxylated cocoate contributes to the mildness of the preparation. The cocoate in particular provides emollient effects to the hair shaft.

Formula H-4418

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

CONDITIONING SHAMPOO

INGREDIENTS:	%W/W
Water	46.0
Sodium Chloride	0.5
Lantox 55 (PEG-75 Lanolin)	0.5
STANDAPOL T (TEA-Lauryl Sulfate)	30.0
STANDAMID SD (Cocamide DEA)	5.0
STANDAPOL ES-40 Conc. (Sodium Myreth Sulfate)	15.0
VELVETEX BA-35 (Cocamidopropyl Betaine)	3.0
Fragrance, Preservatives and Dyes	q.s.

Procedure:

Heat water to 50C. Add remaining ingredients in the order given, one at a time under agitation. Continue stirring until product is homogeneous. Adjust pH to 6.5-7.0 with 50% citric acid. Fill off.

Comment:

This high foaming shampoo leaves the hair in a manageable, easy-to-comb condition. For increased conditioning, decrease STANDAPOL T to 28% while increasing VELVETEX BA-35 to 5.0%.
Formula H-4835

CONDITIONING SHAMPOO
(Non-Stripping)

INGREDIENTS:	%W/W
Water	42.0
Sodium Chloride	1.0
STANDAPOL T (TEA Lauryl Sulfate)	40.0
STANDAMID SD (Cocamide DEA)	5.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	5.0
NUTRILAN L (Hydrolized Animal Protein)	1.0
Lantox 55 (PEG-75 Lanolin)	0.5
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Adjust the pH to 6.0+-0.5 with 50% citric acid aqueous solution. Continue low speed agitation until product is homogeneous.

Comments:

The blend of anionic, ethoxylated cocoate and high protein level contributes to the mildness of this preparation. The cocoate and protein in particular are both substantive to the hair shaft.

Formula 4437

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulas

CONDITIONING SHAMPOO

INGREDIENTS:	%W/W
Water	54.8
Sodium Chloride	2.0
STANDAPOL T (TEA Lauryl Sulfate)	25.0
STANDAPOL EA-40 Conc. (Ammonium Myreth Sulfate)	10.0
STANDAMID KD (Cocamide DEA)	3.0
POLYQUART H (PEG-15 Tallow Polyamine)	5.0
Lantox 55 (PEG-75 Lanolin)	0.2
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Adjust the pH to 6.5 + 0.5 with citric acid aqueous solution. Continue stirring until product is homogeneous.

Comment:

Addition of the polyamine quaternary blend to this anionic system provides conditioning and substantivity to the hair shaft allowing for good wet and dry combing.

Formula H-4722

CONDITIONING SHAMPOO

INGREDIENTS:	%W/W
Water	56.0
Sodium Chloride	1.0
STANDAPOL ES-2 (Sodium Laureth Sulfate)	35.0
STANDAMID LD (Lauramide DEA) (Pre-melt 45C)	3.0
POLYQUART H (PEG-15 Tallow Polyamine)	5.0
Fragrance	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Adjust the pH to 7.0 + 0.5 with 50% citric acid aqueous solution. Continue stirring until product is homogeneous.

Comment:

Addition of polyamine to this anionic system provides conditioning and substantivity to the hair shaft.

Formula H-4666

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

CONDITIONING SHAMPOO(AOS)

RAW MATERIALS	Parts By Weight
Phase A:	
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	25.0
WITCAMIDE 5133 (Cocamide DEA)	2.0
WITCAMIDE 5195 (Lauramide DEA)	1.0
WITCAMIDE 61 (Oleamide MIPA)	1.5
EMCOL CC37-18 (Coco-Betaine)	2.0
EMPHOS PS-810 (Oleth-3 Phosphate)	0.1
Lauric Acid	0.25
Phase B:	
Preservative	q.s.
Sodium Chloride, 20% aqueous solution	1.25
Perfume	0.4
Water	65.3

Charge Phase A and half the water; stir and heat to 70 to 75C until clear and uniform.

Add remaining water and cool. At 45C add preservative; at 40C add perfume and continue cooling.

Adjust to pH 5.0 to 6.5 with dilute phosphoric, citric, lactic or hydrochloric acid. Add sodium chloride and package.

Formulation 123D

CONDITIONING SHAMPOO-AOS

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	20.0
WITCOLATE SE-5 (Sodium Laureth Sulfate)	10.0
EMCOL CC37-18 (Coco-Betaine)	5.0
WITCAMIDE 5133 (Cocamide DEA)	3.0
Perfume, Color, Preservative	q.s.
Water	q.s. to 100

CONDITIONING SHAMPOO-B

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	25.0
EMCOL CC37-18 (Coco-Betaine)	5.0
WITCAMIDE 5133 (Cocamide DEA)	3.0
Perfume, Color, Preservative	q.s.
Water	q.s. to 100

Ammonium chloride can be used to adjust viscosity. Adjust to pH 6.5 to 7.0 with dilute phosphoric, citric, lactic or hydrochloric acid.

Formulation 125D

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries

CONDITIONING SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	61.9
VARISOFT OIMS	0.4
II.	
TEALS (40%)	30.6
VARION CAS	4.7
VARAMIDE ML-1	2.4
III.	
Preservative	qs
IV.	
Sodium Chloride	qs
Solids:	17.3%

Mixing Instructions:

Heat Phase I to 50C with mixing. Add Phase II to I, in order listed, melting the VARAMIDE ML-1 before adding. Cool to 30C and add Phase III. Add Sodium Chloride to desired viscosity.

CONDITIONING SHAMPOO FROM SXC

INGREDIENT	% By Weight
I.	
Deionized Water	50.2
VARIFOAM SXC	47.0
EGMS	1.0
Dow Corning 193	0.3
II.	
Croton HKP	0.5
III.	
Citric Acid (25%)	qs
IV.	
Sodium Chloride	1.0
V.	
Preservative	qs
Solids:	20.7%
pH:	5.5
Viscosity:	2850 cps

Mixing Instructions:

Heat Phase I to 60C with gentle agitation. Mix until EGMS has melted and the product is uniform. Cool to 45C and add Phase II. Cool to 35C and adjust pH to 5.5 with Citric Acid. Add Phase IV.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.6

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	58.75
Sodium C14-16 Olefin Sulfonate (Witconate 14-16 AOS Slurry)	20.00
Cocamidopropyl Betaine (Mirataine CB)	15.00
Polysorbate 20 (Hetsorb L-20)	4.00
Guar Hydroxypropyltrimonium Chloride (Jaguar C-17)	1.00
GERMABEN II	1.00
Fragrance	0.25
Citric acid	q.s.
Color	q.s.

Procedure:

To the water, add the polysorbate 20, cocamidopropyl betaine and Jaguar C-17. With good agitation, add a small portion of citric acid sufficient to hydrate the C-17. Heat to 50C, and add the alpha olefin sulfonate. Cool and then add preservative, fragrance, color and adjust final pH to 5-6.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Suggested Formulation

CONDITIONING GEL SHAMPOO(AOS)

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	30.0
WITCAMIDE 5195 (Lauramide DEA)	4.0
WITCAMIDE 61 (Oleamide MIPA)	4.0
Deriphat 160C	2.0
Polymer JR30M, 2% aqueous solution	25.0
Preservative	q.s.
Perfume, Color	q.s.
Water	q.s. to 100

Charge WITCONATE AOS, WITCAMIDE 5195, WITCAMIDE 61, Deriphat 160C and half the required water.

Heat with stirring to 70 to 75C, until everything is dissolved. Add Polymer JR30M solution and remaining water and cool.

Adjust pH to 6.0 to 6.5. Cool and package.

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries: Formulation 121D

CONDITIONING SHAMPOO(2889-047-1)

RAW MATERIALS	% By Weight
A.	
Sodium Laureth-1 Sulfate	35.7
EMTHOX 2730 PEG-75 Cocoa Butter	2.5
EMID 6515 Cocamide DEA	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized water	42.7
B.	
EMERY 5430 Cocamidopropyl Betaine	17.1
C.	
Citric acid	q.s.
Viscosity = 90,000 cP	

CONDITIONING SHAMPOO (2889-047-2)

RAW MATERIALS	% By Weight
A.	
Sodium Laureth-2 Sulfate	35.7
EMTHOX 2730 PEG-75 Cocoa Butter	2.5
EMID 6515 Cocamide DEA	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized Water	42.7
B.	
EMERY 5430 Cocamidopropyl Betaine	17.1
C.	
Citric acid	q.s.
Viscosity = 51,000 cP	

EMTHOX softens and lubricates the hair for ease in combing, without detracting from the aesthetics or the cleansing performance of the shampoo. These formulations yield crystal clear products that differ mainly in viscosity. Each exhibits good cleaning and foaming properties.

Procedure:

Combine (A) and heat to 60C with stirring. Heat (B) to 60C and slowly add it to (A) with agitation. The product should gel. Adjust the pH with citric acid and the viscosity with sodium chloride.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730 PEG-75 Cocoa Butter
For Ethnic Products: Formulation 2889-047-1,2

CONDITIONING SHAMPOO(2889-047-3)

RAW MATERIALS	% By Weight
A.	
Sodium Laureth-3 Sulfate	35.7
EMTHOX 2730 PEG-75 Cocoa Butter	2.5
EMID 6515 Cocamide DEA	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized water	51.3
B.	
EMERY 5430 Cocamidopropyl Betaine	17.1
C.	
Citric acid	q.s.
Viscosity = 32,000 cP	

CONDITIONING SHAMPOO(2889-047-4)

RAW MATERIALS	% By Weight
Sodium Laureth-1 Sulfate	35.7
EMTHOX 2730 PEG-75 Cocoa Butter	2.5
EMID 6515 Cocamide DEA	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	51.3
B.	
EMERY 5430 Cocamidopropyl Betaine	8.5
C.	
Citric acid	q.s.
Sodium chloride	1.0
Viscosity = 11,000 cp	

As a shampoo conditioner, EMTHOX 2730 softens and lubricates the hair for ease in combing, without detracting from the aesthetics or the cleansing performance of the shampoo. These formulations yield crystal clear products that differ mainly in viscosity. Each exhibits good cleaning and foaming properties.

Procedure:

Combine (A) and heat to 60C with stirring. Heat (B) to 60C and slowly add it to (A) with agitation. The product should gel. Adjust the pH with citric acid and the viscosity with sodium chloride.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730 PEG-75 Cocoa Butter for Ethnic Products: Formulations 2889-047-3,4

CONDITIONING SHAMPOO

RAW MATERIALS

% By Weight

A.		
Sodium Laureth-2 Sulfate		35.7
EMTHOX 2730 PEG-75 Cocoa Butter		2.5
EMID 6515 Cocamide DEA		1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol		1.0
Deionized Water		51.3
B.		
EMERY 5430 Cocamidopropyl Betaine		8.5
C.		
Citric acid		q.s.
Sodium chloride		1.0

pH = 8,200 cP

CONDITIONING SHAMPOO

RAW MATERIALS

% By Water

A.		
Sodium Laureth-3 Sulfate		35.7
EMTHOX 2730 PEG-75 Cocoa Butter		2.5
EMID 6515 Cocamide DEA		1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol		1.0
B.		
EMERY 5430 Cocamidopropyl Betaine		8.5
C.		
Citric acid		q.s.
Sodium chloride		1.0

pH = 5,400 cP

As a shampoo conditioner, EMTHOX 2730 softens and lubricates the hair for ease in combing, without detracting from the aesthetics or the cleansing performance of the shampoo. These formulations yield crystal clear products that differ mainly in viscosity. Each exhibits good cleaning and foaming properties.

Procedure:

Combine (A) and heat to 60C with stirring. Heat (B) to 60C and slowly add it to (A) with agitation. The product should gel. Adjust the pH with citric acid and the viscosity with sodium chloride.

SOURCE: Quantum Chemical Corp.: EMTHOX 2730 PEG-75 Cocoa Butter for Ethnic Products: Formulation 2889-047-5,6

CONDITIONING SHAMPOO
5628-147A

INGREDIENTS	Parts by Weight
CELQUAT SC-240	0.70
Monateric 805	18.80
Stepanol WAT	18.50
Monamid 1034	4.00
Propylene Glycol	2.00
Citric Acid	0.50
GERMABEN II	0.50
Fragrance, Chemia #4014	0.20
Distilled Water	54.80

Description:

This combination shampoo/conditioner thoroughly cleans the hair while adding softness and body. Continued use gives clean, shiny hair without build-up.

pH	6.1
Brookfield Viscosity	2600 cPs

Preparation:

Dissolve CELQUAT in half of water by sifting into water while mixing. In a separate vessel, combine all remaining ingredients except citric acid. When both solutions are complete, add the solution of CELQUAT to the surfactant solution while mixing. When homogeneous, add citric acid and mix until dissolved.

CONDITIONING SHAMPOO GEL
4637-144A

MATERIALS	Parts by Weight
CELQUAT L-200	0.30
Distilled Water	40.45
Varion CADG	20.00
Preservative	Q.S.
Maprofix TLS-500	35.00
Monamid 716	4.00
Versene 100	0.25
Perfume	Q.S.

Preparation:

Add CELQUAT to the water while mixing. When solution is complete, add the remaining ingredients in the order listed.

SOURCE: National Starch and Chemical Corp.: Suggested Formulas

CONDITIONING SHAMPOO
5628-147A

INGREDIENTS	Parts By Weight
A)	
CELQUAT SC-240	0.70
Distilled Water	27.50
B)	
Monateric 805	18.80
Stepanol WAT	18.50
Monamid 1034	4.00
Propylene Glycol	2.00
Germaben II	0.50
Distilled Water	27.50
C)	
Citric Acid	0.50

pH: 6.1

Brookfield Viscosity: 2600 cps

Preparation:

Prepare part A by sifting CELQUAT into water while mixing. Combine ingredients of part B in a separate vessel. When both solutions are complete, add A to B with mixing. When homogeneous, add C and mix until dissolved.

CONDITIONING SHAMPOO WITH SETTING PROPERTIES
5628-122M

INGREDIENTS	Parts By Weight
A)	
CELQUAT SC-240	2.00
Distilled Water	31.00
B)	
Miranol C2M-SF	25.00
Monamid 716	3.00
PEG-600 Monostearate	6.00
Distilled Water	30.50
C)	
Citric Acid	2.00
D)	
Germaben II	0.50

pH: 5.7

Brookfield Viscosity: 1100 cps.

Preparation:

Prepare A by sifting CELQUAT into water while mixing. Combine ingredients of B in a separate vessel. Heat both solutions to 60C. When A and B are each homogeneous, add A to B with mixing. Add C. When cool, mix in D.

SOURCE: National Starch and Chemical Corp.: CELQUAT SC-240

CONDITIONING SHAMPOO

RAW MATERIALS: % By Weight

Phase A:
 Polyquaternium-10 (Celquat SC-240) 0.70
 Water 27.50

Phase B:
 Cocoamphodiacetate (and) Disodium Cocamido MIPA-
 Sulfosuccinate (Monateric 805) 18.80
 TEA Lauryl Sulfate 18.50
 Lauramide DEA 4.00
 Propylene Glycol 2.00
 GERMABEN II 0.20
 Water 27.50

Phase C:
 Citric Acid 0.50

Procedure:

Sift the Celquat into water with mixing. Combine all ingredients in Part B and add A to B with mixing. When homogeneous, add C and mix. pH 6.1, viscosity 2600 cps.

HIGH VISCOSITY SHAMPOO

RAW MATERIALS: % By Weight

Phase A:
 Polyquaternium-24 (Quatrisoft Polymer LM-200) 1.0
 Water 46.25

Phase B:
 Sodium Myreth Sulfate (58% active) 38.0
 Lauramide DEA 7.0
 Methyl Gluceth-20 3.5
 PEG-75 Lanolin 4.0
 GERMABEN II 0.25

Procedure:

Disperse the Polyquaternium-24 in the water with good agitation at room temperature. Heat to 45C and when clear add each ingredient in Phase B in the order listed. Avoid air entrapment.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulations

HP-200 CONDITIONING SHAMPOO

MATERIALS	% By Weight
Part A:	
Standapol ES-2	40.00
Varion CADG-HS	5.00
Water	23.95
Part B:	
Incromide LR	5.00
SM-2101	2.00
Part C:	
Water	23.95
Kathon	.10
Citric Acid	q.s.

Improved comb-out and shine are achieved with this shampoo.

Procedure:

1. Pre-mix Part A and Part B.
2. Slowly add Part A to Part B and mix until homogeneous.
3. Add the remaining water and stir.
4. Add preservative.
5. Adjust pH to 6.5 to 7.0 with citric acid.

HP-201 CONDITIONING SHAMPOO

MATERIALS	% By Weight
Part A:	
Carbopol 1342	.4
Water	41.0
Part B:	
Standapol ES-2	40.0
Water	13.0
Part C:	
Incromide LR	4.0
VISCASIL 60M	1.5
Kathon	.1
NaOH, perfume	q.s.

Improved softness and shine with easier comb-out are obtained with this conditioning shampoo, due to mechanical deposition of the VISCASIL 60M, a 60,000 cps dimethyl silicone fluid, onto the hair.

Procedure:

1. Disperse the Carbopol into the water.
2. Add Part B, pre-mixed, to Part A.
3. Add the lauramide DEA and mix until homogeneous.
4. Slowly disperse into the VISCASIL 60M.
5. Adjust viscosity with NaOH to pH of 6 to 6.5.

SOURCE: GE Silicones: Personal Care Formulary: Formulations

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	64.40
Standopol 7021	20.0
SCHERCOMID SL-ML	5.0
SCHERCOMID AME-70	7.0
SCHERCOMID SM	1.5
Sodium Chloride	1.25
Sequestrene AA	.25
Emulan Mink Oil	0.60
Preservative, fragrance	qs

Dissolve the salt and Sequestrene AA in the water and then add this phase to the balance of the product.

pH "as is" = 6.5

Formulation SG-0216

NATURAL CONDITIONING SHAMPOO - PEARLESCENT (with soya)

INGREDIENTS	% By Weight
Water (Deionized)	48.0
SCHERCEMOL EGMS	0.5
SCHERCOQUAT SOAS (90%)	1.5
SCHERCOTAINE CAB-G (45%)	20.0
SCHERCOPOL OMES-Na (35%)	10.0
Sodium Lauryl Ether Sulfate (30%)	20.0
Preservative	q.s.
Fragrance	q.s.

Procedure:

1. Heat water to 60C.
2. Gently melt SCHERCEMOL EGMS (m.p.-56-60C) and, with stirring, add to water.
3. Add SCHERCOQUAT SOAS to dissolve.
4. Add SCHERCOTAINE CAB-G, followed by SCHERCOPOL OMES-Na.
5. Slowly add Sodium Lauryl Ether Sulfate; mix thoroughly, as viscosity will build rapidly.
6. Cool, add Preservative and Fragrance.

Typical Specifications:

Activity: 20% Viscosity @ 25C: 4600 cps (without Fragrance)
pH @ 25C: 5.2

Formulation SO-005

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O2	2.0
ANTIL 141 liquid	1.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	40.0
Merquat 550	4.0
ABIL B9950	2.0
Phase B:	
Water	38.5
TEGO-Betain HS	12.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.8

PHARMACEUTICAL ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
TAGAT R1	3.5
Liquor carbonis detergens hippocastani	2.5
Rosemary oil DAB 8	0.5
Sodium lauryl ether sulphate (28%)	35.0
Phase B:	
Water	31.5
Pyrithione Disulphide	0.5
Sodium chloride	1.0
Arnica destillate	0.5
TEGO-Betain L7	25.0
Preserving agent	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.12

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulations

CONDITIONING SHAMPOO MOUSSE
4637-148

MATERIALS	Parts by Weight
Concentrate:	
CELQUAT L-200	0.30
Distilled Water	30.45
Varion CADG	15.00
Preservative	Q.S.
Maprofix TLS-500	35.00
Maprofix ES	10.00
Monamid 716	4.00
Versene 100	0.25
Perfume	Q.S.
Propellant:	
Hydrocarbon A-46	5.00

Preparation:

Add CELQUAT to the water while mixing. When solution is complete, add the remaining ingredients in the concentrate. Filter and fill. Crimp and charge propellant.

Instructions for Use:

Wet hair, shake can well. Invert can and fill palm of hand with foam. Distribute evenly through the hair. Lather, rinse and dry hair. Comb and style.

Precision Valves/Actuators:

02-1512 Mars Inverted Spouts
10-3014 Cover Caps

SOURCE: National Starch and Chemical Corp.: Formulation
4637-148

CONDITIONING SHAMPOO MOUSSE

If an aerosol mousse is desired, fill the following:

Materials	% By Weight
Conditioning Shampoo	95.00
Propellant A-46	5.00

Use Precision valve with a 2 x .020" stem; inverted body with tailpiece; mars inverted spout. Shake can well before use.

Formulation CSM-29/49

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100,
L-200 Polymers: Suggested Formulations

CREAM SHAMPOO

INGREDIENTS:	%W/W
Water	26.5
POLYQUART H (PEG-15 Tallow Polyamine)	10.0
STANDAPOL S (Fatty Alcohol Sulfate...Alkanolamide Blend)	30.0
STANDAPOL A (Ammonium Lauryl Sulfate)	30.0
STANDAMID SD (Cocamide DEA)	1.5
CETIOL HE (PEG-7 Glyceryl Cocoate)	1.0
HAIR COMPLEX AQUOSUM	1.0
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singularly under adequate agitation. Adjust the pH to 6.5 + 0.5 with 50% citric acid aqueous solution. Continue stirring until product is homogeneous.

Comment:

The blend of anionics, polyamine, CLR material and low level of amides in the system yields an elegant system with excellent lathering qualities. The ethoxylated cocoate and polyamine provide both emolliency and substantivity to the hair shaft. Formula H-4584

LOW IRRITATION SHAMPOO

INGREDIENTS:	%W/W
Part A:	
Water	q.s. to 100.0
PEG-6000 Distearate	0.75
VELVETEX CDC (Cocoamphodiacetate)	8.00
STANDAPOL ES-3 (Sodium Laureth Sulfate)	12.00
STANDAMID SD (Cocamide DEA)	2.00

Part B:

Fragrance, Dye and Preservative q.s.

Procedure:

Heat water to 65C. Add the remaining ingredients of Part A with agitation. Maintain temperature until clear, homogeneous product results. Cool to 40C with stirring. Add Part B. Adjust to pH 7.0 + 0.3 with 50% citric acid solution.

pH: 7.0
 Viscosity: Approx. 1,000 cps

Comment:

This formulation illustrates a shampoo that is effective yet inexpensive.

Formula H-4841

SOURCE: Henkel Corp.: Personal Care Products Formulary:
 Suggested Formulations

CREME SHAMPOO

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	60.0
WITCAMIDE 5195 (Lauramide DEA)	6.0
Ceteareth-20	8.0
Preservative	q.s.
Citric Acid, Perfume, Color	q.s.
Water	q.s. to 100

Charge WITCONATE AOS, WITCAMIDE 5195, Ceteareth-20, and water. Heat with stirring to 70 to 80C and add WITCAMIDE 70. Stir at this temperature until uniform.

Cool to 55C and adjust to pH 7.0 to 7.5 with citric acid or other suitable acid. Add color and perfume. Cool to 50 to 52C and package.

Formulation 124D

GEL SHAMPOO

RAW MATERIALS	Parts by Weight
EMCOL 4161L (Disodium Oleamido-MIPA-Sulfosuccinate)	20.0
WITCOLATE SE-5 (Sodium Laureth Sulfate)	15.0
WITCONOL L32-45 (PEG-150 Distearate)	2.0
WITCAMIDE 5195 (Lauramide DEA)	3.0
Ammonium Chloride, 25% aqueous solution:	q.s. to desired viscosity
Water	59.9
Preservative	0.1
Perfume, Color	q.s.

Mix ingredients together at 70C until clear and homogeneous. Cool to 40C and add preservative, perfume and color.

Formulation 127D

OPAQUE LOTION SHAMPOO

RAW MATERIALS	Parts by Weight
WITCOLATE AE-3 (Ammonium Pareth-25-3 Sulfate)	20.0
WITCAMIDE 82 (Cocamide DEA)	4.0
Morton X-303, 10% aqueous dispersion	2.0
Citric Acid	q.s. to pH 6.0-6.5
Perfume, Color	q.s.
Water	q.s. to 100

Combine ingredients and blend until clear and homogeneous. Formulation 126D

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries: Suggested Formulations

CREAMY ALOE SHAMPOO

RAW MATERIALS	% By Weight
Aloe Vera Gel (VERAGEL Liquid 1:1)	50.0
Deionized Water	23.0
Polyquaternium-7 (Merquat 550)	3.0
Sodium Lauryl Sulfate	7.0
Ammonium Laureth Sulfate	5.0
Sodium Laureth Sulfate	5.0
Lauramide DEA	5.0
Sodium Chloride	1.0
GERMABEN II	1.0

Procedure:

Add all ingredients and heat to 70C with stirring

PEARLIZED SHAMPOO

RAW MATERIALS	% By Weight
Quaternium-22 (Ceraphyl 60)	2.0
Glycol Stearate (and) other ingredients (Cerasynt IP)	3.0
Linoleamide DEA (Foamole A)	3.0
Lauramine Oxide (Ammonyx LO)	2.0
Water	36.5
GERMABEN II	1.0
TEA-Lauryl Sulfate (Maprofix TLS-500)	42.5
Sodium Chloride, 20% aq. soln.	10.0
Citric Acid, 30% aq. sol'n (to pH 6.5+-0.5)	q.s.

Procedure:

Add all ingredients and heat to 80-85C with agitation. Mix at that temperature until a clear uniform mixture is obtained. Start cooling with agitation to 25-30C, adjusting pH at 40C to 6.5+-0.5.

SHAMPOO FOR PERMANENT WAVED HAIR

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (Standapol ES-2)	7.00
Cocamidopropyl Betaine (Incronam 30)	7.00
Cocamidopropylamine Oxide (Incromine Oxide C)	2.00
Lauramide DEA (Incromide LR)	2.00
Cocodimonium Hydrolyzed Collagen (Croquat M)	1.50
Emulsifying Wax NF (Polawax)	3.00
Triethanolamine Lauryl Sulfate (Incronol TLS)	30.00
GERMABEN II	1.00
Water, Distilled	46.50

Procedure:

Combine all ingredients and heat to 75C with agitation. When well mixed cool with stirring to 40C. Adjust pH with citric acid to 5.5.

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary: Formulas

CRYSTAL CLEAR LUXURY SHAMPOO

INGREDIENTS:	% By Weight
SANDOZ Sulfate A (Ammonium Lauryl Sulfate)	33.00
SANDOPAN DTC (Sodium Trideceth-7-Carboxylate)	10.00
SANDOZ Amide PE (Lauramide-DEA)	3.00
Polymer JR 400	.25
Trisodium EDTA	.10
Glydant (DM, DM Hydantoin)	.50
Deionized Water	53.10
Fragrance	.05
Lactic Acid to pH 5.5	q.s.

Formulation No. CHS-40

CRYSTAL CLEAR CONDITIONING SHAMPOO

INGREDIENTS:	% By Weight
SANDOZ Sulfate A (Ammonium Lauryl Sulfate)	33.00
SANDOPAN DTC (Sodium Trideceth-7-Carboxylate)	10.00
SANDOZ Amide PE (Lauramide-DEA)	3.00
Polymer JR 400	.50
Trisodium EDTA	.10
Glydant (DM, DM Hydantoin)	.50
Deionized Water	52.85
Fragrance	.05
Lactic Acid to pH 5.5	q.s.

Formulation No. CHS-41

Water white clarity with easily manipulated viscosity and conditioning levels make this multipurpose group of formulas an excellent choice for "CLEAR" product lines.

Procedure:

Hydrate the Polymer JR in about 2/3 of the water by slowly sifting in with moderate stirring. In a separate vessel, warm SANDOZ Amide PE until melted, about 60C. Add remaining ingredients, including the aforementioned polymer gel. Use the remaining water to rinse any residual gel into main batch. Adjust pH to 5.5. Stir until homogeneous.

SOURCE: Sandoz Chemicals: Cosmoinfo: Suggested Formulations

DRY HAIR SHAMPOO

INGREDIENTS:	%W/W
Water	58.70
STANDAPOL ES-2 (Sodium Laureth Sulfate)	28.00
VELVETEX BK-35 (Cocamidopropyl Betaine)	7.00
STANDAMID LD (Lauramide DEA) (Pre-melted at 45C)	3.00
CETIOL HE (PEG-7 Glyceryl Cocoate)	3.00
SEDAPLANT RICHTER	0.15
CETIOL J600 (Oleyl Erucate)	0.15
Fragrance, Dyes and Preservatives	

Procedure:

Add the ingredients in the order listed above, pre-mixing the Jojoba Oil in CETIOL HE. Stir under adequate agitation until a homogeneous product results. Adjust to pH 6.5 - 7.0 with 50% citric acid aqueous solution.

Comment:

This is an elegant conditioning shampoo suitable for everyday washing of "dry" hair. The CETIOL J600 is a synthetic jojoba oil.

Formula H-4833

HAIR AND BODY SHAMPOO

INGREDIENTS:	%W/W
Water	q.s. to 100.00
TEXAPON K-14S Special (Sodium Myreth Sulfate)	57.00
STANDAMID LDS (Lauramide DEA)	3.00
Sodium Chloride	0.50
AETHOXAL B (PPG-5-Laureth-5)	2.00
Kathon CG	0.05
Fragrance	0.15

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.5 + 0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

This shampoo provides a combination of good foam characteristics with a conditioning/re-fatting effect due to the AETHOXAL B.

Formula H-4859

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

ECONOMY GEL SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	59.8
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B.	
Ammonium Lauryl Ether Sulfate	25.0
Cocoamidopropylbetaine	5.0
Lauramide DEA	4.0
C.	
PF-6 PROTEIN	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3 (0.01%)	0.1

Description:

This is an economical, lotion shampoo with high lather and light conditioning attributed to the substantive effect of HORMEL PF-6 Protein. Hydrolyzed Animal Protein will add body and shine while mending split ends and repairing damaged hair.

Formula: 614-27

HIGH FOAM SHAMPOO WITH SURFACTANT PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	54.8
Propylene Glycol	1.0
B.	
Ammonium Lauryl Ether Sulfate	20.0
Cocamidopropylhydroxysultaine	10.0
C.	
PEPTEIN TEAC	10.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methyl- paraben and Propylparaben	1.0
Sodium Chloride	3.0
Fragrance	0.1
F, D & C Green No. 3(0.01%)	0.1

TEA Coco-Hydrolyzed Animal Protein, a surfactant protein, adds a unique feel and quality to the lather of this shampoo. It also acts to reduce the irritation potential of the surfactant system.

Formula: 614-34C

SOURCE: Geo. A. Hormel & Co.: Suggested Formulations

ETHNIC CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water, D.I.	49.3
DESONIC CE-12	3.5
Varamide MA-1	1.0
DESONOL SE-2	35.7
Monateric CAB	8.5
Citric Acid	to pH 5.5
Sodium Chloride	2.0
Perfume, Dye and Preservative	q.s.

Blending Procedure:

Add surfactants, in order, to D.I. Water with moderate agitation. Adjust pH with Citric Acid; then add Sodium Chloride to the desired viscosity, followed by the Perfume, Dye and Preservative.

Viscosity = 1775 cps

Comment:

DESONIC CE-12 imparts a conditioned effect to the hair and scalp. Its' excellent humectant and emollient properties provide sheen enhancement and moisturizing for ease of combing without residual oiliness. DESONIC CE-12 is compatible with anionics, cationics and nonionics and do not inhibit cleansing and foam performance.

PROTEIN CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water, D.I.	55.86
DESONIC CE-12	18.6
DESONOL S	14.0
DESONOL T	2.2
VARAMIDE MA-1	1.5
Monateric CAB	4.3
Crotein SPA	0.5
Kathon CG	0.04
Citric Acid	to pH 5.5
Sodium Chloride	3.0
Perfume and Dye	q.s.

Blending Procedure:

Add ingredients, in above order, with moderate agitation. Adjust pH with Citric Acid; then, add Sodium Chloride to the desired viscosity followed by the Perfume and Dye.

Viscosity = 1,400 cps

SOURCE: DeSoto, Inc.: Suggested Formulations

EXTRA-CONDITIONING SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	50.5
ADOGEN 432-CG	5.0
II.	
VARONIC LI-67	4.5
VARION CAS	40.0
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
Solids:	28.0%
pH:	6.0
Viscosity:	1760 cps

Mixing Instructions:

Heat water in Phase I to 75C. Blend in ADOGEN 432-CG. Cool to 50C and add Phase II in order listed, melting the VARONIC LI-67 before adding. Cool to 35C and adjust pH to 6.0 with Citric Acid. Add Phase IV.

VARIABLE CONDITIONING SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	42.2
II.	
ALS (28%)	42.5
VARAMIDE MA-1	1.0
Wickenol 707	0.5
VARONIC LI-63	0.4
Dow Corning 193	0.3
EDTA	0.1
III.	
VARION CAS	13.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	20.7%
pH:	5.5.
Viscosity:	4050 cps

SOURCE: Sherex Chemical Co.: Formulations Code 6.3.6

EXTRA MILD SHAMPOO WITH ALOE NO. 428

INGREDIENT	**% By Weight
Deionized Water	37.50
Aloe Vera Gel	25.00
Lauramide DEA	12.00
VANSEAL CS	5.50
TEA Lauryl Sulfate	20.00
Preservative, color, fragrance	q.s.

** As Received Basis

Features:

VANSEAL CS is used as a substantive hair conditioner and foam booster for this extra mild (pH 5.5) shampoo. Thickening the shampoo is achieved by optimization of surfactant levels. The lauramide DEA/TEA lauryl sulfate surfactant combination provides mildness and, with the addition of the cocoyl sarcosine, yields abundant rich and creamy lather. The aloe vera gel adds a final conditioning touch. As prepared, this formula is clear and colorless and may easily be adjusted to any desired color by use of a dye.

Consistency: Pourable liquid.

Suggested Packaging: Squeeze bottle.

SELENIUM SULFIDE SHAMPOO NO. 401

RAW MATERIALS	% By Weight
A.	
VEEGUM HS	1.20
Water	30.00
Titanium dioxide	1.00
Propylene glycol	1.00
Citric acid	0.08
VANCIDE 89RE	0.25
B.	
Klucel MF	1.20
Selenium sulfide	1.00
Water	40.77
C.	
Hamposyl L-30	8.50
Lexaine C	15.00
Color	q.s.
Fragrance	q.s.

Consistency: Pourable liquid.

Suggested Packaging: Plastic bottle.

SOURCE: R.T. Vanderbilt Co., Inc.: Suggested Formulations

FAMILY SHAMPOO

INGREDIENT:	%wt/Wt
SLES (3 E.O., 28% active)	40.0
Coco Betaine (30% active)	5.0
Coco diethanolamide	2.5
Citric Acid	0.1
Fragrance	0.2
Methyl Paraben	0.2
Sodium Chloride	To desired viscosity (if needed)
Deionized Water	Balance

Basic Characteristics:

1. Usually based on alcohol ether sulfates (e.g. Sodium Laureth (3) Sulfate).
2. Contain only small quantities, if any, of conditioning agent.
3. Mild enough for children.
4. Medium surfactant concentration.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

CONDITIONING SHAMPOO
(Improved wet combing)

RAW MATERIALS:	% By Weight
MAZER MASIL 1066C	3.0
TEA Lauryl Sulfate (40%)	50.0
MAZER MAFO CAB	5.0
MAZER MAZAMIDE CS-148	5.0
Water	37.0
Dye	q.s.
Perfume	q.s.
Preservatives	q.s.
NaCl	q.s.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulation 42

GEL SHAMPOO

RAW MATERIALS	% By Weight
Water, D.I.	59.5
DESONOL A	30.0
Varamide MA-1	2.0
Monateric CAB	8.0
Citric Acid	to pH 5.0-6.0
Sodium Chloride	0.5
Perfume, Dye and Preservative	q.s.

Blending Procedure:

Heat D.I. Water to 60C and add surfactants in order, with moderate agitation. Adjust pH with Citric Acid, then add Sodium Chloride. Cool to 40C and add Perfume, Dye and Preservative. Viscosity = 45,600 cps

GEL SHAMPOO

RAW MATERIALS	% By Weight
Water, D.I.	59.0
DESONOL A	15.0
DESONOL SE-2	15.0
Varamide MA-1	2.0
Monateric CAB	8.0
Citric Acid	to pH 5.0-6.0
Sodium Chloride	1.0
Perfume, Dye and Preservative	q.s.

Blending Procedure:

Heat D.I. Water to 60C and add surfactants in order, with moderate agitation. Adjust pH with Citric Acid, then add Sodium Chloride. Cool to 40C and add Perfume, Dye and Preservative. Viscosity = 42,000 cps

CONDITIONING GEL SHAMPOO

RAW MATERIALS	% By Weight
Water, D.I.	58.5
DESONOL A	15.0
DESONOL SE-2	15.0
DESONIC CE-12	0.5
Varamide MA-1	2.0
Monateric CAB	8.0
Citric Acid	to pH 5.0-6.0
Sodium Chloride	1.0
Perfume, Dye and Preservative	q.s.
Viscosity = 29,000 cps	

SOURCE: DeSoto, Inc.: Suggested Formulations

HAIR COLORANT SHAMPOO BASE...PROFESSIONAL FORM

INGREDIENT	% By Weight
Demineralized Water	9.3500
Methyl Paraben	0.2000
Propyl Paraben	0.1000
Jaguar C-14-S	0.5000
Miranol C2MSF Conc.	4.0000
Ammonyx CDO	7.0000
Ammonyx CTAC	2.0000
Standamid SD	1.5000
ABIOL	0.2000
Citric Acid	0.1500
Demineralized Water	24.0000
Arianor Dye	>1.0000
Demineralized Water	47.0000
Standamid SM	3.0000

HAIR COLORANT SHAMPOO BASE...DOMESTIC VERSION

INGREDIENT	% By Weight
Demineralized Water	44.3500
Methyl Paraben	0.2000
Propyl Paraben	0.1000
Jaguar C-14-S	1.0000
Miranol C2MSF Conc.	8.0000
Ammonyx CDO	14.0000
Ammonyx CTAC	4.0000
Standamid SD	3.0000
ABIOL	0.2000
Citric Acid	0.1500
Demineralized Water	24.0000
Arianor Dye	>1.0000

Procedure:

1. Disperse the parabens and Jaguar in cold water.
2. Begin heating to 75C with agitation adjusted to avoid aeration.
3. Mix at 75C. until all Jaguar has dissolved and batch is lump free.
4. Remove heat.
5. Add Miranol, Ammonyx CDO, Ammonyx CTAC, and Standamid in order, mixing well between each addition.
6. Force cool to room temperature.
7. Add ABIOL and adjust pH ot 8.5 if necessary with citric acid.

SOURCE: Tri-K Industries, Inc.: Suggested Formulations

HAIR SHAMPOO WITH LANOLIN

RAW MATERIALS	Parts by Weight
WITCONATE 60T (TEA-Dodecyl Benzene Sulfonate)	20.0
Ethoxylated (16-Mole) Lanolin Alcohol	2.5
Lanolin Oil	1.0
WITCAMIDE 82 (Cocamide DEA)	6.0
Citric Acid	q.s. to pH 6.0-6.5
Water	70.0

Combine ingredients with agitation until uniform.
Avoid air entrainment.

Formulation 107D-A

HAIR SHAMPOO WITH LANOLIN

RAW MATERIALS	Parts By Weight
WITCONATE AE-3 (Ammonium Pareth-25-3 Sulfate)	12.0
Ethoxylated (16-Mole) Lanolin Alcohol	2.5
Lanolin Oil	1.0
Witcamide 82 (Cocamide DEA)	6.0
Citric Acid	q.s. to pH 6.0-6.5
Water	78.5

Combine ingredients with agitation until uniform. Avoid
air entrainment.

Formulation 107D-B

GEL CONCENTRATE SHAMPOO(19% SOLIDS)

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	22.9
WITCAMIDE 5133 (Cocamide DEA)	4.6
EMCOL CC37-18 (Coco-Betaine)	7.4
WITCONOL L32-45 (PEG-150 Distearate)	2.0
Color, Perfume, Preservative	q.s.
Water	q.s. to 100

Dissolve WITCONOL L32-45 in a solution of water, WITCONATE
AOS, WITCAMIDE 5133 and EMCOL CC37-18 at 50 to 60C.

Add preservative, color and perfume at 45 to 50C and stir
until uniform. Package at 45C.

Formulation 105D

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

HAIRSHAMPOO
Clear, 8% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	1.60
B)	
Water	8.00
C)	
GENAPOL LRO liquid *	11.40
HOSTAPUR SAS 60	5.34
Perfume	0.30
Water	70.36
Dyestuff solution	q.s.
Preservative	q.s.
D)	
Citric acid--> pH 6-7	q.s.
E)	
Sodium chloride	3.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/1109

HAIRSHAMPOO
Clear, 12% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	2.00
B)	
Water	10.00
C)	
GENAPOL LRO liquid*	25.00
HOSTAPUR SAS 60	5.00
Perfume	0.30
Dyestuff solution	q.s.
Preservative	q.s.
D)	
Citric acid--> pH 6-7	q.s.
E)	
Sodium chloride	3.50

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/1107

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

HAIRSHAMPOO

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	2.00
B)	
Water	10.00
C)	
GENAPOL CRT 40	30.00
Perfume	0.30
Water	49.20
Dyestuff solution	q.s.
Preservative	q.s.
GENAMINOX KC	8.00
D)	
Citric acid-->pH 7.4 (not below 7.3)	q.s.
E)	
Sodium chloride	0.20

Formulation B I/1108

HAIRSHAMPOOWith pearl lustre effect, 16.4% active detergent

RAW MATERIALS	% By Weight
A)	
GENAPOL LRO liquid*	40.00
B)	
GENAPOL AMS	8.00
GENAPOL PGM conc.	5.00
Perfume	0.30
Water	42.70
Dyestuff solution	q.s.
Preservative	q.s.
C)	
Sodium chloride	4.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

- I Add one after another, the components of B to A.
 II Adjust the viscosity with C.

Formulation B I/2105

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

HAIRSHAMPOO

For damaged hair, with pearl lustre effect, 17.1% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	1.00
B)	
Water	5.00
C)	
GENAPOL AMS	6.00
GENAPOL LRO liquid*	40.00
GENAPOL PGM conc.	5.00
GENAMINOX KC	5.00
Perfume	0.30
Water	36.70
Dyestuff solution	q.s.
Preservative	q.s.
D)	
Citric acid-->pH 6.5-7	q.s.
E)	
Sodium chloride	1.00

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/6104

CONDITIONING SHAMPOO
clear, 20.1% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	2.00
B)	
Water	10.00
C)	
GENAPOL AMS	10.00
GENAPOL LRO liquid *	45.00
GENAMIN KSL	5.00
Perfume	0.30
Water	26.20
Dyestuff solution	q.s.
Preservative	q.s.
D)	
Sodium chloride	1.50

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.
Formulation B I/6106

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

HAIRSHAMPOOFor dry hair, with pearl lustre effect, 19.6% active detergent

RAW MATERIALS	% By Weight
A)	
GENAPOL LRO liquid*	50.00
B)	
GENAPOL AMS	8.00
GENAPOL PGM conc.	6.00
Eggyolk	1.00
Perfume	0.30
Water	32.10
Dyestuff solution	q.s.
Preservative	q.s.
C)	
Sodium chloride	2.60

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

I Add one after another, the components of B to A.

II Adjust the viscosity with C.

Formulation B I/6111

HAIRSHAMPOOFor greasy hair, ca. 21.6% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	3.00
GENAPOL C 100	1.00
B)	
Water	33.90
C)	
GENAPOL LRO liquid*	50.00
HOSTAPUR SAS 60	6.00
Cremogen M7	3.00
Perfume	0.30
Dyestuff solution	q.s.
Preservative	q.s.
D)	
Citric acid-->pH 6.5	q.s.
E)	
Sodium chloride	2.80

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Formulation B I/6107

SOURCE: Hoechst: Kosmetick Guide Formulations: Suggested Formulas

HAIRSHAMPOO
With pearl lustre effect, 14% active detergent

RAW MATERIALS	% By Weight
A)	
GENAPOL LRO liquid*	50.00
GENAPOL TS powder	2.00
Sodium Chloride	2.50
Water	44.50
B)	
Perfume	0.30
Dyestuff solution	q.s.
Preservative	q.s.
C)	
Sodium chloride	0.70

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO is required.

Formulation B I/2108

HAIRSHAMPOO
For every day, 16% active detergent

RAW MATERIALS	% By Weight
A)	
Coconut fatty acid diethanolamide	2.00
B)	
Water	10.00
C)	
HOE S 1906	8.00
GENAPOL ZRO liquid*	35.00
Perfume	0.30
Water	37.40
Dyestuff solution	q.s.
Preservative	q.s.
BETAINE HOE S 3267	6.00
D)	
Citric acid--> pH 6-7	q.s.
E)	
Sodium chloride	1.30

* If GENAPOL ZRO Paste is being used instead of GENAPOL ZRO liquid, 0.4 times the quantity of GENAPOL ZRO liquid is required.

Formulation B I/6110

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulation

HAIR AND BODY SHAMPOO

RAW MATERIALS	% By Weight
Water	68.65
Jordaquat 41	0.75
MAZER MAFO CAB	5.6
Jortaine CSB	11.6
Jordapon CI-50 Paste	11.0
Jordaquat 1033	1.0
Jordamox LDA	1.2
Tetrasodium EDTA	0.2
Perfume	q.s.
Preservative, Dye	q.s.

Formula 28

SHAMPOO

RAW MATERIALS	% By Weight
TEA Lauryl Sulfate (40%)	45.0
MAZER MAFO CAB	7.0
Jordamox LDA	3.0
Citric Acid (50% Solution):	To adjust pH to 6.0-7.0
Perfume	q.s.
Preservative, Dye	q.s.
Water	45.0

Formula 30

SHAMPOO

RAW MATERIALS	% By Weight
Alpha Olefin Sulfonate	30.0
Jortaine CSB	10.0
MAZER MAZAMIDE CS-148	6.1
NaCl	1.0
Citric Acid (50% Solution)	To adjust pH to 6.0-7.0
Perfume	q.s.
Preservative, Dye	q.s.
Water	53.0

Formula 31

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

INEXPENSIVE SHAMPOO

INGREDIENTS:	%W/W
Water	68.70-67.70
Ammonium Chloride	1.00- 2.00
Lantox 55 (PEG-75 Lanolin)	0.30
Standapol EA-K (Ammonium Myreth Sulfate (and) Cocamide DEA)	30.00
Dyes, Fragrance and Preservatives	q.s.

Procedure:

Place water in a container. Add remaining ingredients one at a time in the order given under agitation. Adjust pH to 5.5-6.5 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comment:

This easy to prepare shampoo contains STANDAPOL EA-K a high active (60%) blend of Ammonium Myreth Sulfate and Cocamide DEA. Formulation H-4842

PEARLESCENT SHAMPOO FOR PERMED HAIR

INGREDIENTS:	%W/W
Water	q.s. to 100.0
STANDAPOL T (TEA-Lauryl Sulfate)	30.0
STANDAPOL ES-1 (Sodium Laureth Sulfate)	10.0
VELVETEX BA-35 (Cocamidopropyl Betaine)	4.0
STANDAMOX CAW (Cocamidopropylamine Oxide)	3.0
STANDAMID LDO (Lauramide DEA)	1.5
EUPERLAN PK-810 (Glycol Distearate (and) Sodium Laureth Sulfate (and) Cocamide MEA (and) Laureth-9)	4.0
Sodium Chloride	1.5
Fragrance	q.s.
Dyes and Preservative	q.s.

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, in the order given, under agitation. Continue stirring and adjust pH to 6.0-6.5 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

The combination of amine oxide and betaine provides the "right" kind of conditioning for permed hair. The EUPERLAN PK-810 is an easy-to-use pearllizing agent. Formulation H-4847

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

LOW COST SHAMPOO

INGREDIENTS:	% By Weight
A.	
Deionized water	74.097
Triethanolamine	0.05
B.	
Methocel 40-101	1.40
C.	
Deionized water	1.00
Citric Acid	0.20
Dowicil 200 (Dow) Antimicrobial	0.15
DL Panthenol	0.001
Hydrolyzed Animal Protein	0.001
ALOE VERA 200 Powder	0.001
D.	
Color	q.s.
E.	
Sodium Laureth Sulfate	20.000
F.	
Cocamide DEA	3.000
Perfume oil	0.10

Procedure:

Weigh A ingredients and mix 10 mins. Dissolve Methocel polymers in A and mix 15 mins. Combine and dissolve C, add to A and mix 10 mins. Add color and mix 10 mins. Slowly add E to the batch and mix 15 mins. Combine F ingredients and heat to 40C; mix to solubilize the perfume oil, then add F solution to batch and mix 10 mins.

CREAMY ALOE SHAMPOO

INGREDIENTS:	% By Weight
ALOE VERAGEL Liquid 1:1	50.0
Deionized Water	23.0
Polyquaternium-7 (Merquat 550)	3.0
Sodium Lauryl Sulfate	7.0
Ammonium Laureth Sulfate	5.0
Sodium Laureth Sulfate	5.0
Lauramide DEA	5.0
Sodium Chloride	1.0
Germaben II	1.0

Procedure:

Add all ingredients and heat to 70C with stirring.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

LOW IRRITATION SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	54.6
II.	
SLES (60%)	15.5
VARONIC LI-67	6.0
VARONIC LI-420	4.0
VARION CAS	5.4
VARAMIDE MA-1	2.0
III.	
VARISULF SBFA-30	12.5
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	29%
pH:	6.5
Viscosity:	1300 cps

LOW IRRITATION SHAMPOO W/PROTEIN

INGREDIENT	% By Weight
I.	
Deionized Water	52.0
TEALS (40%)	12.5
ALES (28%)	15.7
VARONIC LI-48	2.0
VARONIC LI-63	4.5
II.	
VARION CAS	6.4
VAROX 1770	6.4
III.	
Crotein HKP	0.5
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	21.8%
pH:	5.5
Viscosity:	1650 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.8

LOW IRRITATION SHAMPOO

INGREDIENTS: %W/W

Part A:

Water	q.s. to 100.0
PEG-6000 Distearate	0.5
VELVETEX CDC (Cocoamphodiacetate)	15.0
STANDAPOL ES-3 (Sodium Laureth Sulfate)	21.0
STANDAMID SD (Cocamide DEA)	3.0
Polysorbate 20	3.0

Part B:

Fragrance, Dye and Preservatives	q.s.
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Procedure:

Heat water to 65C. Add the remaining ingredients of Part A with agitation. Maintain temperature until clear, homogeneous product results. Cool to 40C with stirring. Add Part B. Adjust to pH 7.0+/-0.3 with 50% citric acid solution.

pH	7.0
Viscosity	Approx. 800 cps.

Comments:

The combination of amphoteric and ether sulfate surfactants exhibits good cleansing and mildness properties in a shampoo that can be used daily.

Formula H-4865

LOW IRRITATION SHAMPOO

INGREDIENTS: %W/W

Part A:

Water	56.0
VELVETEX AB-45 (Coco Betaine)	20.0
STANDAPOL ES-2 (Sodium Laureth Sulfate)	20.0
STANDAMID SD (Cocamide DEA)	2.0
CETIOL HE (PEG-7 Glyceryl Cocoate)	2.0
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

The order of addition is given above. Add all materials singly under adequate agitation. Adjust the pH to 7.0+/-0.5 with 50% citric acid aqueous solution. Continue stirring until product is homogeneous.

Comment:

The blend of betaine, anionic and ethoxylated cocoate contributes to low irritation potential while also providing effective detergency.

Formula 4726

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulations

LOW PH MILD SHAMPOO(CLEAR)

INGREDIENTS	% By Weight
Water (Deionized)	48.0
Dowicil 200	0.2
Glycolic Acid (70% Tech.)	2.2
SCHERCOMID AME-70	7.5
Maprofix NH (30%)	20.0
Standopol ES-40 (60%)	6.0
SCHERCOTERIC MS-SF-2 (40%)	16.1
Fragrance	q.s.

Procedure:

1. Heat water to 40-50C. With stirring add Dowicil 200 and Glycolic Acid.
2. Add SCHERCOMID AME-70 and Maprofix NH. Each of these goes in readily.
3. Add Standopol ES-40 very slowly to avoid gel body formation.
4. Add SHERCOTERIC MS-SF-2 slowly.
5. Cool and add fragrance.

Typical Specifications:

Activity: 23% Viscosity @ 25C: 1400 cps pH @ 25C: 4.8

Formulation SO-001

LOW PH MILD SHAMPOO(PEARLESCENT)

INGREDIENTS	% By Weight
Water (Deionized)	47.5
Dowicil 200	0.2
Glycolic Acid (70% Tech.)	2.2
SCHERCOMID AME-70	7.5
SCHERCEMOL EGMS	0.5
Maprofix NH (30%)	20.0
Standopol ES-40 (60%)	6.0
SCHERCOTERIC MS-SF-2 (40%)	16.1
Fragrance	q.s.

Procedure:

1. Heat water to 60C. With stirring add Dowicil 200 and Glycolic Acid.
2. Add Schercomid AME-70; melt and add SCHERCEMOL EGMS; add Maprofix NH. Each of these goes in readily.
3. Add Standopol ES-40 very slowly to avoid gel body formation
4. Add SCHERCOTERIC MS-SF-2 slowly.
5. Cool and add fragrance.

Typical Specifications:

Activity: 23% Viscosity @ 25C: 2500 cps pH 25C: 5.6

Formulation SO-002

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

MILD ALOE SHAMPOO

INGREDIENTS	% By Weight
A.	
Sipon LSB	30.0
Sipon L-22	20.0
B.	
Water	q.s.
Sodium chloride	1.0
DMDM-hydantoin	0.3
ALOE VERAGEL Liquid 1:1	5.0
C.	
Standapol AB-45	6.0
D.	
Citric acid	q.s. to 6.0 pH

Procedure:

1. Mix Phase A together at room temperature.
2. Mix Phase B at room temperature.
3. Add B to A at room temperature - mix until clear.
4. Add Phase C to AB - mix until clear.
5. Add Phase D - Mix until uniform.

Note: To decrease viscosity, use less Standapol AB-45.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

SHAMPOO

RAW MATERIALS	% By Weight
ACTRASOL SR606	60
Water, perfume	40

Shampoos of the non-lathering type, formulated from sulfated oils, exert a mild cleansing action desired for hair products, and in addition leave the hair soft and manageable.

FOAMING SHAMPOO

RAW MATERIALS	% By Weight
ACTRASOL 606	30
Duponol WAQE	30
Water	40

If foaming is required, then sodium lauryl sulfate should be added.

SOURCE: Arthur C. Trask Corp.: The ACTRASOLS: Suggested Formulas

MILD AND CREAMY SHAMPOO(1C)

RAW MATERIALS	% By Weight
EMERSAL 6434 TEA Lauryl Sulfate	15.0
EMERY 5320 Laureth Sulfosuccinate	15.0
EMID 6511 Lauramide DEA	5.0
LANOQUAT 1756 Lanolin Quaternary	2.0
EMEREST 2350 Glycol Stearate	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized Water	61.0

Procedure:

Combine all ingredients and heat with mixing to 75-80C, until a clear, homogeneous system is obtained. Cool to 40C and add fragrance and/or color. The viscosity can be modified (increased) by the addition of small increments of sodium chloride.

SHAMPOO FOR DRY HAIR(2576-068-03)

RAW MATERIALS	% By Weight
EMERSAL 6431 Ammonium Lauryl Sulfate	20.0
EMERY 5315 Coconut Sulfosuccinate	10.0
EMID 6511 Lauramide DEA	4.0
EMID 6548 Soyamide DEA	1.0
LANOQUAT 1756 Lanolin Quaternary	2.0
EMERY 5430 Cocamidopropyl Betaine	2.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized Water	60.0

Procedure:

Combine all ingredients and heat to 70C with agitation. Once all is melted, cool the mixture to 40C and adjust the pH to 5.6 with citric acid. Add color, fragrance and package.

CONDITIONING SHAMPOO(19B)

RAW MATERIALS	% By Weight
EMERSAL 6400 Sodium Lauryl Sulfate	20.0
EMERY 5430 Cocamidopropyl Betaine	5.0
LANOQUAT 1756 Lanolin Quaternary	5.0
EMERSAL 6434 TEA Lauryl Sulfate	3.5
EMERY 6731 Foam Booster	2.5
EMID 6513 Lauramide DEA	2.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.8
Herbal extract	0.3
DL-Panthenol (Panthenol)	0.2
Polymer JR (Polyquaternium 10)	0.2
Methyl paraben	0.2
Deionized water	60.3
Citric acid	q.s.

SOURCE: Emery Industries; LANOQUAT 1756 Lanolin Quaternary;
Suggested Formulations

MILD AND GENTLE SHAMPOO FORMULA(2244-88)

RAW MATERIALS	% By Weight
A.	
EMERSAL 6452 Sodium Laureth Sulfate	25.0
Amphoteric 2	10.0
EMEREST 2701 PEG-12 Isostearate	3.5
EMERSAL 6434 TEA Lauryl Sulfate	3.5
EMERY 6731 Foam Booster	2.5
B.	
DeminerIALIZED water	48.3
Citric acid	0.2
LANOQUAT 1756 Lanolin Quaternary	5.0
EMERCIDE 1199 Liquid Preservative System	0.5
Perfume	1.5

This mild and gentle shampoo provides for a very easy wet comb-out, and after blow-drying leaves the hair soft and shiny. EMEREST 2701 contributes lubricity to the hair and acts as a thickener for the detergent system.

Procedure:

Heat A slowly to 75C. Add B in order with constant agitation. Continue stirring to cool to 35C. Add perfume and package.

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Formulation

TRANSPARENT SHAMPOO

RAW MATERIALS	% By Weight
A.	
Texapon MG 3	32,30
Dehydol LS 3 deo	1,50
Dehyton K	10,00
Fragrance H+R	0,50
B.	
Water dist. or deionized	53,20
Gafquat 755 N	0,80
Camomile 728 790 H+R	1,50
Euxyl K100	0,15
Sodiumhydroxid, 10% aq. solution	0,05

Procedure:

Part A: Mix all ingredients.

Part B: Dissolve Gafquat, Cremogen forte Camomile, Euxyl K100 and Sodium Hydroxide in water and add to part A under stirring.

The pH-Value should be 7.0

SOURCE: Haarman & Reimer: Formula K 9/1-45 719/E

MILD SHAMPOO

INGREDIENTS:	% By Weight
A.	
Sipon LSB	40.0
Sipon ESY	10.0
B.	
Maypon UD	3.0
Maypon 4C	5.0
ALOE VERAGEL Liquid 1:1	1.0
Water	Q.S.
Sodium Chloride	1.0
DMDMH-55	0.3
C.	
Monateric ISA-35	12.0
Monamate OPA-30	10.0

Procedure:

At room temperature mix Phase A together. Mix Phase B together. Add Phase B to A slowly. Mix until clear. Mix Phase C together cold. Add Phase C to AB. Fragrance as desired.

SHAMPOO

INGREDIENTS:	% By Weight
ALOE VERAGEL Liquid 1:1	50.0
Water	14.5
Merquat 550	3.0
Richodet 4680	32.0
Methyl Paraben	0.1
Propyl Paraben	0.1
Germall 115	0.3
Fragrance and Dye (optional)	Q.S.

Sodium Chloride (optional) to desired viscosity. pH = 6.7, adjusted (optional) to pH = 5.5 with citric acid saturated solution.

Procedure:

Weigh and mix in order while slightly warming to not higher than 40-50C. Then let settle overnight and package.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

MILD SHAMPOO

INGREDIENTS:	% By Weight
Anionyx 12S	24.0
Maprofix WAC-LA	16.0
Onyxol 345	2.0
Glycerine	2.0
ALOE VERAGEL 200	0.1
Water, di.	55.9
Appearance:	Hazy, golden yellow liquid
pH:	7.0 (with citric acid 50%)
Viscosity:	35,000 cps. with 1% NaCl

HAIR & BODY SHAMPOO

INGREDIENTS:	% By Weight
Maprofix TLS-65	50.0
Surco CMEA	3.0
Grocer 5220	2.0
ALOE VERAGEL 200	0.1
Water, di.	44.9
Appearance:	Beige, pearlescent liquid
pH:	6.5 (with citric acid 50%)
Viscosity:	120 cps

CONDITIONING SHAMPOO

INGREDIENTS:	% By Weight
Maprofix WAC-LA	50.0
Ammonyx SO	10.0
ALOE VERAGEL 200	0.1
Glydant	0.5
Water, di.	39.4
Appearance:	Hazy, water white liquid
pH:	6.2 (with citric acid 50%)
Viscosity:	7,000 cps (with 1.5% NaCl)

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

MILD SHAMPOO WITH AMPHOLYTE

RAW MATERIALS	% By Weight
ELFAN NS 242 S conc. (70%)	11.0
ELFAN A 432 (30%)	10.0
AROMOX DMMCD-W (30%)	10.0
ELFACOS GT 282 (S)	2.0
Water, preservative, dye, perfume oil and other additives	ad 100.0
pH	7-8
Viscosity (20C)	ca. 4500 mPa.s

Formulation No. 1983

MILD SHAMPOO WITH AMPHOLYTE

RAW MATERIALS	% By Weight
ELFANOL 616 (40%)	8.0
ELFAN A 432 (30%)	9.0
ELFACOS GT 282 (S)	5.1
Water, preservative, dye, perfume oil and other additives	ad 100.0
pH	ca. 7
Viscosity (20C)	ca. 2000 mPa.s

Formulation No. 3146C

SOURCE: Akzo Chemicals Inc.: ELFACOS GT 282: Formulations

"EXTRA" MILD SHAMPOO

INGREDIENT	% Wt/Wt
Sodium Laureth (3 E.O. Sulfate 28%)	20.0
Imidazoline Amphoteric (40% Cocoamphocarboxyglycinate)	10.0
Polysorbate 20	3.0
PEG-6000 Distearate (PEG 150 Distearate)	1.0
Preservative, Fragrance	q.s.
Citric Acid	to pH 7.0
Deionized Water	Balance

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formulation

MOISTURE BALANCE SHAMPOO

RAW MATERIALS:	% By Weight
Phase A:	
TEA-Coco-Hydrolyzed Animal Protein	10.0
Steartrimonium Hydrolyzed Animal Protein	1.5
Water	37.5
Sodium C-14-16 Olefin Sulfonate (40%)	35.0
Cocoamphocarboxypropionate (40%)	5.0
Cocamide MEA	3.0
GERMABEN II	1.0
Phase B:	
Ammonium Chloride	2.0
Water	5.0

Procedure:

Warm Phase A to 65C and adjust pH to 6.5 with Citric Acid. Dissolve the Ammonium Chloride in water and add to Phase A carefully to avoid air entrapment.

SELF ADJUSTING CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	38.3
TEA-Lauryl Sulfate	50.0
Dihydroxyethyl Tallow Acetate (Monateric 1202)	7.5
Lauramide DEA (and) Linoleamide PEA (Monamid 1007)	3.0
Sodium Chloride	1.0
GERMABEN II	0.2

Procedure:

Mix all ingredients except the TEA-Lauryl Sulfate until homogeneous. Add the TEALS and mix until uniform. Adjust the pH to 6.0-7.0 with citric acid.

SOURCE: Sutton Laboratories, Inc.: Hair Care: Suggested Formulations

MULTI-PURPOSE SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	50.3
Hydroxyethylcellulose	0.5
Propylene Glycol	1.0
B.	
Sodium Lauryl Ether Sulfate	15.0
TEA Lauryl Sulfate	15.0
Cocoamidopropylbetaine	10.0
Lauramide DEA	4.0
C.	
PEPTEIN 2000	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Green No. 3(0.01%)	0.1

This is a clear, high viscosity shampoo with high foaming characteristics and light conditioning benefits attributed to the highly substantive effects of HORMEL PEPTEIN 2000. This product may be used as a hair or body shampoo or as a liquid soap. Hydrolyzed Animal Protein conditions the hair and moisturizes the skin.

Formula: 614-28

NO-TANGLES SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	43.8
Propylene Glycol	1.0
B.	
Cocoamphocarboxyglycinate	20.0
Disodium Cocamido MIPA Sulfosuccinate	10.0
Cocoamidopropylhydroxysultaine	20.0
C.	
PEPTEIN 2000	3.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Polyquaternium 7	1.0
Fragrance	0.1
F, D & C Yellow No. 5(0.01%)	0.1

This is a very mild, clear, low viscosity shampoo with extra conditioning to smooth out tangles for ease in combing. Hydrolyzed Animal Protein adds to the mildness of the shampoo by decreasing the irritation of the surfactant system; and it adds shine and body to the hair.

Formula: 614-30C

SOURCE: Geo. A. Hormel & Co.: Suggested Formulations

NATURAL CONDITIONING SHAMPOO(With Soya)

INGREDIENTS	% By Weight
Water (Deionized)	48.5
SCHERCOTERIC SOAS (90%)	1.5
SCHERCOTAININE CAB-G (45%)	20.0
SCHERCOPOL OMES-Na (35%)	10.0
Sodium Lauryl Ether Sulfate (30%)	20.0
Preservative	q.s.
Fragrance	q.s.

Procedure:

1. Heat water to 45C. With stirring add SCHERCOQUAT SOAS to dissolve.
2. Add SCHERCOTAININE CAB-G.
3. Add SCHERCOPOL OMES-Na.
4. Slowly add Sodium Lauryl Ether Sulfate; mix thoroughly as viscosity will build rapidly.
5. Cool, q.s. with Preservative and Fragrance.

Typical Specifications:

Activity: 20% Viscosity @ 25C: 2800 cps (without Fragrance)
pH @ 25C: 4.9

Formulation SO-003

NATURAL MILD CONDITIONING SHAMPOO(With Soya)

INGREDIENTS	% By Weight
Water (Deionized)	48.5
SCERCOQUAT SOAS (90%)	0.5
SCHERCOTAININE CAB-G (45%)	20.0
SCHERCOPOL OMES-Na (35%)	10.0
Sodium Lauryl Ether Sulfate (30%)	20.0
SCHERCOMID SLM-S	1.0
Preservative	q.s.
Fragrance	q.s.

Procedure:

1. Heat water to 45C. With stirring add SCHERCOQUAT SOAS to dissolve.
2. Add SCHERCOTAININE CAB-G, followed by SCHERCOPOL OMES-Na.
3. Add Sodium Lauryl Ether Sulfate.
4. Add SCHERCOMID SLM-S; mix thoroughly, as viscosity will build.
5. Cool, q.s. with Preservative and Fragrance.

Typical Specifications:

Activity: 20% Viscosity @ 25C: 2900 cps (without Fragrance)
pH @ 25C: 5.5

Formulation: SO-004

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

NON-ACID SHAMPOO--PREMIUM QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	33.3
FADEA	5.0
Sodium chloride	1.5
Water, dye, perfume, preservatives	to 100

Properties:

Viscosity, 76F, cps:	1460
Clear point, F:	41
Ross Miles Foam Ht:	
Initial, mm:	170
After 5 min, mm:	165

NON-ACID SHAMPOO--GOOD QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	20.0
FADEA	3.0
Cocoamidobetaine (30%)	7.5
Sodium chloride	0.75
Water, dye, perfume, preservatives	to 100

Properties:

Viscosity, 76F, cps:	1300
Clear point, F:	49
Ross Miles Foam Ht:	
Initial, mm:	155
After 5 min, mm:	155

NON-ACID SHAMPOO--ECONOMY

RAW MATERIALS:	% By Weight
NEODOL 25-3S (60%)	12.0
FADEA	1.5
Cocoamidobetaine (30%)	1.0
Distearate of PEG (6000)	0.25
Sodium chloride	2.0
Water, dye, perfume, preservatives	to 100.0

Properties:

Viscosity, 76F, cps:	1785
Clear point, F:	39
Ross Miles Foam Ht:	
Initial, mm	125
After 5 min, mm	125

SOURCE: Shell Chemical Co.: NEODOL Formulary: Suggested Formulations

NORMAL SHAMPOO

INGREDIENT	% By Weight
I.	
Deionized Water	37.3
ALS (28%)	38.6
VAROX 1770	5.7
VARION 2C	4.0
Dow Corning 193	0.4
II.	
VARISULF SBFA-30	14.0
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
Solids:	20.8%
pH:	6.5
Viscosity:	550 cps

Mixing Instructions:

Heat and mix Phase I to 75C. Cool to 45C and add Phase II. Cool with mixing to 30C and adjust to pH 6.5 with Citric Acid.

NORMAL SHAMPOO (ECONOMY)

INGREDIENT	% By Weight
I.	
Deionized Water	72.2
II.	
TEALS (40%)	20.6
VARAMIDE ML-1	4.1
VARION CDG	2.1
Sodium Chloride	1.0
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
Solids:	14.0%
pH:	5.5
Viscosity:	4500 cps

SOURCE: Sherex Chemical Co.: Formulations Code: 6.3.1

NORMAL SHAMPOO WITH GLYCERINE

INGREDIENT	% By Weight
I.	
Deionized Water	51.0
II.	
ALS (28%)	22.2
VARAMIDE MA-1	1.0
Dow Corning 193	0.3
III.	
VARSULF SBFA-30	11.4
Glycerine	2.0
VARION CAS	11.2
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
VI.	
Sodium Chloride	qs
Solids:	19.7%
pH:	6.5
Viscosity:	1050 cps

NORMAL SHAMPOO (LOW SOLIDS)

INGREDIENT	% By Weight
I.	
Deionized Water	63.1
II.	
SLES (28% 3 mole EO)	12.1
ALS (28%)	12.1
TEALS (40%)	8.5
VARAMIDE MA-1	1.0
VAROX 365	2.0
III.	
Tetrasodium EDTA	0.2
IV.	
Citric Acid (25%)	qs
V.	
Ammonium Chloride	1.0
VI.	
Preservative	qs
Solids:	13.0%
pH:	6.0
Viscosity:	1150 cps

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.1

PEARLIZING SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	1.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	25.0
TEGO-Pearl B 48	2.0
Phase B:	
Water	61.5
TEGO-Betain L7	10.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.
Formulation E 1.1.4

SHAMPOO WITH HORSE CHESTNUT EXTRACT

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	30.0
Phase B:	
Water	57.3
TEGO-Betain L7	10.0
Horse chestnut extract	0.2
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.
Formulation E 1.1.5

SHAMPOO FOR DRY HAIR

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	3.0
Perfume	0.5
ABIL B8843	0.5
Sodium lauryl ether sulphate (28%)	20.0
Extrapon Sulfovital-Spezial	0.5
Extrapon Poly-H-Spezial	0.5
Phase B:	
Water	65.0
TEGO-Betain L7	10.0
Preserving agent, colouring	q.s.
Formulation E 1.1.6	
SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Formulas	

PROTEIN/LANOLIN ENRICHED SHAMPOO(2889-091A)

RAW MATERIALS % By Weight

A.	
Sodium Lauryl Sulfate	25.0
EMERY 5430 Cocamidopropyl Betaine	5.0
LANOQUAT 1756 Lanolin Quaternary	5.0
EMID 6515 Cocamide DEA	3.0
EMEREST 2486 Pentaerythrityl Tetrapelargonate	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7
Hydrolyzed animal protein	0.1
Methyl paraben	0.2
B.	
Polymer LR-30M (Polyquaternium-10)	0.2
Deionized water	49.3
Methocel K4M (2% solution)	10.0
C.	
Citric acid	0.2
Fragrance	q.s.
Cremogen M-2 birch leaf extract	0.3

Light conditioning shampoo for dry hair. It should be used weekly followed by a good conditioner and a sheen spray.

RICH BODY AND CURL PROTECTOR SHAMPOO(2889-099D)

RAW MATERIALS % By Weight

Sodium Laureth Sulfate	20.0
TEA Lauryl Sulfate	5.0
EMERY 5430 Cocamidopropyl Betaine	5.0
Cocoyl Sarcosine	3.0
EMID 6560 Lauramide DEA (and) Linoleamide DEA	5.0
LANTRON AWS 1692 PPG-12-PEG-65 Lanolin Oil	3.0
Hydrolyzed animal protein (Lexein LP 170)	1.0
EMEREST 2355 Glycol Distearate	2.0
Polymer LR30M (Polyquaternium-10)	0.5
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
EMEREST 2486 Pentaerythrityl Tetrapelargonate	1.0
Distilled water	53.5
Fragrance	q.s.

This rich protective shampoo is formulated specifically to restore life and curl to dry hair and make it easier to comb. It is especially effective for hair that has been styled to give it "soft curls." It is also recommended as the first step in a "patching" program for badly damaged hair, in which shampooing is followed by a hot oil treatment and a good conditioner.

SOURCE: Quantum Chemical Corp.: EMEREST 2486 Pentaerythrityl Tetrapelargonate in Ethnic Formulations: Suggested Formulations

SALON CONCENTRATE SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	23.8
Propylene Glycol	1.0
Glycol Stearate	1.0
B.	
Sodium Lauryl Sarcosinate	20.0
TEA Lauryl Sulfate	20.0
Sodium Cocyl Isethionate	10.0
Cocoamidopropylhydroxysultaine	8.0
Lauramide DEA	6.0
C.	
PEPTEIN 2000	8.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Citric Acid	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

A mild concentrate that may be diluted four (4x) times. HYDROLYZED ANIMAL PROTEIN provides extra conditioning benefits by adding shine and body to the hair with no build-up that can ruin perms or color treated hair.
Formula: 614-31B

ULTRA-CONDITIONING SHAMPOO WITH PROTEIN

INGREDIENTS:	% By Weight
A.	
Deionized Water	49.3
Sorbitol	1.0
Glycol Stearate	1.0
B.	
Cocoamidopropylhydroxysultaine	20.0
Disodium Cocamido MIPA Sulfosuccinate	20.0
Sodium Lauroyl Sarcosinate	5.0
C.	
PROLAGEN MP-1	2.0
D.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Citric Acid	0.5
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

This is a pearly lotion shampoo with rich lather and durable conditioning benefits. Exceptional, long-lasting, conditioning benefits.
Formula: 614-33C

SOURCE: Geo. A. Hormel & Co.: Suggested Formulations

SHAMPOO

clear, middle viscosity, 21% active detergent

RAW MATERIALS	% By Weight
A.	
HOSTAPON CT Paste	5.00
EDTA	0.20
B.	
Water	31.50
C.	
GENAPOL AMS	8.00
GENAPOL LRO Liquid	30.00
Nutrilan L	5.00
Perfume	0.30
Preserving agent	q.s.
D.	
HOE S 3267	20.00

If GENAPOL LRO Paste is being used instead of GENAPOL LRO Liquid, 0.4 times the quantity of GENAPOL LRO Liquid is diluted with water to the required amount.

Procedure:

- I A is dissolved in B at 60C.
- II One after another the components of C are added to I.
- III Finally D is added to II. The addition of D to be done for raising viscosity.

SOURCE: Hoechst Celanese Corp.: Formulation No. Ku 1114/1

SHAMPOO FOR DRY HAIR

RAW MATERIALS	% By Weight
Phase A:	
Zetesol NL	50.0
Oxypon 2145	4.0
Phase B:	
Comperlan KD	1.5
Perfume oil	0.5
Phase C:	
Water	37.3
Bronidox L	0.2
HYDROLASTAN	3.0
Sodium chloride	3.5

Processing:

1. Mix well the substances of Phase A.
2. Mix well the substances of Phase B and incorporate to Phase A.
3. Mix well the substances of Phase C and add to phase A + B.

SOURCE: Pentapharm Ltd.: Guide Formulations: Code No. PL 1503

SHAMPOO FOR DRY HAIR

INGREDIENT	% By Weight
I.	
Deionized Water	37.3
II.	
ALS (28%)	38.6
VAROX 1770	5.7
VARION CAS	4.0
Dow Corning 193	0.4
III.	
VARISULF SBFA-30	14.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	20.8%
pH:	6.5
Viscosity:	600 cps

Mixing Instructions:

Heat Phase I to 70C. Add Phase II to I in the order listed. Cool to 45C and add Phase III. Cool to 35C and adjust pH to 6.5 with citric acid. Add Phase V.

SHAMPOO FOR OILY HAIR

INGREDIENT:	% By Weight
I.	
Deionized Water	35.9
II.	
ALS (28%)	38.6
VAROX 1770	5.7
Dow Corning 193	0.1
VARION CAS	5.7
III.	
VARISULF SBFA-30	14.0
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	21.3%
pH:	6.0
Viscosity:	3900 cps

Mixing Instructions:

Heat Phase I to 70C. Add Phase II to I in order listed. When this is thoroughly mixed cool to 45C and add Phase III. Cool to 35C and adjust pH to 6.0 with Citric Acid. Add Phase V.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.3.3/6.3.2

SHAMPOO CONCENTRATE

INGREDIENTS:	%W/W
Part A:	
Water	19.25
Sodium Chloride	7.50
Propylene Glycol	8.00
STANDAPOL T (TEA-Lauryl Sulfate)	20.00
STANDAMID SD (Cocamide DEA)	12.50
STANDAMID LD (Lauramide DEA) (Pre-melted at 45C)	12.50
Citric Acid, Anhydrous	0.75
STANDAPOL EA-40 Conc. (Ammonium Myreth Sulfate)	19.50
Part B:	
Perfume Oil	q.s.
Dyes and Preservatives	q.s.

Procedure:

Heat water to 50-55C. Keep temperature constant. Add remaining ingredients of part A, one at a time, in order listed under agitation. Cool and at 40-45C add individual components of Part B under agitation. Adjust the pH to 6.5 + 0.5 with 50% citric acid aqueous solution. Continue sweep-type agitation until product reaches room temperature. Finished shampoo can be made by diluting 1 part concentrate with 7-15 parts water.

Comments:

This liquid high actives (60%) blend provides excellent detergency even after dilution.

Formula H-4611

SHAMPOO WITH PROTEIN

INGREDIENTS:	%W/W
Water	56.35
STANDAPOL ES-2 (Sodium Laureth Sulfate)	20.00
STANDAPOL T (TEA-Lauryl Sulfate)	15.00
STANDAMID LDO (Lauramide DEA)	3.00
VELVETEX BA-35 (Cocamidopropyl Betaine)	1.00
NUTRILAN L (Hydrolyzed Animal Protein)	1.50
Fragrance	0.15

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, in the order given. Adjust pH to 6.0 - 6.5 with 50% citric acid. Continue stirring until product is homogeneous.

Comments:

High lathering conditioning shampoo that doesn't overly strip the hair. For increased mildness substitute STANDAPOL ES-3 for the ES-2.

Formula H-4834

SOURCE: Henkel Corp.: Personal Care Products Formulary: Formulas

SHAMPOO HS-1001

RAW MATERIALS	% By Weight
Water	23.4
Polyox WSR-205	0.1
Standapol A	47.7
Monamid 716	8.5
Maprosyl C	5.6
Lexein X-250	5.6
Triton X-100	3.4
SOLULAN 98	3.4
GLUCAM E-20	2.3
Preservative, perfume, color, sequestrant	q.s.

Description:

Provides above average properties of wet and dry comb, appearance and feel, good flyaway control. SOLULAN 98, GLUCAM E-20, Polyox WSR 205 major conditioning agents. LEXEIN X-250 contributes to split ends control.

Procedure:

Heat water to 50C, sift Polyox WSR-205 into water with stirring to complete dispersion. Add each other ingredient in order, stirring until homogeneous between additions and at end.

Variations:

- To impart gloss, add SOLULAN PB-5.
- To build foam, increase LAURAMIDE DEA.

SHAMPOO HS-1002

RAW MATERIALS	% By Weight
Methocel 65HG, 2% aqueous slurry	40.0
GLUCAM E-10	4.0
Triethanolamine	1.0
Standapol T	45.0
Monamid CMA	5.0
Specially denatured alcohol #40	5.0
Preservative, color, perfume, sequestrant	q.s.

Description:

Thorough cleanser, leaves hair fluffy.

Procedure:

Prepare Methocel slurry. Mix all remaining ingredients except alcohol, heat to 80C; cool to 60C. and add mixture slowly to slurry with good agitation until no particles remain. Add alcohol, stir until uniform.

Variations:

- To reduce flyaway, add SOLULAN 16.
- For dry hair, add SOLULAN PB-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1003

RAW MATERIALS	% By Weight
Water	22.1
Methocel 65HG	0.4
Phase A:	
SOLULAN PB-5	5.0
Specially denatured alcohol #40	5.0
Phase B:	
Standapol T	60.0
Monamid CMA	4.0
GLUCAM P-20	2.5
Triethanolamine	1.0
Preservative, color, perfume, sequestrant	q.s.

Description:

Free-flowing thorough cleanser. SOLULAN PB-5 adds gloss. GLUCAM P-20 provides fragrance retention and viscosity control.

Variations:

To increase viscosity, increase Methocel 65 HG.

To add luster, add SOLULAN 16.

For dry hair, replace part of STANDAPOL T with SOLULAN L-575.

SHAMPOO HS-1004

RAW MATERIALS	% By Weight
Sodium chloride	1.0
Water	5.0
Standapol WAQ Special	50.0
Standapol A	35.0
Monamid 150-ADD	5.0
Ammonyx LO	1.0
SOLULAN 16	3.0

Description:

Rich, foaming cleanser with SOLULAN 16 for flyaway control and improved combing properties.

Variations:

For damaged hair, replace portion of lauryl sulfates with SOLULAN L-575 and add hydrolyzed animal protein.

For lubricity, add 0.5-1% of ACETULAN.

To stabilize foam, add GLUCAM E-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1005

RAW MATERIALS	% By Weight
Phase A:	
Sodium chloride	3.0
Water	36.0
Standapol WAS-100	25.0
Standapol A	20.0
Monamid 150-ADD	5.0
Ammonyx LO	3.0
Phase B:	
SOLULAN 16	3.0
SOLULAN 98	3.0
GLUCAM P-20	2.0
Preservative, color, perfume, sequestrant	q.s.

Description:

Free-flowing, good cleanser, good foamer with SOLULAN 98 as bodying agent, SOLULAN 16 for combing and flyaway control and GLUCAM P-20 for fragrance retention and viscosity control.

Variations:

For gloss, add SOLULAN PB-5.

To increase viscosity, increase sodium chloride.

SHAMPOO HS-1006

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 16	3.0
SOLULAN PB-5	2.0
Kessco PEG 6000 Distearate	3.0
Phase B:	
Water	62.6
Miranol 2MCA Modified	15.0
Tween 20	13.5
Arlacel 20	0.9
Preservative, perfume, color	q.s.

Description:

Low eye irritation, low skin irritation. Recommended for children. Good combing properties, moderate foaming, good feel, reduced flyaway. SOLULAN PB-5 contributes gloss. SOLULAN 16 adds luster.

Variations:

To reduce viscosity and increase fragrance duration, add GLUCAM P-20.

To gel, add GLUCATE SS and GLUCAMATE SSE-20 at 1:15 ratio of SS to SSE-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1007

RAW MATERIALS	% By Weight
Water	21.0
Monateric CSH-32	58.0
Monateric ISA-35	17.0
GLUCAM P-10	2.0
SOLULAN 16	2.0
Preservative, perfume, color	q.s.

Description:

Low eye and skin irritation, cleansing shampoo. Recommended for daily use. SOLULAN 16 provides luster and reduced flyaway. Procedure:

Heat water to 50C. Add Monateric CSH-32 with good stirring, then the Monateric ISA-35, the GLUCAM P-10 and the SOLULAN 16. Stir and cool to 30C. Adjust pH to 6.8 to 6.9 with phosphoric acid solution.

Variations:

For improved wet and dry comb, add GLUCAM E-20.

For improved cleansing, add SOLULAN 98.

SHAMPOO HS-1008

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 16	3.0
SOLULAN PB-5	2.0
Kessco PEG 6000 Distearate	2.5
Phase B:	
Water	63.0
Rewopon AM-CA	15.0
Tween 20	12.5
GLUCAMATE SSE-20	1.0
Arlacel 20	1.0
Perfume, preservative, color	q.s.

Description:

Daily use, mild shampoo, free flowing, stable foam, low irritation. SOLULAN 16 reduces flyaway. SOLULAN PB-5 provides gloss.

Procedure:

Phase A: Melt all ingredients at 45C.

Phase B: To water, add REWOPON AM-CA, Tween 20, GLUCAMATE SSE-20 and Arlacel 20. With stirring, add Phase A to Phase B with gentle heat. Stir until uniform.

Variations:

To increase viscosity, increase PEG 6000 distearate.

To increase fragrance duration, add GLUCAM P-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1009

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 16	3.0
SOLULAN PB-5	2.0
Kessco PEG 6000 Distearate	2.5
Phase B:	
Water	65.0
Miranol 2 MCA Modified	27.5
Perfume, preservative, color	q.s.

Description:

Daily use shampoo with excellent viscosity, low eye and skin irritation, moderate foaming. Superior desnarling and conditioning. SOLULAN 16 provides good wet comb and SOLULAN PB-5 provides gloss.

Variations:

To vary viscosity up or down, increase or decrease PEG 6000 distearate.

To gel, add GLUCATE SS.

For improved feel, add GLUCAM E-20.

SHAMPOO HS-1010

RAW MATERIALS	% By Weight
Phase A:	
Biaterge AS-40	18.8
Hamosyl C-30	25.0
Phase B:	
Pationic ISL, 75% in propylene glycol	5.0
Monamid 716	3.0
Kessco PEG 6000 Distearate	2.0
GLUCAM E-10	3.0
Phase C:	
Water	43.2
Lactic acid, 44% in water, q.s. to pH 5.1-5.5	
Perfume, preservative, color	q.s.

Description:

Conditioning shampoo. Excellent desnag, wet and dry comb. Very good foam, low flyaway. GLUCAM E-10 contributes to foam stability and wet and dry comb properties. Pationic ISL is major conditioning agent.

Variations:

To opacify, add GLUCATE SS.

For thinner viscosity, adjust pH to 6.0-6.3.

For increased luster, add SOLULAN 16

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1011

RAW MATERIALS	% By Weight
Standapol WAQ Special	48.0
Standapol SH-100	31.0
Monamid 716	3.0
SOLULAN 98	3.0
GLUCAM P-20	3.0
Ucon 50-HB-660	1.0
Sorbitol, 70% solution	5.0
Sodium chloride	1.0
Monateric ISA-35	5.0
Perfume, preservative, color, sequestrant	q.s.

Description:

Thorough cleansing shampoo. SOLULAN 98 improves manageability. GLUCAM P-20 adds luster and body, improves fragrance retention.

Procedure:

Mix both Standapols at 40C until uniform. Add Monamid 716, SOLULAN 98, GLUCAM P-20, Ucon 50-HB-660, Sorbitol and Monateric ISA-35 one at a time. Mix each until uniform at maximum of 50C. Add sodium chloride, stir until completely dissolved. Avoid air entrapment at all times.

Variations:

For higher viscosity, increase sodium chloride concentration.

SHAMPOO HS-1012

RAW MATERIALS	% By Weight
STANDAPOL ES-2	25.0
Monamid 716	8.0
Brij 35 SP	3.0
GLUCAM E-20	3.0
SOLULAN 16	2.5
Lexein X-250	0.2
Water	58.3
Citric acid, 40% solution, q.s. to pH 5-6	
Perfume, preservative, color, sequestrant	q.s.

Description:

Cleansing, foaming shampoo, usually associated with light green fragrances. GLUCAM E-20 stabilizes foam, SOLULAN 16 provides manageability and luster. Contains protein hydrolysate.

Procedure:

With gentle heat, combine and stir all ingredients except citric acid. When homogeneous, cool to room temperature and add citric acid to adjust pH.

Variations:

To increase fragrance duration, add GLUCAM P-20.

To add gloss, add SOLULAN PB-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1013

RAW MATERIALS	% By Weight
Standapol A	89.0
Sodium chloride	5.0
Amidox C-5	2.0
SOLULAN 16	2.5
SOLULAN C-24	1.5
Citric acid, 40% solution, q.s. to pH 3.8-4.0	
Perfume, preservative, color, sequestrant	q.s.

Description:

Cleansing and bodying shampoo. Amidox C-5 provides body; SOLULAN 16 provides luster and manageability; SOLULAN C-24 contributes to surfactant activity.

Procedure:

Heat Standapol A TO 50C, add sodium chloride and Amidox C-5, with stirring. Heat SOLULANS 16 and C-24 to 50C. Add with stirring to remainder of batch. Add citric acid to adjust pH.

Variations:

For increased foaming, replace part of Standapol A with LAURAMIDE DEA.

For increased fragrance duration, add GLUCAM P-20.

SHAMPOO HS-1014

RAW MATERIALS	% By Weight
Water	9.6
SOLULAN 16	5.0
Sodium chloride	5.0
Amidox C-5	7.5
Standapol A	69.8
Monateric ISA-35	2.5
Citric acid, 40% solution	0.6
Perfume, preservative, color, sequestrant	q.s.

Description:

Low pH, thorough cleansing shampoo. Amidox C-5 provides body. SOLULAN 16 provides manageability and luster.

Procedure:

With gentle heat and stirring, dissolve SOLULAN 16 in water. Add remaining ingredients in order (except citric acid) with stirring. Add citric acid solution in small portions until pH of 3.8-3.9 is reached.

Variations:

For "natural" ingredient labeling, replace citric acid with fruit juice.

To stabilize foam, add GLUCAM E-10.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1015

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 16	2.0
Surfynol 82	0.5
Phase B:	
Water	10.0
Polymer JR-400	0.5
Standapol A	81.0
Ammonyx CDO	5.0
SOLULAN 98	1.0
Citric acid, 40% solution, q.s. to pH 5	
Perfume, preservative, color, sequestrant	q.s.

Description:

Cleansing shampoo formulated for frequent blow-drying. Polymer JR-400 is substantive to hair, SOLULANS 16 and 98 provide added manageability and luster.

Variations:

For viscosity reduction and increased fragrance duration, add GLUCAM P-20.

For extra gloss, add SOLULAN PB-10.

SHAMPOO HS-1016

RAW MATERIALS	% By Weight
Phase A:	
Standapol T	12.5
Monamate CPA-40	25.0
Phase B:	
Water	50.7
Polymer JR-400	2.0
Phase C:	
SOLULAN 5	0.5
SOLULAN C-24	1.0
Ceraphyl 60	3.3
Monamid 716	5.0
Perfume, preservative, color, sequestrant	q.s.

Description:

Dual purpose cleansing and conditioning shampoo that provides manageability, luster and leaves the hair ready for styling. Polymer JR-400, SOLULAN 5, SOLULAN C-24 and Ceraphyl 60 provide creme rinse, conditioning and bodying properties.

Variations:

For looser styles, reduce concentration of Polymer JR-400.

To stabilize foam, add GLUCAM E-20.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulations

SHAMPOO HS-1017

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN 75	2.00
SOLULAN C-24	1.00
AMEROXOL OE-10	1.00
Glycol distearate	1.50
Phase B:	
Water	26.75
Polymer JR-400	0.75
Standapol T	56.00
Monamid 150-ADD	10.00
Hampshire DEG	1.00
Perfume, preservative, color	q.s.

Description:

Opaque cream shampoo with mild cleansing system. Conditioning provided by Polymer JR-400, gentle cleansing provided by AMEROXOL OE-10, SOLULAN 75 and SOLULAN C-24.

Variations:

To stabilize foam, add GLUCAM E-20.

For increased luster, add SOLULAN 16.

SOURCE: Amerchol Corp.: Hair Care: Suggested Formulation

SHAMPOO FOR GREASY HAIR

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	30.0
Haarkomplex aquosum	1.0
EXTRAPON 3-Spezial	1.0
TEGO-Pearl B48	2.0
Phase B:	
Water	55.5
TEGO-Betain L7	8.0
Preserving agent, colouring	q.s.

Formulation E 1.1.7

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Suggested Formulation

SHAMPOO

RAW MATERIALS	% By Weight
A.	
Rewopol TLS 40	40.0
Rewopol NL 3	15.0
Rewo-Amid DO 280/SE	7.0
SOFTIGEN 767	5.0
SOFTIGEN 701	2.0
Water	ad 100.0
B.	
Perfume	q.s.

Preparation:

A is mixed until clear and homogenous under slight heat.
After cooling B is stirred in.

Formulation 6.3.1

SHAMPOO

RAW MATERIALS	% By Weight
A.	
Rewopol NL 3	32.0
Rewo-Amid DO 280/SE	7.0
SOFTIGEN 767	5.0
Water	ad 100.0
B.	
Perfume	q.s.

Preparation:

A is mixed until clear under slight heat.
After cooling B is stirred in.

Formulation 6.3.2

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
SOFTIGEN 767	2.0
Extrakt 52	42.0
Purton SFD	2.0
Produkt GM 4055	5.0
Perfume oil	1.0
Colouring matter	q.s.
Water	ad 100.0

Preparation:

All ingredients are mixed under slight heat.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	1.0
Perfume	0.5
Monoethanol ammonium lauryl sulphate (33%)	20.0
Phase B:	
Water	68.5
TEGO-Betain L7	10.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.

Formulation E 1.1.1

SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	0.5
Perfume	0.5
Magnesium lauryl sulphate (30%)	17.0
Fatty acid methyl tauride, sodium salt (30%)	7.0
Phase B:	
Water	65.0
TEGO-Betain HS	10.0
Preserving agent, colouring	q.s.

Preparation:

Heat the magnesium lauryl sulphate and the fatty acid methyl tauride to approx. 40C until a clear solution. Add ANTIL 141 liquid and perfume. Mix B in the given order. Stir B into A.

Formulation: E 1.1.2

SOURCE: Goldschmidt Chemical Corp.: TEGO SURFACTANTS: Suggested Formulations

SHAMPOO WITH CHAMOMILE

INGREDIENT	% By Weight
I.	
Deionized Water	45.9
II.	
SLES (28% 3 mole EO)	18.6
DEA Lauryl Sulfate (37%)	14.0
VARAMIDE ML-1	2.2
III.	
Propylene Glycol	1.5
VARION CADG-HS	4.3
Matricaria Extract	2.0
IV.	
Deionized Water	10.0
Crotein SPC	1.5
V.	
Citric Acid (25%)	qs
VI.	
Sodium Chloride	qs
VII.	
Preservative	qs
Solids:	17.1%
pH:	5.5
Viscosity:	1500 cps

SHAMPOO WITH PANTHENOL

INGREDIENT	% By Weight
I.	
Deionized Water	62.7
II.	
SLES (28% 3 mole EO)	12.1
ALS (28%)	12.1
TEALS (40%)	8.5
VARAMIDE MA-1	1.0
III.	
Ammonium Chloride	1.5
Panthenol	0.1
IV.	
Citric Acid (25%)	qs
V.	
Preservative	qs
Solids:	13.4%
pH:	6.0
Viscosity:	3700 cps

SOURCE: Sherex Chemical Co.: Formulations Code: 6.3.5

SHAMPOO WITH "HMF" COMPLEX

RAW MATERIALS	% By Weight
Demineralized Water	69.9500
Polymer JR 400	0.2500
Standapol ES 40 Conc.	20.0000
Velvetex BA 35	6.5000
Standamid KD	3.0000
Methyl Paraben	0.2000
Propyl Paraben	0.1000
ABIOL	0.2000
Lactic Acid	0.2000
KELATE 220	0.1000
TRI-K "HMF" Complex	3.5000
Lexamul EGDS	Optional
Sodium Chloride	QS
Fragrance	QS

Code: 047

CONDITIONING SHAMPOO WITH HMF COMPLEX

INGREDIENT	% By Weight
A)	
Water, Distilled	40.85
Ucare Polymer JR30M	1.20
TRISEPT M	0.20
B)	
Monateric CEM-38	30.00
Demide ML-100	4.00
Citric Acid	0.70
Ammonyx Cetac	4.00
Detaine PB	10.00
C)	
HMF Complex	3.00
Demox LAO	5.00
ABIOL	0.50
Herbal Tea E-6367	0.50
KELATE 200	0.05

Code: MS-2-27-1

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

SHOWER-SHAMPOO GEL

INGREDIENTS	% By Weight
Sodium Lauryl Sulfate (30%)	20
Alpha Olefin Sulfonate (40%)	10
SCHERCOPOL OMES-Na (35%)	10
SCHERCOTAININE CAB-G (35%)	10
SCHERCAMOX CAA-G (35%)	3
SCHERCOQUAT IAS-LC (90%)	1
Color, fragrance, preservative	qs
Water (deionized)	q.s. to 100

Procedure:

1. Heat water to 50C. With stirring add SCHERCOQUAT IAS-LC to dissolve.
2. Add SCHERCOTAININE CAB-G.
3. Add SCHERCAMOX CAA-G and SCHERCOPOL OMES-Na.
4. Slowly add Alpha Olefin Sulfonate, viscosity builds slightly.
5. Increase stirring and slowly add Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
6. To clear up bubble formation heat finished product in an oven (at 45-50C) overnight.

Typical Specifications:

Activity: 19% Viscosity @ 25C: 16,000 cps (without fragrance)
 pH @ 25C: 6.8

Formulation SO-006

SHOWER SHAMPOO LIQUID

INGREDIENTS	% By Weight
Sodium Lauryl Sulfate (30%)	15
Sodium Lauryl Ether Sulfate (30%)	5
Alpha Olefin Sulfonate (40%)	10
SCHERCOPOL OMES-Na (35%)	10
SCHERCOTAININE CAB-G (35%)	10
SCHERCAMOX CAA-G (35%)	3
SCHERCOQUAT IAS-LC (90%)	1
Color, fragrance, preservative	0.1
Water (deionized)	q.s. to 100

Procedure:

1. Heat water to 50C. With stirring add SCHERCOQUAT IAS-LC to dissolve.
2. Add SCHERCOTAININE CAB-G.
3. Add SCHERCAMOX CAA-G and SCHERCOPOL OMES-NA.
4. Slowly add Alpha Olefin Sulfonate, viscosity builds slightly.
5. Increase stirring and slowly add Sodium Laureth and Sodium Lauryl Sulfate.

Typical Specifications:

Activity: 19% Viscosity @ 25C: 9,000 cps (without fragrance)
 pH @ 25C: 6.8

Formulation SO-007

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

ZINC PYRITHIONE LOTION SHAMPOO NO. 364

RAW MATERIALS	% By Weight
A.	
VEEGUM	0.5
Water	51.1
Jaquar HP-60	0.5
B.	
Sipon L-22	40.0
C.	
Crodafos SG	1.8
Monamid 716	4.0
Zinc Omadine 48%	2.1
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the Jaguar HP-60 and mix until uniformly dispersed. With slow stirring add B. Add the Crodafos slowly, mixing until the guar gum is totally dissolved. Add the remaining ingredients in order listed, agitating slowly. Mix until smooth and uniform. Avoid incorporation of air.

Consistency: Pourable lotion

Suggested Packaging: Opaque plastic bottle

ZINC PYRITHIONE SHAMPOO NO. 352

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	45.8
Methocel F4M	0.8
B.	
Zinc Omadine 48%	4.2
C.	
Monamid CMA	5.0
D.	
Maprofix TLS-500	40.0
Triethanolamine	3.2
Preservative	q.s.

Consistency: Pourable lotion.

Suggested Packaging: Opaque plastic bottle.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

Section XI

Shaving Products

AEROSOL SHAVE-CREAM

RAW MATERIALS	Parts By Weight
Concentrate:	
Stearic Acid	6.80
Triethanolamine	3.70
WITCONOL CD-17 (PPG-34)	0.50
WITCAMIDE 5195 (Lauramide DEA)	0.50
WITCONOL L32-45 (PEG-150 Distearate)	0.25
WITCONOL RHT (Glyceryl Stearate SE)	1.00
Glycerine	2.00
Water	84.95
Perfume	30.30
Aerosol:	
Concentrate	96.50
Propellant	3.50

Mix all ingredients except perfume and propellant at 70C until a uniform emulsion is formed. Cool to 45C; add perfume and preservative. Transfer to aerosol containers. Cool, crimp valve and pressurize.

The use of WITCONOL L32-45 allows the use of a lower percentage of soap while maintaining a high concentrate viscosity. This unique balance allows for the preparation of a luxurious, thick shave cream at a significantly low raw material cost.

Formulation 101E

AEROSOL CLEAR SHAVE-CREAM GEL

RAW MATERIALS	Parts by Weight
WITCAMIDE 5195 (Lauramide DEA)	20.25
Potassium Laurate, 40% aqueous solution	5.625
Water	63.625
Propylene Glycol	5.00
Cetyl Alcohol	0.50
Pentane	4.00
Isobutane	1.00

Mix the first five ingredients together and heat until clear. Pour into aerosol containers, add hydrocarbons and pressurize with 25 psi nitrogen. Shake contents until clear.

This formulation emerges from the container as a clear gel. As the gel is rubbed onto the skin, it expands and becomes a rich creamy lather.

Formulation 102E

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

AEROSOL SHAVE CREAM

RAW MATERIALS	% By Weight
AMERLATE P or W	0.80
AMERLATE LFA or WFA	0.80
SOLULAN 98	1.00
Stripped coconut fatty acids	2.00
Stearic acid, xxx	5.50
Monamid 150 LW	0.50
Carbopol 941	0.06
Natrosol 250 HR	0.06
Glycerine	4.00
Triethanolamine	2.90
Water	82.38
Perfume and Preservative	q.s.
Above Concentrate	92%
Propellant 12/114 (40/60)	8

Lubricating, rich, luxurious lather

Procedure:

Disperse the Carbopol in a portion of the water with high speed mixing. Disperse the Natrosol in another portion of water with high speed mixing. Combine the two gel dispersions, add the glycerine and triethanolamine. Add the oil phase at 85C to the water phase at 85C while mixing. Continue mixing and cool to room temperature. Pressure fill.

SOURCE: Amerchol: AMERLATE: Suggested Formulation

DRY-POWDER SHAVING STICK

RAW MATERIALS	Parts by Weight
WITCAMIDE 70 (Stearamide MEA)	28.0
WITCONOL APM (PPG-3 Myristyl Ether)	35.0
Carnation White Mineral Oil	5.0
Alpine Talc, USP	32.0
Perfume	q.s.

Heat WITCONOL APM and Carnation White Mineral Oil to 95C. Add WITCAMIDE 70 slowly and maintain temperature until mixture is clear and homogeneous. Add Alpine Talc slowly; add each portion only after the preceding addition is completely mixed and is homogeneous. Add perfume and stir until uniformly dissolved. Pour into molds.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 108E

AEROSOL SHAVE CREAM

INGREDIENT	% By Weight
I.	
HYDROFOL ACID 1655	34.8
Coconut Fatty Acid	15.0
II.	
Deionized Water	42.2
Triethanolamine	2.5
Sorbitol	5.5
III.	
Perfume	qs
Solids:	56%

Mixing Instructions:

Heat Phase I and Phase II to 95C. Add Phase II to Phase I with adequate agitation until saponification is complete. Cool to 30C and add perfume.

Comment:

Aerosol Charge: Shave Cream Concentrate: 80-90%
Isobutane: 10-12%

Formulation Code: 6.1.8

BRUSHLESS SHAVE CREAM

INGREDIENT:	% By Weight
I.	
Deionized Water	68.5
Propylene Glycol	4.0
Potassium Hydroxide	0.8
II.	
HYDROFOL ACID 1655	16.0
Clearlan	3.5
PEG 400-MS	3.2
III.	
Preservative	qs
Solids:	38.7%
pH:	7.5
Viscosity:	50,000 cps

Mixing Instructions:

Heat pre-mixed Phases I & II to 75-80C. With adequate agitation, add Phase II to Phase I. With mixing, cool to 30C.

Formulation Code: 6.1.6

SOURCE: Sherex Chemical Co.: Suggested Formulations

AEROSOL SHAVE CREAM

INGREDIENTS:	%W/W
A.	
Stearic Acid, Double Pressed (1)	7.16
Glycerine	2.71
Coconut Fatty Acid (2)	1.00
Sodium Isostearoyl-2-Lactylate (3)	2.00
Deionized Water	79.81
B.	
Potassium Hydroxide (34.2%)	4.61
Sodium Hydroxide (19.1%)	0.96
C.	
Cocamide DEA (4)	1.00
Coconut Oil 76 (5)	0.25
Perfume F77-155 (6)	0.50
For Packaging:	
Soap Concentrate	97%
Propellant, Isobutane/Propane(87:13 Ratio)	3%
(1) Darling & Co.	Dar-Chem 12
(2) Emery Industries, Inc.	Emery 622
(3) Patco Cosmetic Products	PATIONIC ISL
(4) Clintwood Chemical Co.	Clindrol 100C
(5) Humko Products	Coconut Oil 76 Degree
(6) Perry Brothers, Inc.	

Source: Patco, Inc.: Suggested Formulation

BRUSHLESS SHAVE CREAM

INGREDIENTS:	% By Weight
A: Deionized water	78.193
Glycerine	5.000
B: METHOCEL 40-100	0.100
C: Triethanolamine	0.857
D: Stearic acid	10.000
Stearyl alcohol	0.500
Acetylated lanolin alcohol	1.500
Petrolatum (white)	1.500
Glyceryl stearate SE	1.500
E: Deionized water	0.500
DOWICIL 200 preservative	0.200
F: Perfume oil (almond)	0.150

A shave cream formulation with something extra for better razor glide.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

AEROSOL SHAVING FOAM

RAW MATERIALS	% By Weight
Phase A:	
Stearic acid	7.0
Lauric acid	2.0
Phase B:	
Triethanolamine	7.0
Water	20.0
Phase C:	
Water	52.0
Phase D:	
Glycerol	9.0
ABIL B8842	2.0
Perfume	1.0
Filling Instructions:	
Product	93.0
Propellant	7.0
Formulation E3.9	

AEROSOL SHAVING FOAM

RAW MATERIALS	% By Weight
Phase A:	
Stearic acid	8.0
Cocos oil, refined	2.0
Phase B:	
Water	61.0
Sorbitol (70%)	10.0
Triethanolamine	4.0
Phase C:	
TEGO-Betain L7	15.0
Perfume	q.s.
Preservative	q.s.
Filling instructions:	
Product	90.0
Propellant 12/114	10.0
Remark:	

Instead of cocos oil, refined, coco fatty acid may be used. For saponification it is possible to use a mixture of KOH/NaOH (5:1) instead of triethanolamine. The amount needed depends on the saponification value of the fatty acids.

Formulation E3.10

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Suggested Formulations

AFTERSHAVE F-4008

RAW MATERIALS	% By Weight
Perfume oil	0.7
Specially Denatured Alcohol No. 40	60.0
GLUCAM E-10	4.0
GLUCAM P-20	3.0
Water	32.3
Color	q.s.

Description:

Stimulating, cooling hydroalcoholic clear aftershave lotion. Humectant properties provided by GLUCAM E-10 and GLUCAM P-20. GLUCAM P-20 also increases fragrance duration and reduces sting.

Procedure:

Dissolve the perfume oil in the alcohol and add each ingredient in the order listed, stirring thoroughly after each addition. Age, chill and filter.

Variations:

For added stimulation and cooling, add 0.1% menthol.

To add astringent properties, add small amount of aluminum chlorhydrate solution.

AFTERSHAVE F-4009

RAW MATERIALS	% By Weight
Phase A:	
Water	42.2
Carbopol 941	1.0
GLUCAM P-20	5.0
Phase B:	
SOLULAN 98	3.0
Specially Denatured Alcohol No. 40	45.0
Perfume oil	0.8
Phase C:	
Triethanolamine, 10% in water	3.0

Description:

Clear, viscous aftershave conditioning lotion. GLUCAM P-20 serves to increase lasting power of fragrance and as a water-soluble emollient.

Variations:

To opacify, add small amount of GLUCATE SS to Phase B.

For greater slip, replace part of Carbopol 941 with Polyox WSR N-80.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Suggested Formulations

AFTERSHAVE F-4010

RAW MATERIALS	% By Weight
Phase A:	
SOLULAN C-24	3.0
SOLULAN L-575	5.0
Water	9.6
GLUCAM E-10	2.5
GLUCAM P-20	3.0
Allantoin	0.2
Panthenol	0.2
Lemon juice, clarified	30.0
Witch Hazel	12.5
Phase B:	
Perfume oil	1.5
GLUCAMATE SSE-20	2.5
Specially Denatured Alcohol No. 40	30.0
Color and preservative	q.s.

Description:

Stimulating, fragrant aftershave treatment lotion with humectant and emollient properties due to GLUCAMS E-10 and P-20 which also improves fragrance duration.

Procedure:

Phase A:

Warm SOLULANS C-24 and L-575 together until liquid, mix with all other ingredients of Phase A.

Phase B:

Warm perfume oil and GLUCAMATE SSE-20 until liquid and dissolve in alcohol. Add Phase B to Phase A with good stirring until homogeneous. Allow to stand overnight and filter to clarify.

Variations:

Lemon juice can be replaced by citric acid solution.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Formulation F-4010

AFTER-SHAVE LOTION

RAW MATERIALS	% By Weight
SDA-40 Alcohol	71.0
Water	23.0
WITCONOL CD-17 (PPG-34)	5.0
EMCOL E-607L (Lapyrium Chloride)	1.0
Perfume	q.s.

Combine all ingredients; mix until clear.

SOURCE: Witco Chemical Corp.: Surfactants for Cosmetics and Toiletries: Formulation 107E-A

AFTERSHAVE F-4011

RAW MATERIALS	% By Weight
Phase A:	
Carbopol 934	0.4
Water	66.7
GLUCAM E-20	4.3
Phase B:	
AMERLATE P	2.0
PROPAL	1.5
MODULAN	0.5
OHLAN	0.5
SOLULAN 16	1.0
PROMULGEN D	2.5
Phase C:	
Triethanolamine, 10% in water	4.0
Phase D:	
Menthol crystals	0.1
Perfume oil	1.5
Specially Denatured Alcohol No. 40	15.0
Preservative	q.s.

Description:

Fragrant aftershave bracer-conditioner. Emollient conditioning properties due to AMERLATE P, PROPAL, MODULAN, OHLAN and PROMULGEN D. Humectant properties due to GLUCAM E-20. Menthol provides stimulating effect.

Procedure:

Phase A:

Disperse Carbopol 934 thoroughly in water at 80C; add GLUCAM E-20.

Phase B:

Heat all ingredients to 80C. Add Phase A to Phase B with good stirring. Continue stirring to 50C, add Phase C, triethanolamine. At 45C slowly add premixed Phase D with good stirring. Stir with cooling to 30C.

Variations:

For greater fragrance duration and emollience, add GLUCAM P-20 to Phase A.

For greater stimulation, increase alcohol concentration.

SOURCE: Amerchol Corp.: Bath and Fragrance Products:
Formulation F-4011

AFTER SHAVE BALM

INGREDIENTS	%W/W
Phase A:	
Water, deionized	52.50
Carbopol 941 (2% Aq. Sol) (Carbomer 941)	25.00
Phase B:	
Triethanolamine 99%	0.50
Ethanol SD 40 Anhyd.	10.00
Phase C:	
CERAPHYL GA (Maleated Soybean Oil)	5.00
CERASYNT 840 (PEG-20 Stearate)	3.00
Amerchol L101 (Mineral Oil (and) Lanolin Alcohol)	3.50
Phase D:	
Germaben II (Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben)	0.50
Fragrance	q.s.

SOURCE: Van Dyk: CERAPHYL GA: Formulation #H126-30-1

AFTERSHAVE BALM

RAW MATERIALS	% By Weight
A.	
Methocel K15M	1.50
Trisodium EDTA	0.01
Deionized water	32.97
B.	
SDA 40 alcohol	59.50
EMEREST 2486 Pentaerythrityl Tetrapelargonate	4.00
EMSORB 2720 Polysorbate 20	2.00
Benzophenone-4	0.02
Fragrance	q.s.

This formula is a viscous, translucent lotion which spreads easily and dries rapidly to leave skin feeling smooth and conditioned.

Procedure:

Predisperse the Methocel K15M with high shear agitation in 10% of the water which has been heated to 60-70C. When the Methocel has been wetted, add trisodium EDTA and the remaining cold water, stirring until the mixture is clear and homogeneous. Combine (B), add it to (A) and stir until uniform.

SOURCE: Emery Chemicals: EMEREST 2486 Pentaerthrityl Tetrapelargonate: Formulation 2734-008

AFTER SHAVE BALM

INGREDIENTS	% By Weight
Part A:	
Water	88.9
CARBOPOL 1342	0.2
Glycerin	0.5
Propylene Glycol	1.0
Allantoin	0.1
Methyl Paraben	0.2
Propyl Paraben	0.2
Dimethicone Copolyol	4.0
Part B:	
Cyclomethicone	4.0
Caprylic/Capric Triglyceride	0.5
Part C:	
PEG-15 Cocamine	0.2
Triethanolamine (99%)	0.2
Fragrance	Q.S.

A smooth, non-greasy balm with skin moisturizers and a light appearance to soften and vitalize the skin. CARBOPOL 1342 effectively stabilizes the silicone oil, yet provides a quick break and even spread on the skin.

Formulation #6

AFTER SHAVE SPLASH

INGREDIENTS	% By Weight
Part A:	
Water	90.4
CARBOPOL 1342	0.2
Glycerin	2.5
Hydrogenated Starch Hydrosylate	2.5
DMDM Hydantoin	0.3
Part B:	
Triethanolamine (99%)	0.1
Part C:	
Mineral Oil	2.0
Isopropyl Palmitate	2.0
Fragrance	Q.S.

A translucent, alcohol-free after shave lotion which provides cool, quick-spreading feel on the skin. This lotion moisturizes and does not dry, leaving a subtle hint of oil to retain moisture and soothe the skin following shaving.

Formulation #7

SOURCE: BF Goodrich Co.: CARBOPOL Suggested Formulations

AFTER SHAVE BALM

RAW MATERIALS	% By Weight
Phase A:	
Water, preservative	79.95
Propylene glycol	2.00
D-panthenol 50 P	0.30
Allantoin	0.10
STIMUCCELL	3.00
PEFALIPIN	2.00
Carbopol 940	0.30
Phase B:	
Water	5.00
Triethanolamine	0.35
Phase C:	
Amerchol L 101	5.00
Cremophor RH 410	1.50
Perfume oil	0.50

Processing:

1. Mix well the substances of phase A.
2. Mix well the substances of phase B and incorporate to phase A.
3. Mix well the substances of phase C and add to phase A + B.

SOURCE: Pentapharm Ltd.: Guide Formulations: Code No. PL 1500

AFTER-SHAVE-EMULSION

RECIPE	% By Weight
A.	
HOSTAPHAT KL 340 N	3.00
HOSTACERIN DGS	6.00
Mineral oil, high viscosity	10.00
Menthol	0.10
Camphor	0.10
B.	
HOSTACERIN PN 73*	0.90
C.	
ALLANTOIN	0.20
Extrapon Hamamelis	2.00
Water, preservative	47.40
C.	
Ethyl alcohol	30.00
Perfume	0.30

* Alternative thickeners could also be used.

SOURCE: Hoechst: Kosmetik Guide Formulations: Formula A VI/1114

AFTER-SHAVE LOTION

RAW MATERIALS	Parts by Weight
SDA-40 Alcohol	75.75
Water	23.00
EMCOL E-607L	0.25
WITCONOL APM (PPG-3 Myristyl Ether)	1.00
Perfume	q.s.

Combine ingredients; mix until clear.

Formulation 107E-B

AFTER-SHAVE LOTION

RAW MATERIALS	Parts by Weight
SDA-40 Alcohol	76.0
Water	23.0
EMCOL E-607L (Lapyrium Chloride)	1.0
Perfume	q.s.

Combine ingredients; mix until clear.

Formulation 107E-C

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
LANOQUAT 1756 Lanolin Quaternary	0.5
Alcohol, SDA-40	35.0
Deionized water	64.5

Procedure:

Combine all ingredients and mix until homogeneous. (To facilitate the incorporation of fragrances, they may be premixed with the LANOQUAT.) Chill and filter.

SOURCE: Emery Industries: LANOQUAT 1756 Lanolin Quaternary:
Suggested Formulation

AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	80.4
B.	
Sipon LSB	3.4
Glycerin	2.0
Allantoin	0.1
C.	
Carbowax 400	4.0
Isopropyl myristate	1.0
Acetulan	2.0
Lecithin	1.0
D.	
SD Alcohol 40	5.0
Menthol	0.1
Preservative	q.s.

Comments:

Soothing, moisturizing after shave product. Gives the appearance and feel of a more luxurious product than the typical after shave splash.

Formulation No. 235

AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.5
Water	39.1
Dow Corning FG-10 Antifoam	0.2
B.	
Dow Corning 200 Fluid (350 cs)	3.0
Tween 60	3.0
Amerchol L-101	1.5
C.	
Klucel GF	1.5
SD Alcohol 40	30.0
Menthol USP	0.2
Water	20.0
Preservative	q.s.

Comments:

Stable nontacky lotion. Emollient after feel. Refreshing, cooling sensation.

Formulation No. 371

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulation

AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
Phase A:	
Ethyl alcohol 96 vol. %	50.0
Phase B:	
Cremophor RH 410	1.4
Perfume oil	0.5
Phase C:	
Water	41.8
Propylene glycol	2.0
Allantoin	0.2
Citric acid	0.1
PEFALIPIN	2.0
STIMUCELL	2.0

Processing:

1. Mix well the substances of phase B and incorporate to phase A.
2. Mix well the substances of phase C and add to phase A + B.

Formulation Code No. PL 1501

AFTER SHAVE BALM

RAW MATERIALS	% By Weight
Phase A:	
Water, preservative	82.95
Propylene glycol	2.00
D-panthenol 50 P	0.30
Allantoin	0.10
PEFALIPIN	2.00
Carbopol 940	0.30
Phase B:	
Water	5.00
Triethanolamine	0.35
Phase C:	
Amerchol L 101	5.00
Cremophor RH 410	1.50
Perfume oil	0.50

Processing:

1. Mix well the substances of phase A.
2. Mix well the substances of phase B and incorporate to phase A.
3. Mix well the substances of phase C and add to phase A + B.

Formulation Code No. PL 1502

SOURCE: Pentapharm Ltd.: Guide Formulations

AFTER-SHAVE

RAW MATERIALS	% By Weight
A.	
SOFTIGEN 767	5.0
Glycerin	1.5
Menthol	0.2
B.	
Water	34.8
Citric acid	0.2
C.	
Ethanol 96%	58.0
Perfume	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 6.1.1

AFTER SHAVE

RAW MATERIALS	% By Weight
ABIL B 8842	0.1-0.5
Perfume	1.0
TAGAT R40	1.0
Ethanol (96%)	60.0
Water	37.4-37.8
Lactic acid (80%)	0.1

Mix all ingredients in the given order.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E3.11

AFTER-SHAVE

RAW MATERIALS	% By Weight
Cremophor RH 40	1.5
(+)-ALPHA-BISABOLOL rac.	0.2
Menthol	0.1
1,2-Propylene Glycol USP	2.0
Ethanol 96%	40.0
Water	56.2

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

AFTER SHAVE FLUID EMULSION(O/W)

RAW MATERIALS	%w/w
a)	
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Monomyristate)	2.00
Stearic acid T.P. (CTFA: Stearic Acid)	2.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	6.00
Elfacos ST 9 (CTFA: PEG 45/Dodecyl Glycol Copolymer)	0.50
SATOL purified, stabilized (CTFA: Oleyl Alcohol)	3.00
Sweet almond oil stabilized (CTFA: Sweet Almond Oil)	0.50
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
Propylene glycol (CTFA: Propylene Glycol)	5.00
d-PANTHENOL (CTFA: Panthenol)	0.50
Deionized water	74.45
c)	
Perfume, preservatives, deionized water	qs to 100

PROTECTIVE AFTER SHAVE LOTION(O/W)

RAW MATERIALS	%w/w
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	2.00
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
DELTYL EXTRA (CTFA: Isopropyl Myristate)	3.00
Sweet almond oil (CTFA: Sweet Almond Oil)	2.50
Cetiol A (CTFA: Hexyl Laurate)	8.00
Silicone DC 200/50 cp (CTFA: Dimethicone)	1.00
Stearic acid T.P. (CTFA: Stearic Acid)	3.00
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
c)	
d-PANTHENOL (CTFA: Panthenol)	2.00
Allantoin (CTFA: Allantoin)	0.30
Sequestrene Na ₂ (CTFA: Disodium EDTA)	0.10
Deionized water	72.55
d)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

AFTER-SHAVE SPLASH

INGREDIENT	% By Weight
I.	
Deionized Water	48.3
Ethanol	50.0
Panthenol	0.1
Allantoin	0.1
II.	
AROSURF 66-PE12	1.0
Perfume	0.5
Solids:	1.2%
Viscosity:	10 cps

Mixing Instructions:

Mix Phase I ingredients until even. Add pre-mixed Phase II.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.1.6

AFTER SHAVE SKIN CONDITIONER

INGREDIENTS:	% W/W
Part A:	
LANETTE O (Cetearyl Alcohol)	0.50
CETIOL 1414-E (Myreth-3 Myristate)	3.00
Part B:	
Water	68.45
Carbopol 934 (2% soln) (Carbomer 934)	15.00
Glycerine	2.00
Dowicil 200 (Quaternium-15)	0.10
Part C:	
Triethanolamine (99%)	0.45
Part D:	
SDA Alcohol 3A	10.00
Fragrance	0.50

Procedure:

Heat Part A to 75-80C. Heat Part B to 75-80C. Add Part B to Part A under agitation. Add Part C. Remove heat. In a separate vessel solubilize fragrance in ethyl alcohol and add to batch at 45C. Continue mixing until product reaches room temperature. Fill off.

Comments:

This smooth light lotion containing CETIOL 1414-E rubs in easily and leaves a pleasant cool feel on the skin.

SOURCE: Henkel: Personal Care Products Formulary: Suggested Formula H-4819

ALOE SHAVE CREAM

INGREDIENTS	% By Weight
A.	
Stearic Acid	8.0
Emery 627	2.0
Squalene	1.5
B.	
Schercomid AME-70	2.5
Triethanolamine	5.0
Glycerine	3.5
Water	Q.S.
C.	
ALOE VERAGEL Liquid 1:1	7.5
Chamomile 38240	0.5
Hamamelis Distilled P559	10.0
Fragrance	0.5

Procedure:

Heat Phases A and B to 80C. Add Phase A to B with agitation. Mix and cool to 50C. Add Phase C and mix thoroughly.

Source: Dr. Madis Laboratories Inc.: Formulating with Aloe Vera: Suggested Formulation

SKIN CONDITIONING SHAVE CREAM WITH PROTEIN

INGREDIENTS	% By Weight
A.	
Deionized Water	67.4
Sorbitol	1.0
B.	
Stearic Acid XXX	7.0
Sodium Cocoyl Isethionate	3.0
PEG 75 Lanolin Oil	0.5
C.	
Triethanolamine	5.0
Deionized Water	5.0
D.	
PEPTEIN TEAC	10.0
E.	
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F.	
Above Formulation	85.0
Propellant	15.0

SOURCE: Geo. A. Hormel & Co.: Formula: 621-11

EMULSIFIER-FREE SHAVING GEL NO. 207

RAW MATERIALS	% By Weight
A.	
VEEGUM	5.0
Water	82.0
B.	
Amerchol L-101	2.5
Acetulan	0.5
Dow Corning 200 Fluid (350 cs)	10.0
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Continue stirring, add B and mix until uniform.

Consistency: Thick cream

Suggested Packaging: Jar or squeeze tube.

Comments:

This gel has a rich, silky feel and is suitable for use by either men or women.

SHAVING CREAM FOR LADIES NO. 180

RAW MATERIALS	% By Weight
A.	
VEEGUM	3
Water	84
B.	
Glycerin	2
Sorbitol 70%	3
Triton X-100	3
C.	
Myrj 45	5
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add B to A and heat to 70C. Heat C to 75C. Add C to A/B and mix until smooth and uniform.

Consistency: Soft cream

Suggested Packaging: Jar or squeeze tube.

Comments: VEEGUM thickens this mild, nonirritating cream. It also contributes to the smooth, elegant application.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

NON-FOAMING AEROSOL SHAVING GEL

INGREDIENTS	% By Weight
Part I:	
Palmitic Acid	2.00
Monamid 150 LWA	20.00
Myristic Acid	1.00
Sorbo	4.00
Solulan 98	2.00
Part II:	
Deionized Water	68.80
Part III:	
dl-Panthenol, Cosmetic Grade (Code 63920)	1.50
Part IV:	
Preservative	0.20
Part V:	
Perfume Oil	0.5
Aerosol Fill	% by Wt.
Concentrate	97.75
Isobutane	2.25
Components:	
Valve:	Precision
Stem:	2 x 0.024"
Body:	Inverted Radiused
Actuator:	Foam Spout
Formulation MI 604	

SOOTHING SHAVING GEL

INGREDIENTS	% By Weight
Part I:	
Deionized Water	38.25
Methylparaben	0.15
Propylparaben	0.05
Ucare JR-400	2.00
Part II:	
Standapol WAQ Special	0.30
Allantoin	30.00
Part III:	
Standapol ES-2	22.00
Standamid KD	4.00
Dow Corning 193 Surfactant	0.50
Veragel Liquid	1.50
dl-Panthenol, Cosmetic Grade (Code #63920)	1.00
Part IV:	
Perfume Oil	0.25
Part V:	
Citric Acid, USP-FCC (Code #69941)	q.s.
Formulation MI 603	

SOURCE: Roche Chemical Division: Vitamins for Cosmetics: Formulas

PRE-ELECTRIC SHAVE

RAW MATERIALS	Parts by Weight
WITCONOL APM (PPG-3 Myristyl Ether)	3.0
SDA-3A or SDA-40 Alcohol	80.0
Water	17.0
Color, Perfume	q.s.

Combine ingredients; mix until clear.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 103E

PRE-SHAVE

RAW MATERIALS	% By Weight
A.	
Hamamelis dist. colourless special (witch hazel)	3.0
Isoadipate	10.0
Locron L	10.0
Ethanol 96%	60.0
Water	11.6
B.	
SOFTIGEN 767	5.0
Camphor	0.2
Menthol	0.2
Perfume	q.s.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 6.1.2

PRE-SHAVE

RAW MATERIALS	% By Weight
(+)-Alpha-Bisabolol rac.	0.1
Diisopropyl adipate	2.0
Menthol	0.1
Ethanol 96%	70.0
Water	27.8

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulation

PROTECTIVE AFTER SHAVE BALM

INGREDIENTS	% By Weight
Part I:	
Parsol 1789	1.50
Parsol MCX	2.00
Dow Corning 344 Fluid	5.00
Carnation Mineral Oil	3.50
Brij 72	0.30
Brij 78	1.20
Wickenol 171	1.50
Finsolv TN	1.50
Cetyl Alcohol	2.75
Propylparaben	0.10
Part II:	
Deionized Water	70.55
Carbopol 934	0.25
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Methylparaben	0.25
Hamp-ex 80	0.10
Propylene Glycol	1.00
Part III:	
Triethanolamine, 98%	0.25
Part IV:	
Alcohol SD 40, 95%	6.00
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Part V:	
Perfume Oil	0.25

Formulation MI 602

AFTER SHAVE BALM WITH PANTHENOL

INGREDIENTS	% By Weight
Part I:	
Deionized Water	48.60
Carbopol 941	0.40
Diisopropanolamine (30% Aq. Sol'n)	1.50
Amerchol L-101	5.00
Part II:	
SD Alcohol 40, 95%	40.00
Propylene Glycol, USP	2.00
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Perfume Oil	1.50

Formulation MI 605

SOURCE: Roche Chemical Division: Vitamins for Cosmetics and Toiletries: Suggested Formulations

SHAVE CREAM

RAW MATERIALS	% By Weight
Jordapon CI	5.0
Stearic Acid	6.5
Triethanolamine	5.0
Glycerine	6.0
MAZER MACOL CA 30P	0.5
Perfume	q.s.
Preservative	q.s.
Water	77.0

Formulation 38

SHAVING CREAM

RAW MATERIALS	% By Weight
Sodium C14-16 Olefin Sulfonate (40%)	23.0
Sodium Lauryl Sulfate	20.0
MAZER MAFO CAB	5.0
MAZER MAZAMIDE O-20	1.5
MAZER MAZAMIDE CS 148	2.0
MAZER MAPHOS L-13	2.5
Diethanolamine	q.s.
Citric Acid	q.s.
Sodium Chloride	.1-.5
Perfume, Dye, Preservative	q.s.
Water	q.s. to 100

Procedure:

Charge water into mixing vessel and with rapid but smooth agitation, disperse MAPHOS L-13. Adjust pH to 7.0-7.2 with diethanolamine as needed. Warm solution to 45-50C with smooth agitation and blend in the first five ingredients. Once the system is uniform, cool to 30-35C with moderate agitation and adjust pH to 6.5-6.8 with citric acid as needed. Blend in perfume, dye and preservative and then adjust formulation viscosity to 5,000-7,000 cps with sodium chloride as needed.

Product Characteristics:

Transparent viscous liquid that lathers readily on the skin or hair. The emollient ingredients, in this formulation, form a protective barrier on the skin which facilitates shaving and eliminates razor drag. This formulation is ideal as an emollient body shampoo, for the bath or shower, and as a liquid shaving foam for face and body.

Formulation 39

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Suggested Formulations

SHAVE GEL

INGREDIENTS:	%W/W
Part A:	
Water	32.05
STANDAPOL ES-2	50.00
VELVETEX BK-35	15.60
CETIOL HE	2.00
Part B:	
Fragrance	0.15
Sodium Chloride	0.20

Procedure:

Add ingredients in Part A, mixing after each addition. Add Part B and mix until homogeneous. Adjust pH to 6.0-7.0 with 50% citric acid.

Comments:

This clear shave gel is mild to the skin. Self emulsifying CETIOL HE provides emolliency and improves skin softness and feel. If less viscosity and increased mildness is desired, substitute STANDAPOL ES-3 for STANDAPOL ES-2.

SOURCE: Henkel: Personal Care Products Formulary: Formula H-4869

SHAVING CREAM

INGREDIENTS:	Parts by Weight
A)	
CELQUAT SC-240	0.50
Triethanolamine	4.20
Distilled Water	82.30
B)	
Stearic Acid, XXX	8.00
Drakeol 21	2.00
Isopropyl Myristate	2.00
Glyceryl Monostearate	0.50
C)	
Germaben IIE	0.50
Fill: Concentrate:	95%
Propellant A-46:	5%

SOURCE: National Starch and Chemical Corp.: CELQUAT SC-240: Formulation 5628-79

SUN-PROTECTIVE-AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
Ethyl Alcohol - SDA-40 (200 Proof)	65.00
Propylene Glycol	10.00
ESCALOL 507 (Sunscreen)	1.50
Perfume	1.50
Water, deionized	22.00

Procedure:

In a proper vessel equipped with agitation and cover, weigh components one at a time dissolving each before adding the next. Solution of all the ingredients should be clear before adding the water. Once all is uniform and clear, chill at 0C for 24 hours; filter at 0C and package.

Formulation #A64-34-1

PROTECTIVE AFTER SHAVE BALM

RAW MATERIALS	% By Weight
Phase A1:	
Water, deionized	23.00
1% Carbopol 940 Sol.	20.00
Phase A2:	
Propylene Glycol	1.00
Water, deionized	1.00
Ethomeen C/25	0.10
Triethanolamine 99.0%	0.15
Phase A3:	
2% Methocol K4M	10.00
Phase B:	
Ethanol (SD-40 Alcohol)	38.00
CERAPHYL 41 (Anti-tack Agent)	1.50
ESCALOL 507 (Sunscreen)	1.50
Amerchol L-101	2.50
Brij 35	1.00
Methylparaben	0.20
Propylparaben	0.25

Procedure:

Weigh and combine Phase A1, heat to 70-75C and begin to mix with sweep agitation. Weigh and combine Phase A2 and mix until uniform, add to Phase A1. Add Phase A3 to the batch. Weigh and combine Phase B, heat gently until a clear uniform solution is obtained. Slowly, with sweep agitation, add Phase B to the entire water phase. Cool and continue to mix until room temperature.

Formulation #W79-9-2

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

Section XII

Soaps

ALL PURPOSE SHOWER SOAP

RAW MATERIALS	% By Weight
EMID 6511 Lauramide DEA	15.0
EMERSAL 6434 TEA Lauryl Sulfate	15.0
EMERSAL 6455 Sodium Laureth Sulfate	15.0
WITCONATE AOS Liquid (Sodium C14-16 Olefin Sulfonate)	15.0
EMEREST 2355 Glycol Distearate	1.5
LANOQUAT 1756 Lanolin Quaternary	1.0
EMERY 5325 Ricinoleic Sulfosuccinate	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized water	35.5

Procedure:

Combine all ingredients and heat to 80-85C until a clear, homogeneous system is obtained. Cool to 40C with mild agitation and adjust pH to 6-7 with small increments of citric acid. Allow to cool to room temperature and add fragrance and color; package.

SOURCE: Emary Industries: LANOQUAT 1756 Lanolin Quaternary:
Formulation 1A

LIQUID HAND SOAP

RAW MATERIALS	% By Weight
EMERY 5310 Coconut Sulfosuccinate	20.00
EMERSAL 6400 Sodium Lauryl Sulfate	10.00
EMID 6513 Lauramide DEA	3.00
EMID 6540 Linoleamide DEA	2.00
ETHOXYOL 1707 Emulsifying Acetate Ester	1.00
EMERSOL 233 Oleic Acid	1.00
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.00
Triethanolamine	0.53
Deionized water	61.47

In this formulation, the detergency of EMERSAL 6400 Sodium Lauryl Sulfate is enhanced by the sulfosuccinate which also helps to decrease the irritation potential generally associated with sulfates. The ETHOXYOL 1707 reduces any excess drying effect generated by heavy detergent washing and helps keep skin soft and supple.

Procedure:

Combine all ingredients and heat with agitation to 75C until a homogeneous blend is obtained. Cool to 40C and adjust viscosity with small increments of sodium chloride. Add fragrance, color and package.

SOURCE: Emary Industries: EMERY Acetylated Lanolin Derivatives:
Formulation 2254-088

BAR SOAP B-5021

RAW MATERIALS	% By Weight
Soap Base 80/20	95.68
Water	1.00
Antioxidant	0.07
Perfume oil	0.75
Titanium dioxide	0.50
GLUCAM E-20	2.00

Description:

Rich lather, excellent afterfeel. No cracking, ease of bar formation. Humectancy and other attributes provided by use of GLUCAM E-20.

Procedure:

Gently melt and warm additives to 60C. Mix thoroughly with perfume oil. Combine and mix all other ingredients in suitable equipment until uniform. Place in soap plodder and extrude mass through heated extrusion plate. Press in usual manner to obtain finished bar.

Variations:

Properties of anticracking, ease of bar formation and molding, emollience, lather, humectancy and fragrance duration can readily be imparted by the use of other additives.

BAR SOAP B-5022

RAW MATERIALS	% By Weight
Soap Base 80/20	95.48
Water	1.00
Antioxidant	0.07
Perfume oil	0.75
Titanium dioxide	0.50
GLUCAMATE SSE-20	2.20

Description:

Copious lather, emollient afterfeel, no cracking, ease of processing due to GLUCAMATE SSE-20, a nonionic, glucose-derived surfactant.

Procedure:

Gently melt and warm additives to 60C. Mix thoroughly with perfume oil. Combine and mix all other ingredients in suitable equipment until uniform. Place in soap plodder and extrude mass through heated extrusion plate. Press in usual manner to obtain finished bar.

Variations:

Properties of anticracking, ease of bar formation and molding, emollience, lather, humectancy and fragrance duration can readily be imparted by the use of other additives.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Suggested Formulations

BAR SOAP B-5023

RAW MATERIALS	% By Weight
Soap Base 80/20	95.18
Water	1.00
Antioxidant	0.07
Perfume oil	0.75
Titanium dioxide	0.50
SOLULAN L-575	2.50

Description:

Low cost, highly effective lanolin-derived ethoxylate, SOLULAN L-575, provides emollience, dense lather, anticracking and ease of bar formation and molding.

Procedure:

Gently melt and warm additives to 60C. Mix thoroughly with perfume oil. Combine and mix all other ingredients in suitable equipment until uniform. Place in soap plodder and extrude mass through heated extrusion plate. Press in usual manner to obtain finished bar.

Variations:

Properties of anticracking, ease of bar formation and molding, emollience, lather, humectancy and fragrance duration can readily be imparted by the use of other additives.

BAR SOAP B-5024

RAW MATERIALS	% By Weight
Soap Base 80/20	95.68
Water	1.00
Antioxidant	0.07
Perfume oil	0.75
Titanium dioxide	0.50
MODULAN	1.00
GLUCAM E-10	1.00

Description:

Excellent emollient properties, glossy bar. Superior lather. Easy extrusion and mold release. No cracking. Combination of MODULAN and GLUCAM E-10 provides skin treatment.

Procedure:

Gently melt and warm additives to 60C. Mix thoroughly with perfume oil. Combine and mix all other ingredients in suitable equipment until uniform. Place in soap plodder and extrude mass through heated extrusion plate. Press in usual manner to obtain finished bar.

Variations:

Properties of anticracking, ease of bar formation and molding, emollience, lather, humectancy and fragrance duration can readily be imparted by the use of other additives.

SOURCE: Amerchol Corp.: Bath and Fragrance Products: Formulas

BAR SOAP B-5025

RAW MATERIALS	% By Weight
Soap Base 80/20	95.88
Water	1.00
Antioxidant	0.07
Perfume oil	0.75
Titanium dioxide	0.50
OHLAN	0.80
GLUCAMATE SSE-20	1.00

Description:

Creamy lather, superior emollient feel on working lather into hands and after use. No cracking, ease of bar formation.

Procedure:

Gently melt and warm additives to 60C. Mix thoroughly with perfume oil. Combine and mix all other ingredients in suitable equipment until uniform. Place in soap plodder and extrude mass through heated extrusion plate. Press in usual manner to obtain finished bar.

Variations:

Properties of anticracking, ease of bar formation and molding, emollience, lather, humectancy and fragrance duration can readily be imparted by the use of other additives.

SOURCE: Amerchol Corp.: Bath & Fragrance Products: Formula

SYNDET BAR

INGREDIENTS	Parts
Sodium Isethionate (1)	45.0
Dextrin (2)	22.0
Deionized Water	6.0
Titanium Dioxide (3)	0.3
Polyox WSR N-80 (4)	1.0
Sodium Isostearoyl-2-Lactylate (5)	3.0
Perfume Oil K-79-532 (6)	1.0
Sodium Lauryl Sulfoacetate (7)	5.0
PATLAC CA-95 NF (8)	8.0
Lactic Acid (88%) (9)	1.3
Sodium Lactate 60% (10)	1.0

(1) Igepon AC-78	GAF
(2) Nadex 360	National Starch & Chemical Corp.
(3) Titanium Dioxide	Whittaker, Clark & Daniels
(4) PEG-5M	Union Carbide
(5) PATIONIC ISL	Patco Cosmetic Products
(6) Modern Crisp Green	Perry Brothers
(7) Lathanol LAL	Stepan Co.
(8) Cetyl Alcohol	Patco Cosmetic Products
(9) Lactic Acid	Patco Cosmetic Products
(10) Sodium Lactate	Patco Cosmetic Products

SOURCE: Patco Cosmetic Products: Patco Bulletin No. 197-1

C14-16 OLEFIN SULFONATE LIQUID HANDSOAP WITH P-CHLORO-M-XYLENOL

RAW MATERIALS	% By Weight
DESONATE AOS (C14-16 Olefin Sulfonate)	30.0
Cocamide DEA	1.0
Cocamidopropyl Betaine	5.0
p-chloro-m-xyleneol-PCMX	1.0
Sodium Chloride	0.5-2.0
Citric Acid to pH = 7.0	q.s.
Water, D.I.	61.0-62.5

Blending Procedure:

The liquid handsoap can be blended at room temperature. The product should be blended until PCMX is dissolved. The final viscosity is adjusted with Sodium Chloride.

Formulation N-3022

CLEAR LIQUID HANDSOAP WITH CONDITIONER

RAW MATERIALS	% By Weight
DESODET 804	34.0
Sodium Chloride	2.5
DESONIC CE-12 (Glycereth-12)	1.0
Citric Acid to pH 6.5	q.s.
Water (D.I.), Perfume, Dye, Preservative	q.s. to 100

Blending Procedure:

The liquid handsoap can be blended at room temperature. To produce a pearled liquid handsoap, the addition of 0.5% Ethylene Glycol Monostearate (EGMS) is needed. DESODET 804 and the water should be heated to 50C to incorporate the EGMS. The final viscosity is adjusted with the amount of Sodium Chloride.

Formulation N-3015

LIQUID HANDSOAP WITH P-CHLORO-M-XYLENOL

RAW MATERIALS	% By Weight
DESONOL S(Sodium Lauryl Sulfate)	30.0
Cocamide MEA	3.0
Sodium Chloride	0.5-2.0
Nipacide PX (p-chloro-m-xyleneol-PCMX)	1.0
Methylparaben	0.15
Propylparaben	0.10
Citric Acid	to pH 7.0
Water, D.I.	63.75-65.25

Formulation N-3012

SOURCE: DeSoto, Inc.: Suggested Formulations

COLD-BLEND LIQUID HAND-SOAP

RAW MATERIALS	Parts by Weight
WITCONATE AOS (Sodium C14-16 Olefin Sulfonate)	19.0
WITCAMIDE 5133 (Cocamide DEA)	4.0
Oleic Acid	0.4
Lexaine C	2.2
Preservative	0.2
Ammonium Chloride, 25% aqueous solution	4-7
Perfume, Dye	q.s.
Water	q.s. to 100

Dissolve all raw materials in water with stirring. Adjust to pH 6.0 to 6.5 with dilute phosphoric, citric, lactic or hydrochloric acid. Add ammonium chloride solution for desired viscosity.

Currently available "liquid soap" formulations are based on mild detergents and additives to yield high-lathering, mild cleansers that leave the skin soft and smooth with a pronounced after-feel. Alpha-olefin sulfonates have been demonstrated to leave the skin smoother than alkyl sulfates and coconut-based soaps. The above formulation, which is prepared without use of heat, is an economical, effective skin cleanser meeting current market requirements.

Opacification or pearlescence can be added by the use of appropriate latex or liquid pearling agent.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 136C

HAND SOAP

INGREDIENTS:	%W/W
Water	q.s.
STANDAPOL S	28.00
CETIOL 1414-E	0.50
Sodium Chloride	0.70
Fragrance	0.10
Kathon CG	0.05

Procedure:

1. Charge kettle with water.
2. Add remaining ingredients, one at a time, and stir.
3. Continue mixing until homogeneous.
4. Check pH and adjust to 7.3+-0.1, if necessary.
5. Fill off.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Formula HOB-220-8

CONDITIONING LIQUID SOAP

RAW MATERIALS	% By Weight
A.	
Distilled Water	41.40
CELQUAT L-200	0.50
Glycerin	0.75
B.	
Stepanol WAQ	50.00
Monamid 150 ADD	5.00
Cerasynt M	1.50
Sodium Chloride	0.10
Versene 100	0.25
C.	
Preservative	Q.S.
D.	
Fragrance	0.50

Preparation:

Prepare solution of ingredients in part A while heating to 65C. In a separate vessel, prepare a solution of ingredients in B while heating to 65C. Add A to B at 65C while continuing mixing. When uniform, cool to 35C. Add C and D. Fill when homogeneous.

Viscosity:

Approximately 2000 cps.

The long lasting, smooth and velvety skin feel sought by consumers is achieved.

SOURCE: National Starch and Chemical Corp.: CELQUAT H-100,
L-200 Polymers: Formulation LS-01-29

CONDITIONING SOAP BAR

INGREDIENTS	%W/W
Bradpride Soap Base	97.00
CERAPHYL GA (Maleated Soybean Oil)	1.00
Fragrance C88-244	2.00

Procedure:

As per Manufacturer (Original Bradford Soap Works)

SOURCE: Van Dyk: CERAPHYL GA: Formulation #H126-46-1

COSMETIC WATERLESS HAND CLEANSER

RAW MATERIALS	% By Weight
A.	
VEEGUM	2.5
Water	67.0
Triethanolamine	2.5
Propylene glycol	5.0
B.	
Stearic acid xxx	4.0
Cocoyl sarcosine	6.0
Cetyl alcohol	1.0
Atmul 84	3.0
Carnation White Mineral Oil	5.0
Lantrol	4.0
Preservative	q.s.

Procedure:

Slowly add VEEGUM to the water, while agitating at maximum available shear. Continue mixing until smooth. Add remaining A ingredients and heat to 75C. Heat B to 70C. Add A to B mixing until smooth and uniform.

Consistency: Medium viscosity cream.

Suggested Packaging: Jar or squeeze tube.

Comments:

VEEGUM is used to provide thickening and emulsion stability. This cleaner is effective without high oil content.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 225

WATERLESS HAND-CLEANER, GEL-TYPE

RAW MATERIALS	Parts by Weight
WITCAMIDE 5130 (Cocamide DEA)	18.0
Kerosene	51.0
Water	31.0

Add WITCAMIDE 5130 to kerosene and blend water into this mixture at room temperature. Titanium dioxide pigment may be added to whiten.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 146C

DEODORIZING LIQUID SOAP

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	25.0
Chlorhexidine digluconate (20%)	1.0
Phase B:	
Water	61.4
Allantoin	0.1
TEGO-Betain L7	10.0
Preserving agent, colouring	q.s.

Mix A and B in the given order. Stir B into A.
Formulation E1.3.4

TRANSPARENT LIQUID SOAP

RAW MATERIALS	% By Weight
Phase A:	
TAGAT O2	2.5
Coconut fatty acid diethanolamide	5.0
Perfume	0.4
ABIL B8842	0.5
Sodium lauryl ether sulphate (28%)	35.0
Phase B:	
TEGO-Betain L7	5.0
Water	31.6
Phase C:	
Soap (25%)	20.0
Preparation of soap:	
Phase D:	
Coconut fatty acid	4.9
Oleic acid	9.8
Phase E:	
Potassium hydroxide (50%)	6.4
Water	78.9

Separately heat D and E to 80C. Stir E into D. Stir until cool.

Preparation:

Mix A and B in the given order. Stir B into A and C into AB.

Formulation E1.3.6

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants: Suggested Formulations

ECONOMY HAND CLEANER

INGREDIENT	% By Weight
I.	
Deionized Water	64.7
GLYCERINE	0.5
SLS (30%)	30.0
VAROX 1770	3.5
Glyceryl Stearate	1.3
II.	
Phosphoric Acid	qs
III.	
Sodium Chloride	qs
IV.	
Preservative	qs
Solids:	12%
pH:	6.8

Mixing Instructions:

Warm and mix Phase I to 70-75C. Cool to 30C. Adjust to pH 6.8 with Phosphoric Acid. Add Sodium Chloride to achieve desired viscosity.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.6

WATERLESS HAND CLEANER

RAW MATERIALS	% By Weight
Part A:	
Stearic Acid	1.00
Light Mineral Oil (70 SUS)	8.30
Limonene	23.90
MAZER T-MAZ 85	3.74
MAZER T-MAZ 80	11.03
Propyl Paraben	.05
Part B:	
TEA (99%)	.39
Water	27.59
Glycerine	23.90
Methyl Paraben	.10

Procedure:

- Heat Parts A and B separately to approximately 60C until uniform.
- Add Part B to Part A with mixing. Mix until uniform and fill. Allow to cool to room temperature.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formula 19

HAND CLEANER
Gel Type Cleaner

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	10.0
Water	43.2
Carboxymethyl Cellulose	1.0
Potash (100%)	1.8
Oleic Acid	9.0
Deodorized Kerosene	35.0
Perfume	as required

Carboxymethyl cellulose is dispersed in water with the aid of heat. Use warm water for the preparation. The resulting gel should be free from lumps. After the gel has cooled add potash (as a 45% solution) with agitation.

The oleic acid, deodorized kerosene and CARNATION White Mineral Oil are mixed together in a separate container and the blend is then added slowly to the potash-carboxymethyl cellulose-water mixture with slow agitation. High speed agitation should be avoided.

The consistency of the above emulsion can be varied, if desired, by either increasing or decreasing the amount of carboxymethyl cellulose.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics Industry: Suggested Formulation

LIQUID WATERLESS HAND CLEANER*

INGREDIENTS	Parts by Weight
A.	
VEEGUM	2.0
Water	73.0
B.	
Glycerin	4.0
Tergitol NP-10	3.0
AMP-Regular	0.5
C.	
Deodorized kerosene	10.0
Oleic acid	1.5
Arlacel 186	5.0
Clearlan	1.0
Preservative	q.s.

* Suggested by R.T. Vanderbilt Co., Inc.

SOURCE: Angus Chemical Co.: Suggested Formulation PF-0125

HAND CLEANER GEL

RAW MATERIALS	% By Weight
VARION CADG HS	32.0
Sodium Laureth Sulfate (28%) (SLES)	30.0
VARISULF S1333	4.0
REWOAMID DO280/SE	2.0
Sodium Chloride	1.5
Water	qs 100

Mixing Procedure:

Add DO280/SE to warm water with stirring. Run in CADG HS, SLES, and S1333. Cool and thicken by addition of Sodium Chloride.

HAND CLEANER GEL

RAW MATERIALS	% By Weight
VARION CADG HS	10.0
Sodium Laureth Sulfate (28%) (SLES)	10.0
VARAMIDE MA-1	10.0
Water	qs 100

Mixing Procedure:

Add the MA-1 to warm water followed by CADG HS and SLES. Cool to a gel.

HAND CLEANING GEL (CONTAINS SOLVENT)

RAW MATERIALS	% By Weight
Odorless Mineral Spirits	40.0
VARAMIDE MA-1	11.0
VARAMIDE A-7	2.0
VARAMIDE ML-4	1.5
Nonyl Phenol 9 Mole Ethoxylate (NP9)	11.0
Water	qs 100

Mixing Procedure:

Emulsify the ML4 and NP9 into the mineral spirits. Add the A-7 and MA1 to warm water and then mix the two layers with stirring. Cool to a clear gel.

SOURCE: Sherex: Industrial Formulations

HANDCLEANSER
clear, middle viscosity
12% active detergent

RECIPE	% By Weight
A.	
Cocamide DEA	3.00
B.	
Water	15.00
C.	
HOSTAPUR SAS 60	6.00
GENAPOL ZRO Liquid	30.00
Perfume	1.10
Water	43.10
Dyestuff	q.s.
Preserving agent	q.s.
D.	
Common salt	2.80

If GENAPOL ZRO Paste is being used instead of GENAPOL ZRO Liquid, 0.4 times the quantity of GENAPOL ZRO Liquid is diluted with water to the required amount.

Formulation No. A II/1010

LIQUID SOAP

RECIPE	% By Weight
A.	
GENAPOL LRO Liquid	35.0
GENAPOL AMS	8.0
HOSTAPON KA Powder Hi. Conc.	4.0
Cocamide DEA	3.0
B.	
Water	45.5
C.	
GENAPOL PGM Conc.	3.0
Perfume	0.2
Preserving agent	q.s.
D.	
Common salt	1.3

If GENAPOL LRO Paste is being used instead of GENAPOL LRO Liquid, 0.4 times the quantity of GENAPOL LRO Liquid is diluted with water to the required amount.

Formulation No. Ku 1147/10

SOURCE: Hoechst Celanese Corp.: Suggested Formulations

HANDWASHING-PASTE
clear, gel type, with solvent

RECIPE	% By Weight
A.	
GENAPOL ZRO liquid	7.00
ARKOPAL N-040	5.00
Oleic acid	6.00
Triethanolamine	3.00
B.	
Shellsol K	25.00
C.	
Perfume	0.20
Preservative	q.s.
D.	
HOSTAPUR SAS 60	27.00
E.	
Water	26.80

* If GENAPOL ZRO liquid is being used instead of GENAPOL ZRO liquid, 0.4 times the quantity of GENAPOL ZRO liquid is required.

SOURCE: Hoechst: Kosmetik Guide Formulations: Formulation
A II/1015

LIQUID BODY SOAP

INGREDIENTS	% By Weight
Part I:	
Deionized Water	36.15
Methyl Parasept	0.25
Part II:	
Sulframin AOS Liquid	45.00
Monateric CAB	7.00
Monamid 716	5.00
Cerasynt IP	1.00
Standamul HE	3.00
Sodium Chloride	1.00
Glydant	0.10
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
dl-Panthenol, Cosmetic Grade (Code 63920)	0.50
Part III:	
Perfume Oil	0.50

Adjust pH to 7.0 with Citric Acid.

SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
Formulation SC 407

HEAVY DUTY HAND CLEANER WITH ABRASIVE

INGREDIENT	% By Weight
A.	
VEEGUM PRO	1.50
Deionized Water	33.74
Tetrasodium Pyrophosphate	0.06
B.	
Lauric Acid	4.82
Oleic Acid	4.82
Potassium Hydroxide	2.36
Deionized Water	28.00
C.	
VANSEAL NALS-30	12.00
Cocamide DEA	2.70
Sodium Chloride	0.50
D.	
Pumice	9.50
Preservative, Dye, Fragrance	q.s.
Citric Acid to pH 9.0	q.s.

Consistency: Thick gel

Suggested Packaging: Tube, squeeze bottle or piston type dispensing system.

Formulation No. 425

WATERLESS HAND CLEANER WITH ABRASIVE

INGREDIENT	% By Weight
A.	
VEEGUM PRO	2.0
Water	39.4
B.	
Potassium hydroxide	0.9
Water	2.7
C.	
Oleic acid	9.0
Mineral oil	9.0
C11-12 Isoparaffin	27.0
D.	
Polyethylene	10.0
Preservative	q.s.

Consistency: Medium viscosity cream.

Suggested Packaging: Pump or wide mouth container.

Formulation No. 422

SOURCE: R.T. Vanderbilt Co., Inc.: Technical Data: Formulations

LIQUID CREAM SOAP NO. 365

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	49.5
Jaguar HP-60	1.0
B.	
Sipon L22	40.0
Crodafos SG	2.5
Monamid 716	4.0
Ritalan	2.0
Preservative	q.s.

Consistency: High viscosity soft gel.

Suggested Packaging: Plastic pump or squeeze bottle.

Formulation No. 365

EMOLLIENT DETERGENT CREAM SOAP NO. 380

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	50.1
B.	
Cetyl alcohol	0.3
Stearyl alcohol	0.3
Lanacet	1.0
Nimlesterol D	5.0
Stearic acid xxx	2.0
Cocoyl sarcosine	3.3
Pluronic F-68	12.0
Igepon AC-78	20.0
Aromox C/12W	2.0
C.	
A-C Polyethylene 9A	3.0
Preservative	q.s.

Consistency: High viscosity cream.

Suggested Packaging: Plastic tube.

Formulation No. 380

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

LIQUID SOAP

INGREDIENTS	%W/W
A.	
Sodium C14-16 Olefin Sulfonate (40%) (1)	20.00
Superamide 100CG (2)	3.50
PATIONIC 138C (3)	2.00
PATIONIC ISL (4)	2.00
Ethylene Glycol Distearate (5)	0.35
PEG-150 Distearate (6)	0.25
B.	
Deionized Water	70.20
Sodium Chloride	1.50
C.	
Glydant 40-700 (7)	0.20
Color	q.s.

Viscosity: 3,600 cps

Initial pH is 6.8. Adjust to 7.0 to 7.1 with 19% sodium hydroxide solution.

Procedure:

Combine ingredients of Part A. Heat to 70C to give a melt. Combine ingredient of Part B to 70C. Add Part A with agitation. Cool to room temperature with agitation and then add Part C.

(1) Lakeway Chemicals	Lakeway 301-10
(2) Clintwood Chemicals	Lauramide DEA
(3) Patco Cosmetic Products	Sodium Lauroyl Lactylate
(4) Patco Cosmetic Products	Sodium Isostearoyl-2-Lactylate
(5) Malmstrom	Emerest 2355
(6) Mazer Chemicals	Mapeg 6000 DS
(7) Glyco Chemicals	Hydantoin DMDM

SOURCE: Patco Cosmetic Products: PATCO Bulletin No. 196

LIQUID SOAP

RAW MATERIALS	% By Weight
ELFAN OS 46 (37%)	30.0
ELFAN A 432 (30%)	15.0
ELFAN SG (36%)	10.0
ELFACOS GT 282 (S)	2.2
Water, preservative, dye, perfume oil and other additives	ad 100.0
pH	ca. 7
Viscosity (20C)	ca. 2500 mPa.s

SOURCE: Akzo Chemicals Inc.: ELFACOS GT 282: Formulation No. 1883

LIQUID SOAP

RAW MATERIALS	% By Weight
Phase A:	
TAGAT L2	0.6
Perfume	0.5
Triethanolamine lauryl sulphate (47%)	10.0
Phase B:	
Water	68.9
TEGO-Betain HS	20.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.
Formulation E1.3.1

LIQUID SOAP

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	0.5
Perfume	0.5
Ammonium lauryl sulphate (33%)	12.0
Phase B:	
Water	67.0
TEGO-Betain L7	20.0
Preserving agent, colouring	q.s.

Preparation:

Mix A and B in the given order. Stir B into A.
Formulation E1.3.2

LIQUID SOAP

RAW MATERIALS	% By Weight
Phase A:	
ANTIL 141 liquid	2.0
Perfume	0.5
Sodium lauryl ether sulphate (28%)	30.0
Phase B:	
Water	56.8
Polymer JR400	0.2
TEGO-Betain L7	10.0
ABIL B8843	0.5
Preserving agent, colouring	q.s.

Mix A and B in the given order. Stir B into A.
Formulation E1.3.3

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulations

LIQUID SOAP
with silky lustre effect, 20.2% active detergent

RAW MATERIALS	% By Weight
A.	
GENAPOL LRO liquid*	35.00
GENAPOL AMS	8.00
HOSTAPON KA powder highconc. spec.	4.00
Coconut fatty acid diethanolamide	3.00
Water	45.50
B.	
GENAPOL TSM	3.00
Perfume	0.20
Preservative	q.s.
C.	
Sodium chloride	1.30

*If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

- I Melt A at 70C, then stir until cool.
- II At 40C add, the components of B to I.
- III Finally, adjust the viscosity with C at room temperature.

Formulation A II/1018

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

LIQUID SOAP*

INGREDIENTS	% By Weight
Ammonium laureth sulfate, 60%	24.00
Cocamidopropyl betaine	6.00
Stearamidopropyl dimethylamine	1.50
Sodium chloride	1.30
Glycol distearate	1.00
Citric acid	0.25
Methylparaben	0.15
Propylparaben	0.05
Bronopol	0.05
Water, color, fragrance	q.s. to 100.00

Procedure:

Heat water to 70-75C. Add all ingredients except fragrance and bronopol. Mix until homogeneous. Cool and add bronopol and fragrance and fill.

* from Cosmetic and Toiletries, Volume 101, July 1986

SOURCE: Angus Chemical Co.: Formulation PF-0130

LIQUID SOAP

RAW MATERIALS	% By Weight
A.	
VEEGUM HS	1.0
Water	42.0
B.	
Potassium hydroxide	2.0
Water	37.5
Propylene glycol	2.5
Sodium lauryl sulfate 30%	6.0
C.	
Oleic acid	9.0
Preservative	q.s.

Procedure:

Slowly add VEEGUM HS to the water, while agitating at maximum available shear. Continue mixing until smooth. Heat A to 75C. Dissolve potassium hydroxide in water and mix in additional B ingredients. Heat B to 75C. Add B to A and mix until uniform. Heat C to 90C and add to A/B. Mix until cool.

Consistency: Thin lotion.

Suggested Packaging: Liquid soap dispenser.

Comments:

VEEGUM HS adds viscosity to this liquid soap helping to prevent dripping. VEEGUM HS is used in this formula for its optimum electrolyte stability.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Formulation No. 284

LIQUID HAND SOAP

RAW MATERIALS	% By Weight
AOS (40%)	20.0
MAZER MAFO CAB	5.0
MAZER MAZAMIDE CS-148	2.0
Perfume, Dye, Preservative	0.5
Citric Acid	q.s. to pH 6.5 to 7
NaCl	q.s. to 3000 cps
Water	q.s.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 18

LIQUID HAND SOAP

INGREDIENT	% By Weight
I.	
Deionized Water	59.5
II.	
AOS (40%)	30.0
VARAMIDE ML-1	2.2
VARION CADG-HS	3.1
Propylene Glycol	0.5
Glyceryl Stearate	2.2
Sodium Chloride	2.5
III.	
Phosphoric Acid	qs
IV.	
Preservative	qs
Solids:	22.5%
pH:	6.8

Mixing Instructions:

Warm water to 75C. Add AOS with rapid agitation. Add remaining Phase II ingredients in order. Cool to 30C. Adjust pH to 6.8 with Phosphoric Acid.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.2.6

LIQUID HAND "SOAP"

RAW MATERIALS	%W/W
Water	q.s. to 100.00
STANDAPOL WAC-LC (Sodium Lauryl Sulfate)	28.00
VELVETEX BK-35 (Cocamidopropyl Betaine)	5.00
STANDAMID SD (Cocamide DEA)	3.00
CETIOL HE (PEG-7 Glyceryl Cocoate)	1.50
STANDAPOL PEARL CONC. 7130	3.00
Fragrance, Dye and Preservatives	q.s.
Sodium Chloride	1.00

Procedure:

With agitation, add the ingredients in the order listed. Adjust pH to 6.5-7.0 with a 50% citric acid solution.

Comments:

This is an elegant yet economical hand cleanser that can be used often without excessive drying-out of the skin.

SOURCE: Henkel: Personal Care Products Formulary: Formula H-4870

LIQUID HAND SOAP--EXTRA RICH FOAM
PREMIUM QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	16.7
Alcohol sulfate (28-30%)	34.0
FAMEA	5.0
Cocoamidopropylbetaine (30%)	5.0
Sodium chloride	1.5
EDTA salt (see note 4)	0.2-0.5
Glycerin	1.0
Water	to 100

Properties:

Viscosity, 73F, cps 7000
Adjust pH to 7 with citric acid.

LIQUID HAND SOAP--EXTRA RICH FOAM
GOOD QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	16.7
Alcohol sulfate (28-30%)	34.0
FAMEA	2.0
Sodium chloride	2.0
EDTA salt (see note 4)	0.2-0.5
Glycerin	1.0
Water	to 100

Properties:

Viscosity, 73F, cps 2200
Adjust pH to 7 with citric acid

Notes:

- Alcohol ethoxysulfate can be either NEODOL 25-3A or NEODOL 25-3S if the pH of the formulation is 7 or lower. If pH is not adjusted to 7 or below, NEODOL 25-3S must be used.
- The pH can be adjusted to a value lower than 7 (e.g., 5.5-6.5), if desired, with little effect on physical properties.
- Opacifier is glycol distearate.
- The EDTA salt may be either disodium or tetrasodium ethylene-diamine tetraacetate.
- Glycerin (1-2%w) is added to improve "feel" on hands.
- The amount of sodium chloride needed to achieve a given viscosity may vary with the exact nature and source of the surfactant raw materials.

SOURCE: Shell Chemical Co.: NEODOL Formulary: Suggested Formulas

RICH FOAM, EXTRA MILDNESS
PREMIUM QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	25
Cocoamidopropylbetaine	5
FAMEA	5
PEG (6000) distearate	0.5
Sodium chloride	3.0
EDTA salt (see note 4)	0.2-0.5
Glycerin	1.0
Water	to 100
Properties:	
Viscosity, 73F, cps	5400
Adjust pH to 7.0 with citric acid	

RICH FOAM, EXTRA MILDNESS
GOOD QUALITY
(with Alpha Olefin Sulfonate)

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	8.5
Alpha olefin sulfonate	12.5
FAMEA	2.0
Cocoamidopropylbetaine	5.0
Sodium chloride	5.5
EDTA salt (see note 4)	0.2-0.5
Glycerin	1.0
Water	to 100
Properties:	
Viscosity, 73F, cps	4700
Adjust pH to 7 with citric acid	

RICH FOAM, EXTRA MILDNESS
GOOD QUALITY

RAW MATERIALS	% By Weight
NEODOL 25-3S (60%)	25
FAMEA	5
PEG (6000) distearate	0.5
Sodium chloride	3.0
EDTA salt (see note 4)	0.2-0.5
Glycerin	1.0
Water	to 100
Properties:	
Viscosity, 73F, cps	4700
Adjust pH to 7 with citric acid	

SOURCE: Shell Chemical Co.: NEODOL Formulary: Formulations

LIQUID HAND SOAP WITH EMOLLIENTS

INGREDIENTS	% By Weight
A.	
Hydrofol 1295 Acids	5.00
Isopropyl Myristate	.50
EGDS	1.20
B.	
Glycerin	1.00
KOH	1.25
Water	42.10
C.	
VARONIC LI-63	1.00
VARONIC LI-420	4.00
VARION CADG-Technical	14.25
Sodium Lauryl Sulfate (30%)	26.70
ALOE VERAGEL 200	.5
Varox 185E	2.50

Approximate Visocosity @ 25C: 2,000-2,500 cps

Procedure:

Prepare each phase separately. Warm Phase A and B to 75C. With rapid but smooth agitation, slowly add Phase A to Phase B. Warm Phase C until liquid and slowly blend into aqueous Phase with smooth agitation. Cool with moderate agitation

LIQUID SOAP WITH ALOE

INGREDIENTS	% By Weight
A.	
Water	0.5
Alpha Olefin Sulfonate	19.0
Sodium Chloride	1.5
Cocamide DEA	6.0
ALOE VERAGEL 1:1	5.0
Coca-Betaine	3.0
B.	
Citric Acid	q.s. to 6.0 pH
C.	
Preservative	q.s.
Fragrance	q.s.

Procedure:

Blend A together at room temperature, Q.S. pH, add preservatives and fragrance.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

LIQUID HANDSOAP WITH P-CHLORO-M-XYLENOL

RAW MATERIALS	% By Weight
DESONOL S (Sodium Lauryl Sulfate)	30.0
Cocamide DEA	5.0
p-chloro-m-xyleneol-PCMX	1.0
Sodium Chloride	0.5-0.2
Citric Acid to pH = 7.0	q.s.
Water, D.I.	62.0-63.5

Formulation N-3021

LIQUID HANDSOAP WITH CONDITIONER

RAW MATERIALS	% By Weight
DESONATE AOS (C14-16 Olefin Sulfonate)	20.0
DESONOL SE-2 (Sodium Laureth-2 Sulfate)	10.0
Cocamide DEA	2.5
Ethylene Glycol Monostearate (EGMS)	1.5
DESONIC CE-12 (Glycereth-12)	0.5
Methylparaben	0.15
Propylparaben	0.1
Sodium Ethylenediaminetetraacetate (EDTA)	0.1
Sodium Chloride	2.5
Citric Acid to pH	q.s.
Water, D.I.	66.65

Formulation N-3014

LIQUID HANDSOAP WITH DESONIC CE-12

RAW MATERIALS	% By Weight
DESONATE AOS (C14-16 Olefin Sulfonate)	20.0
DESONOL SE-2 (Sodium Laureth-2 Sulfate)	10.0
Cocamide DEA	2.5
Cocamidopropyl Betaine	3.0
Ethylene Glycol Monostearate (EGMS)	1.5
DESONIC CE-12 (Glycereth-12)	1.0
Methylparaben	0.15
Propylparaben	0.1
Sodium Ethylenediaminetetraacetate (EDTA)	0.1
Sodium Chloride	2.0
Citric Acid to pH	q.s.
Water, D.I.	59.65

Formulation N-3013

SOURCE: Desoto, Inc.: Suggested Formulations

LIQUID SOAP(8A)

RAW MATERIALS	% By Weight
EMERSAL 6400 Sodium Lauryl Sulfate	30.0
EMID 6511 Lauramide DEA	6.0
LANOQUAT 1756 Lanolin Quaternary	1.0
EMEREST 2350 Glycol Stearate	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
EMERSOL 132 Stearic Acid	0.5
Sesame oil	0.7
Triethanolamine	0.3
Deionized water	59.5

Procedure:

Combine all ingredients and heat slowly to 75C. When homogeneous and clear, cool to 40C with agitation. Add fragrance and package.

EXTRA MILD LIQUID SOAP(6A)

RAW MATERIALS	% By Weight
EMERY 5320 Laureth Sulfosuccinate	15.0
WITCONATE AOS Liquid (Sodium C14-16 Olefin Sulfonate)	15.0
EMID 6511 Lauramide DEA	5.0
EMERY 5430 Cocamidopropyl Betaine	3.0
LANOQUAT 1756 Lanolin Quaternary	1.0
EMEREST 2350 Glycol Stearate	1.0
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	1.0
Deionized water	59.0

Procedure:

Combine all ingredients and heat to 75-80C until a clear, homogeneous system is obtained. Cool to 40C with mild agitation and add small increments of sodium chloride to increase viscosity.

SOURCE: Emery Industries: LANOQUAT 1756 Lanolin Quaternary:
Suggested Formulations

LIQUID HAND CLEANER

RAW MATERIALS	% By Weight
ACTRASOL EO	40
ACTRASOL C75	15
Propylene Glycol	5
Water	40

Makes an excellent neutral hand cleaner for use in liquid dispensers in wash rooms.

SOURCE: Arthur C. Trask Corp.: The ACTRASOLS: Suggested Formulation

LIQUID SOAP
clear, 7.1% active detergent

RAW MATERIALS	% By Weight
A.	
GENAPOL LRO liquid*	20.00
HOSTAPUR SAS 30	5.00
GENAGEN CA-050	1.00
B.	
Perfume	0.10
Water	72.80
Dyestuff solution	q.s.
Preservative	q.s.
C.	
TYLOSE H 100000 yp	1.10

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.

Procedure:

I Mix the components of A.

II Add one after another, the components of B to I.

III C, which is added by continuing stirring to II, should swell until a homogeneous shampoo free of lumps has been obtained.

Formulation A II/1019

LIQUID SOAP
with pearl lustre effect, medium viscosity, 10% active detergent

RAW MATERIALS	% By Weight
A.	
Coconut fatty acid diethanolamide	2.00
B.	
Water	10.00
C.	
GENAPOL LRO liquid	20.00
HOSTAPUR SAS 60	4.00
Perfume	0.20
GENAPOL PGM liquid	3.00
Water	57.60
Dyestuff solution	q.s.
Preservative	q.s.
D.	
Citric acid--->pH 6-7	q.s.
E.	
Sodium chloride	3.20

* If GENAPOL LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of GENAPOL LRO liquid is required.
Formulation A II/1017

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulas

LIQUID SOAP WITH DISINFECTANT EFFECT

RAW MATERIALS	% By Weight
VARION 2C	20.0
Sodium Laureth Sulfate (28%) (SLES)	9.0
VARSULF SBFA30	6.0
VARAMIDE MA-1	2.0
Sodium Chloride	1.5
VARIQUAT 50MC	2.5
Water	qs 100

Mixing Procedure:

Add the 50MC, 2C and SLES to warm water (30-40C). Add the MA-1 and SBFA 30. Cool to room temperature and thicken by addition of Sodium Chloride.

Formulation 02.2.2

SYNDET SOAP

RAW MATERIALS	% By Weight
REWOAMID L203	39.0
Glycerine	10.0
Propoxyol 5	5.0
ADOL 52	6.0
Sodium Lauryl Sulfate (90%)	10.0
VARSULF SBL203/P	30.0

Mixing Procedure:

Add ingredients to soap plodding machine.

Formulation 02.4

SOURCE: Sherex Chemical: Industrial Formulations

GEL HAND CLEANER
WATERLESS

RAW MATERIALS	% By Weight
A. Oil Phase	
SHELL SOL 71 or 72	35.0
Oleic acid	7.5
NEODOL 25-3	4.3
Lanolin (if desired)	0.5
B. Water Phase	
Water	47.7
Triethanolamine	3.4
Glycerin	2.1
Perfume, color	as desired

SOURCE: Shell Chemical Co.: NEODOL Formulary: Suggested Formula

LIQUID WATERLESS HAND CLEANER

RAW MATERIALS	% By Weight
1.	
Kerosene (odorless mineral spirits)	38.2
Hydrofol 1895 Acid Flakes	4.5
VARAMIDE A2	2.3
2.	
AROSULF 42 PE10	2.3
Water	45.0
Propylene Glycol	3.6
Dowanol DPM	2.7
Triethanaolamine	1.4

Mixing Procedure:

1. Mix together Kerosene, Hydrofol and A2. Disperse until clear. Heat to 60C.
2. In separate vessel mix ingredients in step 2 in order listed and heat to 60C.
3. Add #1 to #2 using good agitation and cool.

GEL HAND CLEANER

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (28%) (SLES)	20.0
VARION CAS	10.0
VARAMIDE 6CM	3.0
VARAMIDE MA-1	1.5
Citric Acid	.2
Water	qs 100

Mixing Procedure:

Disperse the SLES and CAS into warm water and then add the 6CM and MA-1. Cool and adjust pH with citric acid.

WORKSHOP HAND CLEANER

RAW MATERIALS	% By Weight
VARISULF 5	2.0
Linear Alkyl Benzene Sulfonic Acid/TEA	5.0
VARAMIDE MA-1	10.0
Nonylphenol 9 Mole Ethoxylate (NP9)	10.0
Water	qs 100

SOURCE: Sherex Chemical: Industrial Formulations

SYNTHETIC LIQUID HAND SOAP

INGREDIENT	% By Weight
Water	88.00
Borax	0.40
ESI-TERGE T-60	8.75
ESI-TERGE S-10 (Or B-15)	2.75
Versene 100	1.00

Procedure:

Add in order listed with adequate agitation, allowing each material to dissolve or disperse completely.

Specifications:

% Solids	8.4
% Active	8.4
pH	8.0-8.6
Viscosity	Low

Formulation Code T-60-1

SYNTHETIC LIQUID HAND SOAP USING DODECYL BENZENE SULFONIC ACID AND TRIETHANOLAMINE

INGREDIENT	% By Weight
Water	91.37
Borax	1.66
Triethanolamine 99%	1.66
Dodecyl Benzene Sulfonic Acid	0.10
ESI-TERGE S-10	2.75
Versene-100	0.10
Ethoxylan 50	0.20

Procedure:

Add as shown with good agitation. Check pH before adding ESI-TERGE S-10. Adjust to 6.7-7.3 by slight additions of triethanolamine to raise, or dodecyl benzene sulfonic acid to lower pH.

Specifications:

% Solids	8.4
% Active	8.4
pH	8.0-8.6
Viscosity	25 cps

Formulation Code T-60-1A

SOURCE: Emulsion Systems Inc.: Suggested Formulations

WATERLESS HAND CLEANER

INGREDIENTS	% By Weight
Deodorized Kerosene	51.4
Stearic Acid	2.9
Oleic Acid	4.1
TRITON X-100 Surfactant	10.3
Water	30.9
Sodium Hydroxide (50% aqueous)	0.4

WATERLESS HAND CLEANER

INGREDIENTS	% By Weight
Deodorized Mineral Spirits	51.40
Stearic Acid	2.20
Oleic Acid	4.80
TRITON X-100 Surfactant	10.30
Water	31.23
Sodium Hydroxide (50% aqueous)	0.07
Brookfield Viscosity - 7,000 cps	
pH - 6.2	

WATERLESS HAND CLEANER

INGREDIENTS	% By Weight
Deodorized Mineral Spirits	54.5
Stearic Acid	1.0
Oleic Acid	1.5
TRITON X-100 Surfactant	10.3
Water	32.5
Sodium Hydroxide (50% aqueous)	.2
Brookfield Viscosity - 8,000 cps	
pH - 7.3	

Mixing Instructions:

Warm the deodorized kerosene to 40C (about 100F.) with agitation. Discontinue heat but continue agitation. Add oleic acid and stearic acid. When these have dissolved, add Triton X-100 Surfactant and water. Finally, add sodium hydroxide solution. Discontinue agitation when the formulation is uniform. Be careful to add an accurate amount of caustic since it strongly influences the viscosity.

SOURCE: Rohm and Haas Co.: Lit. Ref. CS-427

WATERLESS HAND CLEANER

INGREDIENTS	% By Weight
Deodorized Mineral Spirits	54.8
Stearic Acid	0.8
Oleic Acid	1.2
TRITON X-100 Surfactant	10.3
Water	32.7
Sodium Hydroxide (50% aqueous)	0.2
Brookfield Viscosity - 3,500 cps.	
pH - 7.5	

WATERLESS HAND CLEANER

INGREDIENTS	% By Weight
Deodorized Mineral Spirits	55.1
Stearic Acid	0.6
Oleic Acid	0.9
TRITON X-100 Surfactant	10.3
Water	32.9
Sodium Hydroxide (50% aqueous)	.2
Brookfield Viscosity - 2,200 cps.	

Mixing Instructions:

Warm the deodorized mineral spirits to 40C (about 100F.) with agitation. Discontinue heat but continue agitation. Add oleic acid and stearic acid. When these have dissolved, add TRITON X-100 Surfactant and water. Finally, add sodium hydroxide solution. Discontinue agitation when the formulation is uniform. Be careful to add an accurate amount of caustic since it strongly influences the viscosity.

Directions for Use:

Rub creme lotion into the skin and remove by wiping or washing. Effectively removes grease, oil, paint, ink, and other soils.

SOURCE: Rohm and Haas Co.: Lit. Ref. CS-427

WATERLESS HAND CLEANER

INGREDIENTS	% As Supplied
Water	47.13
ACRYSOL ICS-1 Thickener (30%)	1.67
TRITON N-101 Surfactant	3.00
Deodorized Kerosene	38.00
Mineral Oil	10.00
Sodium Hydroxide (50%)	0.20

Brookfield Viscosity - 4,000,000 cps.

pH - 7.8

Mixing Procedure:

Add the ingredients in the listed order. High-shear mixing is necessary to disperse the kerosene and mineral oil

Lit. Ref.: CS-408, CS-504

WATERLESS HAND CLEANER

INGREDIENTS	% As Supplied
Water	28.45
ACRYSOL ASE-108 Stabilizer	7.05
TRITON X-100 Surfactant	10.00
Deodorized Kerosene	40.00
Mineral Oil	10.00
Sodium Hydroxide (10%)	4.50

Mixing Instructions:

Add components in listed order. Dispersion of kerosene requires high-shear mixing. Moderate subsurface agitation is sufficient for the other ingredients.

This formulation produces a flowable paste that removes grease, ink, and other solvent-removable soils. The viscosity can be adjusted by reducing the level of ACRYSOL ASE-108 polymer while correspondingly lowering the amount of sodium hydroxide. A concentration of 2.5% ACRYSOL ASE-108 polymer produces a lotion. If emollient characteristics are desired, 0.5 to 2.5 percent water-soluble lanolin can be added. The addition of lanolin raises the original viscosity two to three fold.

Lit. Ref.: CS-427
CS-500

SOURCE: Rohm and Haas Co.: Suggested Formulations

WATERLESS HAND CLEANER - A

RAW MATERIALS	Parts by Weight
Kerosene	37.0
Oleic Acid	11.4
Triethanolamine	2.8
Monoethanolamine	1.2
SURFONIC N-95	4.5
Propylene Glycol, U.S.P.	4.5
Powdered "Versene"	1.9
Water	36.7

WATERLESS HAND CLEANER - B

RAW MATERIALS	Parts By Weight
White Oil	34.5
Oleic Acid	10.7
Triethanolamine	2.6
Monoethanolamine	1.1
SURFONIC N-95	4.3
Propylene Glycol, U.S.P.	4.3
Water	42.5

Preparation:

1. Mix the kerosene or oil and oleic acid.
2. Dissolve the amines in the water and stir in SURFONIC surface-active agent and propylene glycol, U.S.P. In Formula A, add "Versene" and stir until it is dissolved.
3. Add (1) to (2) or (2) to (1), depending on convenience and stir until a smooth cream is obtained. No heating is required.

Lanolin may be added to the kerosene to reduce the defatting action of the kerosene on the skin and the surfactant content can be increased to make the cleaner easier to remove with water.

SOURCE: Texaco Chemical Co.: Suggested Formulations

LIQUID HAND SOAP

INGREDIENTS	% By Weight
KATHON CG Microbiocide (1.5%)	0.07
ACRYSOL ICS-1 Thickener (30%)	2.66
TRITON X-200 Surfactant (28%)	28.57
Sodium Hydroxide (50%)	0.30
Water	68.40

SOURCE: Rohm and Haas Co.: Lit. Ref.: CS-420/CS-465/CS-505

WATERLESS HAND CLEANER-A

INGREDIENTS	% By Weight
Part A:	
CARBOPOL 1342	0.3
Odorless Mineral Spirits	29.0
Lanolin USP	0.5
Petrolatum	0.5
Part B:	
Deionized Water	59.1
Part C:	
Pumice	10.0
Part D:	
Triethanolamine (99%)	0.3
PEG-15 Cocamine	0.3

WATERLESS HAND CLEANER-B

RAW MATERIALS	% By Weight
Part A:	
CARBOPOL 1342	0.3
Odorless Mineral Spirits	29.0
Lanolin USP	0.5
Petrolatum	0.5
Part B:	
Deionized Water	69.1
Part D:	
Triethanolamine (99%)	0.3
PEG-15 Cocamine	0.3

Procedure:

1. Combine ingredients in Part A using moderate agitation, heating to 40-50C.
2. Add Deionized Water using high agitation, mix for 15 minutes.
3. Add Pumice.
4. Neutralize with Part D using rapid agitation.

Hand cleaners made with CARBOPOL 1342 are simple to formulate, stable in the bottle, yet begin removing greasy residues rapidly due to the quick breaking action of the emulsion on the skin.

pH = 6.4

Brookfield Viscosity = 13,500 cPs

SOURCE: The BF Goodrich Co.: Quick Break CARBOPOL Resin Formulation #9

WATERLESS HAND CLEANER-A

Component	% By Weight
Kerosene (Deodorized)	44.0
Stearic acid	4.0
Igepal CO-530 Surfactant	2.0
Water	40.0
Propylene Glycol	4.0
DOWANOL DPM Glycol Ether	3.0
Triethanolamine	1.0
Igepal CO-630 surfactant	2.0

WATERLESS HAND CLEANER-B

Component	% By Weight
Kerosene (Deodorized)	42.5
Stearic acid	5.0
Igepal CO-530 Surfactant	2.5
Water	39.0
Propylene Glycol	4.0
DOWANOL DPM Glycol Ether	3.0
Triethanolamine	1.5
Igepal CO-630 Surfactant	2.5

WATERLESS HAND CLEANER-C

Component	% By Weight
Kerosene (Deodorized)	34.0
Stearic Acid	6.0
Igepal CO-530 Surfactant	5.0
Water	43.0
Propylene Glycol	3.0
DOWANOL DPM Glycol Ether	3.0
Triethanolamine	3.0
Igepal CO-630 Surfactant	3.0

Formulation A is a liquid waterless handcleaner which is probably most suitable for dispensing from an aerosol container. Formulation C is a gel, while Formulation B is somewhat intermediate in viscosity between A and C.

SOURCE: Dow Chemical Co.: Suggested Formulations

WATERLESS HAND CLEANER - EMULSION TYPE - NO. 1

RAW MATERIALS	Parts by Weight
Kerosene	40.5
Oleic Acid	12.5
Triethanolamine	6.2
Water	50.0

WATERLESS HAND CLEANER - EMULSION TYPE - NO. 2

RAW MATERIALS	Parts By Weight
Kerosene	40.5
Oleic Acid	12.5
Triethanolamine	6.2
Propylene Glycol	5.0
Water	53.0

WATERLESS HAND CLEANER - EMULSION TYPE - NO. 3

RAW MATERIALS	Parts By Weight
Kerosene	40.5
Oleic Acid	12.5
Triethanolamine	3.1
Monoethanolamine	1.3
Propylene Glycol	5.0
Water	53.0

WATERLESS HAND CLEANER - EMULSION TYPE - NO. 4

RAW MATERIALS	Parts By Weight
Mineral Oil	40.5
Oleic Acid	12.5
Triethanolamine	3.1
Monoethanolamine	1.3
SURFONIC N-95	5.0
Propylene Glycol	5.0
Water	50.0

A slight modification of this may be obtained by utilizing white oil in lieu of mineral oil, and a soothing effect may be obtained by the incorporation of a small amount of wool grease (lanolin).

SOURCE: Texaco Chemical Co.: Suggested Formulations

WATERLESS HAND CLEANER BASE

RAW MATERIALS	% By Weight
SCHERCAMOX C-AA	18.0
SCHERCOMID CDO-Extra	38.0
SCHERCOWET DOS-70	15.0
SCHERCEMOL MM	15.0
Oleic Acid	14.0

Dissolve each ingredient slowly in consecutive order with mixing and temperature maintained at 45-55C. Mix until smooth. The final product is a soft, pearly paste at room temperature and the amount of oleic acid determines the consistency of the base.

GEL

RAW MATERIALS	% By Weight
Phase A:	
Base	30
Penreco #2251 (odorless kerosene)	60
Oleic Acid	3
Phase B:	
Glyco DMDMH-55 (preservative)	0.3
Water	107.0

CREAM

Phase A:	
Base	26.0
Penreco #2251 (odorless kerosene)	52.0
Oleic Acid	2.6
Phase B:	
Glyco DMDMH-55 (preservative)	0.3
Water	107.0

HEAVY LOTION

Phase A:	
Base	23.2
Penreco #2251 (odorless kerosene)	46.4
Oleic Acid	2.5
Phase B:	
Glyco DMDMH-55 (preservative)	0.3
Water	107.0

Dissolve the ingredients in Phase A by heating to 55-65C with high speed stirring until clear. Slowly add Phase A to Phase B at 55C with high speed stirring, maintain until homogeneous and smooth.

Section XIII
Sun Care Products

AEROSOL SUNSCREEN FOAM

RAW MATERIALS	% By Weight
AMERCHOL L-101	8.00
MODULAN	1.00
AMERSCREEN P	2.00
Stearic acid, xxx	2.50
Glyceryl monostearate, neut.	3.00
Mineral oil, 70 vis.	3.50
Propylene glycol	4.50
Carbopol 941	0.25
Triethanolamine	1.00
Water	64.25
Ethanol, anhydrous	10.00
Perfume and Preservative	q.s.
Above Concentrate:	90.0%
Propellant 12/114 (50/50)	10.0
Pressure fill	

SOURCE: Amerchol Corp.: Suggested Formulation

DIHYDROXYACETONE SELF TANNING LOTION

RAW MATERIALS	% By Weight
A)	
Distilled Water	65.4
B)	
Propylene Glycol	3.0
Methylparaben (TRI-K)	0.2
Propylparaben (TRI-K)	0.1
C)	
Polyglucane (AMIGEL)	0.4
D)	
Emulsifying Wax N.F. (T WAX)	2.5
Mineral Oil (and) PEG-30 Lanolin (and) Cetyl Alcohol (T BASE)	2.0
Sesame Oil (TRI-K)	2.5
Jobba Oil (TRI-K)	2.5
Squalane (TRI-K)	5.0
Dimethicone (DC 200 Silicone 350 cs)	0.5
Tocopheryl Acetate (TRI-K)	0.2
E)	
Phenoxyethanol (TRI-K)	0.7
F)	
Distilled Water	10.0
Dihydroxyacetone (TRI-K)	5.0

A smooth, quickly absorbing lotion that will produce a golden bronze "tan" in 3 hours.

SOURCE: TRI-K Industries, Inc.: Formulation MS-2-53-3

AFTER SUN COOLING GEL WITH FRESCOLAT
TRANSPARENT

RAW MATERIALS	% By Weight
A.	
Water dist. or deionised	62,30
1,2-Propylene glycol	3,00
D-Panthenol	1,00
Allantoin	0,10
Germaben II	0,10
CREMOGEN HAMAMELISWATER 739023 H&R	3,00
CREMOGEN CHAMOMILE 739027 H&R	1,00
Glycerin, 86%	3,00
Carbopol 940	0,50
B.	
Water, dist or deionised	5,00
Triethanolamine C pure	0,90
C.	
Ethyl alcohol 96 vol. %, denatured with diethyl phthalate	15,00
FRESCOLAT, 620105 H&R	0,80
Fragrance H&R	0,30
Mulsifan RT 203/80	4,00

AFTER SUN COOLING GEL WITH FRESCOLAT
WITH PEARLESCENT PIGMENTS

RAW MATERIALS	% By Weight
A.	
Water dist. or deionised	62,06
1,2-Propylene glycol	3,00
D-Panthenol	1,00
Allantoin	0,10
GERMABEN II	1,00
CREMOGEN HAMAMELISWATER 739023 H&R	4,00
Glycerin, 86%	3,00
Carbopol 940	0,50
B.	
Water, dist, or deionised	5,00
Triethanolamine C pure	0,90
C.	
Ethyl alcohol 96 vol. %, denatured with diethyl phthalate	15,00
FRESCOLAT, 620105 H&R	0,80
Fragrance H&R	0,30
Mulsifan RT 203/80	4,00
Colourant Brilliant Blue FCF 308001	0,20
Timiron Starluster 11P115	0,04

SOURCE: Haarman & Reimer: Formula K 18/7 - 51 024/E

AFTER SUN LOTION

RAW MATERIALS	% By Weight
A.	
GENEROL 122 E 5	2,50
GENEROL 122 E 10	2,50
Jojoba Oil, pure	2,00
Myritol 318	2,00
Cream Base Cutina CBS	7,00
Shea Butter Cetiol SB 45	2,00
Biocorno	2,00
Solbrol P	0,05
B.	
Water, dist. or deionized	46,60
Solbrol M	0,15
Glycerin, 86%, DAB 8	3,00
Allantoin	0,20
D-Panthenol	0,50
C.	
Water, dist. or deionized	20,00
Veegum HV	2,00
D.	
CREMOGEN CAMOMILE MEW SPEC. 739 027 H&R	2,00
Ethyl Alcohol 96 vol. %, denatured with diethyl phthalate	5,00
Perfume Oil H&R	0,50

AFTER SUN LOTION

RAW MATERIALS	% By Weight
A.	
Water dist. or deionized	40.00
Carbopol 934	0.30
B.	
Water dist. or deionized	5.00
Triethanolamine Pure	0.40
C.	
Paraffinol 65cP	5.00
Isopropylmyristate	3.00
Arlatone 983 S	2.00
Brij 76	2.00
Phenonip	0.20
Amerchol L 101	1.00
FRESCOLAT H+R	1.00
D.	
Water dist. or deionized	38.43
D-Panthenol	1.00
Phenonip	0.20
Allantoin	0.10
E.	
Perfume H+R	0.30
Bisabolol	0.07

SOURCE: Haarman & Reimer: Formulations K 18/7-45 706 G/E &
K 18/7 - 73 006 A/E

AFTER SUN LOTION

INGREDIENTS:	% W/W
Part A:	
Water	17.7
Carbopol 941 (1% soln) (Carbomer 941)	50.0
Part B:	
Lantox 55 (PEG-75 Lanolin)	6.0
Wecobee M (Hydrogenated Vegetable Oil)	5.0
CETIOL G-16S (Isocetyl Stearate)	8.0
CETIOL LC (Coco-Caprylate/Caprates)	8.0
EMULGADE F (Cetearyl Alcohol (and) PEG-40 Castor Oil (and) Sodium Cetearyl Sulfate)	5.0
Part C:	
Sodium Hydroxide (50%)	q.s. to pH 6.5
Part D:	
Dowicil 200 (Quaternium-15)	0.1
Fragrance	0.2

Comments:

The product will be applied to sunburned skin with greater ease, feel less greasy and exhibit enhanced rub-in due to CETIOL esters.

SOURCE: Henkel Corp.: Personal Care Products Formulary:
Suggested Formula H-4823

AFTER SUN LOTION

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	4.0
MIGLYOL 840	7.0
Hostaphat KL 340 N	5.0
Cetyl alcohol	2.0
B.	
Karion F	5.0
Carbopol-Gel 1%	12.5
Citric acid	0.3
Allantoin	0.2
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.
Collagen CLR	2.0
Preparation of Carbopol-Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 4.5.1

AFTER SUN LOTION

RAW MATERIALS	% By Weight
Demineralized Water	51.1350
ACRISINT 400	0.2000
TENSAMI 1/05	0.7000
AMIGEL Solution 2%	25.0000
POT MARIGOLD HS	2.0000
SOLARIUM #270 HS	3.0000
TRI-SEPT M	0.2000
ABIOL	0.2000
TENSAMI 8/09	10.0000
POT MARIGOLD LS	2.0000
Refined Avocado Oil	2.0000
Isopropyl Myristate	3.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
TEA 99%	0.2500
Perfume	0.2000

Formulation AMI.017

AFTER SUN LOTION WITH ROSE HIP OIL - 003T2

RAW MATERIALS	% By Weight
A.	
Deionized Water	51.05
Carbomer 940 (ACRISINT 400)	0.20
Propylparaben (TRISEPT P)	0.10
Polyglucane (AMIGEL Solution 2%)	25.00
B.	
Phospholipids and Xanthan Gum (TENSAMI 1/05)	0.70
Egg Yolk Oily Extract (TENSAMI 8/09)	10.00
C.	
Triethanolamine (99%)	0.25
D.	
Calendula Extract (POT MARIGOLD LS)	2.00
Avocado Oil	1.00
Isopropyl Myristate	3.00
Tocopheryl Acetate (Vitamin E Acetate)	0.10
Rose Hip Oil (ROSE HIP SEED OIL)	1.00
E.	
Fragrance (TRI-K)	0.20
F.	
Imidazolidinyl Urea (TRISTAT IU)	0.20

An after sun lotion containing botanical extracts naturally rich in Beta-carotene and Vitamin A and natural oils rich in essential fatty acids. This lotion is emulsified with natural emulsifiers.

SOURCE: TRI-K Industries, Inc.: Suggested Formulations

AFTER SUN LOTION O/W

RAW MATERIALS	% By Weight
Phase A:	
HOSTAPHAT KW 340 N	8.0
HOSTACERIN T 3	2.0
Lanette 16	2.0
Isopropylpalmitate	5.0
Alpha-bisabolol	0.3
Phase B:	
Water, preservative	76.2
Glycerine	3.0
D-Panthenol 50 P	0.2
STIMUCELL	3.0
Phase C:	
Perfume oil	0.3

Processing:

1. Heat the substances of the fatty phase A to 70C.
2. Heat the substances of the water phase B to 75C.
3. Under stirring add phase B to phase A, cool to 30C, add phase C and stir cold.

SOURCE: Pentapharm Ltd.: Guide Formulations: Code No. PL 1020

W/O-SUN-SCREEN-MILK

RECIPE	% By Weight
A.	
HOSTACERIN WO	2.00
Arlacel 989	2.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	5.00
Eutanol G	5.00
Neo-Heliopan A+B	5.00
B.	
Sodium chloride	2.00
Water, preservative	68.70
C.	
Perfume	0.30

Procedure:

- I Melt A at 80C.
- II Stir the solution of B into I at room temperature.
- III Stir until cool.
- IV At 40C add C to III.
- V Homogenize if necessary.

SOURCE: Hoechst: Kosmetik Guide Formulations: Formulation
A VI/7300

AFTER SUN MOISTURE LOTION
#P129-33-3

INGREDIENTS	%W/W
Phase A:	
Cocoa Butter	1.00
CERAPHYL 375 (Isostearyl Neopentanoate)	5.00
Drakeol 7 (Mineral Oil)	7.00
Vitamin E Acetate (Tocopheryl Acetate)	0.50
Myrj 52S (PEG-40 Stearate)	1.00
Penreco Super (Petrolatum)	2.00
Paraffin 130/135	2.00
Avocado Oil	0.50
Phase B:	
Carbopol 1342 (Acrylic Acid Copolymer)	0.40
CERAPHYL GA	3.00
Phase C:	
Water, deionized	61.45
Glycerin	5.00
Methylparaben	0.20
Propylparaben	0.20
Veragel liquid 1:1 (Aloe Vera Gel)	10.00
Phase D:	
Triethanolamine 99%	0.40
Phase E:	
Germall 115 (Imidazolidinyl Urea)	0.15
Phase F:	
Fragrance	0.20

WATERPROOF SPF 19 SUNSCREEN
#P128-25

INGREDIENTS	%W/W
Phase A:	
ESCALOL 507 (Octyl Dimethyl PABA)	8.00
ESCALOL 557 (Octyl Methoxycinnamate)	7.50
ESCALOL 567 (Benzophenone-3)	5.00
CERAPHYL GA (Maleated Soybean Oil)	3.00
Brij 72 (Steareth-2)	2.00
Arlacel 83 (Sorbitan Sesquioleate)	1.00
CERAPHYL 368 (Octyl Palmitate)	5.00
Phase B:	
Water, deionized	63.35
Propylene Glycol	4.00
Carbopol 1342 (Acrylic Acid Copolymer)	0.20
Methylparaben	0.20
Propylparaben	0.20
Phase C:	
Triethanolamine 99%	0.20
Phase D:	
Germall 115 (Imidazolidinyl Urea)	0.15
Phase E:	
Fragrance	0.20

SOURCE: Van Dyk: CERAPHYL GA: Suggested Formulations

AFTER-SUN MOISTURIZING LOTION

INGREDIENTS	% By Weight
A.	
Carbomer 940 (Carbopol 940)	0.50
ALOE VERAGEL (VERAGEL Liquid 1:1)	50.00
Water	11.00
Polyquaternium-6 (Merquat 100)	1.50
B.	
Mineral oil/lanolin oil (Amerchol L-101)	5.00
Decyl oleate	3.50
PEG-20 stearate	3.00
C.	
Triethanolamine	0.50
Ethanol SDA 40	25.00
Fragrance, color and preservative	q.s.

Soothing and cooling effect on minor sunburned skin.

AFTER-TAN MOISTURIZER

INGREDIENTS	% By Weight
A.	
Water	67.15
ALOE VERAGEL Liquid 1:10	5.0
Propylene glycol	5.0
Tween 70	3.0
Triethanolamine 99	1.0
Butylparaben	0.05
Methylparaben	0.35
Propylparaben	0.1
B.	
Mineral oil, light	9.0
Stearic acid	4.0
Glyceryl stearate	1.5
Cetyl alcohol	1.0
Synthetic spermaceti wax	1.0
Wecobee 8	0.5
Silicone 200 fluid	0.5
Solulan 98	0.5
C.	
DMDMH-55	0.2
Fragrance	0.15

Procedure:

1. Heat A and B to 80C.
2. Add B to A while mixing.
3. Cool while mixing to 45C.; add fragrance and DMDMH (C) while mixing.
4. Cool to 37C.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

AFTERSUN MOUSSE

INGREDIENTS:	% By Weight
Oil Phase:	
CRODAMOL W (Stearyl Heptanoate)	5.0
Robane	2.0
POLAWAX (Emulsifying Wax NF)	4.0
Dimethicone 100 csk	0.5
Water Phase:	
Deionized water	87.67
Carbopol 941	0.13
ALOE VERAGEL 200 Powder	0.5
Triethanolamine	to pH 6.5
Perfume, preservatives	q.s.
Allantoin	0.2

Procedure:

Combine oil phase and heat to 75C. Combine water phase and heat to 75C. Add water phase to oil phase with mixing. Cool. At 50C adjust pH. Cool to room temperature and fill.

Fill: 90% Concentrate. 10% Propellant A46.

SOLAR TANNING OIL MOUSSE

INGREDIENTS:	% By Weight
A.	
Ross Base Oil 2539	62.3
Escalol 507	5.0
Arlacel 60	3.0
Tween 60	4.0
B.	
ALOE VERA Liquid 1:1	10.0
Water	14.7
Germaben II	1.0
Fragrance	q.s.

Procedure:

Heat Part A and Part B in separate stainless steel vessels under gentle agitation to 170F. When temperature is reached and both are clear add Part B to Part A. Cool to 120F, fragrance and package.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

AFTER-SUN SOOTHING LOTION (O/W)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	1.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
Stearic acid T.P. (CTFA: Stearic Acid)	3.00
Sweet almond oil (stabilized) (CTFA: Sweet Almond Oil)	2.50
Cetiol A (CTFA: Hexyl Laurate)	8.00
DELTYL EXTRA (CTFA: Isopropyl Myristate)	3.00
Silicone fluid DC 200/200 cs (CTFA: Dimethicone)	1.00
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
c)	
d-PANTHENOL (CTFA: Panthenol)	2.00
Allantoin (CTFA: Allantoin)	0.30
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
Deionized water	73.05
d)	
Perfume, preservatives, deionized water	q.s. to 100

AFTER-SUN MOISTURIZING LOTION (O/W)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	1.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	0.50
GLYCERYL MONOMYRISTATE (CTFA: Glyceryl Myristate)	5.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	2.00
Silicone fluid DC 200/200 cs (CTFA: Dimethicone)	1.00
Hydrogenated peanut oil (CTFA: Hydrogenated Peanut Oil)	2.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
c)	
d-PANTHENOL (CTFA: Panthenol)	5.00
Urea (CTFA: Urea)	5.00
Sorbitol (70%) (CTFA: Sorbitol)	3.00
Allantoin (CTFA: Allantoin)	0.30
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
Propylene glycol (CTFA: Propylene Glycol)	3.00
Deionized water	66.60
d)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

ALOE SUNTAN LOTION

INGREDIENTS	% By Weight
A.	
Water	q.s.
Glycerin	4.0
GLUCAMATE SSE-20	1.5
Carbopol 934	0.15
Preservatives	q.s.
B.	
GLUCATE-SS	1.5
Cetyl alcohol	1.0
Cetyl palmitate	1.0
Glyceryl stearate	0.22
P.E.G. 100 stearate	0.28
Stearic acid	4.0
Escalol 507	4.0
Mineral oil	5.0
C.	
Witco A.M.P.-95	0.32
D.	
ALOE VERAGEL Liquid 1:1	10.0

ALOE SUNTAN LOTION

INGREDIENTS:	% By Weight
A.	
Water	Q.S.
Glycerin	4.0
GLUCAMATE SSG-20	1.5
Carbopol 934	0.1
Preservatives	Q.S.
B.	
GLUCATE-SS	1.5
Cetyl alcohol	1.0
Cetyl palmitate	1.0
Glyceryl stearate	0.22
P.E.G. 100 stearate	0.28
Stearic acid	4.0
Escalol 507	4.0
Mineral oil	5.0
C.	
A.M.P.- 95	0.32
D.	
ALOE VERAGEL 200 Powder	0.1
Water	9.9

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

ANIONIC SUNTAN CREAM LOTION
Approximate SPF: 4

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT MN	10.00
EMULSYNT 1055	3.00
CERAPHYL 368	6.00
ESCALOL 507	3.00
Cetyl Alcohol	0.75
Dow Corning 200 Fluid (100 cs)	0.75
Propylparaben	0.10
Stearic Acid XXX	4.00
Phase B:	
Water, deionized	64.95
Triethanolamine 88%	2.00
Glycerine	5.00
Glydant	0.25
Methylparaben	0.20

Formulation #H75-25-1

ANIONIC SUNTAN CREAM LOTION
Approximate SPF: 6

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT MN	10.00
EMULSYNT 1055	3.00
CERAPHYL 368	6.00
ESCALOL 507	5.00
Cetyl Alcohol	0.75
Dow Corning 200 Fluid (100 cs)	0.75
Propylparaben	0.10
Stearic Acid XXX	4.00
Phase B:	
Water, deionized	62.95
Triethanolamine 88%	2.00
Glycerine	5.00
Glydant	0.25
Methylparaben	0.20

Formulation #H75-25-2

Procedure:

Heat Phases A and B with mixing to 80C. Add Phase A slowly to Phase B (which is mixing) at 80C and continue to mix for ten minutes. Cool and mix to 45C and add the perfume. Continue cooling to 25-28C (avoid aeration).

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

ANIONIC SUNTAN CREAM LOTION
Approximate SPF: 8

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT MN	10.00
EMULSYNT 1055	3.00
CERAPHYL 368	6.00
ESCALOL 507	4.00
ESCALOL 567	2.00
Cetyl Alcohol	0.75
Dow Corning 200 Fluid (100 cs)	0.75
Propylparaben	0.10
Stearic Acid XXX	4.00
Phase B:	
Water, deionized	61.95
Triethanolamine 88%	2.00
Glycerine	5.00
Glydant	0.25
Methylparaben	0.20

Formulation #H75-25-3

ANIONIC SUNTAN CREAM LOTION
Approximate SPF: 12

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT MN	10.00
EMULSYNT 1055	3.00
CERAPHYL 368	6.00
ESCALOL 507	5.00
ESCALOL 567	2.50
Cetyl Alcohol	0.75
Dow Corning 200 Fluid (100 cs)	0.75
Propylparaben	0.10
Stearic Acid XXX	4.00
Phase B:	
Water, deionized	60.45
Triethanolamine 88%	2.00
Glycerine	5.00
Glydant	0.25
Methylparaben	0.20

Formulation #H75-25-4

Procedure

Heat Phases A and B with mixing to 80C. Add Phase A slowly to Phase B (which is mixing) at 80C and continue to mix for ten minutes. Cool and mix to 45C and add the perfume. Continue cooling to 25-28C (avoid aeration).

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

ANIONIC SUNTAN CREAM LOTION
Approximate SPF: 15

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT MN	10.00
EMULSYNT 1055	3.00
CERAPHYL 368	6.00
ESCALOL 507	7.00
ESCALOL 567	3.00
Cetyl Alcohol	0.75
Dow Corning 200 Fluid (100 cs)	0.75
Propylparaben	0.10
Stearic Acid XXX	4.00
Phase B:	
Water, deionized	57.95
Triethanolamine 88%	2.00
Glycerine	5.00
Glydant	0.25
Methylparaben	0.20
Formulation #H75-25-5	

SUNTAN LOTION

RAW MATERIALS	% By Weight
Phase A:	
ESCALOL 507	3.25
CERAPHYL 424	1.00
CERAPHYL 375	3.00
CERASYNT SD	3.50
Myrj 52 (or 52S)	1.50
Promulgen D	1.50
Cetyl Alcohol	0.50-1.00(n)
Phase B:	
Water, deionized	55.65-55.15
Cellosize QP 4400 (2% Aq.)	25.00
CERAPHYL 60	2.00
Propylene Glycol	3.00
BTC 2125M	0.10
Phase C:	
Color & Perfume	q.s.

Procedure:

Heat Phases A and B to 80C, mixing each phase well to make sure that it is uniform. Add Phase A to Phase B at 80C and cool with continuous agitation to 50C. Add Phase C and cool further to 25-28C.

(n) - the more cetyl alcohol used, the thicker the lotion will be. The expected SPF for this formulation should be 4.

Formulation #A60-17-1

SOURCE: Van Dyk: The Formulation of a Sunscreen Product: Formulas

APRES TAN/SUN MOISTURIZER

RAW MATERIALS	% By Weight
Sequence 1:	
LIPOMULSE 165	3.00
Isostearic Acid	2.00
LIPOSORB P-20	0.80
LIPOSORB P	1.30
Silicone 200 Fluid (100 cts)	0.40
Isopropyl Lanolate	0.80
Shea Butter	3.00
LIPOVOL SUN	1.00
LIPONATE IPP	4.00
Propylparaben	0.10
Vitamin Acetate	0.10
Sequence 2:	
ORGASOL 2002D Ex. Nat. Cos.	1.00
Sequence 3:	
Water	58.75
Propylene Glycol	6.00
ALOE VERA Gel	5.00
Methylparaben	0.30
UNICIDE U-13	0.30
Trisodium EDTA	0.05
Allantoin	0.10
Carbopol 940 (2% aq. sol'n)	10.00
Sequence 4:	
Water	1.00
Triethanolamine, 99%	0.65
Sequence 5:	
Fragrance	0.35

Manufacturing Procedure:

1. In a side kettle, combine Sequence 1 ingredients and heat to 78C with Lightnin' mixing. Add Sequence 2 ingredient and disperse.
2. In the main kettle, combine the Sequence 3 ingredients and heat to 75C with Lightnin' mixing.
3. Add the combined Sequences 1 and 2 to Sequence 3 and mix for 15 minutes or until the emulsification is complete. Cool to 70C.
4. Add premixed Sequence 4 ingredients and disperse thoroughly. Continue cooling.
5. When batch is at 50-55C or begins to thicken, switch to the variable speed side-wiping mixer.
6. Cool to 40C and add Sequence 5.
7. Cool to 25C and package.

SOURCE: Lipo Chemicals Inc.: Formulation No. 304

APRES TAN/SUN MOISTURIZER WITH UNIPERTAN P-24

RAW MATERIALS

% By Weight

Sequence 1:	
LIPOMULSE 165	3.00
Stearic Acid 132	3.25
LIPOSORB P-20	0.80
LIPOSORB P	1.30
Silicone 200 Fluid (100 cts.)	0.40
Isopropyl Lanolate	0.80
Shea Butter	3.00
LIPVOL SUN	1.00
LIPONATE IPP	4.00
Propylparaben	0.10
Vitamin Acetate	0.10
Sequence 2:	
ORGASOL 2002D Ex. Nat. Cos.	1.00
Sequence 3:	
Water	52.50
ALOE VERA Gel	5.00
Propylene Glycol	6.00
Methylparaben	0.30
UNICIDE U-13	0.30
Trisodium EDTA	0.05
Allantoin	0.10
Carbopol 940 (2% aq. sol'n)	10.00
Sequence 4:	
Water	1.00
Triethanolamine, 99%	0.65
Sequence 5:	
UNIPERTAN P-24	5.00
Sequence 6:	
Fragrance	0.35
Sequence 7:	
Phosphoric Acid 10% to pH 5.4-5.8	q.s.

Manufacturing Procedure:

1. In a side kettle, combine Sequence 1 ingredients and heat to 78C with Lightnin' mixing. Add Sequence 2 ingredient and disperse.
2. In the main kettle, combine the Sequence 3 ingredients and heat to 75C with Lightnin' mixing.
3. Add the combined Sequences 1 and 2 to Sequence 3 and mix for 15 minutes or until the emulsification is complete. Cool to 70C.
4. Add premixed Sequence 4 ingredients and disperse thoroughly.
5. Add Sequence 5 and disperse thoroughly. Continue cooling.
6. When batch is at 50-55C or begins to thicken, switch to the variable speed side-wiping mixer.
7. Cool to 40C and add Sequence 6.
8. Cool to 30C and adjust pH to 5.4-5.8 with Sequence 7 ingredient.
9. Cool to 25C and package.

SOURCE: Lipo Chemicals, Inc.: Formulation No. 305

'BODY GLAZE' SUNSCREEN SPF 15

INGREDIENTS	% By Weight
A.	
Deionized Water	73.1
Carbomer 1342	0.5
Propylene Glycol	1.0
Methylparaben	2.0
B.	
Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
Cetyl Alcohol	0.5
Lanolin	1.0
Octyl Dimethyl PABA	7.0
Octyl Methoxy Cinnamate	2.0
Benzophenone-3	3.0
C.	
Triethanolamine	0.8
D.	
SOLLAGEN	3.0
E.	
Dimethicone	1.0
Diazolidinyl Urea	0.3
Aloe Vera	1.0
Fragrance	1.0

'BODY GLAZE' SUNSCREEN SPF 15

INGREDIENTS	% By Weight
A.	
Deionized Water	73.1
Carbomer 1342	0.5
Propylene Glycol	1.0
Methylparaben	0.2
B.	
Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
Cetyl Alcohol	0.5
Lanolin	1.0
Octyl Dimethyl PABA	7.0
Octyl Methoxy Cinnamate	2.0
Benzophenone-3	3.0
C.	
Triethanolamine	0.8
D.	
PEPTEIN CAA	3.0
E.	
Dimethicone	1.0
Diazolidinyl Urea	0.3
Aloe Vera	1.0
Fragrance	0.1

BROAD SPECTRUM SUNSCREEN LOTION(O/W)
(expected SPF 11)

RAW MATERIALS	%W/W
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	2.00
Stearic acid T.P. (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.00
Silicone 556 (CTFA: Phenyl Dimethicone)	0.30
Cetiol LC (CTFA: Coco-Caprylate/Caprate)	6.00
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
Deionized water	45.00
Carbopol 940 dispersion (2%) (CTFA: Carbomer 940)	5.00
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
d)	
Deionized water	20.00
Propylene glycol (CTFA: Propylene Glycol)	5.00
Triethanolamine (99%) (CTFA: Triethanolamine)	0.10
e)	
Perfume, preservatives, deionized water	q.s. to 100

VITAMINIZED BROAD SPECTRUM SUNSCREEN LOTION (O/W)
(SPF 14 FDA/OTC Method)

RAW MATERIALS	% By Weight
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	2.00
Uvinul M-40 (CTFA: Benzophenone-3)	4.50
Stearic acid T.P. (CTFA: Stearic Acid)	4.00
CETYL ALCOHOL EXTRA (CTFA: Cetyl Alcohol)	1.00
Silicone 556 (CTFA: Phenyl Dimethicone)	0.30
Cetiol LC (CTFA: Coco-Caprylate/Caprate)	2.50
Butylated hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.00
c)	
d-PANTHENOL (CTFA: Panthenol)	1.00
Sequestrene Na2 (CTFA: Disodium EDTA)	0.10
Deionized water	42.95
Carbopol 940 dispersion (2%) (CTFA: Carbomer 940)	5.00
d)	
Deionized water	20.00
Propylene glycol (CTFA: Propylene Glycol)	5.00
Triethanolamine (99%) (CTFA: Triethanolamine)	0.10
e)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: AMPHISOL: Suggested Formulations

CATIONIC SUNTAN CREAM LOTION

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT SD	3.50
CERASYNT 303	1.00
CERAPHYL 847	4.00
ESCALOL 507	5.00
Cetyl Alcohol	1.00
Silicone 200 Fluid (100 cs)	1.00
Propylparaben	0.10
Phase B:	
Water, deionized	79.30
Natrosol 250 HR	0.50
Lactic Acid 88%	0.40
Glycerine	3.00
CERAPHYL 70	1.00
Methylparaben	0.20

Procedure:

Completely pre-disperse Natrosol in water, then add the rest of the ingredients of Phase B. Heat Phases A and B at 80C. Add Phase A slowly to Phase B with constant agitation at 80C and cool with continuous stirring to 25-28C.

Notes:

- A thinner viscosity can be obtained by replacing the CERASYNT 303 with FOAMOLE B.
 - Viscosity goes from 5,000 cps initially to 40,000 cps after three months. The emulsion stability is excellent and the suntan evaluation curve is favorable.
 - The expected SPF for this formulation should be 5-6.
- Formulation #A66-12-4A

SUNTAN LOTION - SPF4

RAW MATERIALS	% By Weight
Phase A:	
Water, Deionized	77.25
Carbopol 934 (2% Solution)	7.50
Mineral Oil	3.00
CERASYNT Q	3.00
CERAPHYL 424	1.00
Escalol 507	3.50
Dow Corning 200 Fluid	1.00
Propylene Glycol	2.00
Phase B:	
NaOH (10% Solution)	0.50
Phase C:	
Aloe Vera Gel	0.10
Phase D:	
Germaben II	1.00
Perfume	0.15

Formulation #F80-12-3

SOURCE: Van Dyk: The Formulation of a Sunscreen Product: Formulas

CHAP STICK OR LIP BALM

RAW MATERIALS	Parts by Weight
Hoechst Wax S	13.0
Hydrogenated Castor Wax	7.0
Protopet Petrolatum	10.0
Carnation White Mineral Oil	50.0
WITCONOL APM (PPG-3 Myristyl Ether)	20.0

Heat all ingredients to approximately 70C with mild agitation until clear. Pour solution into molds and allow to cool. Start cooling at ambient temperatures or forced cooling with refrigeration can be used without materially affecting hardness or payout.

To increase payout, wax content can be decreased by several percent and the difference made up with petrolatum.

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Formulation 140C

LIP CARE STICK WITH SUN SCREEN

RAW MATERIALS	% By Weight
SOFTISAN 649	6.0
SOFTISAN 100	35.0
MIGLYOL 812 Neutral Oil	13.5
DYNACERIN 660	3.0
Beeswax	12.0
Hard paraffin	15.5
White soft paraffin	10.0
Neo-Heliopan E1000	5.0
Antioxidants	q.s.
Perfume oil	q.s.

Preparation:

All ingredients are mixed, heated until dissolved and then stirred until cold to a creamy consistency. Then the perfume is added and the mixture is poured into moulds.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 4.4.1

ROLL-ON LIP PROTECTOR

RAW MATERIALS	% By Weight
Oppanol B3	70.0
LUVITOL EHO	29.9
Aroma oil	0.1

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

CLEAR LIQUID SUNBLOCK 15
SPF 15
 CL 9-145-02

INGREDIENTS	% By Weight
VELSAN D8P-3 (isopropyl PPG-2 Isodeceth-7-carboxylate)	10.0
Spectrasorb UV 9 (Benzophenone-3)	3.0
SD Alcohol 40	25.0
Neobee M-20 (Propylene Glycol Dicaprylate/Dicaprate)	5.0
Escalol 507 (octyldimethyl PABA)	7.0
Dow 344 Fluid (cyclomethicone)	50.0

CLEAR LIQUID SUNBLOCK 15
SPF 20-25
 CL 9-145-03

INGREDIENTS	% By Weight
VELSAN D8P-3 (isopropyl PPG-2 Isodeceth-7-carboxylate)	10.0
Spectrasorb UV 9 (Benzophenone-3)	6.0
SD Alcohol 40	24.1
Neobee M-20 (Propylene Glycol Dicaprylate/Dicaprate)	4.6
Escalol 507 (octyldimethyl PABA)	7.0
Dow 344 Fluid (cyclomethicone)	48.3

Hard-to-dissolve benzophenone-3 instantly solubilizes in VELSAN D8P-3 to produce these cold mix sunblocks similar to the popular Pre Sun Product. VELSAN D8P-3 imparts an excellent non-greasy afterfeel to this formula.

Procedure:

Dissolve benzophenone-3 into the VELSAN D8P-3. Add rest of the ingredients in any convenient order and mix to homogeneity.

SOURCE: Sandoz Chemicals: VELSAN: Formulation No. CSS-01

CREAM S-1001

RAW MATERIALS	% By Weight
Oil Phase:	
Coconut oil	7.0
AMERCHOL CAB	2.0
Stearic acid, xxx	5.0
Glyceryl stearate	8.5
AMERSCREEN P	5.0
GLUCATE SS	1.0
GLUCAMATE SSE-20	1.0
Water Phase:	
Water	67.5
GLUCAM E-10	2.0
Triethanolamine	1.0
Perfume and preservative	q.s.

Elegant, nongreasy cream. Designed to provide maximal protection.

Estimated SPF: 10-12

For "extra" protection (SPF-6), use 3.0-3.5% AMERSCREEN P.

For marketing preference, replace coconut oil with cocoa butter.

CREAM S-1002

RAW MATERIALS	% By Weight
Oil Phase:	
Coconut oil	5.0
SOLULAN PB-20	3.0
PROPAL	5.0
Myristyl alcohol	2.0
OHLAN	1.0
GLUCATE SS	3.0
GLUCAMATE SSE-20	3.0
ACETULAN	0.5
AMERSCREEN P	3.0
Arlacel 165	5.0
AMERCHOL L-101	10.0
Water Phase:	
Water	58.0
GLUCAM E-20	1.5
Perfume and preservative	q.s.

Soft, elegant, nonionic cream.

Estimated SPF: 6

For greater lubricity, replace part of PROPAL with AMERLATE P.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

CREAM S-1003

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	3.0
GLUCATE SS	3.0
Stearamide MEA-Stearate	2.0
PROMULGEN G	8.0
SOLULAN 75	1.0
SOLULAN 98	3.0
AMERCHOL BL	1.0
Water Phase:	
Water	76.0
GLUCAMATE SSE-20	3.0
Perfume and preservative	q.s.

Description:

Very soft, nonionic cream. Low oil content. Good rub-in, light residue.

Estimated SPF: 5-6

Procedure:

Heat both phases to 85C. Add water to oil phase with stirring. Stir and cool to 45C, add perfume. Stir to 30C.

Variations:

For moderate protection (SPF-4), use 2% AMERSCREEN P.

CREAM S-1004

Oil Phase:	
Myristyl alcohol	3.0
AMERSCREEN P	1.5
GLUCATE SS	4.0
Stearamide MEA-Stearate	2.0
SOLULAN 5	3.0
Water Phase:	
GLUCAMATE SSE-20	4.0
Water	82.5
Perfume and preservative	q.s.

Description:

Soft cream. Good emollient. Suitable for tube dispensing.

Estimated SPF: 3-4

Description:

Heat both phases to 85C. Add water to oil phase with stirring. Cool and stir to 45C, add perfume. Stir to 32C.

Variations:

For increased body, add GLUCAM E-20 to water phase.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

CREAM S-1005

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	3.0
Stearic acid, xxx	2.7
AMERLATE P	6.0
CETAL	3.0
PROMYR	7.5
Glyceryl stearate	4.0
PROMULGEN G	5.0
Water Phase:	
Water	64.5
Triethanolamine	1.3
GLUCAM E-20	3.0
Perfume and preservative	q.s.

Description:

Soft, moisturizing cream with excellent dry rub-in. Lubricating skin treatment due to AMERLATE P.

Estimated SPF: 6

Variations:

For moderate protection (SPF 4), use 2% AMERSCREEN P

CREAM S-1006M

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	3.0
WITCONOL APM	5.0
OHLAN	3.0
GLUCATE SS	4.1
AMERCHOL L-101	5.0
Arlacel 165	5.0
Coconut oil	5.0
Water Phase:	
GLUCAMATE SSE-20	0.9
GLUCAM E-20	2.5
Water	66.5
Perfume and preservative	q.s.

Description:

Soft, nonionic cream. Leaves light, nontacky residual emollient film.

Estimated SPF: 5-6

Variations:

For reduced oiliness, add 1% ACETULAN.

For firmer consistency, replace coconut oil with cocoa butter.

For maximal protection (SPF-8), increase AMERSCREEN P to 4.5-5.0%

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

CREAM S-1007

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	2.0
Stearic acid, xxx	4.0
Dehydag Wax SX	1.0
Myristyl alcohol	1.0
MODULAN	2.0
AMERCHOL L-101	2.0
ACETULAN	1.5
PROMYR	1.5
AMERLATE P	1.5
Water Phase:	
Carbopol 940, 3% slurry in water	7.0
Triethanolamine	1.0
Water	75.5
Perfume and preservative	q.s.

Soft cream. Excellent emollient. AMERCHOL L-101 and MODULAN major moisturizers. AMERLATE P serves as moisturizer and lubricant. ACETULAN and PROMYR serves as moisturizers and produce dry rub-in.

Estimated SPF: 4-5

For firmer consistency, replace AMERCHOL L-101 with AMERCHOL CAB.

To liquefy, replace stearic acid with AMERLATE LFA.

CREAM S-1008

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	2.00
SOLULAN PB-2	5.00
SOLULAN PB-20	10.00
PROPAL	10.00
Arlacel 165	1.00
Water Phase:	
Carbopol 934	0.75
Water	65.25
Sodium hydroxide, 10% in water	2.25
Ethomeen C-25, 10% in water	3.75
Perfume and preservative	q.s.

Soft glossy cream. Liquefies on application to soothing emollient film. SOLULAN PB-2 and PB-20 provide water-resistant conditioning film.

Estimated SPF: 4-5

For more lubricity, replace part of PROPAL with AMERLATE P.

For firmer consistency, add CETAL to oil phase.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

CREAM S-1009

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	2.0
ACETULAN	2.0
SOLULAN PB-10	8.2
Stearic acid, xxx	22.8
AMERLATE P	2.5
PROPAL	2.5
Water Phase:	
GLUCAM E-10	4.0
Triethanolamine	1.2
Water	54.8
Perfume and preservative	q.s.

Description:

Pearlescent, soft vanishing cream. SOLULAN PB-10 and ACETULAN provide velvety feel with no oiliness. AMERLATE P provides lubricity.

Estimated SPF: 4

Variations:

For minimal protection (SPF-2), reduce AMERSCREEN P to 1.0-1.5%.

For extra protection (SPF-6), increase AMERSCREEN P to 3.0-3.5%

SOURCE: Amerchol Corp.: Sunscreens: Formulation Cream S-1009

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P (Ethyl Dihydroxypropyl PABA)	3.0
PPG-3 Myristyl Ether	5.0
OHLAN (Hydroxylated Lanolin)	3.0
GLUCATE SS (Methyl Glucose Sesquistearate)	4.1
AMERCHOL L-101 (Mineral Oil and Lanolin Alcohol)	5.0
Glyceryl Stearate and PEG-100 Stearate	5.0
Coconut Oil	5.0
Water Phase:	
GLUCAM E-20	2.5
GLUCAMATE SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	0.9
Water	66.5
Perfume and Preservative	q.s.

Soft, nonionic, glossy sunscreen cream. Residual emollient film while also providing humectancy. Additional stability. Dry rub in.

SOURCE: Amerchol Corp.: GLUCAM: Formulation T50-38-1

EXTRA RICH SUNTAN LOTION NO. 174

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	86.0
Propylene glycol	3.0
B.	
Stearic acid xxx	2.0
Dow Corning 556 Fluid	1.0
Cetyl alcohol	0.5
Acetulan	4.0
Giv-Tan F	2.0
Triethanolamine	0.5
Preservative	q.s.

Consistency: Flowable lotion.

Suggested Packaging: Opaque squeeze or pump bottle.

Comments: Greaseless, silky feeling lotion. Good water resistance. The sunscreen is estimated to provide a SPF in the 2-4 range. The base would be suitable for use with other sunscreen agents.

WATER-IN-OIL SUNTAN STICK NO. 330

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	40.0
Glycerin	3.0
B.	
Mineral Oil	12.5
Acetulan	5.0
Dow Corning 200 Fluid (350 cs)	5.0
Petrolatum	4.0
Paraffin	20.0
Stearic acid xxx	4.0
Giv-Tan F	2.0
Pationic CSL	3.0
Witcamide 511C	0.5
Preservative	q.s.

Consistency: Firm stick.

Suggested Packaging: Opaque push or twist action dispenser.

Comments: Incorporation of a high water level. This provides lower cost compared to conventional anhydrous sticks. The stick applies smoothly, leaving an emollient, water repellent film. The approximate SPF should be in the 2-4 range.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

FACE BRONZER WITH SUN SCREEN CC-101

RAW MATERIALS	% By Weight
Part A:	
Water	52.9
Carbomer 940	0.5
Glydant	0.4
Dehydroacetic Acid	0.1
Sodium Hydroxide (40%)	0.4
Glycerin	5.0
Part B:	
Promulgen G	2.2
Arlacel 165	5.0
Cetyl Alcohol	0.6
Isopropyl Isostearate	3.9
Mineral Oil	7.5
Myristyl Lactate	0.5
Octyl Methoxy Cinnamate	7.0
Benzophenone-3	4.0
Part C:	
Timica Gold Sparkle	5.0
Part D:	
SS-4267	3.0
SS-1214	2.0

Comments:

- Reduce greasiness by replacing isopropyl isostearate with SF-1202.
- Increase water resistance by increasing the SS-4267.
- Increase viscosity by decreasing the glycerine.

SOURCE: GE Silicones: Personal Care Formulary: Formula CC-101

SUN BRONZING LOTION

RAW MATERIALS	% By Weight
Emulgin B1	2.0000
Emulgin B2	2.5000
Cutina MD	4.0000
UVISORB DMO	5.0000
White Petrolatum	2.0000
Isopropyl Myristate	5.0000
Vitamin E Acetate	0.0150
TRI-SEPT P	0.1000
DeminerIALIZED Water	71.5350
DC 193 Surfactant	1.0000
ACRISINT 400	0.3500
SUNTAN BIOACTIVATOR AMI	5.0000
TRI-SEPT M	0.2000
ABIOL	0.2000
TEA 99%	0.9000
Perfume	0.2000

SOURCE: TRI-K Industries, Inc.: Formulation Code AMI.016.

GEL S-1015

RAW MATERIALS:	% By Weight
Phase A:	
AMERCHOL L-101	5.0
AMERLATE P	1.0
Carbowax 1540	3.0
AMERSCREEN P	3.0
Phase B:	
Carbopol 934, 3% slurry in water	16.0
Water	41.5
Triethanolamine	0.5
Specially denatured alcohol #40	30.0
Perfume	q.s.

Description:

Very soft, hydroalcoholic cream gel with Carbopol suspending system and AMERCHOL L-101 and AMERLATE P emollient. Pleasant rub-in, good residual feel.

Estimated SPF: 4-6

Variations:

For firmer consistency, replace part of AMERCHOL L-101 with AMERCHOL CAB.

For more nonoily residual feel, add GLUCAM P-20 to Phase B.

GEL S-1016

RAW MATERIALS	% By Weight
Phase A:	
Carbopol 940, 3% slurry in water	25.0
Water	22.5
Triethanolamine, 10% in water	7.5
Phase B:	
AMERSCREEN P	5.0
Propylene glycol	20.0
Specially denatured alcohol #40	20.0
Perfume and preservative	q.s.

Description:

Clear, transparent, hydroalcoholic, mobile gel. Pleasant feel, dry rub-in.

Estimated SPF: 8-10

Variations:

For SPF of 5-6, use 3% AMERSCREEN P.

For dry film residue, replace part of propylene glycol with GLUCAM P-10.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

GELLED ALOE VERA WITH SUNSCREEN

INGREDIENTS:	% By Weight
A.	
DI Water	81.18
Carbopol 940	0.92
ALOE VERAGEL Liquid 1:10	2.3
B.	
Triethanolamine	
C.	
DI Water	10.0
Phenylbenzenimidazole Sulfonic Acid	2.0
Triethanolamine	7.0
	to pH
D.	
DMDM Hydantoin	0.3
E.	
Disodium EDTA	0.1

Procedure:

Disperse Carbopol resin into water (under high agitation). Add ALOE VERAGEL extract. Neutralize with triethanolamine. Combine C, add triethanolamine to adjust pH to 7.0. Add C to neutralized A (moderate agitation). Add preservative and chelating agent.

AFTER SUN GEL WITH ALOE

INGREDIENTS:	% By Weight
A.	
Deionized Water	87.95
Carbomer 940	0.80
LEXGARD M	0.15
LEXGARD P	0.05
B.	
LEXOL PG 900	4.00
LEXEIN X250	2.00
Glycerin	1.00
Citric Acid (Granular)	0.20
C.	
ALOE VERA Liquid 40:1	2.25
D.	
TEA (99%)	1.60

Procedure:

Disperse Carbomer 940 in water. Heat to 70-75C, add and dissolve LEXGARD M and LEXGARD P with agitation. Cool down and maintain temperature at 55C, add Part B and Part C with mixing and neutralize with TEA to pH 7.0.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

LIGHT OIL SUN SCREEN SS-102

RAW MATERIALS	% By Weight
Part A:	
SF-1202	50.0
SD Alcohol 40B (200 proof)	40.7
Octyl Dimethyl PABA	3.3
Part B:	
SS-4230	6.0

Procedure:

- 1) Mix Part A at room temperature.
- 2) Add Part B with continued mixing until completely dissolved.

Comments:

- For more rapid evaporation, all or part of the SF-1202 can be replaced with SF-1173.
- For increased SPF, add 3% benzophenone-3.

MOISTURIZER WITH SUN SCREEN SP-103

RAW MATERIALS	% By Weight
Part A:	
Petrolatum	0.88
Cetyl Alcohol	0.88
Stearic Acid	0.88
PEG-8 Stearate	0.88
Arlacel 165	0.44
SF-96 (100)	0.29
Finesolv TN	1.54
Lecithin	0.88
Tenox-6	q.s.
Part B:	
Water	82.42
Carbopol 940	0.23
Disodium EDTA	0.05
Methyl Paraben	0.22
Part C:	
Octyl Dimethyl PABA	3.60
SS-4267	2.22
SF-1204	4.50
Part D:	
Sodium Hydroxide	0.09

Comments:

- Part D may be added at 60C or below before the addition of Part C.
- If the SPF is increased with benzophenone-3, slurry it separately with SS-4267. This procedure increases the water resistance of the sunscreen in the formulation.
- Preservative effect may be increased by using 0.8% Germaben II-E (and target pH at 4.9).

SOURCE: GE Silicones: Personal Care Formulary: Formulations

LIP BALM S-1026

RAW MATERIALS	% By Weight
AMERSCREEN P	1.0
Castor oil	49.0
ACETULAN	4.0
PROPAL	11.0
AMERLATE P	10.0
Beeswax	9.0
Ozokerite	5.0
Candelilla wax	7.0
Carnauba wax	4.0
Perfume	q.s.

Description:

Firm lip balm stick. Nonpigmented protection for lips.

ACETULAN offers velvety feel. AMERLATE P provides lubricity.

Estimated SPF: 2

Variations:

For SPF of 4, use 2% AMERSCREEN P.

LIPSTICK T32-68-1M

RAW MATERIALS	% By Weight
Pigment Concentrate:	
OHLAN	5.2
AMERLATE P	5.0
PROPAL	14.8
Pigment	3.2
Base:	
AMERSCREEN P	1.0
Beeswax, USP	6.8
Candelilla wax	7.3
Carnauba wax	3.1
Ozokerite	5.7
Castor oil	37.5
Myristyl lactate	10.4
Perfume and preservative	q.s.

Description:

Modern bright red stick deposits a glossy, transparent, protective film. OHLAN and AMERLATE P wet and disperse the pigments for optimum shade development and contribute emollience.

Estimated SPF: 2

Variations:

For SPF of 4, use 2% AMERSCREEN P.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

LOTION S-1012

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	3.0
AMERCHOL L-101	4.2
Mineral oil, 70 wt.	10.2
ACETULAN	2.5
PROMYR	8.5
Glyceryl stearate	4.2
AMEROXOL LE-23	4.2
CETAL	0.5
Stearic acid, xxx	2.5
Water Phase:	
Water	40.8
Tween 20	1.7
Carbopol 934, 3% slurry in water	8.5
Triethanolamine, 10% in water	9.2
Perfume and preservative	q.s.

High viscosity, flowing lotion. Good moisturizer, leaves residual oil on skin. ACETULAN reduces oily feel.

Estimated SPF: 6

For greater lubricity, replace part of mineral oil with AMERLATE P.

For longer lasting skin treatment, replace part of mineral oil with MODULAN.

LOTION S-1013

RAW MATERIALS	% By Weight
Oil Phase:	
MODULAN	2.0
Glyceryl stearate	4.0
Stearic acid, xxx	2.5
AMERSCREEN P	1.5
GLUCATE SS	2.0
GLUCAMATE SSE-20	2.0
Water Phase:	
Water	83.5
GLUCAM E-20	2.0
Triethanolamine	0.5
Perfume and preservative	q.s.

Medium viscosity, flowing lotion. MODULAN provides moisturization and skin softening. GLUCAM E-20 provides humectancy.

Estimated SPF: 3-4

For lubricity, add AMERLATE P.

For improved spreading, add AMEROXOL OE-2

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

LOTION S-1014

RAW MATERIALS	% By Weight
Carbopol 940, 3% in water	6.5
Water	52.8
Ethomeen C-25	0.2
AMERSCREEN P	5.0
Isostearyl alcohol	5.5
Specially denatured alcohol #40	30.0
Perfume	q.s.

Description:

Unique, hydroalcoholic lotion. Alcohol and Carbopol gel system used to form medium viscosity, emulsifier-free emulsion with excellent feel.

Estimated SPF: 10

Variations:

For SPF of 6, use 3% AMERSCREEN P.

LOTION T50-177-3

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	5.0
Stearic acid	3.0
Glyceryl stearate	0.5
Benzophenone-3	5.0
Coconut oil	6.0
PPG-15 Stearyl Ether	3.5
PRODIPATE	4.0
Water Phase:	
Carbomer 934	0.3
Water	60.7
Triethanolamine, 10% aqueous	12.0
Perfume and preservatives	q.s.

Description:

Glossy, medium high viscosity lotion with a light emollient effect. AMERSCREEN P is supplemented with Benzophenone-3 for higher SPF.

Estimated SPF: 15

Variations:

For marketing preference, replace part of the coconut oil with another vegetable oil.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

LOTION T234-51-2

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	4.0
AMERCHOL L-101	1.0
PROMYR	3.0
Mineral oil, 70 vis.	5.0
Stearic acid, xxx	3.0
Glyceryl stearate	1.0
Arlamol E	3.5
Water Phase:	
Water	57.5
Carbopol 941, 3%	10.0
Triethanolamine, 10% aqueous	12.0
Perfume and preservatives	q.s.

Description:

An extra protection sunscreen for daily care of areas of the body which are continually exposed to the elements. AMERCHOL L-101 helps give the smooth appearance and good stability while contributing to the emollient effect.

Estimated SPF: 6-8

Variations:

For greater skin treatment, increase AMERCHOL L-101 and reduce mineral oil.

LOTION T50-140-1M

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSCREEN P	2.0
GLUCATE DO	1.0
Stearic acid	3.0
Mineral oil	5.0
Cocoa butter	1.0
PPG-3 Myristyl Ether	3.0
Glyceryl stearate	1.0
Water Phase:	
Carbomer 934	0.3
Water	71.7
Triethanolamine, 10% aqueous	12.0
Perfume and preservatives	q.s.

Description:

An emollient sunscreen lotion with GLUCATE DO contributing to the emollience and stability important for sunscreen products.

Estimated SPF: 4

Variations:

For higher viscosity increase the stearic acid and/or carbomer, adjust triethanolamine accordingly.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

MOISTURIZING SUNSCREEN HAIR DRESSING NO. 352

RAW MATERIALS	% By Weight
Sequence 1:	
Deionized Water	76.25
LIPONIC EG-1	20.00
UNICIDE U-13	0.10
Methylparaben	0.10
Propylparaben	0.05
Sequence 2:	
LIPOQUAT R	0.50
UNIPABOL U-17	5.00
Sequence 3:	
Lactic Acid, 88%	q.s. to pH 4.5-5.0

PRETAN GEL WITH PEARL NO. 366

INGREDIENT:	% By Weight
Sequence 1:	
Propylene Glycol	5.00
Trisodium EDTA	0.05
UNICIDE U-13	0.20
Methylparaben	0.10
Sequence 2:	
Deionized Water	27.25
UNIPERTAN P-242	5.00
Silicone 193 Surfactant	0.50
Sequence 3:	
Lubragel MS	28.00
Sequence 4:	
Carbopol 940 (2% aq. disp'n)	30.00
Sequence 5:	
LIPONIC EG-1	3.00
Triethanolamine, 99%	0.90
Sequence 6:	
Pigment*	q.s.

* A - Timiron MP-29: disperse 1.1 g in 4.0g LIPOVOL MOS-130 and add to finished product at

A/1 0.2%

A/1 0.1%

B - Timiron Lustre Pigment Gold Sparkle at 0.05%

C - Blue cholesteric ester.

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

NORMALIZING AFTER SUN LOTION WITH VITAMINS

INGREDIENTS	% By Weight
Part I:	
Emersol 132	1.60
Arlacel 165	3.80
Cetyl Alcohol	0.60
Deltyl Prime	1.50
Carnation Mineral Oil	1.50
Amerchol L-101	0.60
Propylparaben	0.10
Part II:	
Carbopol 941	0.80
Methylparaben	0.20
Propylene Glycol	2.50
dl-Panthenol, Cosmetic Grade (Code 63920)	2.00
Deionized Water	77.95
Part III:	
Triethanolamine, 98%	0.25
Alcohol SDA 40, 95%	5.00
Menthol	0.10
Perfume Oil	0.50
Part IV:	
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	1.00

Formulation SU 302

PROTECTIVE SUN TAN OIL WITH ALOE AND VITAMIN E
ESTIMATED SPF 2-4

INGREDIENTS:	% By Weight
Part I:	
Parsol 1789	1.50
Parsol MCX	2.00
Carnation Mineral Oil	40.00
Kaydol Mineral Oil	33.20
Arlamol E	10.00
Finsolv TN	10.00
Vitamin E Acetate, USP-FCC (Code 60526)	2.50
Veragel Lipoid 1:1	0.50
Propyl Parasept	0.10
Part II:	
Perfume Oil	0.20

Procedure:

Mix all ingredients in Part I and heat to 55C until clear. Remove from heat, continue mixing to room temperature. Add Part II, mix well.

Formulation SU 303

SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
Suggested Formulations

NOSE KOTE NO. 309

RAW MATERIALS	% By Weight
Sequence 1:	
Zinc Oxide/Castor Oil (50/50)	10.00
LIPOCOL C	4.00
LIPOBEE 102	6.00
Shea Butter	1.50
Petrolatum, Perfecta	15.00
Sorbic Acid	0.05
Vitamin E Acetate	0.10
Aloe Vera Oil	0.50
Dehydroacetic Acid	0.20
Benzoic Acid	0.10
LIPOVOL MOS-130	29.40
LIPONATE IPP	10.00
Sequence 2:	
ORGASOL 2003D Ex. White 5 Cos	20.00
Cab-O-Sil M5	3.00
Sequence 3:	
Fragrance	0.15

SOURCE: Lipo Chemicals Inc.: Formulation No. 309

OIL S-1022M

RAW MATERIALS	% By Weight
AMERSCREEN P	1.2
Witconol APM	30.0
ACETULAN	5.0
AMEROXOL OE-2	5.0
GLUCAM P-10	5.0
Mineral oil	53.8
Perfume oil	q.s.

Description:

Elegant oil with dry rub-in and good spreading due to ACETULAN and AMEROXOL OE-2. GLUCAM P-10 has affinity for oil and water.

Estimated SPF: 2

Procedure:

Dissolve AMERSCREEN P in Witconol APM with warming. Add all other ingredients; stir until homogeneous.

Variations:

To coordinate with deep-tanning labeling claim, add oil-soluble colors.

SOURCE: Amerchol Corp.: Sunscreens: Formulation S-1022M

OIL S-1019

RAW MATERIALS	% By Weight
AMERSCREEN P	3.0
Witconol APM	30.0
MODULAN	5.0
Mineral oil	62.0
Perfume	q.s.

Description:

Clear, light oil with some residual oily feel and skin treatment benefits due to MODULAN.

Estimated SPF: 4

Procedure:

Dissolve AMERSCREEN P in Witconol APM with warming. Add remaining ingredients, stir until homogeneous.

Variations:

To reduce oily feel, add ACETULAN.

For SPF of 2, use 1.2 to 1.5% AMERSCREEN P.

For better spreading, add AMEROXOL OE-2.

OIL S-1020M

RAW MATERIALS	% By Weight
AMERSCREEN P	3.0
Witconol APM	30.0
ACETULAN	5.0
AMERCHOL L-101	5.0
AMEROXOL OE-2	5.0
PRODIPATE	1.0
Octyl palmitate	4.0
Isodecyl oleate	1.0
Sesame oil	46.0
Perfume	q.s.

Description:

Light vegetable oil based lotion. Pleasant residual feel. Good moisturizer.

Procedure:

Dissolve AMERSCREEN P in Witconol APM with warming. Add all other ingredients. Stir until homogeneous.

Variations:

For labeling claims, substitute corn or other oils for sesame oil.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

O/W-SUN-SCREEN LOTION
Manufacturing at room temperature

RECIPE:	% By Weight
A.	
HOSTAPHAT KL 340 N	3.00
Paraffin oil, high viscosity	10.00
Isopropylpalmitate	5.00
Neo-Heliopan AV	3.00
B.	
HOSTACERIN PN 73	0.60
C.	
1,2-Propylenglycol	3.00
Water, preserving agent	75.10
D.	
Perfume	0.30

SOURCE: Hoechst Celanese Corp.: Formulation No. A VI/7001

SUNSCREEN LOTION(2252-129-C)

RAW MATERIALS	% By Weight
A.	
ACETOL 1706 Acetate Ester	10.0
EMEREST 2381 Propylene Glycol Stearate SE	5.0
NIMCO 1780 Lanolin Alcohol	0.5
Escalol 106 (Glyceryl PABA)	1.0
EMERSOL 132 Stearic Acid	2.0
Propyl paraben	0.1
B.	
DeminerIALIZED water	78.8
Propylene glycol	1.0
Triethanolamine	0.7
Methyl paraben	0.2
EMERESSENCE 1160 ROSE ETHER Phenoxyethanol	0.7

This is a creamy and high gloss sunscreen which has excellent ease of application. ACETOL 1706 Acetate Ester provides a non-greasy, elegant film which is resistant to water and perspiration, allowing the screen to remain on the skin to provide maximum protection.

Procedure:

Heat A and B separately to 75C. Add B to A with stirring. Continue stirring to cool to room temperature.

SOURCE: Emery Industries: EMERY Acetylated Lanolin Derivatives:
Formulation 2252-19-C

O/W-SUN-SCREEN-MILK

RECIPE	% By Weight
A.	
HOSTAPHAT KL340N	3.00
HOSTACERIN DGS	5.00
Mineral oil, high viscosity	6.00
Cetiol V	6.00
Avocado oil	1.00
Neo-Heliopan AV	10.00
B.	
HOSTACERIN PN 73*	0.50
C.	
Water, preservative	62.20
D.	
Perfume	0.30

* Alternative thickeners could also be used.

Formula A VI/7004

AFTER-SUN-MILK

RECIPE	% By Weight
A.	
HOSTAPHAT KL340N	3.00
HOSTACERIN DGS	6.00
Mineral oil, low viscosity	3.00
Isopropyl palmitate	3.00
Cetiol SN	3.00
Jojoba oil	3.00
B.	
HOSTACERIN PN 73*	0.60
C.	
ALLANTOIN	0.20
Glycerol	3.00
Water, preservative	70.40
D.	
Collagen	3.00
Ethyl alcohol	1.50
Perfume	0.30
E.	
B-Carotin	q.s.

* Alternative thickeners could also be used.

Formula A VI/3010

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

PROTECTIVE SUN TAN LOTION (SPF-6)

INGREDIENTS	% By Weight
Part I:	
Deionized Water	61.35
Urea, USP	1.00
Triethanolamine, 98%	1.80
Glycerin, USP	3.00
Sequestrene Na2	0.20
Methyl Parasept	0.25
Part II:	
Parsol 1789	3.00
Parsol MCX	7.50
Cetiol A	8.00
Cetiol V	3.00
Emersol 132	5.00
Lanette 14	1.00
Clearlan	1.00
Silicone 556 Fluid	0.50
Propyl Parasept	0.10
Part III:	
Vitamin E Acetate, USP-FCC (Code 60526)	3.00
Part IV:	
Perfume Oil	0.30

SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
Formulation SU 301

SUNTAN LOTION

INGREDIENTS:	% By Weight
A.	
LEXEMUL 561	4.00
Stearic Acid	2.00
Cetyl Alcohol	1.00
Mineral Oil	4.00
Sesame Oil	1.00
Laneth 10 Acetate	0.50
Ethyl Dihydroxypropyl PABA	3.00
Mink Oil	0.10
Polysorbate 20	0.20
LEXGARD P	0.05
B.	
Propylene Glycol	4.00
Carbomer 934	0.20
Triethanolamine	qs to pH 7.2-7.5
ALOE VERA Liquid 1:1	10.0
LEXGARD M	0.15
Water	qs to 100

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

SELF-ACTION TANNING CREAM-SPF 6-NO. 317

RAW MATERIALS	% By Weight
UVATONE 2-6	4.00
LIPOSORB TO-20	2.00
LIPOMULSE 165	2.50
LIPO GMS-450	0.75
LIPONATE GC	5.50
LIPOWAX P	4.60
LIPOVOL HS	2.40
Crodafos SG	1.20
LIPONATE NPGC-2	4.00
Silicone 556 fluid	4.50
Propylparaben	0.10
Dehydroacetic Acid	0.10
Veegum HV (4% aq. disp'n)	32.00
Water	14.35
Methylparaben	0.30
UNIPERTAN P-24	5.00
Keltrol (1% aq. disp'n)	4.00
Water	5.00
Dihydroxyacetone	2.75
Propylene Glycol	4.00
Fragrance	0.75
Derma Plex I	0.20

TANNING ACCELERATOR OIL WITH UNIPERTAN NO. 349A**

RAW MATERIALS	% By Weight
Sequence 1:	
UNIPERTAN P-24 or P-242	5.00
Propylene Glycol	1.75
Sequence 2:	
LIPOPHOS TA	17.00
LIPOVOL MOS-70*	35.35
Sequence 3:	
UVATONE 2-6	3.00
LIPONATE TDS	37.80
Benzoic Acid	0.05
Dehydroacetic Acid	0.05

* Patent No. 4,659,573

** Patent Applied No. 185-860

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

SELF TANNING CREAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
Lanette N	5.0
Propylene glycol	3.0
Isopropyl myristate	3.0
B.	
Hygroplex HHG	0.5
Preservative	q.s.
Water	ad 100.0
C.	
Dihydroxyacetone	5.0
Water	5.0
D.	
Perfume	q.s.
MIGLYOL 812 Neutral Oil	5.0
Carotene (synthetic)	0.04

Preparation:

A is melted and brought to 75-80C.

B is heated to the same temperature and emulsified into A.

C is dissolved and stirred in at 30C.

Finally D is mixed and stirred in.

Before filling it is beneficial to homogenize the cream.

Formulation 4.6.1

SELF TANNING LOTION

RAW MATERIALS	% By Weight
A.	
Cremophor A6	1.5
Cremophor A25	1.5
Cremophor EL	1.0
MIGLYOL 812 Neutral Oil	5.0
1,2-Propylene glycol	5.0
Cetyl alcohol	2.5
B.	
Dihydroxyacetone	5.0
Water	5.0
C.	
Preservative	q.s.
Water	ad 100.0
D.	
Perfume	q.s.

Formulation 4.6.2

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

SOLUTION S-1017

RAW MATERIALS	% By Weight
AMERSCREEN P	2.0
Specially denatured alcohol #40	49.0
GLUCAM P-10	10.0
Propylene glycol	10.0
Water	29.0
Perfume	q.s.

Description:

Clear, thin hydroalcoholic solution. GLUCAM P-10 provides pleasant dry film.

Estimated 2-4

Procedure:

Dissolve AMERSCREEN P in propylene glycol with gentle warming. At room temperature, add GLUCAM P-10, alcohol and perfume. Stir until homogeneous. Add water with stirring; mix until homogeneous.

Variations:

For high SPF, increase AMERSCREEN P and add Benzophenone-3.

SOLUTION S-1018

RAW MATERIALS	% By Weight
AMERSCREEN P	2.0
Propylene glycol	20.0
AMEROXOL OE-20	4.7
SOLULAN 16	4.7
Water	68.6
Perfume and preservative	q.s.

Description:

Clear, mobile, water-based solubilized lotion. AMEROXOL OE-20 and SOLULAN 16 serve to solubilize AMERSCREEN P and perfume.

Estimated SPF: 4

Procedure:

Dissolve AMERSCREEN P in propylene glycol with gentle warming. Add AMEROXOL OE-20 and SOLULAN 16 with gentle warming and stirring. Add perfume oil. Add entire mixture to water slowly with stirring. Stir until homogeneous.

Variations:

To solubilize more hydrophobic perfume oils, replace AMEROXOL OE-20 by AMEROXOL OE-10.

For more residual feel and fragrance retention, add GLUCAM P-20.

SOURCE: Amerchol Corp.: Sunscreens: Suggested Formulations

SUNBLOCK CREAM SPF-25 NO. 310

RAW MATERIALS	% By Weight
Sequence 1:	
LIPONATE MM	2.00
LIPONATE IPP	4.00
Spectra-Sorb UV-9	6.00
Parsol MCX	7.50
UVATONE 2-6	7.50
LIPO GMS-450	1.75
LIPOCOL S	1.50
LIPOWAX D	1.50
LIPONATE SPS	5.00
Crodafos N-10 Neut.	0.40
Propylparaben	0.10
Sequence 2:	
Deionized water	27.46
ALOE VERA Gel	0.50
Carbopol 940 (2% dis'n)	24.00
Allantoin	0.10
Propylparaben	0.05
Disodium EDTA	0.05
Methylparaben	0.30
UNICIDE U-13	0.30
Sequence 3:	
Triethanolamine, 99%	0.48
Deionized water	3.50

SUNTAN OIL SPF-2 NO. 313

RAW MATERIALS	% By Weight
KAYDOL Mineral Oil	93.359
Lanolin	0.50
LIPOVOL J	0.10
LIPOVOL ALM	0.10
LIPOVOL O	0.10
LIPOVOL C-76	0.10
Cocoa Butter	0.10
Tinuvin P	0.05
Homosalate	5.00
ALOE EXTRACT Oil Soluble	0.10
Vitamin E Acetate	0.05
Benzoic Acid	0.10
BHA	0.02
Propyl Gallate	0.01
Citric Acid	0.001
Fragrance	0.10
D&C Red #17 (0.1% M.O.)	0.20
D&C Green #6 (0.1% M.O.)	0.01

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

SUNBLOCK LOTION (APPROX. SPF 15)

INGREDIENTS	%W/W
Phase A:	
ESCALOL 557	7.50
ESCALOL 567	4.00
CERAPHYL ICA	5.00
CERAPHYL 368	5.00
Myrj 52S	2.00
CERASYNT SD	2.00
Cetyl Alcohol	0.50
Glucam P-10	1.00
Stearic Acid XXX	2.50
Phase B:	
Water, deionized	52.13
Triethanolamine 99%	0.60
Veragel 200	0.02
Propylene Glycol	4.00
Phase C:	
Carbopol 941, 2% Aq. Soln.	12.50
Phase D:	
Germaben IIE	1.00
Phase E:	
Fragrance	0.25

Procedure:

Heat Phase A and Phase B to 80C. Add Phase A to Phase B and mix for 15 minutes. Add Phase C at 80C and mix for 30 minutes. Cool to 50C, mix Phase D and Phase E into it. Cool to room temperature and package.

pH: 7.4

Formulation #P123-25-1

SUNTAN BUTTER

RAW MATERIALS	% By Weight
CERAPHYL 140-A	10.00
CERAPHYL 375	15.00
ESCALOL 507	3.25
White Petrolatum USP	10.00
Anhydrous Lanolin USP	10.00
Bentone Gellent MIO	10.00
Ozokerite #4	15.00
Mineral Oil	26.75
Perfume	q.s.

Formulation #A53-39-5

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

SUN BLOCK LOTION(OIL-IN-WATER EMULSION)
ULTRA SUNBURN PROTECTION

RAW MATERIALS	% By Weight
A.	
Tegin M	5,00
Tagat S	3,90
Lanette O	2,00
Paraffin oil approx. 65 mPas.	1,00
Myritol 318	1,50
NEO HELIOPAN Type AV 660523 H&R	7,50
NEO HELIOPAN Type BE, 116210 H&R	2,00
Cetiol MM	1,30
Abil 100	0,50
Solbrol P	0,05
B.	
Water dist. or demineralised	49,80
Carbopol 934	0,40
Solbrol M	0,15
Euxyl K 200	0,15
Sodium hydroxide, 10% solution in water	2,05
NEO HELIOPAN HYDRO 103089 H&R	10,00
Used as a 30% solution neutralised with sodium hydroxide	
C.	
Phosphoric acid, Disodium salt	0,58
Phosphoric acid, Monopotassium salt	0,12
Water dist. or demineralised	10,00
D.	
Perfume H&R	0,50

Preparations:

Part A:

Mix the ingredients and heat to 75C.

Part B:

Disperse the Carbopol well in the water using high speed agitation. Mix to form a uniform dispersion free from lumps. Stir into the dispersion Solbrol M, Euxyl K 200 and the sodium hydroxide solution. Then add the neutralised solution of 30% NEO HELIOPAN HYDRO and heat to 85C. Add part B slowly with thorough agitation to part A. Then cool with stirring to 60C.

SOURCE: Haarman & Reimer: Formula K 18/1 - 51 034 D/E

SUNBLOCK LOTION-WATERPROOF SPF-15

RAW MATERIALS	% By Weight
Sequence 1:	
UVATONE 2-6	8.00
Spectra-Sorb UV-9	3.00
LIPOSORB SQO	4.25
Anhydrous Lanolin	3.50
LIPO GMS-470	3.00
Cocoa Butter	2.00
Bentone Gel IPM	4.00
Stearic Acid	2.00
Silicone 200 Fluid (300 cts)	0.50
LIPOVOL J	0.50
Vitamin E Acetate	0.05
Propylparaben	0.10
Sequence 2:	
Deionized Water	51.60
Sorbitol Solution 70%	3.25
ALOE EXTRACT	0.50
Methylparaben	0.30
UNICIDE U-13	0.25
Carbopol 941 (2% Aq. disp)	10.00
Disodium EDTA	0.05
Sequence 3:	
Triethanolamine, 99%	0.70
Deionized Water	2.00
Sequence 4:	
Benzyl Alcohol	0.15
Fragrance	0.30

Manufacturing Procedure:

1. In a side kettle, blend the Sequence 1 ingredients and heat to 78C under Lightnin' mixing.
2. In the main kettle equipped with variable speed Lightnin' mixing and variable speed side-wiping mixing, blend Sequence 2 ingredients. Heat to 75C under Lightnin' mixing. When the phase is at temperature, add premixed Sequence 3 ingredients and stir until uniform.
3. Add Sequence 1 to combined Sequences 2 and 3 under Silverson, Homorod or Arde Baranco mixing. Mix for 15 minutes or until emulsification is complete and smooth. Remove mixer and insert Lightnin' mixer and cool slowly.
4. At 60C or below (when batch begins to thicken), remove Lightnin' mixer; insert variable speed side-wiper mixing.
5. Cool to 40C. Add combined Sequence 4 and disperse thoroughly. Cool to 28C.

SOURCE: Lipo Chemicals Inc.: Formulation No. 302

SUN LOTION (SPF 4) SS-100-1

RAW MATERIALS	% By Weight
Part A:	
PEG-8 Stearate	1.13
SF-96 (100)	6.95
Myristyl Alcohol	4.00
Arlacel 165	4.35
Myristyl Lactate	2.90
Lanaetex 75	3.36
Stearyl Alcohol	3.30
Tenox-6	q.s.
Part B:	
Monawet MO 70S	0.17
Methyl Paraben	0.17
Disodium EDTA	0.05
Water	64.32
Part C:	
Octyl Dimethyl PABA	4.00
SF-1202	5.30

SUN LOTION (SPF 4) - SS-100 - 2

RAW MATERIALS	% By Weight
Part A:	
PEG-8 Stearate	0.67
SF-96 (100)	4.10
Myristyl Alcohol	2.40
Arlacel 165	2.60
Myristyl Lactate	1.70
Lanaetex 75	2.00
Stearyl Alcohol	1.90
Tenox-6	q.s.
Part B:	
Monawet MO 70S	0.17
Methyl Paraben	0.17
Disodium EDTA	0.05
Water	77.24
Part C:	
Octyl Dimethyl PABA	4.00
SF-1214	1.00
SF-4267	2.00

Comments:

The SPF may be increased to 8 by adding 2.5% benzophenone-3. It could be mixed as a separate slurry in the SS-4267 or SF-1202.

More water resistance can be obtained by replacing 1% of the Lanaetex 75 with SS-4267.

Greater tolerance to freeze-thaw cycles may be achieved by increasing the PEG-8 stearate by 30%.

SOURCE: GE Silicones: Personal Care Formulary: Formulations

SUN LOTION (W/O SPF-4)

RAW MATERIALS	% By Weight
Part A:	
SF-1228	18.00
SS-1204	14.00
SS-4267	4.50
Crill-6	3.60
Octyl Dimethyl PABA	3.25
Part B:	
Sodium Chloride	1.80
Germaben II	0.60
Water	54.25

Procedure:

- 1) Add Part B to Part A with high-speed mixing.
- 2) Homogenize in a suitable colloid mill.

SOURCE: GE Silicones: Personal Care Formulary: Formula SS-101

SUN TANNING OIL

INGREDIENT	% By Weight
Mineral Oil	53.6850
Octyl Dimethyl PABA	5.0000
Myritol 318	24.0000
SOLARIUM #668 LS	8.0000
POT MARIGOLD LS	3.0000
Wheat Germ Oil	3.0000
Apricot Kernel Oil	3.0000
Vitamin E Acetate	0.0150
Perfume	0.3000

Procedure:

Blend all ingredients in order listed at RT or slightly higher.

SOURCE: TRI-K Industries, Inc.: Formulation Code AMI.018.

SUN PROTECTING EMULSION - NO. 2890 (CREAM)

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS E200	5
ELFACOS ST9	3
ELFACOS C26	5
Paraffin oil	11
Isopropyl stearate	7
Nipasteril 30K	0,3
Parsol MCX	2,5
Water phase:	
Sorbitol 70%	5
Preservative	0,25
Water	60,35
Perfume oil	0,6

SUN PROTECTING EMULSION - NO. 2894 (LOTION)

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS E200	6
ELFACOS ST9	1
ELFACOS C26	2
Paraffin oil	20
Nipasteril 30K	0,3
Parsol MCX	2.5
Water phase:	
Sorbitol 70%	5
Preservative	0,25
Water	62,35
Perfume oil	0,6

Stable and easily spreadable emulsions result which have a refreshing and smooth effect on the skin.

SUN PROTECTION CREAM - NO. 2111

RAW MATERIALS	% By Weight
Oil phase:	
ELFACOS E200	5
ELFACOS ST9	3
ELFACOS C26	5
Paraffin oil	11
Parsol MCX	2,5
Nipasteril 30K	0,3
Isopropyl stearate	7
Water phase:	
Sorbitol 70%	5
Preservative	0,2
Water up to	100
Perfume oil	0,6

This formula results in soft, white easily spreadable emulsion, which has a refreshing effect on the skin.

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
BENTONE GEL MIO rheological additive	10.00
Ritachol	3.00
Grocor 5500	5.00
Polysynlane	2.00
Lexol HDS	10.00
Lexol PG 8-10	16.00
Escalol 507	3.00
Groco 55L	5.00
Propyl Paraben	0.10
D.I. Water	44.60
Triethanolamine	0.90
Methyl Paraben	0.10
Fragrance	0.30

Manufacturing Directions:

1. Part A - in a stainless steel vessel, add items 2 through 9 and heat to 80C or until melted clear. Add item 1 and mix it 15 minutes or until it is homogeneous.
2. Part B - In a separate stainless steel vessel, add items 10 through 12 and heat to 80C while mixing.
3. Add Part B to Part A at 80C and mix it while cooling.
4. At 45C add fragrance, homogenize and fill units.

SOURCE: NL Chemicals: Formulation TS-266

SUNSCREEN CREAM-LOTION WITH CREMOGEN
(EXTRA SUNBURN PROTECTION)

RAW MATERIALS	% By Weight
A.	
Generol 122 E 5	2,50
Generol 122 E 10	2,50
Jojoba Oil, pure	2,00
Myritol 318	2,00
Cutina CBS	7,00
Cetiol SB 45	2,00
Carrot Oil CLR	0,50
NEO-HELIOFAN Type AV 660523 H&R	6,50
Solbrol P	0,05
B.	
Water, dist. or deionised	47,30
Solbrol M	0,15
Glycerin, 86%, DAB 8	3,00
C.	
Water, dist. or deionised	20,00
Veegum HV	2,00
D.	
Creragen forte Camomile 728790 H&R	2,00
Perfume oil H&R	0,50

SOURCE: Haarman & Reimer: Formula K 18/1 - 45 706 G/E

SUNSCREEN CREAM (APPROX. SPF4)

INGREDIENT	% By Weight
I.	
Deionized Water	76.8
Carbopol 934	0.3
Glycerine	3.0
II.	
ADOL 62	5.0
ADOL 52	4.0
Emerest 2400	2.0
STARFOL CP	1.0
DC 200 Fluid (10cs)	0.5
Petrolatum	0.5
Escalol 507	3.0
AROSURF 66-PE12	2.0
AROSURF 66-E20	0.5
III.	
Deionized Water	1.0
Triethanolamine	0.4
IV.	
Preservative	qs

Solids: 23.2%
 Viscosity: 50,000 cps

Mixing Instructions:

With rapid agitation, sprinkle Carbopol into water. When fully dispersed, heat Phase I to 75-80C. Heat Phase II to 75-80C. With rapid agitation, add Phase II to Phase I. Mix 10 minutes. Add pre-mixed Phase III. Cool to 30C with mixing.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.4.4

WATERPROOF SUNSCREENING CREAM(O/W)

RAW MATERIALS	%w/w
a) PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.0
Uvinul M-40 (CTFA: Benzophenone-3)	2.0
Stearic Acid XXX	4.0
CETYL ALCOHOL EXTRA	1.0
Hetester ISS (CTFA: Isostearyl Stearoyl Stearate)	4.0
Dermol 105 (CTFA: Isodecyl Neopentanoate)	4.0
Ganex V220 (CTFA: PVP/Eicosene Copolymer)	5.0
Silicone 200 fluid (200 cp) (CTFA: Dimethicone)	0.3
b) AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.5
c) Deionized water	62.0
Glycerin	5.0
Carbopol 940 (CTFA: Carbomer 940)	0.1
d) Deionized water	1.0
Triethanolamine (99%)	0.1
e) Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: PARSOL MCX: Suggested Formulation

SUN SCREEN CREAM W/O

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	15.0
IMWITOR 780K	5.0
Paraffin oil	5.0
Neo-Heliopan E 1000	5.0
B.	
Preservative	q.s.
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is gradually stirred into A.

C is added at 40C.

Formulation 4.1.2

SUN SCREEN CREAM W/O

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	20.0
IMWITOR 780K	10.0
Alugel DF 30	3.0
B.	
Hard paraffin	3.0
Paraffin oil	5.0
Eusolex 6300	4.0
Antioxidants	q.s.
C.	
Eusolex 232	6.0
Triethanolamine	5.0
Mowiol 10-98	3.0
Preservative	q.s.
Water	ad 100.0
D.	
Perfume oil	q.s.

Preparation:

A is mixed and heated to approximately 80C.

B is brought to the same temperature and added to A.

C is heated to approximately 75C and is emulsified into A+B

At about 30C the perfume is added.

Formulation 4.1.3

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

SUN SCREEN CREAM W/O, OILY

RAW MATERIALS	% By Weight
A.	
MIGLYOL 840-Gel	20.0
SOFTISAN 649	5.0
IMWITOR 780K	5.0
Paraffin oil	8.0
Neo-Heliopan E1000	3.0
B.	
Hard paraffin	3.0
C.	
Magnesium sulphate	2.0
Preservative	0.3
Water	ad 100.0
D.	
Perfume oil	q.s.

Preparation:

A is mixed, B is added, both are heated to 75-80C.

C is brought to the same temperature and is emulsified into A+B.

At about 30C the perfume is added.

Formulation 4.1.1

SUN SCREEN CREAM O/W

RAW MATERIALS	% By Weight
A.	
SOFTISAN 601	35.0
MIGLYOL 812 Neutral Oil	7.0
IMWITOR 960	5.0
Prosolal S9	3.0
B.	
Hygroplex HHG	3.0
Preservative	q.s.
D-Panthenol	3.0
Water	ad 100.0
C.	
Perfume	q.s.

Preparation:

A is melted and brought to 75-80C.

B is mixed and heated to the same temperature.

B is slowly emulsified into A.

C is stirred in at about 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 4.1.4

SUN SCREEN CREAM O/W

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	10.0
MIGLYOL 840	8.0
Lanette N	6.0
Neo-Heliopan E 1000	3.0
B.	
Propylene glycol	3.0
Hygroplex HHG	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.

Preparation:

A is heated to 75-80C.

B is brought to the same temperature and is emulsified into

A.
At about 30C the perfume is added.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 4.1.5

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
CREMOPHOR S 9	2.0
CREMOPHOR A 25	1.0
LUVITOL EHO	3.0
Cetyl alcohol	2.0
Glycerol monostearate SE	5.0
Beeswax	2.0
LUSANTAN 25	10.0
Water	75.0

SOURCE: BASF: LUVITOL EHO: Suggested Formulation

SUNSCREEN CREAM (OIL-IN-WATER EMULSION)
(MAXIMAL SUNBURN PROTECTION)

RAW MATERIALS	% By Weight
A.	
Tegin A	7,00
Paraffin oil 34 cP	3,00
Isopropyl myristate	4,00
NEO-HELIOPAN Type AV 660 523 H&R	6,50
Solbrol P	0,05
NEO-HELIOPAN Type BB, 116 210 H&R	1,50
B.	
Water dist. or deionized	75,50
Solbrol M	0,15
Germall 115	0,30
Allantoin	0,10
D-Panthenol	0,10
Carbopol 934	0,30
C.	
Sodium hydroxide, 10% aq. solution	0,80
Fragrance H+R	0,50

Formula K 18/2 -72 896 D/E

SUNSCREEN CREAM (WATER-IN-OIL EMULSION)
(MAXIMAL SUNBURN PROTECTION 8)

RAW MATERIALS	% By Weight
A.	
Protegin WX	23,00
Paraffin oil 200 cP	2,00
Isopropyl myristate	2,00
NEO HELIOPAN Type AV, 660 523 H+R	6,00
Solbrol P	0,05
NEO HELIOPAN Type BB, 116210 H+R	1,00
B.	
Water dist. or deionized	59,90
Solbrol M	0,15
Magnesium sulfate-7 mol H2O	0,40
Glycerin, 86%	5,00
Fragrance H+R	0,50

Formula K 18/2-42 924 C/E

SOURCE: Haarman & Reimer: Suggested Formulations

SUNSCREEN GEL
(Moderate Sunburn Protection)
Transparent

RAW MATERIALS	% By Weight
A.	
Ethyl alcohol 96 vol. % denatured with diethyl phthalate	10,00
Water, dist or deionised	61,85
1,2-Propylene glycol	10,00
Germaben II	1,00
Allantoin	0,10
D-Panthenol	0,50
Carbopol 940	1,10
B.	
Water, dist. or deionised	5,00
Triethanolamine C	2,20
C.	
NEO-HELIOBAN Type Hydro 103089 H&R used as a 30% aqueous solution neutralised with triethanolamine	6,70
D.	
Mulsifan RT 203/80	1,20
E.	
Sicomet Sunset Yellow 85 E110	0,05

SUNSCREEN GEL
(Moderate Sunscreen Protection)
With Colour Lustre Pigments

RAW MATERIALS	% By Weight
A.	
Ethyl Alcohol 96 vol. %, denatured with diethyl phthalate	10,000
Water, dist. or deionised	62,165
1,2-Propylene glycol	10,000
Germaben II	1,000
Allantoin	0,100
D-Panthenol	0,500
Carbopol 940	0,900
B.	
Water, dist. or deionised	5,000
Neutrol TE (Quadrol)	3,000
Colorona Red Brown 17322	0,020
Colorona Red Gold 17320	0,015
C.	
NEO-HELIOBAN Type Hydro 103089-used as a 30% aqueous solution neutralised with sodium hydroxide	6,700
D.	
Mulsifan RT 203/80	1,200

SUN SCREEN LOTION W/O

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	4.0
MIGLYOL 812 Neutral Oil	5.0
Arlacel 481	3.0
Arlacel 989	5.0
Isopropyl myristate	12.5
White soft paraffin	2.0
Parsol MCX	7.5
Parsol 1789	4.0
B.	
Glycerin	5.0
Carbopol 934	0.2
Magnesium sulphate	0.7
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.
Formulation 4.2.2	

SUN SCREEN MILK

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	4.0
MIGLYOL 840	7.0
Carotene oil	1.5
Hostaphat KL 340 N	5.0
Cetyl alcohol	2.0
Neo-Heliopan E 1000	4.0
Antioxidants	q.s.
D-Panthenol	3.0
B.	
Carbopol-Gel 1%	12.5
Karion F	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Perfume oil	q.s.
Preparation of Carbopol-Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Carbopol is mixed in water until smooth, triethanolamine is added and stirred to homogeneity.
Formulation 4.2.1

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulas

SUNSCREEN LOTION(OIL-IN-WATER EMULSION)
(Maximal Sunburn Protection 8, PABA-Free)

RAW MATERIALS	% By Weight
A. Water, dist. or deionised	25,00
Carbopol 934	0,40
Sodium hydroxide, 10% solution in water	2,05
B. Tegin M	3,00
Tagat S	2,30
Lanette O	2,00
Paraffin oil 70 mPas	2,00
Isopropyl myristate	2,00
Myritol 318	3,00
NEO-HELIOPAN Type AV 660 523 H&R	4,00
Cetiol MM	2,00
Abil 100	0,50
Solbrol P	0,05
C. Water dist. or deionised	34,80
Solbrol M	0,15
Euxyl K200	0,20
NEO HELIOPAN Type Hydro 103 089 H&R	3,35
1,2-Propylene glycol	2,00
D. Water dist. or deionised	10,00
Phosphoric acid, Disodium salt	0,58
Potassium Phosphate	0,12
E.	
Fragrance H&R	0,50

SUNBURN LOTION(OIL-IN-WATER EMULSION)
(Extra Sunburn Protection 6, PABA-Free)

RAW MATERIALS	% By Weight
A. Water dist. or deionized	25,00
Carbopol 934	0,30
Sodium hydroxide, 10% solution in water	1,00
B. Paraffin oil 70 mPas	2,00
Cegesoft C24	3,00
Arlatone 983S	1,75
Brij 76	1,25
Solbrol P	0,08
NEO HELIOPAN Type AV 660 523 H&R	6,00
Eutanol G	3,00
Lanette O	1,15
NEO HELIOPAN Type BB, 116 210 H&R	1,00
C. Water dist. or deionized	51,72
1,2 Propylene glycol	2,00
Solbrol M	0,20
Euxyl K250	0,15
Fragrance H&R	0,40

SOURCE: Haarman & Reimer: Formula K18/1-51095A/E--K18/1-51094C/E

SUNSCREEN LOTION (OIL-IN-WATER EMULSION)
(Ultra Sunburn Protection 15)

RAW MATERIALS	% By Weight
A.	
Water dist. or deionised	25,00
Carbopol 934	0,30
Sodium hydroxide, 10% solution in water	1,30
B.	
Paraffin oil 70 mPas	2,00
Cegesoft C 24	1,50
Arlatone 983 S	1,75
Brij 76	1,25
Solbrol P	0,08
NEO HELIOPAN Type AV 660523 H&R	7,50
Eutanol G	2,00
Lanette O	1,15
NEO HELIOPAN Type BB, 116210 H&R	3,00
NEO HELIOPAN Type MA, 600096	5,00
C.	
Water dist. or deionised	45,42
1,2-Propylene glycol	2,00
Solbrol M	0,20
Euxyl K 200	0,15
Fragrance H&R	0,40

SOURCE: Haarman & Reimer: Formula K 18/1 - 51 215 A/E

SUNSCREEN LOTION
(Minimum Protection)

INGREDIENTS	% By Weight
A Deionized Water	80.5
CARBOPOL 1342	0.2
Sorbitol (70%)	2.0
Propylene Glycol	7.5
B Propylene Carbonate	0.5
Isopropyl Myristate	5.0
C Triethanolamine (99%)	0.2
PEG-15 Cocamine	0.2
D Octyl Dimethyl PABA	1.5
Benzophenone 3	2.0
E Methyl Paraben	0.2
Propyl Paraben	0.2
Fragrance	Q.S.

SOURCE: BF Goodrich: Quick Break CARBOPOL Resin Formulation #4

SUNSCREEN LOTION FORMULA NO. 307 SPF 8.6

RAW MATERIALS	% By Weight
UVATANE 2-6	5.00
LIPOVOL C-76	1.00
Silicone 200 Fluid (350 cts)	0.50
Vitamin E Acetate	0.10
Stearic Acid #132	2.20
LIPO GMS-450	2.75
Shea Butter	1.25
Ervol	7.50
Propylparaben	0.10
Butylparaben	0.05
Water	51.70
LIPONIC EG-1	2.00
Propylene Glycol	6.00
Triethanolamine 99%	1.15
Methylparaben	0.30
Propylparaben	0.05
Trisodium EDTA	0.05
UNICIDE U-13	0.30
Carbopol 934 (2% aq. disp'n)	9.00
Water	9.00

SUNSCREEN LOTION NO. 308 SPF 10.3

RAW MATERIALS	% By Weight
UVATANE 2-6	5.00
LIPOVOL C-76	1.00
Silicone 200 Fluid (350 cts)	0.50
Vitamin E Acetate	0.10
Stearic Acid #132	2.20
LIPO GMS-450	2.75
Shea Butter	1.25
LIPOVOL MOS-130	7.50
Propylparaben	0.10
Butylparaben	0.05
Water	51.70
LIPONIC EG-1	2.00
Propylene Glycol	6.00
Triethanolamine 99%	1.15
Methylparaben	0.30
Propylparaben	0.05
Trisodium EDTA	0.05
UNICIDE U-13	0.30
Carbopol 934 (2% aq. disp'n)	9.00
Water	9.00

SOURCE: Lipo Chemicals, Inc.: Suggested Formulations

SUNSCREEN MOUSSE

RAW MATERIALS	% By Weight
Phase A:	
Isodecyl Oleate (Ceraphyl 140-A)	10.00
Octyl Dimethyl PABA (Escalol 507)	7.00
Benzophenone-3 (Spectra-Sorb UV-9)	3.00
Stearic Acid, XXX	10.00
Cetyl Alcohol	0.50
Phase B:	
Water, Deionized	44.40
Hydroxypropyl Methylcellulose (Methocel K4M)	0.10
Propylene Glycol	2.00
Triethanolamine (88%)	1.00
Phase C:	
SD Alcohol 40	20.00
TEA Coco-Hydrolyzed Animal Protein (and) Sorbitol (Suprotein V)	1.00
GERMABEN II	1.00

WATER RESISTANT SUNSCREEN CREAM/LOTION

RAW MATERIALS	% By Weight
Phase A:	
Octyl Dimethyl PABA (Escalol 507)	7.00
Benzophenone-3 (Spectra-Sorb UV-9)	3.00
Dimethicone (Dow Corning 200 Fluid)	1.00
Glyceryl Dilaurate (Emuslynt GDL)	1.00
Octyl Palmitate (Ceraphyl 368)	10.00
Cetyl Alcohol	0.50
Glyceryl Stearate (and) Laureth-23 (Cerasynt 945)	5.00
Petrolatum	2.00
PEG-20 Stearate (Cerasynt 840)	1.00
Mineral Oil	10.00
Phase B:	
Carbomer-934 (Carbopol 934) (2% Sol'n.)	10.00
Propylene Glycol	5.00
Phase C:	
Water, Deionized	34.40
PVP (PVP/K30)	2.00
Sodium Hydroxide (10% Sol'n)	0.80
Phase D:	
Acrylic/Acrylate Copolymer (and) Methylparaben (and) Propylparaben (and) Propylene Glycol (Carboset XL-40)	6.00
GERMABEN II	1.00
Perfume	0.30

SOURCE: Sutton Laboratories, Inc.: Cosmetic Formulary:
Suggested Formulations

SUNSCREEN OIL

RAW MATERIALS	% By Weight
Eutanol G	15,00
Cetiol SN	10,00
NEO HELIOPAN Type OS 131 494 H+R	5,00
NEO HELIOPAN Type AV 660 523 H+R	7,00
NEO HELIOPAN Type BB 116 210 H+R	3,00
Perfume oil H+R	0,50
Paraffin oil 70 mPas	59,50

Formula K 18/3 - 51 271

SUNSCREEN OIL

RAW MATERIALS	% By Weight
Eutanol G	25.00
Cetiol SN	10.00
NEO HELIOPAN Type AV, 660 523 H&R	4.00
Perfume oil H&R	0.50
Paraffin oil 65 cP	60.00

Formula K 18/3 - 69 418 D/E

SUNSCREEN BALM, EMULSIFIER-FREE
MAXIMAL SUNBURN PROTECTION 8

RAW MATERIALS	% By Weight
A.	
Water, dist. or deionised	73,10
Trilon B liquid, 50%	0,10
D-Panthenol	0,50
Germall 115	0,20
Carbopol 940	0,50
B.	
Sodium hydroxide, 10% solution in water	2,20
C.	
1,2-Propylene glycol	3,00
CREMOGEN ALOE VERA 734514 H&R	1,00
D.	
NEO HELIOPAN Type E AV 660523 H&R	6,00
NEO HELIOPAN Type BB 116210 H&R	1,00
Baysilone Fluid PK 20	3,00
Bisabolol	0,10
Phenonip	0,30
Fragrance H&R	0,50
Ethyl alcohol 96 vol. %, denatured with diethyl phthalate	8,50

Formulation K 18/5 - 51 196 / E

SOURCE: Haarman & Reimer: Suggested Formulations

SUN SCREEN OIL

RAW MATERIALS	% By Weight
MIGLYOL 840	40.0
Paraffin oil	47.0
Walnutshell oil	2.0
Carotene oil	3.0
Neo-Heliopan E1000	3.0
Isopropyl myristate	5.0
Antioxidants	q.s.
Perfume oil	q.s.

Preparation:

All ingredients are mixed at room temperature.

SOURCE: Dynamit Nobel: Cosmetic Formulas: Formulation 4.3.1

SUNSCREEN OIL

RAW MATERIALS	% By Weight
MAZER MASIL SF VL	70.0
Escalol 507	6.0
Isopropyl Palmitate	24.0

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 5

SUN TAN OIL

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	55
2 Ethyl hexyl salicylate	5
Sesame Oil	40
Perfume & Color	q.s.

SUN TAN CREAM

RAW MATERIALS	% By Weight
CARNATION White Mineral Oil	20
Dipropylenglycol salicylate	5
Deodorized Lanolin	35
Sesame Oil	20
Water	20
Perfume & Color	q.s.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics
Industry: Suggested Formulations

SUNSCREEN OIL (APPROX. SPF10)

INGREDIENT	% By Weight
I.	
ADOL 66	30.0
ADOL 90	30.0
STARFOL IS	30.0
Acetulan	5.0
Amerscreen P	5.0
II.	
Preservative	qs
Solids:	100%
Viscosity:	300 cps

Mixing Instructions:

With adequate mixing, combine Phase I ingredients.

Formulation Code: 6.4.4

SUNSCREEN OIL

INGREDIENT	% By Weight
I.	
ADOL 66	30.0
ADOL 90	30.0
STARFOL IS	35.3
Escalol 507	4.0
Uvinul M40	0.7
II.	
Preservative	qs
Solids:	100%
Viscosity:	500 cps

Mixing Instructions:

With adequate mixing, combine Phase I ingredients.

SOURCE: Sherex Chemical Co.: Suggested Formulations

SUNSCREEN OIL (APPROX SPF25)

INGREDIENT	% By Weight
I.	
Escalol 507	4.0
Uvinul M40	2.0
Parsol MCX	6.0
ADOL 66	60.0
STARPOL IS	20.0
Mineral Oil	8.0
II.	
Preservative	qs
Solids:	100%
Viscosity:	350 cps

Mixing Instructions:

With adequate mixing, combine Phase I ingredients.

Formulation Code: 6.4.4

SUNSCREEN OIL (APPROX. SPF20)

INGREDIENT	% By Weight
I.	
Escalol 507	7.0
Uvinul M40	3.0
ADOL 66	30.0
Mineral Oil	39.0
STARPOL OS	20.0
Ganex V-216	1.0
II.	
Preservative	qs
Solids:	100%
Viscosity:	300 cps

Mixing Instructions:

Mix Phase I ingredients together with adequate mixing. Warm slightly if necessary.

Formulation Code: 6.4.4

SOURCE: Sherex Chemical Co.: Suggested Formulations

SUNSCREENING LOTION(O/W)
(expected SPF 4)

RAW MATERIALS	%w/w
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	4.0
CETYL ALCOHOL EXTRA	0.5
Stearic Acid XXX	4.8
LANOLIN	0.3
Mineral Oil (min. 30 cp)	3.0
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	0.5
c)	
Deionized water	81.6
Propylene Glycol	2.5
Triethanolamine (99%)	0.8
d)	
Perfume, preservatives, deionized water	q.s. to 100

SUNSCREENING LOTION(O/W)
(SPF 15 by the OTC/FDA proposed method)

RAW MATERIALS	%w/w
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.50
Uvinul M-40 (CTFA: Benzophenone-3)	4.50
Stearic Acid XXX	4.00
CETYL ALCOHOL EXTRA	1.00
Cetiol LC (CTFA: Coco-Caprylate/Caprates)	6.00
Silicone 200 fluid (200 cp), (CTFA: Dimethicone)	0.30
Butylated Hydroxytoluene (CTFA: BHT)	0.05
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	3.00
c)	
Deionized water	60.45
Glycerin	10.00
Carbopol 940 (CTFA: Carbomer 940)	0.10
d)	
Deionized water	1.00
Triethanolamine (99%)	0.10
e)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: PARSOL MCX: Suggested Formulations

SUNSCREENING LOTION(O/W)
(SPF 22)

RAW MATERIALS	% By Weight
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.5
Cetiol LC (CTFA: Coco-Caprylate/Caprata)	6.0
Stearic Acid XXX	4.0
CETYL ALCOHOL EXTRA	2.0
Silicone 200 Fluid (200 cp), (CTFA: Dimethicone)	0.5
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.0
c)	
Deionized water	54.5
Propylene Glycol	5.0
Carbopol 940 (2%) (CTFA: Carbomer 940)	10.0
Sequestrene Na2 (CTFA: Disodium EDTA)	0.1
Uvinul MS-40 (CTFA: Benzophenone-4)	4.0
d)	
Deionized water	1.0
Triethanolamine (99%)	2.4
e)	
Perfume, preservatives, deionized water	q.s. to 100

WATERPROOF SUNSCREENING CREAM(O/W)

RAW MATERIALS	%w/w
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.0
Uvinul M-40 (CTFA: Benzophenone-3)	2.0
Stearic Acid XXX	4.0
CETYL ALCOHOL EXTRA	1.0
Hetester ISS (CTFA: Isostearyl Stearoyl Stearate)	4.0
Dermol 105 (CTFA: Isodecyl Neopentanoate)	4.0
Ganex V 220 (CTFA: PVP/Eicosene Copolymer)	5.0
Silicone 200 fluid (200 cp), (CTFA: Dimethicone)	0.3
b)	
AMPHISOL (CTFA: DEA-Cetyl Phosphate)	2.5
c)	
Deionized water	62.0
Glycerin	5.0
Carbopol 940 (CTFA: Carbomer 940)	0.1
d)	
Deionized water	1.0
Triethanolamine (99%)	0.1
e)	
Perfume, preservatives, deionized water	q.s. to 100

SOURCE: Givaudan: PARSOL MCX: Suggested Formulations

SUN TAN COOLING GEL
MODERATE SUNBURN PROTECTION

RAW MATERIALS	% By Weight
A.	
Ethyl alcohol 96 vol. %, denatured with diethyl phthalate	25,50
Water, dist. or deionised	34,15
1,2-Propylene glycol	5,00
Germaben II	0,50
Carbopol 940	0,50
B.	
Water, dist. or deionised	5,00
Neutrol TE (Quadrol)	0,75
C.	
NEO HELIOPAN Type AV 660523 H&R	3,00
Cremophor RH 60	2,00
Mulsifan RT 203/80	13,00
Ethyl alcohol 96 vol. %, denatured with diethyl phthalate	10,00
Fragrance H&R	0,40
Brilliant Blue FCF 308001 (0.1% aqueous solution)	0,20
Formulation K 18/5 - 51 197 / E	

DARK TANNING GEL
MINIMAL SUNBURN PROTECTION

RAW MATERIALS	% By Weight
A.	
Ethyl alcohol 96 vol. %, denatured with ethyl phthalate	10,00
Water, dist. or deionised	64,00
1,2-Propylene glycol	10,00
Germaben II	1,00
Allantoin	0,10
D-Panthenol	0,50
Carbopol 940	0,75
B.	
Water, dist. or deionised	5,00
Neutrol TE (Quadrol)	2,30
C.	
NEO-HELIOPAN Type Hydro 130089 H&R	3,35
D.	
Mulsifan RT 203/80	1,20
Fragrance H&R	0,30
E.	
Colourant: 1% aqueous solution	1,00
Colourant Quinoline Yellow 307007, 1% solution in water	0,50
Formulation: K 18/5 - 51 228 / E	
SOURCE: Haarman & Reimer: Suggested Formulations	

SUNTAN CREAM (APPROX. SPF #6)

INGREDIENTS	%W/W
Phase A:	
ESCALOL 557	4.00
ESCALOL 567	2.00
CERAPHYL ICA	3.00
Stearic Acid XXX	6.00
Lantrol 1674	1.00
Abil B 8852	1.50
CERASYNT 945	1.00
Myrj 52S	2.00
Cetyl Alcohol	2.00
CERAPHYL 368	5.00
Phase B:	
Water, deionized	51.25
Propylene Glycol	4.00
Triethanolamine 99%	1.00
Phase C:	
Carbopol 934, 2% Aq. Soln.	15.00
Phase D:	
Germaben IIE	1.00
Phase E:	
Fragrance	0.25

Procedure:

Heat Phase A and Phase B to 80C. Add Phase A to Phase B at 80C. and mix for 30 minutes. Heat Phase C to 80C, add to Phase 'AB' and mix thoroughly. Cool to 50C., mix Phase D and Phase E into it. Cool to room temperature and package.

pH: 7.3

Formulation #P123-39-1

ALCOHOLIC SUNTAN STICK

INGREDIENTS	%W/W
Propylene Glycol	15.00
Water, deionized	10.00
Oleyl Alcohol	3.00
Sodium Stearate (1)	7.00
Ethanol SD-40	61.00
ESCALOL 507	4.00
Perfume	q.s.

(1) Witco Chemical Corp. (C-1 Grade)

Formulation #A69-48-1

SOURCE: Van Dyk: The Formulation of a Sunscreen Product: Formulas

SUNTAN GEL/OINTMENT #W76-15-1

RAW MATERIALS	% By Weight
ESCALOL 507	7.00
CERAPHYL 368	26.50
Uvinul M-40	3.50
Siloxane SWS-03314	35.00
Bentone Gel #W76-16-1	10.00
Stearyl Alcohol	8.00
Castorwax MP-80	10.00

BENTONE GEL #W76-16-1

Bentone 38	40.00
CERAPHYL 368	60.00

Formulation #W76-15-1

SUNTAN GEL/OINTMENT #W76-15-2

RAW MATERIALS	% By Weight
ESCALOL 507	7.00
CERAPHYL 368	57.60
Uvinul M-40	3.50
Bentone Gel #W76-16-2	8.90
Talc 141	5.00
Stearyl Alcohol	8.00
Castorwax MP-80	10.00

BENTONE GEL #W76-16-2

Bentone 38	45.00
CERAPHYL 368	55.00

Procedure:

Weigh and combine all ingredients, heat to 80-85C (keep #1 well covered) and mix until uniform. Pour #1 at 55C and #2 at 65-68C.

Procedure(Gels):

Weigh and combine both ingredients and rollermill 1-2 times until uniform gel is achieved.

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulation

SUNTAN LOTION

INGREDIENTS	% By Weight
A.	
Deionized water	68.35
VERSENE Powder chelating agent	0.05
Carbomer 941	0.15
B.	
Glycerin	3.00
Propylene glycol	1.00
Methylparaben	0.20
Ethylparaben	0.15
C.	
Propylene glycol	2.00
Xanthan	0.10
METHOCEL 40-101	0.10
D.	
Mineral oil	10.00
Isopropyl palmitate	2.00
Glyceryl monostearate	3.00
Sorbitan stearate	1.00
Stearic acid	2.00
Dimethicone	0.50
Octyl dimethyl PABA	1.50
Petrolatum	1.00
Cetyl alcohol	1.00
E.	
Deionized water	1.00
Triethanolamine	0.65
F.	
Deionized water	1.00
DOWICIL 200 preservative	0.10
G.	
Perfume oil	0.15

An oil-rich lotion with a silky feel and improved salt water tolerance.

This formula provides an estimated Sun Protection Factor of 4. A smooth spreadable product. Leaves a light silky afterfeel on the skin.

Variations:

1. Substitute a vegetable oil or some other lighter oil for the mineral oil in Phase D for a "lighter" feel.
2. Try adding an ingredient that could be helpful in product marketing such as Vitamin E or aloe vera.

SOURCE: Dow Chemical U.S.A.: Suggested Formulation

SUNTAN LOTION (APPROX. SPF 6)

INGREDIENTS	%W/W
Phase A:	
ESCALOL 557	4.00
ESCALOL 567	2.00
CERAPHYL 55	2.00
CERAPHYL 368	5.00
Cetyl Alcohol	0.50
EMULSYNT GDL	2.00
Drakeol 7	3.00
Lantrol 1674	1.00
CERASYNT SD	1.50
Brij 35SP	1.00
Phase B:	
Water, deionized	58.63
Triethanolamine 99%	0.60
Propylene Glycol	4.00
Veragel 200	0.02
Glucam E-10	1.00
Phase C:	
Carbopol 941, 2% Aq. Soln.	12.50
Phase D:	
Germaben IIE	1.00
Phase E:	
Fragrance	0.25

Procedure:

Heat Phase A and Phase B to 80C. Add Phase A to Phase B and mix for 15 minutes. Add Phase C at 80C and mix for 30 minutes. Cool to 50C. Add Phase D and Phase E into it. Cool to room temperature and package.

pH: 7.7

Formulation #P123-29-2

GREASELESS SUNTAN OIL

RAW MATERIALS	% By Weight
ESCALOL 507	2.5
CERAPHYL 368	27.5
CERAPHYL 41	10.0
Mineral Oil	60.0

Procedure:

Weigh all ingredients in a vessel and mix until uniform.

Formulation #A61-16-1

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

SUNTAN LOTION (APPROX. SPF10)

INGREDIENTS	%W/W
Phase A:	
ESCALOL 557	6.00
ESCALOL 567	3.00
CERAPHYL 368	6.00
Cetyl Alcohol	0.50
EMULSYNT GDL	2.00
Lantrol 1674	1.00
CERASYNT SD	2.00
Brij 35SP	1.00
Emerest 2486	2.00
Phase B:	
Water, deionized	58.13
Triethanolamine 99%	0.60
Propylene Glycol	4.00
Veragel 200	0.02
Phase C:	
Carbopol 941, 2% Aq. Soln.	12.50
Phase D:	
Germaben IIE	1.00
Phase E:	
Fragrance	0.25

Procedure:

Heat Phase A and Phase B to 80C. Add Phase A to Phase B and mix for 15 minutes. Add Phase C at 80C and mix for 30 minutes. Cool to 50C, mix Phase D and Phase E into it. Cool to room temperature and package.

pH: 7.6

Formulation #P123-29-3

"QUICK" TANNING OIL (HAWAIIAN COCKTAIL)

RAW MATERIALS	% By Weight
Mineral Oil	66.6
ESCALOL 507	1.4
CERAPHYL 368	30.0
Coconut Oil	0.5
Avocado Oil	0.5
Cocoa Butter	0.5
Perfume	0.5

Procedure:

Weigh all ingredients in a vessel large enough to contain the entire batch, dissolving each before adding the next.

Formulation #A62-21-2

SOURCE: Van Dyk: The Formulation of a Sunscreen Product: Formulas

SUNTAN LOTION - WATERPROOF SPF-4

RAW MATERIALS	% By Weight
Sequence 1:	
UVATONE 2-6	3.00
Spectra-Sorb UV-9	1.00
LIPOSORB SQO	2.00
Bentone Gel IPM	4.00
LIPO GMS-470	3.00
Stearic Acid	2.75
Silicone 200 Fluid (300 cts)	0.50
Anhydrous Lanolin	0.25
Cocoa Butter	0.50
LIPOVOL J	0.90
Vitamin E Acetate	0.05
Sequence 2:	
Propylparaben	0.10
Deionized Water	64.75
Sorbitol Solution, 70%	3.25
Aloe Extract	0.50
Methylparaben	0.25
Disodium EDTA	0.05
Carbopol 941 (2% Aq. disp.)	10.00
Sequence 3:	
Triethanolamine, 99%	0.70
Deionized Water	2.00
Sequence 4:	
Benzyl Alcohol	0.15
Fragrance	0.30

Manufacturing Procedure:

1. In a side kettle, blend the Sequence 1 ingredients and heat to 78C under Lightnin' mixing.
2. In the main kettle equipped with variable speed Lightnin' mixing and variable speed side-wiping mixing, blend Sequence 2 ingredients. Heat to 75C under Lightnin' mixing. When the phase is at temperature, add premixed Sequence 3 ingredients and stir until uniform.
3. Add Sequence 1 to combined Sequences 2 and 3 under Silverson, Homorod or Arde Baranco mixing. Mix for 15 minutes or until emulsification is complete and smooth. Remove mixer and insert Lightnin' Mixer and cool slowly.
4. At 60C or below (when batch begins to thicken), remove Lightnin' Mixer; insert variable speed side-wiper mixing.
5. Cool to 40C. Add combined Sequence 4 and disperse thoroughly. Cool to 28C.

SOURCE: Lipo Chemicals Inc.: Formulation No. 300

SUNSCREEN LOTION - WATERPROOF SPF-8

RAW MATERIALS

% By Weight

Sequence 1:	
UVATONE 2-6	5.50
Spectra-Sorb UV-9	1.00
LIPOSORB SQO	4.25
Bentone Gel IPM	4.00
LIPO GMS-470	3.00
Stearic Acid	3.00
Silicone 200 Fluid (300 cts.)	0.50
Anhydrous Lanolin	0.35
Cocoa Butter	0.75
LIPOVOL J	0.50
Vitamin E Acetate	0.05
Propylparaben	0.10
Sequence 2:	
Water, Deionized	59.80
Sorbitol Solution, 70%	3.25
ALOE EXTRACT	0.50
Methylparaben	0.25
Disodium EDTA	0.05
Carbopol 941 (2% Aq. disp)	10.00
Sequence 3:	
Triethanolamine 99%	0.70
Water, Deionized	2.00
Sequence 4:	
Benzyl Alcohol	0.15
Fragrance	0.30

Manufacturing Procedure:

1. In a side kettle, blend the Sequence 1 ingredients and heat to 78C under Lightnin' mixing.
2. In the main kettle equipped with variable speed Lightnin' mixing and variable speed side-wiping mixing, blend Sequence 2 ingredients. Heat to 75C under Lightnin' mixing. When the phase is at temperature, add premixed Sequence 3 ingredients and stir until uniform.
3. Add Sequence 1 to combined Sequences 2 and 3 under Silverson, Homorod or Arde Baranco mixing. Mix for 15 minutes or until emulsification is complete and smooth. Remove mixer and insert Lightnin' mixer and cool slowly.
4. At 60C or below (when batch begins to thicken), remove Lightnin' mixer; insert variable speed side-wiper mixing.
5. Cool to 40C. Add combined Sequence 4 and disperse thoroughly. Cool to 28C.

SOURCE: Lipo Chemicals, Inc.: Formulation No. 301

SUNTAN LOTION, HIGH SPF(O/W)

RAW MATERIALS	% By Weight
Phase A:	
TEGINACID Spezial	5.0
ABIL-Wax 9800	2.0
TEGOSOFT 189	2.0
Isopropyl stearate	6.5
Eusolex 6300	2.5
Mineral oil (app. 30 mPa-s)	5.0
Cetyl alcohol	2.0
Phase B:	
Eusolex 232 (50%)	5.0
Carbopol 941 solution (1.5%)	10.0
Water	60.0
Perfume	q.s.
Preserving agent	q.s.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 2.1.18

AFTER-SUN LOTION

RAW MATERIALS	% By Weight
CREMOPHOR A6	2.0
CREMOPHOR A25	2.0
LUVITOL EHO	7.0
Paraffin oil	8.0
Cetyl alcohol	1.0
Glycerol monostearate	6.0
Tegiloxan 100	0.2
D-Panthenol 50P	2.0
(+)-ALPHA-BISABOLOL	0.2
1,2-Propanediol USP	3.0
Water	69.6

TAN CREAM

RAW MATERIALS	% By Weight
CREMOPHOR A25	2.5
LUVITOL EHO	5.0
Cetyl alcohol	2.0
Glycerol monostearate	10.0
Eutanol G	5.0
1,2-Propanediol USP	3.0
Dihydroxyacetone	7.0
Water	65.5

SOURCE: BASF: LUVITOL EHO: Suggested Formulations

SUNTAN LOTION(W/O)

RAW MATERIALS	% By Weight
Phase A(hot):	
ABIL WE09	5.0
ABIL-Wax 9800	2.0
Hexyl laurate	7.0
Mineral oil (app. 200 mPa-s)	8.5
Microwax (HP-67)	2.0
Eusolex 6300	2.5
Phase B(hot):	
Eusolex 232 (TEA-salt 50%)	5.0
Sodium chloride	0.3
Glycerol	3.0
Water	64.7
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.3.7

SUNTAN LOTION(W/O)

RAW MATERIALS	% By Weight
Phase A(hot):	
ABIL WS08	5.0
Isopropyl myristate	9.0
Mineral oil (app. 200 mPa-s)	6.0
ABIL K4	4.0
Vaseline DAB 8	3.0
Microwax (HP-67)	2.5
Eusolex 6300	3.0
Phase B(cold):	
Water	60.5
Sodium chloride	2.0
Glycerol	5.0
Perfume	q.s.
Preserving agent	q.s.

Formulation E 2.3.8

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Suggested Formulations

TANNING LOTION(WATER-IN-OIL EMULSION)
MODERATE SUNBURN PROTECTION 4

RAW MATERIALS	% By Weight
A.	
Arlacel 481	3,70
Arlacel 989	9,89
Cetiol V	3,00
Isopropyl isostearate	5,90
Paraffin oil 70 cP	8,84
NEO HELIOPAN Type AV, 660523 H&R	3,00
NEO HELIOPAN BB, 116210 H&R	0,60
Baysilone Fluid M 10	1,00
Amerchol L 101	1,00
Solbrol P	0,08
B.	
Water dist. or deionised	65,38
Solbrol M	0,20
Glycerine 86%	3,00
Magnesium sulphate-7H2O	0,50
C.	
Fragrance H&R	0,50
Formulation K 18/1 - 45 080 A/E	

TANNING LOTION(OIL-IN-WATER EMULSION)
MODERATE SUNBURN PROTECTION 4, PABA-FREE

RAW MATERIALS	% By Weight
A.	
Water dist. or deionised	25,00
Carbopol 934	0,30
Sodium hydroxide, 10% solution in water	1,20
B.	
Paraffin oil 70 mPas	2,00
Isopropyl myristate	2,00
Arlatone 983S	2,00
Brij 76	2,00
Solbrol P	0,08
NEO HELIOPAN Type AV 660523 H&R	3,50
Eutanol G	4,00
Lanette O	1,50
C.	
Water dist. or deionised	52,72
1,2-Propylene glycol	3,00
Solbrol M	0,15
Euxyl K 200	0,15
Fragrance H&R	0,40
Formula K 18/1 - 44 600 H/E	

SOURCE: Haarman & Reimer: Suggested Formulations

WATER-IN-SILICONE SUNSCREENING LOTION WITH VITAMIN E (W/O)
(expected SPF 4)

RAW MATERIALS	%w/w
a)	
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	4.0
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	1.0
Silicone Q2-3225 C (CTFA: Cyclomethicone (and) Dimethicone Copolyol)	10.0
Cetiol LC (CTFA: Coco-caprylate/caprate)	5.0
Silicone 344 fluid (CTFA: Cyclomethicone)	5.0
Silicone 556 fluid (CTFA: Phenyl Dimethicone)	2.0
Vitamin E Acetate (CTFA: Tocopheryl Acetate)	2.0
b)	
Deionized water	60.0
Sodium Chloride	2.0
Urea (CTFA: Urea)	3.0
PANTHENOL (CTFA: Panthenol)	2.0
c)	
Perfume, preservatives, Silicone 344 fluid	q.s. to 100

Procedure:

Heat mildly part a) to dissolve all ingredients. Once homogeneous, the emulsification process is carried out at ambient temperature. Slowly add 1/3 of part b) to part a) while mixing at moderate turbine speed in order to perform the emulsion, then add the last increment of part b) while rising the speed of agitation, taking care to avoid air entrapment. Finally add part c), mix until homogeneous. Pack in suitable plastic containers

Note: the viscosity of the emulsion increases with an increase of the energy used to emulsify. A cream is obtained when passing the emulsion through the homogenizer.

SUNSCREENING STICK(UV-A/UV-B)
(expected SPF 11+)

RAW MATERIALS	%w/w
PARSOL MCX (CTFA: Octyl Methoxycinnamate)	7.50
PARSOL 1789 (CTFA: Butyl Methoxydibenzoylmethane)	2.00
SATOL (Oleyl Alcohol purified, stabilized)	14.50
CORHYDROL 1/35 (Hydrogenated Castor Oil)	19.00
Texwax MH 181 (Microcrystalline Wax)	30.00
Mineral Oil (Min. 30 cp)	10.00
White Petrolatum	15.75
Butylated Hydroxytoluene (CTFA: BHT)	0.05
Perfume, preservatives, white petrolatum	q.s. to 100

Procedure:

Heat all the ingredients to 85C. Add the perfume and the preservatives, mix until homogeneous, then mold.

SOURCE: Givaudan: PARSOL MCX: Suggested Formulations

WATER RESISTANT SUNTAN CREAM NO. 384

RAW MATERIALS	% By Weight
A.	
VEEGUM	2.0
Water	69.5
Glycerin	3.5
B.	
Amerscreen P	2.0
Arlacel 20	3.5
Tween 20	4.5
Dow Corning 556 Fluid	5.0
Stearic acid xxx	5.0
Kessco Glycerol Monostearate S.E.	5.0
Preservative	q.s.

Consistency: Medium viscosity cream.

Suggested Packaging: Opaque tube.

Comments: Successfully prepared and aged with a cinnamic acid derivative instead of the Amerscreen P used above. The SPF range is estimated to be between 3 and 5.

WATER RESISTANT LOTION NO. 385

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.75
Water	75.50
Glycerin	2.25
B.	
Amerscreen P	2.00
Arlacel 20	3.50
Tween 20	4.50
Dow Corning 556 Fluid	5.00
Stearic acid xxx	5.50
Preservative	q.s.

Consistency: Medium viscosity lotion.

Suggested Packaging: Opaque squeeze or pump bottle.

Comments: Successfully prepared and aged with a cinnamic acid derivative instead of the Amerscreen P used above. The SPF range for these formulas is estimated to be between 3 and 5.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

WATER RESISTANT SUNTAN LOTION (LOTION)

RAW MATERIALS	% By Weight
Part A:	
Veegum	2.0
Water	70.5
Glycerine	3.5
Part B:	
GIV-TAN F	1.0
MAZER S-MAZ 20	3.5
MAZER T-MAZ 20	4.5
NAZER MASIL 556	5.0
Stearic Acid	5.0
MAZER MAZOL GMS	5.0
Perfume and Preservative	q.s.

WATER RESISTANT SUNTAN LOTION (CREAM)

RAW MATERIALS	% By Weight
Part A:	
Veegum	1.75
Water	77.00
Glycerine	2.25
Part B:	
GIV-TAN F	1.00
MAZER S-MAZ 20	3.50
MAZER T-MAZ 20	4.50
MAZER MASIL 556	5.00
Stearic Acid	5.00
Perfume and Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continually until smooth. Add Glycerine and heat to 70C. Heat Part B to 75C. Add Part B to Part A, then mix until cool.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 6

WATER RESISTANT SUNTAN LOTION (LOTION)

RAW MATERIALS	% By Weight
Part A:	
Veegum	2.0
Water	70.5
Glycerine	3.5
Part B:	
GIV-TAN F	1.0
MAZER S-MAZ 20	3.5
MAZER T-MAZ 20	4.5
MAZER MASIL 556	5.0
Stearic Acid	5.0
MAZER MAZOL GMS	5.0
Perfume and Preservative	q.s.

WATER RESISTANT SUNTAN LOTION (CREAM)

RAW MATERIALS	% By Weight
Part A:	
Veegum	1.75
Water	77.00
Glycerine	2.25
Part B:	
GIV-TAN F	1.00
MAZER S-MAZ 20	3.50
MAZER T-MAZ 20	4.50
MAZER MASIL 556	5.00
Stearic Acid	5.00
Perfume and Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continually until smooth. Add Glycerine and heat to 70C. Heat Part B to 75C. Add Part B to Part A, then mix until cool.

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 6

W/O SUN-SCREEN CREAM

RAW MATERIALS	% By Weight
Magnesium stearate	0.5
Aluminum stearate	0.5
CREMOPHOR WO 7	6.0
Hydrogenated polyisobutylene, e.g. LUVITOL HP	5.0
LUNACERA MW	1.0
LUVITOL EHO	10.0
UVINUL M 40	2.0
UVINUL P 25	5.0
(-)-ALPHA-BISABOLOL NAT.	0.2
1,2-Propylene Glycol USP	3.0
Preservative	qs
Perfume Oil FDO 912 648	qs
Water	66.8

O/W SUN-SCREEN LOTION

RAW MATERIALS	% By Weight
Tegin	6.0
Cetyl alcohol	1.5
LUVITOL EHO	6.0
Isopropyl myristate	6.0
Liquid paraffin	4.0
UVINUL M40	2.0
CREMOPHOR A6	1.0
CREMOPHOR A25	1.0
(-)-ALPHA-BISABOLOL nat.	0.2
Abil 200	0.3
UVINUL P25	5.0
1,2-Propylene Glycol USP	2.0
Preservative	qs
Perfume oil FDO 509 061	qs
Water	65.0

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulations

SUN SCREEN CREAM (2232-12E)

RAW MATERIALS	% By Weight
A.	
A-C Polyethylene 617	3.0
Beeswax	2.0
NIMLESTEROL 1732 Liquid Absorption Base	5.0
Silicone fluid	1.0
EMEREST 2316 Isopropyl Palmitate	6.2
Octyl stearate	7.0
EMEREST 2452 Polyglyceryl-3 Diisostearate	5.5
Octyl dimethyl PABA	5.0
B.	
Sorbitol (70%)	5.0
Borax	0.3
EMERCIDE 1199 Liquid Preservative System	0.5
Deionized water	59.5

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Formulation

15 SPF WATERPROOF

INGREDIENT	% By Weight
A.	
Water	62.545
Triethanolamine	0.88
Methylparaben	0.3
Propylparaben	0.1
Propylene Glycol	2.0
Verseen NA	0.05
B.	
Ganex V-222	3.5
Tween-20	0.5
Stearic Acid	5.0
Stearyl Alcohol	1.0
Escalol 507	7.0
Spectra-Sorb UV-9	3.0
Cerasynt-Q	3.5
Ceraphyl-368	5.0
Silican-556	5.0
C.	
ALOE-CON UP-40	0.625

15 SPF SUNBLOCK CREAM

INGREDIENT	% By Weight
A.	
Water	63.05
Propylene Glycol	2.0
Methylparaben	0.2
Promulgen-D	2.0
Triethanolamine	0.75
B.	
Escalol-507	7.0
ALOE OIL extract #105	4.0
Kessco-653	3.0
Stearic Acid	6.0
Light Mineral Oil	6.0
Cerasynt-9	2.0
Cocoa Butter	0.5
Spectrasorb UV-9	3.0
C.	
Glydant	0.3
D.	
Fragrance	0.2

Formula 2-151-A

SOURCE: Florida Food Products, Inc.: Suggested Formulations

Section XIV

Miscellaneous

ACNE LATHER SCRUB GEL
with 10% Benzoyl Peroxide

RAW MATERIALS	% By Weight
HAMPOSYL L-30	30.0
Oleth-10	15.0
Benzoyl Peroxide, 70%	14.3
Magnesium Aluminum Silicate (Veegum)	1.0
Disodium EDTA (HAMP-ENE NA2)	0.2
Water	q.s.

Disperse Veegum in hot water with high shear mixing and allow to stand overnight. Mill benzoyl peroxide with VEEGUM suspension. Mix remaining ingredients, heat to 50C and mill to uniform texture. Fill warm into containers. A stiffer gel may be obtained by increasing the Oleth-10 to 20.0%.

SARCOSINATE-CATIONIC MOUTHWASH FORMULATION

RAW MATERIALS	% By Weight
Methylbenzethonium Chloride	0.03
HAMPOSYL L-30	0.67
Oloxamer 188	0.50
Glycerine	10.0
Ethanol	5.0
Water, Flavor, Color	q.s. 100.0

The low level of taste and toxicity exhibited by HAMPOSYL L-30 makes it especially suitable for mouthwash products.

An example of a mouthwash formulation containing a sarcosinate and cationic bactericide.

SOURCE: Hampshire: HAMPOSYL Surfactants: Suggested Formulations

BODY CLEANSER

RAW MATERIALS	% By Weight
Jordapon C1-50 Paste	46.0
Jortaine LMAB	12.0
Tetrasodium EDTA	0.1
Perfume	q.s.
Preservative, Dye	q.s.
Water	41.9

SOURCE: Mazer Chemicals, Inc.: Formulation 41

AEROSOL TALC--QUICK BREAKING FOAM
Nonionic

RAW MATERIALS	Parts By Weight
Fine Talc	20.0
WITCONOL MST (Glyceryl Stearate)	2.0
SDA Ethanol	40.0
Water	27.8
Perfume	0.2
Propellant	10.0

AEROSOL TALC--QUICK BREAKING FOAM
Cationic

RAW MATERIALS	Parts by Weight
Fine Talc	20.0
SDA Ethanol	40.0
Water	28.2
Cetyl Alcohol	0.4
EMCOL E-607S (Steapyrium Chloride)	1.2
Perfume	0.2
Propellant	10.0

Dissolve cetyl alcohol and emulsifier in SDA ethanol. Gentle warming may be necessary. Add water; stir in talc and perfume. Transfer slurry to aerosol containers and pressurize.

Formulation 141C

BARRIER SPRAY

RAW MATERIALS	Parts by Weight
EMPHOS D70-30C (Sodium Glyceryl Oleate Phosphate)	2.1
Propellant	97.0

When sprayed onto the skin, EMPHOS D70-30C surfactant will produce a water-repellent, protective coating which is resistant to household detergents, shampoos and other such materials.

Formulation 130C

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

ANTI-BACTERIAL DETERGENT

RAW MATERIALS	% By Weight
WHITE PROTOPET 1S or WHITE FONOLINE	6
Cholesterol (Pharmaceutical grade)	2
Hexachlorophene	3
Alkyl aryl polyether sulfonate	50
Water	39

A useful detergent for hospitals and other areas where prevention of infection is of great importance can readily be formulated. The blend can be adjusted to meet Federal Specifications P-D-240.

INTESTINAL LUBRICANT

RAW MATERIALS	
KAYDOL White Mineral Oil, U.S.P.	500 ml
Acacia, in very fine powder	125 gms
Syrup	100 ml
Vanillin	40 mg
Alcohol	60 ml
Purified water, a sufficient quantity to make	1000 ml

KAYDOL White Mineral Oil may also be compounded to a white mineral oil emulsion as prescribed in the National Formulary XII--Liquid Petrolatum Emulsion. Formulation of such an officially approved white mineral oil emulsion.

SOURCE: Witco Chemical: Sonneborn Products for the Drug and Pharmaceutical Industry: Suggested Formulations

OINTMENT, FREE OF WATER
No. 148(ST9) or No. 552(ST37)

RAW MATERIALS	% By Weight
ELFACOS ST	10
Liquid paraffin	13
Vaseline	21
Paraffin wax	7
Glycerol	49

SOURCE: Akzo Chemicals Inc.: ELFACOS ST9, ST37, C26, E200: Formulation No. 148 or No. 552

BASIC MOUTHWASH

RAW MATERIALS	% By Weight
EMSORB 2726 PEG-40 Sorbitan Diisosteate	1.00
Flavor (Spearmint V-30, 356)	0.25
Absolute ethyl alcohol	20.00
EMERY 916 Glycerine	15.00
Deionized water	63.75

EMSORB 2726 solubilizes the flavoring compound without contributing any harsh fatty taste itself. The efficiency of its solubilization properties allows this formula to be manufactured without any filtration steps.

Procedure:

Dissolve flavor in the EMSORB 2726. Add to the remaining ingredients which have been pre-blended in a separate vessel.

SOURCE: Emery Chemicals: EMERY Isostearate Esters: Formulation 2232-24F

MOUTH RINSE

RAW MATERIALS	% By Weight
CREMOPHOR RH 40	0.30
(+)-ALPHA-BISABOLOL rac.	0.10
Aromatic oil	0.01
Saccharin	0.05
Ethanol 96%	17.00
Water	82.54

Formulation 1

MOUTH RINSE

RAW MATERIALS	% By Weight
CREMOPHOR RH 40	6.0
(+)-ALPHA-BISABOLOL rac.	1.0
Saccharin	0.2
Aromatic oil	10.0
Glycerol	1.0
Ethanol 96%	81.8

Formulation 2 (concentrate)

SOURCE: BASF: ALPHA-BISABOLOL: Suggested Formulations

CLEAR, EMOLLIENT GEL(2252-18-03, 2252-17-02)

RAW MATERIALS	% By Weight
A.	
Laneth-16	30.0
EMEREST 2314 Isopropyl Myristate	7.0
NIMLESTEROL 1730 Absorption Base Concentrate	5.0
Mineral oil (70 visc.)	14.0
B.	
PEG-200	5.0
C.	
Demineralized water	39.0

This formula yields a crystal clear gel with good spreading qualities. The addition of Emery distilled lanolin alcohols contributes to the long term stability of this formula and aids in the emollient, non-tacky feel.

Procedure:

Melt the ingredients of A together and mix until homogeneous. Add B, and heat to 82C. Heat C to 85C and add to AB with gentle mixing until thoroughly dispersed.

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol and Lanolin Alcohol Absorption Bases: Formulation 2252-18-03, 2252-17-02

GLYCERINE GEL

INGREDIENT	% By Weight
I.	
Deionized Water	76.1
Carbowax 8000	0.5
Carbopol 940	0.7
II.	
Glycerine	18.0
Sorbitol	2.0
III.	
Deionized Water	2.0
Triethanolamine	0.7
IV.	
Preservative	qs
Solids:	21.3%
pH:	6.8

SOURCE: Sherex Chemical Co.: Formulation Code: 6.6.2

CONDITIONER/RINSE SYSTEMS

RAW MATERIALS	% By Weight
Deionized Water	97.50
Jaguar C-13-S	0.75
PATIONIC ISL	0.50
Isostearyl Lactate	0.40
Ameroxol OE-20	0.30
Cetyl Alcohol	0.25
Lactic Acid	q.s. to pH 4.5
Perfume	q.s.
Preservative	0.3

SIMPLE SYSTEM

RAW MATERIALS	% By Weight
Water	72.0
3-A Alcohol	25.0
PATIONIC ISL	3.0

SIMPLE SYSTEM

RAW MATERIALS	% By Weight
Water	95.0
AMEROXOL OE-20	3.0
PATIONIC ISL	2.0

SOURCE: Patco Cosmetic Products: PATCO Bulletin No. 204-2

WATER-IN-OIL EMULSION BASE
HIGH INTERNAL PHASE CREAMS

INGREDIENTS:	% W/W
A.	
Oil Phase:	
Mineral Oil 80/90	21.0
Calcium Stearoyl-2-Lactylate	7.2
Sodium Isostearyl-2-Lactylate	0.8
B.	
Water Phase:	
Glycerine	5.0
Water	65.8
Preservative	0.2

SOURCE: Patco Cosmetic Products: PATCO Bulletin No. 141

DENTAL RINSE

RAW MATERIALS	% By Weight
Phase A:	
Ethanol (96%)	45.0
Menthol	0.5
Peppermint oil	4.0
Glycerol	5.0
TAGAT S2	1.0
Benzalkonium chloride	0.1
Phase B:	
Water	42.4
Sodium cyclamate	2.0

Preparation:

Mix A and B in the given order. Stir B into A.
Formulation E 3.5

DENTAL RINSE

RAW MATERIALS	% By Weight
TAGAT R40	16.0
Menthol	0.5
Peppermint oil	5.0
1.2-propylene glycol	10.0
Chlorhexidine digluconate (20%)	1.0
Water	64.5
Sodium cyclamate	3.0

Preparation:

Mix (dissolve) all ingredients in the given order. Perhaps heat TAGAT R40 slightly.
Formulation E3.6

SOURCE: Goldschmidt Chemical Corp: TEGO Surfactants: Formulas

MOUTHWASH

RAW MATERIALS	% By Weight
Ethanol	24.5
Menthol	0.1
MAZER T-MAZ 60	1.0
MAZER T-MAZ 20	0.4
Phenyl Salicylate	0.2
Zinc or Aluminum Phenolsulfonate	0.4
Water	73.0

SOURCE: Mazer Chemicals, Inc.: Cosmetic Formularies T-20D:
Formulation 40

DENTURE CLEANER NO. 156

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
CMC 7MF	0.5
Water	28.9
B.	
Saccharin	0.1
Sodium benzoate	1.0
C.	
Sorbitol 70%	9.0
Glycerin	9.0
D.	
Dicalcium phosphate dihydrate	36.0
Dicalcium phosphate anhydrous	12.0
E.	
Flavor	0.5
F.	
Sodium lauryl sulfate	2.0

Consistency: Thick paste.

Suggested Packaging: Tube.

Comments: The abrasive blend used in the denture cleaner is designed for efficient cleaning of artificial surfaces. The mild abrasivity of the toothpaste allows effective cleaning without scratching tooth surfaces.

DENTURE CLEANER TABLET NO. 197

RAW MATERIALS	% By Weight
A.	
VEEGUM WG	5
Sodium perborate	13
Tetrasodium pyrophosphate anhydrous	25
Sodium chloride	13
Tartaric acid	9
Sodium phosphate dibasic	12
Citric acid	7
Sodium bicarbonate	16
B.	
Isopropyl alcohol	25
C.	
VEEGUM WG	2

Consistency: Tablet

Suggested Packaging: Bottle or individual wrap.

Comments: VEEGUM WG provides a hard tablet. It also aids disintegration of the tablet when water is added.

SOURCE: R. T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

EMOLLIENT OINTMENT

RAW MATERIALS	% By Weight
AMERCHOL L-101	12.0
MODULAN	9.0
Liquid petrolatum, USP heavy	20.0
Microcrystalline wax, 190-195F m.p.	12.0
Sorbitan sesquioleate	2.0
Sorbitol solution, USP	2.0
Water	43.0
Perfume and Preservative	q.s.

Soft, off-white w/o cream for soothing and lubricating.

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

OINTMENT BASE

RAW MATERIALS	% By Weight
AMERCHOL L-101	16.3
OHLAN	2.2
Mineral oil, 70 vis	21.7
Microcrystalline wax, 190-195F m.p.	16.3
Water	43.5
Perfume and Preservative	q.s.

Soft, off-white glossy w/o cream.

Add the water phase at 75-85C to the oil phase at 75-85C while mixing. Continue mixing while cooling to 30C. Add peroxide, where called for, and mix well.

SOURCE: Amerchol Corp.: Suggested Formulations

PHARMACEUTICAL JELLY OR SALVE BASE

RAW MATERIALS	% By Weight
Water	81.0
Glycerine and/or Sorbitol	15.0
CMC-HV	3.0
SEAKEM GP 317 carrageenan	1.0

Note: The end product for this starting formula is a stiff, heavy base. For a thinner base increase the level of water.

SOURCE: FMC Corp.: Suggested Formulation

FOOT BALSAM

RAW MATERIALS	% By Weight
A.	
IMWITOR 960	7.0
Stearic acid	5.0
Cetyl alcohol	1.0
MIGLYOL 812 Neutral Oil	9.0
B.	
Karion F	5.0
Preservative	q.s.
Water	ad 100.0
C.	
Triethanolamine	0.9
D.	
Mountain pine oil	2.0
Menthol	0.5

Formulation 1.1.19

REMEDY FOR SKIN DISEASES

RAW MATERIALS	% By Weight
A.	
MIGLYOL-Gel	20.0
SOFTISAN 649	16.5
IMWITOR 780K	5.0
White soft paraffin	20.0
Hard paraffin	8.5
B.	
Preservative	q.s.
Water	ad 100.0

Formulation 1.2.12

SPORT MESSAGE OIL

RAW MATERIALS	% By Weight
MIGLYOL 812 Neutral Oil	38.0
Rosemary oil	0.5
Eucalyptus oil	0.6
Pine-needle oil	0.4
Juniper-berry oil	0.2
Camphor	0.2
Menthol	0.6
Isopropyl alcohol	59.5

Formulation 1.5.6

SOURCE: Dynamit Nobel: Cosmetic Formulas: Suggested Formulations

HIGH INTERNAL PHASE OIL-IN-WATER EMULSIONRAW MATERIALS Parts By Weight

Oil Phase:

Carnation White Mineral Oil	64.0
WITCONOL MST (Glyceryl Stearate)	2.0
Cetyl Alcohol	1.0
WITCONOL H-35A (PEG-8 Stearate)	1.0
WHITE PROTOPET Petrolatum	6.0
Ozokerite	6.0

Water Phase:

EMCOL 4161L (Disodium Oleamido-MIPA-Sulfosuccinate)	6.0
Methylparaben	0.15
Propylparaben	0.1
Water, Perfume, Color	q.s.

Heat both phases to 80 to 85C, using moderate agitation. Slowly add Oil Phase to Water Phase. Mix at 80-85C for 15 to 30 minutes. Cool to 28-32C with mixing. A high internal oil phase makes this product uniquely suitable for water-rinseable cleansing creams and makeup removers.

Formulation 114C

SOURCE: Witco Chemical: Surfactants for Cosmetics and Toiletries:
Suggested Formulation

HYDROALCOHOLIC SPRAY MIST ACCELERATOR

RAW MATERIALS	% By Weight
Sequence 1:	
CHAMOMILE 5:1 PG	1.00
ALOE VERA Gel	42.95
UNIPERTAN P-242	5.00
Allantoin	0.10
dl-panthenol	0.15
Sodium PCA (50% aq. sol'n)	0.05
Sequence 2:	
LIPONIC EG-1	5.00
Silicone 193 Surfactant	1.50
SD Alcohol 40, 190 proof	40.00
Glucan P-20	3.00
Sequence 3:	
LIPOSORB O-20	1.00
Fragrance	0.25

Formulation No. 368

LUFA SKIN POLISHER

RAW MATERIALS	% By Weight
Sequence 1:	
Water	40.90
Keltrol	0.15
Veegum HV (4% disp'n)	15.00
LIPONIC EG-7	2.50
Sodium Dehydroacetate	0.25
Triethanolamine, 99%	1.20
PEG-75 Lanolin	4.50
Methylparaben	0.30
UNICIDE U-13	0.30
Sequence 2:	
Stearic Acid 132	3.00
LIPO GMS-450	1.80
LIPOPEG 100-S	0.90
LIPOCOL C	1.60
LIPONATE NPGC-2	3.50
LIPOSORB S	0.75
LIPOVOL SES	12.00
Silicone 200 Fluid (350 cts)	1.00
LIPOLAN Distilled	2.50
Isopropyl Lanolate	3.75
Propylparaben	0.10
Sequence 3:	
Hamosyl C-30	3.00
Sequence 4:	
LIPO LUFA 30/100	1.00

Formulation No. 303

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

LATHERING GEL CLEANSER

RAW MATERIALS	% By Weight
A.	
Standapol Conc. 7023	45.00
Klearol (Mineral Oil)	2.00
Propylene Glycol	3.00
B.	
Water, Deionized	38.80
Crostein SPO (Hydrolized Animal Protein)	0.10
C.	
Propylene Glycol	0.7
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	7.20
Lactic Acid 80%	0.80
E.	
Water, Deionized	1.80
Germall-115 (Imidazolinidyl Urea)	0.20
F.	
Perfume	0.10

Formulation SK-111

LATHERING GEL CLEANSER

RAW MATERIALS	% By Weight
A.	
Standapol Conc. 7023	42.00
Klearol (Mineral Oil)	2.00
Propylene Glycol	3.00
SCHERCOQUAT DAS (Quaternium-61)	2.00
B.	
Water, Deionized	39.80
Crostein SPO (Hydrolized Animal Protein)	0.10
C.	
Propylene Glycol	0.7
Methyl Paraben	0.20
Propyl Paraben	0.10
D.	
Water, Deionized	7.20
Lactic Acid 80%	0.80
E.	
Water, Deionized	1.80
Germall-115 (Imidazolinidyl Urea)	0.20
F.	
Perfume	0.10

Formulation SK-112

SOURCE: Scher Chemicals Inc.: Suggested Formulations

LIP BALM

RAW MATERIALS	% By Weight
I.	
Petrolatum	56.0
STARFOL WAX CG	9.0
Mineral Oil	6.0
ADOL 52	13.0
Beeswax	8.0
ADOL 90	8.0
II.	
Preservative	qs
Solids:	100%

Mixing Instructions:

Mix Phase I and heat to 75-80C until even. Cool to pouring temperature and pour into molds.

SOURCE: Sherex Chemical Co.: Formulation Code: 6.5.1

LIP POMADE

RAW MATERIALS	% By Weight
WHITE PROTOPET 1S or	
WHITE FONOLINE Petrolatum	26
CARNATION White Mineral Oil	20.4
Paraffin Wax	46.1
Lanolin	5.5
Camphor	1.7
Menthol	0.3

One of the most common and effective methods to combat chapped lips is the use of lip pomades. A typical formulation for a mentholated pomade.

SOURCE: Witco Chemical: Sonneborn Products for the Cosmetics Industry: Suggested Formulation

SUPER ENRICHED LIPSTICK(2252-6-01)

RAW MATERIALS	% By Weight
NIMCO 1795 Lanolin Alcohol	12.0
ACETOL 1706 Acetate Ester	4.0
Candelilla Wax	7.0
Beeswax	6.0
Ozokerite (180F)	4.0
Carnauba Wax	3.0
EMEREST 2314 Isopropyl Myristate	10.0
LANTROL 1673 Lanolin Oil	36.0
25% Pigment dispersed in LANTROL	20.0

SOURCE: Emery Chemicals: EMERY Lanolin Alcohol and Lanolin Alcohol Absorption Bases: Formulation 2252-6-01

MASSAGE CREAM, WATER-FREE

RAW MATERIALS	% By Weight
A.	
SOFTISAN 378	50.0
White soft paraffin	20.0
MIGLYOL 812 Neutral Oil	20.0
Paraffin oil	10.0
B.	
Perfume	q.s.

Preparation:

A is melted completely and stirred until cold.

B is stirred in at 40C.

Before filling it is beneficial to homogenize the cream.

Formulation 1.5.15

MASSAGE OIL

RAW MATERIALS	% By Weight
Paraffin oil	65.0
MIGLYOL 812 Neutral Oil	22.0
MIGLYOL 840	13.0
Antioxidants	q.s.
Perfume	q.s.

Note:

The functional oil can also be made with 5.0% Biolipon.

Preparation:

All the materials are simply stirred together at room temperature.

Formulation 1.5.14

NATURAL OIL-BASED GEL(ALSO NIGHT-CREAM)

RAW MATERIALS	% By Weight
MIGLYOL-Gel	18.0
MIGLYOL 812 Neutral Oil	15.0
MIGLYOL 818	3.0
Woolwax	3.0
Peanut oil	37.5
Avocado oil	3.0
Carrot oil	2.8
Wheatgerm oil	1.5
Atlas G 1096	5.0
Vanillin	0.02
Antioxidants	q.s.
Aerosil 200	2.1
B.	
Beeswax	5.0
Hartolan Super	4.0

Formulation 1.5.7

MEN'S MOISTURIZER(WITH SUNSCREEN)

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT WM	7.00
CERAPHYL 375	10.00
EMULSYNT GDL	2.00
ESCALOL 507	2.00
Cetyl Alcohol	1.00
Siloxane (SWS-03314)	10.00
Brij-35	1.00
Propylparaben	0.10
Phase B:	
Water, deionized	60.95
Carbopol 941	0.25
Methylparaben	0.20
Germall 115	0.50
Propylene Glycol	5.00
Phase C:	
NaOH (10% aq. solution)	Q.S.

Approximate SPF: 2
Formulation #H75-40-2

MEN'S MOISTURIZER(WITH SUNSCREEN)

RAW MATERIALS	% By Weight
Phase A:	
CERASYNT WM	7.00
CERAPHYL 375	5.00
EMULSYNT GDL	2.00
ESCALOL 507	7.00
Spectro-Sorb	3.00
Cetyl Alcohol	1.00
Siloxane (SWS-03314)	10.00
Brij-35	1.00
Propylparaben	0.10
Phase B:	
Water, deionized	57.95
Carbopol 941	0.25
Methylparaben	0.20
Germall 115	0.50
Propylene Glycol	5.00
Phase C:	
NaOH (10% aq. Solution)	Q.S.

Approximate SPF: 15
Formulation #H75-40-3

SOURCE: Van Dyk: The Formulation of a Sunscreen Product:
Suggested Formulations

MULTI-PROTECTION BROAD SPECTRUM MOISTURIZER

INGREDIENTS	%W/W
Phase A:	
Cetyl Alcohol	1.00
Siloxane SWS-03314 (Cyclomethicone)	2.00
Promulgen D (Cetearyl Alcohol (and) Ceteareth-20)	4.00
CERAPHYL 55 (Tridecyl Neopentanoate)	6.00
ESCALOL 557 (Octyl Methoxycinnamate)	6.00
ESCALOL 567 (Benzophenone-3)	3.00
CERAPHYL GA (Maleated Soybean Oil)	3.00
Brij 721 (Steareth-21)	1.50
Brij 72 (Steareth-2)	1.00
Vitamin E Acetate (Tocopheryl Acetate)	0.50
Phase B:	
Water, Deionized	55.35
Carbopol 934	0.20
Glycerin	5.00
Methylparaben	0.20
Propylparaben	0.20
Veragel Liquid 1:1 (Aloe Vera Gel)	10.00
Phase C:	
Sodium Hydroxide 10% Aq. Soln.	0.70
Phase D:	
Germall 115 (Imidazolidinyl Urea)	0.15
Phase E:	
Fragrance	0.20

SOURCE: Van Dyk: CERAPHYL GA: Formulation #P129-30-3

MINERAL OIL GEL

INGREDIENTS	% By Weight
Mineral oil 70-80 vis	20.0
VELSAN P8-3 (Isopropyl C12-15 Pareth-9 Carboxylate)	10.0
Tween 60 (Polysorbate 60)	7.5
Arlacel 60 (Sorbitan monostearate 60)	2.5
Cetyl alcohol	5.0
Water, deionized	55.0

An excellent petrolatum substitute, mineral oil gel is cost effective way to produce a soft occlusive film while containing 55% water. The appearance of this translucent gel is quite petrolatum-like, but is much more comfortable to the skin.

SOURCE: Sandoz Chemicals: VELSAN: Formulation No. CSC-07

OINTMENT BASES

Petrolatum USP and NF serve as the carrier for the active ingredients of various USP And NF pharmaceutical ointments. Often the petrolatum is used alone but equally as often the petrolatum is a part of an ointment base whose formulation is also given in the USP and NF. These bases can be formulated as follows:

YELLOW OINTMENT NF

RAW MATERIALS	Grams
YELLOW FONOLINE	950
Yellow wax	50

Melt petrolatum and wax, blend and allow to cool.

WHITE OINTMENT USP

RAW MATERIALS	Grams
WHITE FONOLINE	950
White wax	50

HYDROPHILIC OINTMENT USP

RAW MATERIALS	Grams
WHITE PROTOPET 1S	250.00
Stearyl alcohol	250.00
Propylene alcohol	120.00
Purified water	369.00
Sodium lauryl sulfate	10.00
Methylparaben	0.25
Propylparaben	0.15

Melt solid ingredients, add balance, stir and allow to cool.

HYDROPHILIC PETROLATUM USP

RAW MATERIALS	% By Weight
WHITE PROTOPET 1S	860
White Wax	80
Stearyl Alcohol	30
Cholesterol	30

Melt stearyl alcohol, white wax and petrolatum and add cholesterol; stir until blend congeals.

SOURCE: Witco Chemical: Sonneborn Products for the Drug and Pharmaceutical Industry: Suggested Formulations

PATIENT WASH WITH LANOLIN

INGREDIENT	% By Weight
I.	
VARION 2L	20.0
Glycerine	10.0
Lantrol AWS	3.0
Propylene Glycol	20.0
Deionized Water	47.0
II.	
Citric Acid (25%)	qs
III.	
Preservative	qs

Mixing Instructions:

With adequate agitation, mix Phase I ingredients together.
Adjust to pH 6.8 with Citric Acid.

Formulation Code: 6.1.4

SOURCE: Sherex Chemical Co.: Suggested Formulations

MEDICATED PATIENT WASH

INGREDIENT	% By Weight
I.	
VARION AMK-SF	30.0
TEALS (40%)	5.0
VARISULF S-1333	5.0
VAROX 1770	2.0
VARISULF SBU-185	2.0
Irgasan DP-300	0.1
Ethanol	1.0
II.	
Deionized Water	54.9
III.	
Citric Acid (25%)	qs
IV.	
Preservative	qs
Solids:	17.6%
pH:	6.5

Mixing Instructions:

With adequate agitation, mix Phase I and warm to 45C. Add Phase I to Phase II with mixing. Cool to 30C and adjust to pH 6.5 with Citric Acid.

Formulation Code: 6.1.4

PATIENT WASH

INGREDIENT	% By Weight
I.	
Deionized Water	82.0
VARISULF S-1333	10.0
VARION 2L	8.0
II.	
Citric Acid (25%)	qs
III.	
Preservative	qs
Solids:	8.0%
pH:	7.0

Formulation Code: 6.1.4

SOURCE: Sherex Chemical Co.: Suggested Formulations

SEBUM CONTROL MOISTURIZING CREAM

RAW MATERIALS	% By Weight
Sequence 1:	
LIPOMULSE 165	4.00
Stearic Acid	3.75
LIPOSORB P-20	0.80
LIPOSORB P	1.30
Silicone 200 Fluid (100 cts)	0.40
UNITRIENOL T-27	5.00
LIPONATE IPP	4.00
Propylparaben	0.10
Butylparaben	0.05
Sequence 2:	
Propylene Glycol	6.00
Deionized Water	57.20
Methylparaben	0.30
UNICIDE U-13	0.30
Trisodium EDTA	0.05
Sequence 3:	
Carbopol 934 (2% aq. disp'n)	15.00
Sequence 4:	
Deionized Water	1.00
Triethanolamine, 99%	0.75
Formulation No. 354	

SEBUM CONTROL MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Sequence 1:	
UNITRIENOL T-27	3.00
LIPONATE MM	1.20
Arachidyl Propionate	0.80
Silicone 200 fluid (200 cts)	0.20
LIPOWAX D	0.90
LIPO GMS-450	1.25
Crodafos N-10 Neutral	0.25
LIPONATE GC	2.00
LIPOCOL C	0.50
Propylparaben	0.05
Butylparaben	0.05
Sequence 2:	
Deionized Water	47.75
1,3-Butylene Glycol	6.00
Veegum K (4% disp'n)	35.00
Silicone Copolymer F-754	0.50
Methylparaben	0.25
UNICIDE U-13	0.30
Formulation No. 353	

SOURCE: Lipo Chemicals Inc.: Suggested Formulations

SEMI-SOLID OIL-IN-WATER EMULSIONS

RAW MATERIALS	% By Weight
Liquid paraffin	24.0
Beeswax	6.0
Spermaceti	2.0
CREMOPHOR S9	5.0
Glycerol	3.0
Water	60.0

RAW MATERIALS	% By Weight
Stearic acid	15.0
CREMOPHOR S9	3.0
CREMOPHOR A6	2.0
Water	80.0

RAW MATERIALS	% By Weight
Olive oil	40.0
Octadecyl alcohol	5.0
CREMOPHOR S9	5.0
Water	50.0

RAW MATERIALS	% By Weight
Vaseline	25.0
Paraffin wax 46/48C	5.0
Octadecyl alcohol	4.3
CREMOPHOR S9	2.0
CREMOPHOR A25	0.7
Water	63.0

RAW MATERIALS	% By Weight
MIGLYOL 812	15.0
Beeswax	9.0
Cetyl alcohol	5.0
Isopropyl myristate	1.0
CREMOPHOR A25	1.0
CREMOPHOR S9	19.0
Water	50.0

SOURCE: BASF: CREMOPHOR S9: Suggested Formulations

DICALCIUM PHOSPHATE TOOTHPASTE

INGREDIENTS	% By Weight
Dicalcium phosphate	51.75
Glycerine	21.94
Water	21.38
Sodium lauryl sulfate (SLS)	1.50
VISCARIN TP 348 carrageenan	0.85
Flavor oil	0.80
Fluoride	0.76
Sodium benzoate	0.50
Tetrasodium pyrophosphate (TSPP)	0.25
Sodium saccharin	0.20

Procedure:

- Disperse VISCARIN TP 348 carrageenan in glycerine and mix 5 minutes.
- Add water and mix additional 5 minutes.
- Dry blend sodium saccharin, sodium benzoate, TSPP and fluoride. Add the blend to the glycerine, carrageenan and water mixture and mix for 5 minutes.
- Warm to 35-40C and mix for 20 minutes.
- Add SLS and mix for 2-4 minutes.
- Add the mixture, dicalcium phosphate and flavor oil to a Ross Mixing bowl, and mix for 5 minutes at 3.5 mixer speed under vacuum.

CALCIUM CARBONATE TOOTHPASTE

INGREDIENTS	% By Weight
Calcium carbonate	48.00
Water	25.62
Glycerine	22.00
Sodium lauryl sulfate (SLS)	2.00
VISCARIN TP 389	0.94
Flavor oil	0.80
Sodium benzoate	0.50
Sodium saccharin	0.20

Procedure:

- Disperse VISCARIN TP 389 into room temperature water/glycerine mixture with agitation. Mix for 5 minutes.
- Add sodium benzoate and sodium saccharin to the mixture and mix an additional 10 minutes.
- Warm the mixture with slow agitation and mix for 5 minutes.
- Add SLS to the mixture with slow agitation. Mix 5 minutes.
- Combine the mixture, calcium carbonate, and flavor oil.
- Mix in a Ross mixer at full speed for 5 minutes.
- Stop and scrape bowl and mixing blades, continue mixing

SOURCE: FMC Corp.: Application Bulletin No. C-15: Suggested Formulations

DICALCIUM PHOSPHATE TOOTHPASTE

INGREDIENTS	% By Weight
Dicalcium phosphate	51.75
Glycerine	21.94
Water	21.30
Sodium lauryl sulfate (SLS)	1.50
VISCARIN TP 348 carrageenan	0.77
Flavor oil	0.80
Fluoride (MFP)	0.76
Sodium benzoate	0.50
Tetrasodium pyrophosphate (TSPP)	0.25
Sodium saccharin	0.20

Procedure:

- Dry blend VISCARIN TP 348 carrageenan, sodium saccharin, sodium benzoate, TSPP and MFP.
- Disperse the dry blend in water/glycerine and mix 5 minutes
- Heat the mixture to 71C (160F) and hold for 20 minutes with agitation.
- Transfer the heated mixture to a Ross Mixer and mix.
- Add dicalcium phosphate and flavor oil to the elixer and mix
- Add SLS and mix an additional 5 minutes.

CALCIUM CARBONATE TOOTHPASTE

INGREDIENTS	% By Weight
Calcium carbonate	48.00
Water	25.50
Glycerine	22.00
Sodium lauryl sulfate (SLS)	2.00
VISCARIN TP 389 carrageenan	0.90
Flavor oil	0.80
Sodium benzoate	0.50
Sodium saccharin	0.20

Procedure:

- Dry blend VISCARIN TP 389 carrageenan, sodium benzoate and sodium saccharin.
- Add the dry blend to glycerine/water and mix for 10 minutes
- Heat the slurry to 65-70C (149-158F) and mix for 15 minutes
- Add the elixer and calcium carbonate to a Ross mixer and mix
- Add SLS and flavor oil and continue mixing.

SOURCE: FMC Corp.: Application Bulletin C-16: Formulations

FLUORIDE TOOTHPASTE NO. 340

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.00
CMC 7MF	0.70
Water	20.25
B.	
Glycerin	12.50
Sorbitol 70%	12.50
C.	
Stannous fluoride	0.40
Saccharin	0.15
Calcium pyrophosphate	45.00
D.	
Flavor	1.00
E.	
Hamposyl L-30	6.50
Preservative	q.s.

Consistency: Thick paste.
Suggested Packaging: Tube.

LIQUID TOOTHPASTE NO. 266

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.00
CMC 7MF	0.25
Water	21.25
B.	
Sorbitol 70%	12.50
Glycerin	12.50
C.	
Dicalcium phosphate dihydrate	50.00
D.	
Flavor	1.00
E.	
Maprofix 563	1.50
Preservative	q.s.

Consistency: Flowable gel.
Suggested Packaging: Plastic squeeze bottle.
Comments: With VEEGUM, a fluid product is possible without syneresis or settling of the abrasive.

SOURCE: R. T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

FLUORIDE GEL TOOTHPASTE NO. 372

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.50
Water	24.50
B.	
Sorbitol 70%	36.50
C.	
Glycerin	10.00
D.	
Syloid 74	24.00
E.	
Flavor	1.20
F.	
Sodium fluoride	0.25
Saccharin	0.20
Sodium benzoate	0.20
Maprofix 563	1.50
Citric acid	0.15
Color	q.s.

FLUORIDE GEL PUMP TOOTHPASTE NO. 382

RAW MATERIALS	% By Weight
A.	
VEEGUM	0.75
Water	19.10
B.	
Sorbitol 70%	50.00
C.	
Glycerin	10.00
CMC 7MF	1.00
D.	
Syloid 74	13.00
Syloid 63	3.00
E.	
Flavor	1.00
F.	
Sodium fluoride	0.25
Saccharin	0.20
Sodium benzoate	0.20
Maprofix 563	1.50
Color	q.s.

Consistency: No. 372 Thick gel; No. 382 Soft gel.
Suggested Packaging: No. 372 Tube; No. 382 Pump bottle.

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

SILICA BASED TOOTHPASTE

INGREDIENTS	% By Weight
Water	33.12
Silica powder	26.00
Glycerine	18.00
Sorbitol	18.00
Sodium lauryl sulfate (SLS)	2.00
VISCARIN TP type carrageenan*	0.70-0.80
Flavor oil	0.80
Sodium benzoate	0.50
Disodium phosphate	0.40
Sodium saccharin	0.20
Sodium fluoride	0.18
*VISCARIN TP 389 carrageenan	0.80%
VISCARIN TP 206 carrageenan	0.70%
VISCARIN TP 305B carrageenan	0.70%

SILICA BASED TOOTHPASTE

INGREDIENTS	% By Weight
Water	33.10
Silica powder	26.10
Glycerine	18.00
Sorbitol	18.00
Sodium lauryl sulfate (SLS)	2.00
VISCARIN TP type carrageenan*	0.60-0.90
Flavor oil	0.80
Sodium benzoate	0.50
Disodium phosphate	0.40
Sodium saccharin	0.20
Sodium fluoride	0.18
*VISCARIN TP 389 carrageenan	0.90%
VISCARIN TP 206 carrageenan	0.60%
VISCARIN TP 305B carrageenan	0.60%

Procedure:

- Dry blend VISCARIN TP carrageenan, sodium benzoate, disodium phosphate, sodium saccharin and sodium fluoride.
- Disperse the dry blend into glycerine/sorbitol mixture and mix for 10-15 minutes.
- Add water and heat to 65-70C (149-158F) and mix for 10 minutes.
- Add SLS and mix for 2-4 minutes.
- Transfer above mixture and silica powder to Ross Mixer and mix under vacuum for 5 minutes at 3.5 speed.
- Add flavor oil and mix additional 15 minutes.

SOURCE: FMC Corp.: Application Bulletins C-15/C-16: Formulas

TOOTHPASTE
With Calcium Carbonate

RECIPE	% By Weight
A.	
Water	28.40
KALIUMSORBATE	0.20
ACESULFAM	0.20
PHOSKADENT Na 211	0.76
Glycerol	7.00
Sorbitol 70% A.M.	15.00
B.	
TYLOSE CB 200	1.00
C.	
HDK N 20	0.50
Calcium carbonate	38.04
D.	
HOSTAPON KTW new	4.00
E.	
Water	4.00
F.	
Flavouring	0.90

Formulation C I/4018

TOOTHPASTE
With Dicalcium Phosphate

RECIPE	% By Weight
A.	
Water	32.64
Glycerol	20.00
KALIUMSORBATE	0.20
ACESULFAM	0.20
PHOSKADENT Na 211	0.76
B.	
Tylose CB 200	1.20
C.	
DENTPHOS K	35.00
HDK N 20	2.50
D.	
MEDIALAN LD	6.60
E.	
Flavouring	0.90

Formulation C I/4017

SOURCE: Hoechst: Kosmetik Guide Formulations: Suggested Formulations

TOOTHPASTE
WITH DICALCIUM PHOSPHATE

RECIPE	% By Weight
A.	
Water	25.84
KALIUMSORBATE	0.20
ACESULFAM	0.20
PHOSKADENT Na 211	0.76
Glycerol	7.00
Sorbitol 70% A.M.	15.00
B.	
TYLOSE CB 200	1.10
C.	
HDK N 20	1.50
DENTPHOS K	35.00
D.	
HOSTAPHON KA powder highconc. special	2.50
E.	
Water	10.00
F.	
Flavouring	0.90

SOURCE: Hoechst: Kosmetic Guide Formulations: Formulation
C I/4019

GEL TOOTHPASTE

RAW MATERIALS	% By Weight
Water	15.925
Sodium benzoate	0.200
Saccharin	0.200
Glycerol	61.000
Bromchlorophene	0.100
Polyethylene glycol 400	4.000
Aroma oil	1.000
TEGO-Betain BL 281	5.000
Bis(hydroxyethyl) octadecyl amino dihydrofluoride solution (about 33%) in 1.2-propylene glycol	1.500
Sodium fluoride	0.075
Sident 12	5.000
Aerosil 200	6.000
Colouring	q.s.

Preparation:

Mix all ingredients into the given quantity of water.
Perhaps homogenize.

SOURCE: Goldschmidt Chemical Corp.: TEGO Surfactants:
Formulation E 3.7

TOOTHPASTE NO. 82

RAW MATERIALS	% By Weight
A.	
VEEGUM	1.0
Water	18.5
B.	
CMC 7HF	0.5
Glycerin	30.0
C.	
Dicalcium phosphate	47.0
D.	
Flavor	1.0
E.	
Sodium lauryl sulfate	2.0
Preservative	q.s.
Consistency: Thick paste	
Suggested Packaging: Tube	

TOOTHPASTE NO. 151

RAW MATERIALS	% By Weight
A.	
VEEGUM F	1.25
CMC 7MF	0.70
Water	23.40
B.	
Water	2.00
Saccharin	0.15
C.	
Sorbitol 70%	12.50
Glycerin	12.50
D.	
Dicalcium phosphate dihydrate	45.00
E.	
Flavor	1.00
Sodium lauryl sulfate	1.50
Preservative	q.s.
Consistency: Thick paste	
Suggested Packaging: Tube	

SOURCE: R.T. Vanderbilt Co., Inc.: Cosmetics and Toiletries
Formulary: Suggested Formulations

TRANSPARENT TOILETRY STICK

RAW MATERIALS	Parts by Weight
Propylene Glycol	66.0
Water	21.0
WITCAMIDE 82 (Cocamide DEA)	5.0
WITCO Sodium Stearate C-7	8.0
Perfume, Color	q.s.

Mix ingredients except perfume and color; heat to 82C. Maintain mixing and temperature until clear solution results. Cool to 70C; add color and perfume. Pour into containers at 65C.

This general formulation as well as 102C can form the basis for a series of toiletry products such as analgesics, blushers, deodorants, solid lotions and solid fragrances.

Formulation 101C

CLEAR PERFUME EMOLLIENT STICK

RAW MATERIALS	Parts by Weight
WITCONOL APM (PPG-3 Myristyl Ether)	73.0
Propylene Glycol	10.0
Water	3.0
Witco Sodium Stearate C-1	8.0
Perfume Oil	6.0

Dissolve WITCO Sodium Stearate C-1 in WITCONOL APM, propylene glycol and water at 80 to 90C. Stir until clear. Add perfume oil at 77C. Cool to 73C and package.

Perfume level can be varied to suit final application. Fragrance oils may have an effect on overall clarity.

This formulation yields a "nonshrinking" gel which exhibits good clarity and an excellent feel. This formulation may be modified to produce a solid hand-lotion, deodorant, blusher or floating bath-oil bar.

Formulation 102C

SOURCE: Witco: Surfactants for Cosmetics and Toiletries:
Suggested Formulations

Section XV
Trade-Named and
Other Raw Materials
Descriptions

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV 8853	Phenyl Trimethicone	Goldschmidt
Abil B 8839	Cyclomethicone	Goldschmidt
Abil B 8842	Dimethicone Copolyol	Goldschmidt
Abil B 8843	Dimethicone Copolyol	Goldschmidt
Abil B 8851	Dimethicone Copolyol	Goldschmidt
Abil B 8852	Dimethicone Copolyol	Goldschmidt
Abil B 9950	Dimethicone Propyl PE-Betaine	Goldschmidt
Abil K 4	Cyclomethicone	Goldschmidt
Abil-Wax 2434	Stearoxy Dimethicone	Goldschmidt
Abil-Wax 9800	Stearyl Dimethicone	Goldschmidt
Abil-Wax 9801	Cetyl Dimethicone	Goldschmidt
Abil WE09	Cetyl Dimethicone Copolyol (and) Polyglyceryl-4-Isostearate (and) Hexyl Laurate	Goldschmidt
Abil WS08	Cetyl Dimethicone Copolyol (and) Cetyl Dimethicone (and) Poly- glyceryl 3-Oleate (and) Hexyl Laurate	Goldschmidt
Abil 100	Dimethicone	Goldschmidt
Abil 200	Dimethicone	Goldschmidt
Abil 350	Dimethicone	Goldschmidt
Abiol	Imidazolidinyl Urea	Tri-K
A-C Polyethylene 9A	Polyethylene	Allied
A-C Polyethylene 617	Polyethylene	Allied
A-C Polyethylene 617A	Polyethylene	Allied

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Acetamide MEA 70	Acetamide MEA	Tri-K
Acetol 1706	Cetyl Acetate (and) Acetylated Lanolin Alcohol	Emery
Acetulan	Acetylated Lanolin Alcohol	Amerchol
Aclarat 8678	Fluorescent Whitening Agent	Sandoz
Acrisint 400	Carbomer 940	Tri-K
Acrysol ASE-108	Water soluble acrylic resin	Rohm and Haas
Acrysol ICS-1	Water-soluble acrylic resin	Rohm and Haas
Actrasol C75	Anionic surfactant. Castor oil base.	Trask
Actrasol EO	Anionic surfactant. Glyceryl trioleate base.	Trask
Actrasol MY	Anionic surfactant.	Trask
Actrasol SR606	Anionic surfactant. Oleic acid base.	Trask
Active Bentonite B	Bentonite	Erbsloh
Adipol		Lab Prod
Adogen 172	Oleamine	Sherex
Adogen 432	Dicetyldimonium chloride	Sherex
Adogen 432-CG	Quaternium 31/Dicetyldimonium Chloride	Sherex
Adogen 442	Fatty Nitrogen Chemical	Sherex
Adol 52	Fatty Alcohol	Sherex
Adol 52NF	Cetyl Alcohol	Sherex
Adol 62	Fatty Alcohol	Sherex
Adol 62NF	Stearyl Alcohol	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Adol 63	Fatty alcohol	Sherex
Adol 66	Isostearyl alcohol	Sherex
Adol 90	Oleyl alcohol	Sherex
Aerosil 200	Silica	Degussa
Aethoxal B	PPG-5-Laureth-5	Henkel
AF-72 Silicone	Dimethicone (and) PEG Stearate (and) Sorbitan Stearate (and) Silica	GE Silicones
AF-75 Silicone	Dimethicone (and) PEG Stearate (and) Sorbitan Stearate (and) Silica	GE Silicones
AF-9020 Silicone	Dimethicone (and) Silica	GE Silicones
AGI Talc	Talc	Whittaker
Ajidew N-50	Sodium PCA	Ajinomoto
Albagel	Bentonite	Whittaker
Alcolec	Lecithin	American Lecithin
Aldo MSA	Glyceryl Stearate (and) PEG-100 Stearate	Lonza
Algipon 578L		Henkel
Allantoin	Allantoin	Hoechst
Allantoin	Allantoin	E. Merck
Allantoin	Allantoin	Schuykill
Allantoin	Allantoin	Sutton
Aloe-Con UP-40	Aloe	Florida Food
Aloe-Con UP200	Aloe	Florida Food

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Aloe-Con UP-200	Aloe	Florida Food
Aloe Extract	Aloe	Lipo
Aloe Extract Oil Soluble	Aloe	Lipo
Aloe Oil Extract #5	Aloe	Florida Food
Aloe Vera	Aloe	Dr. Madis
Aloe Vera 200 Powder	Aloe	Dr. Madis
Aloe Vera 734514	Aloe	Haarman
Aloe Vera Aqueous Extract 1:10	Aloe	Dr. Madis
Aloe Vera Concentrate (40%)	Aloe	Florida Food
Aloe Vera Gel	Aloe vera gel	Lipo
Aloe Vera Gel 1:1	Aloe vera gel	Dr. Madis
Aloe Vera Gel 1:10	Aloe vera gel	Dr. Madis
Aloe Veragel 200	Aloe vera gel	Dr. Madis
Aloe Veragel Lipoid	Aloe vera gel	Dr. Madis
Aloe Vera Lipoid 1:1	Aloe vera gel	Dr. Madis
Aloe Vera Liquid 40:1	Aloe vera gel	Dr. Madis
Aloe Vera Oil	Aloe vera	Lipo
Aloe Veragel Liquid 1:1	Aloe vera	Dr. Madis
Aloe Veragel Liquid Concentrate 1:40	Aloe vera	Dr. Madis
Alpha-Bisabolol	Bisabolol	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
(+)-Alpha-Bisabolol rac.	Bisabolol	BASF
Alpine Talc, USP	Talc	Whittaker
Alugel DF30	Aluminum hydroxide	Barlocher
Aluminum Chloro- hydrate	Aluminum chlorohydrate	Reheis
Amerchol BL	Lanolin, Mineral Oil and Lanolin Alcohol	Amerchol
Amerchol C	Petrolatum, Lanolin and Lanolin Alcohol	Amerchol
Amerchol CAB	Petrolatum and Lanolin Alcohol	Amerchol
Amerchol H-9	Petrolatum, Lanolin and Lanolin Alcohol	Amerchol
Amerchol L-99	Mineral Oil and Lanolin Alcohol	Amerchol
Amerchol L-101	Mineral Oil and Lanolin Alcohol	Amerchol
Amerchol L-500	Lanolin Alcohol and Mineral Oil	Amerchol
Amerchol RC	Lanolin Alcohol and Petrolatum	Amerchol
Amerchol 400	Lanolin Alcohol and Petrolatum	Amerchol
Amerlate LFA	Lanolin Acid	Amerchol
Amerlate P	Isopropyl Lanolate	Amerchol
Amerlate W	Isopropyl Lanolate	Amerchol
Amerlate WFA	Lanolin Acid	Amerchol
Ameroxol LE-23	Polyoxyethylene ether of fatty alcohol	Amerchol
Ameroxol OE-2	Oleth-2	Amerchol
Ameroxol OE-10	Oleth-10	Amerchol
Ameroxol OE-20	Oleth-20	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amerscreen P	Ethyl dihydroxypropyl PABA	Amerchol
Amidox C-5	PEG-6 cocamide	Stepan
Amigel	Polyglucane	Tri-K
Aminofoam C	TEA-Lauroyl Collagen Amino Acid	Croda
Aminoxid WS35	Cocamidopropylamine Oxide	Goldschmidt
Ammonyx CDO	Cocamidopropylamine Oxide	Stepan
Ammonyx Cetac	Cetrimonium Chloride	Stepan
Ammonyx KP	Olealkonium Chloride	Stepan
Ammonyx LO	Lauramine Oxide	Stepan
Ammonyx SO	Quaternary ammonium chloride derivative	Stepan
Ammonyx 4	Stearalkonium Chloride	Stepan
Ammonyx 4B	Stearalkonium Chloride	Stepan
Ammonyx 4002	Stearalkonium Chloride	Stepan
AMP	Amino Methyl Propanol	Angus
AMP-95	Amino Methyl Propanol	Angus
Amphisol	DEA-Cetyl Phosphate	Givaudan
Amphomer	Octylacrylamide/Acrylates/ Butylaminoethyl Methacrylate Polymer	National Starch
Amphoterge K-2	Surfactant	Lonza
Anhydrous Lanolin	Lanolin	Fanning
Anionyx 12S		Stepan
Antiacne #315 HS	Herbal Blend	Tri-K
Antiacne #650 LS	Herbal Blend	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Antifoam 60	Emulsion of polydimethylsiloxane(30% active)	GE Silicones
Antil 141 Liquid	Propylene Glycol (and) PEG-55 Propylene Glycol Oleate	Goldschmidt
Apicerol		Dragoco
Apricot Kernel Oil	Apricot Kernel Oil	Tri-K
Aristoflex A, 60%	Vinyl Acetate/Crotonic Acid Copolymer (and) Isopropyl Alcohol	Hoechst- Celanese
Aristowax 123	Paraffin wax	Unocal
Aristowax 143	Paraffin wax, 143 m.p.	Unocal
Arkopal N-040		Hoechst
Arkopal N-100		Hoechst
Arlacel-20	Sorbitan Laurate	ICI
Arlacel-40	Sorbitan Palmitate	ICI
Arlacel 60	Sorbitan Stearate	ICI
Arlacel 80	Sorbitan Oleate	ICI
Arlacel 83	Sorbitan Sesquioleate	ICI
Arlacel 83S	Sorbitan Sesquioleate	ICI
Arlacel 85	Sorbitan Trioleate	ICI
Arlacel 165	Glyceryl Stearate (and) PEG-100 Stearate	ICI
Arlacel 186	Glyceryl Oleate (and) Propylene Glycol	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arlacel 481	Glyceryl Sorbitan Oleostearate	ICI
Arlacel 989	PEG-7 Hydrogenated Castor Oil	ICI
Arlamol E	PPG-15 Stearyl Ether	ICI
Arlasolve 200	Isoceteth-20	ICI
Arlatone G	PEG-25 Hydrogenated Castor Oil	ICI
Arlatone PQ 220	Polyquaternium-19	ICI
Arlatone T	PEG-40 Sorbitan Peroleate	ICI
Arlatone 970	Surfactant	ICI
Arlatone 983S	PEG-5 Glyceryl Stearate	ICI
Armeen CD	Cocamine	Akzo
Armotan MO	Sorbitan Oleate	Akzo
Armotan MS	Sorbitan Stearate	Akzo
Armotan PMS20	Polysorbate 60	Akzo
Armotan TO	Ethoxylated Sorbitan Ester	Akzo
Armoteric LB (30%)	Lauryl Betaine	Akzo
Arnica Destillate	Arnica	Haarman
Arnica 5:1 PG	Arnica	Lipo
Aromox C/12W	Dihydroxyethyl Cocamine Oxide	Akzo
Aromox DMMCD-W	Amine Oxide	ICI
Arosurf 42-PE10	Alkoxylated Tallow Alcohol	Sherex
Arosurf CLA1	Surfactant	Sherex
Arosurf TA-100	Surfactant	Sherex
Arosurf 66-E2	Isosteareth-2	Sherex
Arosurf 66-E10	Isosteareth-10	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arosurf 66-E20	Isosteareth-20	Sherex
Arosurf 66-PE12	PPG-3 Isosteareth-9	Sherex
Arquad T-50	Tallowtrimonium Chloride (and) Isopropyl Alcohol	Akzo
Arquad 2C-75	Quaternium 34	Akzo
Arquad 2HT-75	Quaternium-18 (and) Isopropyl Alcohol	Akzo
Arquad 12-50	Laurtrimonium Chloride	Akzo
Arosurf TA-100	Surfactant	Sherex
Ascorbyl Palmitate (Code 60412)	Ascorbyl Palmitate	Roche
Atlas G-2162	PEG-25 Propylene Glycol Stearate	ICI
Atmul 124	Glyceryl Stearate	ICI
Avanel S-30	Sodium linear alkyl polyether sulfonate. MW: 420.	Mazer
Avanel S-90	Sodium linear alkyl polyether sulfonate. MW: 690.	Mazer
Avanel S-150	Sodium linear alkyl polyether sulfonate. MW: 950.	Mazer
Avicel PH 105	Micro Crystalline Cellulose	FMC
Avicel RC 591	Micro Crystalline Cellulose	FMC
Avocado Oil	Avocado Oil	Tri-K
Avocado Oil CLR	Natural Skin Treatment	Henkel
Azulene (25%)	1,4-dimethyl-7-isopropyl azulene	Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Babyderme #265 HS	Herbal Blend	Tri-K
Babyderme #665 LS	Herbal Blend	Tri-K
Balm Mint, F.E.	Balm Mint	Lipo
Barlox C	Amine Oxide	Lonza
Barquat CT-29	Cetrimonium Chloride	Lonza
Baysilone Fluid M10	Dimethicone	Bayer
Baysilone Fluid PK20	Phenyl Dimethicone	Bayer
Beeswax	Beeswax	F.B.Ross
Beeswax, White	Beeswax	F.B.Ross
Bentone EW	Hectorite	NL Chems
Bentone Gel CAO	Rheological Additive	NL Chems
Bentone Gel IPM	Rheological Additive	NL Chems
Bentone Gel Lantrol	Rheological Additive	NL Chems
Bentone Gel MIO	Mineral Oil (and) Quaternium 18 Hectorite (and) Propylene Carbonate	NL Chems
Bentone Gel SS-71	Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate	NL Chems
Bentone Gel VS-5	Rheological Additive	NL Chems
Bentone LT	Rheological Additive	NL Chems
Bentone 38	Rheological Additive	NL Chems
Bentone 38-Gel	10% Bentone 38 in liquid lanolin	NL Chems
Benzophenone 3	UV Absorber	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Bernel Ester DOM	Diocetyl Maleate	Bernel
Beta Carotene	Beta Carotene	Roche
Betain Hoe S3267		Hoechst
Biocorno	Blend of Grain Germ Oils	Syn. Pharma
Biopollin		Dragoco
Biosulfur Fluid CLR		Henkel
Bioterge AS40	Alpha olefin sulfonate	Stepan
Biotin, FCC (Code 63344)	Biotin	Roche
(-)-a-Bisabolol nat.	Bisabolol	BASF
(+)-a-Bisabolol rac.	Bisabolol	BASF
Black (Iron Oxide) C33-134	Iron oxide pigment	Sun Chemical
Blandol White Mineral Oil	White mineral oil	Witco
Bleached Beeswax	Beeswax	F.B.Ross
Blue #1 T427B1(n)	Blue Pigment	Crompton & Knowles
Bradpride Soap Base	Soap Base	Bradford
Brij 35	Laureth-23	ICI
Brij 35SP	Laureth-23	ICI
Brij 52	Ceteth-2	ICI
Brij 56	Ceteth-10	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Brij 58	Ceteth-20	ICI
Brij 72	Steareth-2	ICI
Brij 76	Steareth-10	ICI
Brij 78	Steareth-20	ICI
Brij 97	Oleth-10	ICI
Brij 98	Oleth-20	ICI
Brij 721	Steareth-21	ICI
Britol 7	White mineral oil	Witco
Bromat	Quaternary ammonium compound	Hexcel
Bromochlorophene	Bromochlorophene	E. Merck
Bronidex L	Propylene Glycol (and) 5-Bromo-5-Nitro-1,3 Dioxane	Henkel
Brookswax D	Cetearyl Alcohol (and) Cetear-eth 20	Brooks
Brown Cogilor 748.90	Iron Oxide Brown C.I. 77492	Anstead
Brown Extender 7147	Extender Pigment	Whitaker
Brox OL-40	Cosmetic Ingredient	Brooks
BTC-2125M	Myristylkonium Chloride (and) Quaternium-14	Stepan
Bust Care #201 HS	Herbal Blend	Tri-K
Bust Care #601 LS	Herbal Blend	Tri-K
Butylparaben	Butylparaben	Mallinckrodt
Butyl Stearate Tegester	Butyl Stearate	Inolex
Butylated Hydroxy-toluene	BHT	Many

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cab-O-Sil	Colloidal silica	Cabot
Cab-O-Sil H5	Colloidal silica	Cabot
Cab-O-Sil M5	Colloidal silica	Cabot
Calendula Ext. 5:1 PG	Calendula	Lipo
Calendula Oil	Calendula	Henkel
Camomile MEW spec. 739 027 H&R	Propylene Glycol (and) Matricaria Extract	Haarman
Camomile 728790	Matricaria Extract (and) Propylene Glycol (and) Ethoxy Diglycol	Haarman
Candelilla Wax	Candelilla Wax	F.B.Ross
Candelilla Wax Light Refined	Candelilla Wax	F.B.Ross
Cantab Plus	Dextrose	Tri-K
Capilotonique #245HS	Herbal Blend	Tri-K
Caprylic/Capric Triglyceride	Caprylic/Capric Triglyceride	Huls
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carboset XL-40	Acrylic/Acrylate Copolymer (and) Methylparaben (and) Propylparaben (and) Propylene Glycol	Goodrich
Carbowax 200	PEG-4	Union Carbide

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Carbowax 400	PEG-8	Union Carbide
Carbowax 1000	PEG-20	Union Carbide
Carbowax 1450	PEG-32	Union Carbide
Carbowax 8000	PEG-150	Union Carbide
Carnation Mineral Oil	Mineral Oil	Witco
Carnation White Mineral Oil	Mineral Oil	Witco
Carnauba Wax	Carnauba Wax	F.B.Ross
Carnauba Wax Yellow USP #1	Carnauba Wax	F.B.Ross
Carrot Oilsoluble	Carrot Extract	Tri-K
Carrot Oil CLR	Carrot Oil	Henkel
Cartaretin F-4	Adipic acid/dimethylamino Hydroxypropyl diethylene-triamine copolymer	Sandoz
Castorwax MP80	Hydrogenated Castor Oil	CasChem
Catamol 220B	Behenamidropropyldimethylamine Behenate	Phoenix
Cedemide AX	Lauramide DEA	Miranol
Cedemide CX	Cocamide DEA	Stepan
Cedepal SN 303	Sodium Laureth Sulfate (3)	Miranol
Cedepal SS 203	Sodium Laureth Sulfate (2)	Miranol
Cedepal TD 404M	Sodium Trideceth (3) Sulfate	Miranol
Cedepal TD 407M	Tridecylpolyoxyethylene (3.0) Sodium Sulfate	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cedepal TD 407MF	Sodium Trideceth (3) Sulfate	Miranol
Cedepon LA30HV	Ammonium Lauryl Sulfate	Miranol
Cedepon LS30PM	Sodium Lauryl Sulfate	Miranol
Cedepon TL40	TEA Lauryl Sulfate	Miranol
Cegesoft C24	Octyl Palmitate	Henkel
Cellobond HEC 5000A	Hydroxyethyl Cellulose	Unocal
Cellosize QP100M-H	Hydroxyethyl Cellulose	Union Carbide
Cellosize QP4400H	Hydroxyethyl Cellulose	Union Carbide
Cellosize QP30,000	Hydroxyethyl Cellulose	Union Carbide
Cellosize WP-09	Hydroxyethyl Cellulose	Union Carbide
Celquat H-100	Polyquaternium-4	National Starch
Celquat L-200	Polyquaternium-4	National Starch
Celquat SC-240	Polyquaternium-10	National Starch
Centrol 3F-UB	Lecithin	Cent. Soya
Ceraphyl GA	Maleated Soybean Oil	Van Dyk
Ceraphyl ICA	Isocetyl Alcohol	Van Dyk
Ceraphyl IPL	Isopropyl Linoleate	Van Dyk
Ceraphyl 28	Cetyl Lactate	Van Dyk
Ceraphyl 41	C12-C15 Alcohols Lactate	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ceraphyl 45	Diocetyl Maleate	Van Dyk
Ceraphyl 50	Myristyl Lactate	Van Dyk
Ceraphyl 50S	Myristyl Lactate	Van Dyk
Ceraphyl 55	Tridecyl Neopentanoate	Van Dyk
Ceraphyl 60	Quaternium-22	Van Dyk
Ceraphyl 65	Quaternium-26	Van Dyk
Ceraphyl 70	Quaternium-70 (and) Propylene Glycol	Van Dyk
Ceraphyl 85	Stearamidopropyl Cetearyl Dimonium Tosylate (and) Propylene Glycol	Van Dyk
Ceraphyl 140	Isodecyl Oleate	Van Dyk
Ceraphyl 140-A	Isodecyl Oleate	Van Dyk
Ceraphyl 368	Octyl Palmitate	Van Dyk
Ceraphyl 375	Isostearyl Neopentanoate	Van Dyk
Ceraphyl 424	Myristyl Myristate	Van Dyk
Ceraphyl 840	PEG-20 Stearate	Van Dyk
Ceraphyl 847	Octyldodecyl Stearoyl Sterate	Van Dyk
Cerasynt D	Stearamide MEA-Stearate	Van Dyk
Cerasynt IP	Glycol Stearate (and) Other Ingredients	Van Dyk
Cerasynt M	Glycol Stearate	Van Dyk
Cerasynt MN	Glycol Stearate SE	Van Dyk
Cerasynt PA	Propylene Glycol Stearate	Van Dyk
Cerasynt Q	Glyceryl Stearate SE	Van Dyk
Cerasynt SD	Glyceryl Stearate	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cerasynt SE	Emulsifier	Van Dyk
Cerasynt SO	Glyceryl Stearate	Van Dyk
Cerasynt WM	Glyceryl Stearate (and) Stearyl Alcohol (and) Sodium Lauryl Sulfate	Van Dyk
Cerasynt-9	Emulsifier	Van Dyk
Cerasynt 303	Diethylaminoethyl Stearate	Van Dyk
Cerasynt 840	PEG-20 Stearate	Van Dyk
Cerasynt 945	Glyceryl Stearate (and) Laureth-23	Van Dyk
Cerasynt 1000D	Emulsifier	Van Dyk
Cetal	Cetyl Alcohol	Amerchol
Cetiol	Oleyl Oleate	Henkel
Cetiol A	Hexyl Laurate	Henkel
Cetiol G-16S	Isocetyl Stearate	Henkel
Cetiol G-20S	Octyldodecyl Stearate	Henkel
Cetiol HE	PEG-7 Glyceryl Cocoate	Henkel
Cetiol J600	Oleyl Erucate	Henkel
Cetiol LC	Coco-Caprylate/Caprates	Henkel
Cetiol MM	Myristyl Myristate	Henkel
Cetiol S	Diocetyl Cyclohexane	Henkel
Cetiol SB45	Shea Butter	Henkel
Cetiol SN	Cetearyl Isononanoate	Henkel
Cetiol V	Decyl Oleate	Henkel
Cetiol 868	Octyl Stearate	Henkel
Cetiol 1414-E	Myreth-3 Myristate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cetyl Alcohol	Cetyl Alcohol	Many
Cetyl Alcohol Extra	Cetyl Alcohol	Givaudan
Cetyl Palmitate	Cetyl Palmitate	Akzo
Chamomile Extract	Chamomile Extract	Haarman
Chembase 6532	Stearamidoethyl Diethylamine	Sandoz
Chemical 39 Base	Stearamidoethyl Ethanolamine	Sandoz
Ches 500	Nonfat Dry Milk (and) Xanthan Gum (and) Propylene Glycol Alginate (and) Glyceryl Stearate (and) Sodium Glyceryl Oleate Phosphate	CasChem
Chlorhexidine Digluconate	Chlorhexidine Digluconate	ICI
Chlorhydrol (50%)	Aluminum Chlorohydrate (50%)	Reheis
Chroma-Lite Green	Mica (and) Bismuth Oxychloride (and) Chromium Oxide Greens	Mallinckrodt
Chroma-Lite Light Blue	Mica (and) Bismuth Oxychloride (and) Ferric Ammonium Ferrocyanide	Mallinckrodt
Cirami	Beeswax (and) Candelilla Wax (and) Shea Butter	Tri-K
Cirami No. 1 AMI	Beeswax-Candelilla Wax and Shea Butter	Tri-K
Citric Acid, USP-FCC (Code 69941)	Citric Acid	Roche
Claudina M-1995		Stepan
Clearlan	Lanolin	Quantum
Clearlan 1650	Lanolin	Quantum
Clindrol 100C	Cocamide DEA	Clintwood

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Clindrol Superamide 100L	Diethanolamide of Lauric Acid	Clintwood
CMC 7HF	Cellulose Gum	Hercules
CMC 7LF	Cellulose Gum	Hercules
CMC 7M	Cellulose Gum	Hercules
CMC 7MF	Cellulose Gum	Hercules
Coconut Oil 76	Coconut Oil 76 Degree	Humko
Cocoyl Sarcosine	Cocoyl Sarcosine	Grace
Collagen	Collagen	Many
Collamino Complex L/O	Lauryloleylemethylamine	Brooks
Collasol	Soluble Collagen	Croda
Colorona Red Brown 17322	Mica (and) Iron Oxides (and) Titanium Dioxide	E.Merck
Colorona Red Gold 17320	Mica (and) Titanium Dioxide (and) Iron Oxides	E.Merck
Colourant Brilliant Blue FCF 308001	Acid Blue 9. FD&C Blue No. 1	Williams
Comperlan KD		Henkel
Comperlan OD		Henkel
Compound MS-1	Solution of 6 surfactants, plus a preservative	Miranol
Compound MS-2	Solution of 6 surfactants, plus a preservative	Miranol
Corhydrol 1/35	Hydrogenated Castor Oil	Givaudan
Cornflower Extract HS	Cornflower Herbal Extract	Tri-K
Cosmedia Guar C-261	Guar Hydroxylpropyl Trimonium Chloride	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cosmedia HSP-1180	Polyacrylamido Methylpropane Sulfonic Acid	Henkel
Cosmetic Black J C33-5198	Iron Oxides	Whittaker
Cosmetic Brown C-33 115	Iron Oxides	Sun Chem.
Cosmetic Brown Iron Oxide C33-5136	Iron Oxides	Sun Chem.
Cosmetic Brown 7061	Iron Oxide	Whittaker
Cosmetic Iron Oxide Red 7051	Red Iron Oxide	Clark
Cosmetic Lanolin	Lanolin	R.I.T.A.
Cosmetic Sienna Oxide CS-10051	Iron Oxides	Whittaker
Cosmetic Yellow Iron Oxide C33-8073	Yellow Iron Oxide	Sun
Cosmetol X	Castor Oil	Spencer Kellogg
Cosmowax	Stearyl Alcohol (and) Steareth-20 (and) Steareth-10	Croda
Covitol 1100	Tocopherol Acetate	Henkel
Cremogen Chamomile 739027 H&R	Propylene Glycol (and) Matricaria Extract	Haarman
Cremogen M-2	Birch Leaf Extract	Haarman
Cremogen M-7	Blend of Cremogens	Haarman
Cremogen A6	Ceteareth-6 (and) Stearyl Alcohol	BASF
Cremophor A11	Ceteareth-11	BASF
Cremophor A25	Ceteareth-25	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cremophor EL	Glyceryl-polyethylene glycol ricinoleate fatty acid ester	BASF
Cremophor NP10	Nonoxynol-10	BASF
Cremophor NP14	Nonoxynol-14	BASF
Cremophor RH40	PEG-40 Hydrogenated Castor Oil	BASF
Cremophor RH60	PEG-60 Hydrogenated Castor Oil	BASF
Cremophor RH410	Surfactant	BASF
Cremophor S9	PEG-9 Stearate	BASF
Cremophor WO7	PEG-7 Hydrogenated Castor Oil	BASF
Crill-6	Sorbitan Ester	Croda
Croda Super Refined	Almond Oil	Croda
Crodacol CS-50	Cetearyl Alcohol	Croda
Crodafos N3-Neutral	Oleyl Ether Phosphate	Croda
Crodafos N3N	DEA-Oleth-3 Phosphate	Croda
Crodafos NION	DEA-Oleth-10 Phosphate	Croda
Crodafos SG	PPG-5-Ceteth-10 Phosphate	Croda
Crodamol IPM	Fatty Acid Ester	Croda
Crodamol MM	Myristyl Myristate	Croda
Crodamol PG	Fatty Acid Ester	Croda
Crodamol PMP	PPG-2 Myristyl Ether Propionate	Croda
Crodamol SS	Cetyl Esters and PPG-5-Ceteth-20	Croda
Crodamol W	Stearyl Heptanoate	Croda
Crodesta F-10	Sucrose Distearate	Croda
Crodesta F-20	Sucrose Fatty Acid Ester	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crodesta F20	Sucrose fatty acid ester	Croda
Crodesta F50	Sucrose distearate fatty acid ester	Croda
Crodesta F110	Sugar Ester	Croda
Crodesta F160	Sugar Ester	Croda
Crodyne B-19	Gelatin	Croda
Crolastin	Hydrolyzed Elastin	Croda
Croquat L	Lauryl Dimethyl Ammonium Hydrolyzed Collagen Protein	Croda
Croquat M	Cocodimonium Hydrolyzed Collagen	Croda
Crosilk Liquid	Silk Amino Acids	Croda
Crotein BTA	Quaternary Ammonium Polypeptide Salt	Croda
Crotein CAA-SF	Protein Derivative	Croda
Crotein-HKP/S.F.	Keratin Amino Acids	Croda
Crotein K	Hydrolyzed Animal Keratin	Croda
Crotein Q	Steartrimonium Hydrolyzed Animal Protein	Croda
Crotein SPA	Hydrolyzed Animal Protein	Croda
Crotein SPC	Hydrolyzed Animal Protein	Croda
Crotein SPO	Hydrolyzed Animal Protein	Croda
Crystal Crown	Castor Oil	CasChem
Cutina BW	Glyceryl Hydroxystearate (and) Cetyl Palmitate (and) Microcrystalline Wax (and) Trihydroxystearin	Henkel
Cutina CBS	Glyceryl Stearate (and) Cetearyl Alcohol (and) Cetyl Palmitate (and) Cocoglyceride	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cutina CP	Cetyl Palmitate	Henkel
Cutina E-24	PEG-20 Glyceryl Stearate	Henkel
Cutina GMS	Glyceryl Stearate	Henkel
Cutina KD-16	Glyceryl Stearate S.E.	Henkel
Cutina LE	Glyceryl Stearate (and) Sodium Cetearyl Sulfate	Henkel
Cutina MD	Glyceryl Stearate	Henkel
Cutiol MM	Myristyl Myristate	Henkel
Cyclochem GMS-15	Glyceryl Stearate and PEG-100 Stearate	Cyclo
Cyclochem GTIS	Trisostearin	Cyclo
Cyclochem SS	Stearyl Stearate	Cyclo
Cyclomethicone	Cyclomethicone	Many
Cyclomide DC212S	1:1 Diethanolamide, Coconut Fatty Acid.	Cyclo
Cycloryl WAT	Lauryl Sulfate, Triethanoline Cation.	Cyclo
Cycloteric BET-C30	Cocamidopropyl Betaine.	Cyclo
D&C Orange #5-Zr. Lake #6905	D&C Orange #5 Zirconium Lake	Clark
D&C Red Ca Lake in Castor Oil (30%)	D&C Red Calcium Lake	Clark
D&C Red #21 Aluminum Lake	D&C Red Aluminum Lake	Thomasset
D&C Red #27-Zr. Lake #6627	D&C Red No. 27 Zirconium Lake	Clark

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
D&C Yellow 5 Al Lake in Castor Oil #6505 (30%)	D&C Yellow 5 Aluminum Lake	Clark
DC Q2-7224 Emulsion	Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Iso- Laureth-6 (and) Glycol	Dow Corning
DC 190 Silicone	Dimethicone Copolyol	Dow Corning
DC-193 Surfactant	Dimethicone Copolyol	Dow Corning
DC 200 Fluid (10cs)	Polydimethylcyclosiloxane fluid	Dow Corning
DC 200 Fluid (50cs)	Polydimethylcyclosiloxane fluid	Dow Corning
DC 200 Fluid (100cs)	Polydimethylcyclosiloxane fluid	Dow Corning
DC 200 Fluid (200cs)	Polydimethylcyclosiloxane fluid	Dow Corning
DC 200 Fluid (350cs)	Polydimethylcyclosiloxane fluid	Dow Corning
DC 344 Fluid	Polydimethylcyclosiloxane fluid	Dow Corning
DC 556 Fluid	Phenyl Dimethicone	Dow Corning
DC 929 Emulsion	Amodimethicone (and) Nonoxy- nol-10 (and) Tallowtrimonium Chloride	Dow Corning
Dehydag Wax O	Cetearyl Alcohol	Henkel
Dehydag Wax SX	Cetearyl Alcohol (and) Sodium Lauryl Sulfate	Henkel
Dehydrol LS-2	Laureth-2	Henkel
Dehydrol LS-3	Laureth-3	Henkel
Dehymuls	W/O Emulsifier	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dehymuls E	Sorbitan Sesquioleate (and) Beeswax (and) Aluminum Stear- ate (and) other ingredients	Henkel
Dehyquart A	Cetrimonium Chloride	Henkel
Dehyquart SP	Quaternium-52	Henkel
Dehyton AB 30		Henkel
Dehyton K	Cocamidopropyl Betaine	Haarman
Delytl Extra	Isopropyl Myristate	Givaudan
Delytl Prime	Isopropyl Palmitate	Givaudan
Demaquillant LS687	Herbal Blend	Tri-K
Demide ML-100	Lauramide DEA	Deforest
Demox LAO	Lauramide Oxide	Deforest
Dentplus K		Hoechst
Deriphat 151-C	Lauraminopropionic Acid	Henkel
Deriphat 160-C	Sodium Lauraminodipropionate	Henkel
Derma Plex I	Herbal Skin Care Complex	Lipo
Dermol 105	Isodecyl Neopentanoate	Alzo
DeSodet 804	Surfactant Blend. Anionic.	DeSoto
DeSonate AOS	Sodium C14-16 Olefin Sulfonate	DeSoto
DeSonic CE-12	Glycereth-12	DeSoto
DeSonol A	Ammonium Lauryl Sulfate	DeSoto
DeSonol S	Sodium Lauryl Sulfate	DeSoto
DeSonol SE-2	Sodium Laureth Sulfate	DeSoto
DeSonol T	TEA-Lauryl Sulfate	DeSoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Detaine PB	Cetyl Betaine	Deforest
Dexpanthenol (Code #63909)	Panthenol	Roche
Diatami 60-200	Diatomaceous Earth	Tri-K
Dicrylan 325-50	Acrylate/acrylamide Copolymer	Ciba-Geigy
Dihydroxyacetone	Dihydroxyacetone	Tri-K
Diisopropanolamine	Diisopropanolamine	Dow Chem
Dimethicone	Dimethicone	Many
Dimethicone Copolyol	Humectant	Many
Diol 400	PPG-9	Union Carbide
Dipsal	PPG-2 Salicylate	Scher
dl-Panthenol	Panthenol	Many
DMDM Hydantoin	DMDM Hydantoin	Lonza
DMDMH-55	DMDM Hydantoin-55%	Lonza
D-Panthenol 50P	Panthenol (and) Propylene Glycol	BASF
Dow 200 Fluid	Dimethicone	Dow Corn.
Dow 344 Fluid	Cyclomethicone	Dow Corn.
Dow 345 Fluid	Polydimethylcyclosilicone	Dow Corn.
Dowanol DPM	Glycol Ether	Dow Chem.
Dow Corning FG-10	Simethicone	Dow Corn.
Dow Corning 190	Dimethicone Copolyol	Dow Corn.
Dow Corning 193	Dimethicone Copolyol	Dow Corn.
Dowicil	Antimicrobial	Dow Chem.

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dowicil 200	Quaternium-15	Dow Chem
Drakeol 7	Mineral Oil	Penreco
Drakeol 9	Mineral Oil	Penreco
Drakeol 21	Mineral Oil	Penreco
DSH	Sodium Hyaluronate Dimethyl Silanol	Tri-K
Duoquad T-50	Diquaternary Ammonium Salt	Akzo
Duponol C	Sodium Lauryl Sulfate	duPont
Duponol WAQ	Sodium Lauryl Sulfate (30%)	duPont
Duponol WAQE	Sodium Lauryl Sulfate	duPont
Dynacerin 660	Oleyl Erucate	Huls America
Dynasan 110	Tricaprin	Huls America
Dynasan 114	Trimyristan	Huls America
Edenol 302	Propylene Glycol Dicaprylate/ Dicaprinate	Henkel
Elastein 5000	Hydrolyzed Elastin	Hormel
Elastin	Elastin	Henkel
Elastin CLR	Elastin	Henkel
Elder Extract HS	Sambacus Extract	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emcol CC-9	Quaternium 6	Witco
Emcol CC37-18	Coco-Betaine	Witco
Emcol CC-42	PPG-40 Diethylmonium Chloride	Witco
Emcol CS-1361	Phosphate Ester	Witco
Emcol E-607L	Lapyrium Chloride	Witco
Emcol E-607S	Quaternium-7	Witco
Emcol 511	Oleic Acid Amide	Witco
Emcol 4072	Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate	Witco
Emcol 4100M	Disodium Myristamido MEA-Sulfosuccinate	Witco
Emcol 4161L	Disodium Oleamido-MIPA-Sulfosuccinate	Witco
Emcol 4300	Disodium Monolaureth-Sulfosuccinate	Witco
Emcol 4400-1	Disodium Lauryl Sulfosuccinate	Witco
Emcol 5160	Alkanolamide	Witco
Emcol H-31A	Polyethylene Glycol 400 Monooleate	Witco
Emercide 1199	Chloroxylenol (and) Phenoxyethanol	Witco
Emeressence 1150	Ethylene Brassylate	Emery
Emeressence 1160 Rose Ether	Phenoxyethanol	Emery
Emerest 1723	Isopropyl Lanolate	Emery
Emerest 2310	Isopropyl Isostearate	Emery
Emerest 2314	Isopropyl Myristate	Emery
Emerest 2316	Isopropyl Palmitate	Emery

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Elderly Skin #296 HS	Herbal Blend	Tri-K
Elfacos C26	Hydroxyoctocosanyl Hydroxystearate	Akzo
Elfacos E200	Methoxy PEG-22/Dodecyl Glycol Copolymer	Akzo
Elfacos GT282L	Talloweth-60 Myristyl Glycol	Akzo
Elfacos GT282S	Talloweth-60 Myristyl Glycol	Akzo
Elfacos ST9	PEG-45/Dodecyl Glycol Copolymer	Akzo
Elfacos ST37	PEG-22/Dodecyl Glycol Copolymer	Akzo
Elfan A432	Cocoamidopropyl Betaine	Akzo
Elfan NS242 (28%)	Anionic Surfactant	Akzo
Elfan NS242S Conc.	Anionic Surfactant	Akzo
Elfan NS243 Conc.	Anionic Surfactant	Akzo
Elfan NS343S (28%)	Anionic Surfactant	Akzo
Elfan OS46 (37%)	Anionic Surfactant	Akzo
Elfan SG (30%)	Anionic Surfactant	Akzo
Elfan SG (36%)	Anionic Surfactant	Akzo
Elfan SG Conc. (36%)	Anionic Surfactant	Akzo
Elfan 240M (29%)	Anionic Surfactant	Akzo
Elfan 240TS (40%)	T.E.A.-Laurylsulphate	Akzo
Elfanol 616 (40%)	Disodium Monolaureth-Sulphosuccinate	Akzo
Elfanol 850 (45%)	Sulphosuccinic Acid Ester	Akzo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emersol 233	Oleic Acid	Emery
Emerwax 1253	Synthetic Beeswax	Emery
Emerwax 1257	Emulsifying Wax	Emery
Emerwax 1266	Cetearyl Alcohol (and) Ceteareth-20	Emery
Emery 622	Coconut fatty acid	Emery
Emery 627	Coconut fatty acid	Emery
Emery 629	Coconut fatty acid	Emery
Emery 916	Glycerine	Emery
Emery 1650	Lanolin, USP	Emery
Emery 1732	Mineral Oil (and) Lanolin Alcohol	Emery
Emery 1740	Petrolatum (and) Lanolin (and) Lanolin Alcohol	Emery
Emery 1787	Cetyl Alcohol	Emery
Emery 5310	Coconut Sulfosuccinate	Emery
Emery 5315	Disodium Cocamido MEA- Sulfosuccinate	Emery
Emery 5320	Disodium Laureth Sulfosuccinate	Emery
Emery 5325	Disodium Ricinoleamido MEA- Sulfosuccinate	Emery
Emery 5340	Trideceth-7 Carboxylic Acid	Emery
Emery 5430	Cocamidopropyl Betaine	Emery
Emery 6731	Cocamide DEA (and) DEA Lauryl Sulfate	Emery
Emid 6511	Lauramide DEA	Emery
Emid 6513	Lauramide DEA	Emery

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emid 6515	Cocamide DEA	Emery
Emid 6540	Linoleamide DEA	Emery
Emid 6548	Soyamide DEA	Emery
Emid 6560	Alkanolamide	Emery
Emid 6576	Cocamide DEA	Emery
Emollient #235 HS	Herbal Blend	Tri-K
Emphos CS-1361	Sodium Nonoxynol-6 Phosphate	Witco
Emphos D70-30C	Sodium Glyceryl Oleate Phosphate	Witco
Emphos F27-85	Sodium Hydrogenated Vegetable Glycerides Phosphate	Witco
Emphos PS-810	Oleth-3 Phosphate	Witco
Emsorb 2500	Sorbitan Oleate	Emery
Emsorb 2502	Sorbitan Sesquioleate	Emery
Emsorb 2505	Sorbitan Stearate	Emery
Emsorb 2518	Sorbitan Diisostearate	Emery
Emsorb 2720	Polysorbate 20	Emery
Emsorb 2722	Polysorbate 80	Emery
Emsorb 2726	PEG-20 Sorbitan Diisostearate	Emery
Emsorb 2728	Polysorbate 60	Emery
Emthox 2730	PEG-75 Cocoa Butter Glycerides	Emery
Emthox 2738	PEG-25 Hydrogenated Castor Oil	Emery
Emthox 5882	Laureth-4	Emery
Emthox 5964	Laureth-23	Emery
Emthox 5967	Pareth-25-12	Emery

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emulan HF	Mink oil	Emulan
Emulan "Ultra Fine"	Mink oil	Emulan
Emulgade F	Cetearyl Alcohol (and) PEG 40 Castor Oil (and) Sodium Cetearyl Alcohol	Henkel
Emulgade K	Ceteralkonium Bromide (and) Tallow Alcohol (and) Ceteareth-12	Henkel
Emulgade 1000NI	Cetearyl Alcohol (and) Ceteareth-20	Henkel
Emulgator E2149	Steareth-7 (and) Stearyl Alcohol	Goldschmidt
Emulgator E2155	Steareth-7 (and) Stearyl Alcohol (and) Steareth-10	Goldschmidt
Emulgin B1	Ceteareth-12	Henkel
Emulgin B2	Ceteareth-20	Henkel
Emulgin B3	Ceteareth-30	Henkel
Emulgin C-700	Ceteareth-12	Henkel
Emulphor ON870	Oleth 20	GAF
Emulsogen LP		Hoechst
Emulsynt 1055	Polyglyceryl-4 Oleate (and) PEG-8 Propylene Glycol Coccoate	Van Dyk
Emulsynt GDL	Glyceryl Dilaurate	Van Dyk
Emulvis	PEG (6000) Distearate	Hall
Epidermin in oil		Henkel
Epigran		Keimdiat
Ervol	White Mineral Oil	Witco
Escalol 106	Glyceryl PABA	Van Dyk
Escalol 507	Octyl Dimethyl PABA	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Escalol 557	Octyl Methoxycinnamate	Van Dyk
Escalol 567	Benzophenone-3	Van Dyk
Esi-Terge B-15	Detergent Chemical	Emul. Sys.
Esi-Terge S-10	Detergent Chemical	Emul. Sys.
Esi-Terge T-60	Detergent Chemical	Emul. Sys.
Essential Oil	Essential Oil	Haarman
Ethomeen C-25	PEG-15 Cocamine	Akzo
Ethomeen 18/15	PEG-5 Stearamine	Akzo
Ethoxylan 50	PEG-75 Lanolin	Emery
Ethoxylan 1685	PEG-75 Lanolin	Emery
Ethoxylan 1686	PEG-75 Lanolin	Emery
Ethoxyl 16	Ethoxylated Oleyl Alcohol	Emery
Ethoxyl 1687	PEG-24 Hydrogenated Lanolin	Emery
Ethoxyl 1707	Emulsifying Acetate Ester	Emery
Etha-Keratin A-20	Ethyl Ester of Hydrolyzed Keratin	Brooks
Eucalyptus HS	Eucalyptus Extract	Tri-K
Euperlan PK771	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	Henkel
Euperlan PK-789	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	Henkel
Euperlan PK-810	Glycol Distearate (and) Sodium Laureth Sulfate (and) Cocamide MEA (and) Laureth-9	Henkel
Euperlan PK-850	Pearlizing Agent	Henkel
Eusolex 232		E. Merck

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Eusolex 6300		E. Merck
Eutanol G-16	Isocetyl Alcohol	Henkel
Euxyl K100	Benzyl Alcohol (and) Methyl- isochloroisoethiozolinone (and) Methylisothiazoline	Schulke
Euxyl K200	Imidazolidinyl Urea	Schulke
Eutanol G	Octyl dodecanol	Henkel
Euxyl K250	Imidazolidinyl Urea	Schulke
Evening Primrose Oil	Oil of Evening Primrose	Tri-K
Exsypoteins 2%	Hydrolyzed Animal Elastin	Tri-K
Extrakt 52	Mixture of surfactants	Zschimmer
Extrapon Hamamelis Spec.		Dragoco
Extrapon 3-Special		Dragoco
Extrapon Altheae Special		Dragoco
Extrapon Arikin Special		Dragoco
Extrapon Camomile		Dragoco
Extrapon Camomile Special		Dragoco
Extrapon Hamamelis		Dragoco
Extrapon Isoadipate		Dragoco
Extrapon Kamille Special		Dragoco
Extrapon Marigold Special		Dragoco
Extrapon Melisse		Dragoco
Extrapon Phytostimulin		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Extrapon Phytozel-Special		Dragoco
Extrapon Poly-H-Special		Dragoco
Extrapon Rosmarin		Dragoco
Extrapon Rosemary 2/033251		Dragoco
Extrapon Sage Special		Dragoco
Extrapon Sulfovital-Spezial		Dragoco
Extrapon Witch-Hazel	Witch Hazel	Dragoco
Extrapon 1 Special		Dragoco
Extrapon-4 Spezial		Dragoco
Eyebright Extract HS	Euphrasia Extract	Tri-K
FD&C Blue #1 Al Lake in Castor Oil	Al Lake in Castor Oil	Crompton
FD&C Green No. 3	C.I. 42053	Kohnstamm
Finsolv TN	C12-15 Alcohols Benzoate	Finetex
Flavor	Strawberry 1297	Elias
Flavor	Spearmint V-30, 356	I.F.F.
Flexan 130	Polystyrene sulfonate, sodium salt	National Starch
Flexricin 9	Fatty Acid Ester	CasChem
Fluilan	Lanolin Oil	Croda
Foamole A	Linoleamide DEA	Van Dyk
Foamole B	Minkamidopropyl Dimethylamine	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrance CE 1821	Fragrance	Custom Ess
Fragrance E4081	Fragrance	Robertet
Fragrance MF 2724	Fragrance	Mane Fils
Fragrance #M-5574	Fragrance	Tri-K
Fragrance V-3514	Fragrance	Navarome
Fragrance 14390	Fragrance	Ungerer
Fragrance #557664	Fragrance	Universal
Frescolat, 620105 H&R	Menthyl Lactate	Haarman
Fresh Floral	Perfume 40-164P	Alpine
Fresh Floral Woody	Perfume Oil K-79-531	Perry
Fructose WS-FCC (Code 54016)	Fructose	Hoffman
Gaffix VC713	Organic Resin	GAF
Gafquat 755	Quaternium-23	GAF
Gafquat 755N	Polyquaternium-11	GAF
Ganex V-216	PVP/Eicosene Coploymer	GAF
Ganex V-220	PVP/Eicosene Copolymer	GAF
Ganex V-222	PVP/Eicosene Copolymer	GAF
Gantrez ES225	Ethyl ester of PVM/MA copolymer	GAF
Gantrez ES-425	Vinyl Ether Polymer	GAF
Gelvato1 20/90	Polyvinyl Alcohol	Monsanto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Genagen CA-050		Hoechst
Genamin CTAC	Cetrimonium Chloride	Hoechst
Genamin DSAC	Distearyldimonium Chloride	Hoechst
Genamin KDM		Hoechst
Genamin KDM-F	Behentrimonium Chloride	Hoechst
Genamin KS5	PEG-5 Stearyl Ammonium Chloride	Hoechst
Genamin KSE	Distearyl Dimonium Chloride (and) Cetyl Alcohol (and) Ceteareth-15 (and) Ceteareth-3 (and) PEG-3 Distearate	Hoechst
Genamin KSL	PEG-5 Stearyl Ammonium Lactate	Hoechst
Genaminox KC	Cocamine Oxide	Hoechst
Genapol AMS	TEA-PEG-3 Cocamide Sulfate	Hoechst
Genapol ARO Liquid	Sodium Laureth Sulfate	Hoechst
Genapol C100		Hoechst
Genapol CRT 40		Hoechst
Genapol LRO Liquid	Sodium Laureth Sulfate	Hoechst
Genapol LRO Paste	Sodium Laureth Sulfate	Hoechst
Genapol PGM Conc.	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	Hoechst
Genapol PGM Liquid	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	Hoechst
Genapol TS	PEG-3 Distearate	Hoechst
Genapol TSM		Hoechst
Genapol ZRO	Sodium Laureth Sulfate	Hoechst
Genapol ZRP		Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Generol 122	Soya Sterol	Henkel
Generol 122E1	PEG-1-Soya Sterol	Henkel
Generol 122E5	PEG-5-Soya Sterol	Henkel
Generol 122E10	PEG-10-Soya Sterol	Henkel
Germaben II	Propylene Glycol (and) Diazol- idiny Urea (and) Methyl- paraben (and) Propylparaben	Sutton
Germall II	Diazolidiny Urea	Sutton
Germaben II-E	Propylene Glycol (and) Diazol- idiny Urea (and) Methyl- paraben (and) Propylparaben	Sutton
Germall 115	Imidazolidiny Urea	Sutton
Ginseng Extract	Ginseng Extract	Tri-K
Giv-Tan F	Cinoxate	Givaudan
Glossylan	Cosmetic Ingredient	Emery
Glucam E-10	Methyl Gluceth-10	Amerchol
Glucam E-20	Methyl Gluceth-20	Amerchol
Glucam P-10	PPG-10 Methyl Glucose Ether	Amerchol
Glucam P-20	PPG-20 Methyl Glucose Ether	Amerchol
Glucamate SS-20	Methyl Gluceth-20 Sesqui- stearate	Amerchol
Glucamate SSG-20	Methyl Glucoside Fatty Acid Ester Ethoxylate	Amerchol
Glucate SS	Methyl Glucose Sesquistearate	Amerchol
Glyceryl Mono- myristate	Glyceryl Myristate	Givaudan
Glyco DMDMH-55	Preservative	Glyco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Glycosaminglycanes Solution	Glycosaminglycanes	Lipo
Glycosome	Suspension of fraction from bovine brain	Pentapharm
Glydant	DMDM Hydantoin	Lonza
Glydant 40-700	Hydantoin DMDM	Patco
Green Clay	Clay	Tri-K
Grocor 55L	Stearic Acid	Gross
Grocor 5220	Glyceryl Stearate	Gross
Grocor 5500	Glyceryl Stearate	Gross
Grocor 6000 S.E.	Glyceryl Stearate S.E.	Gross
Guar C-261	Guar Hydroxypropyl Trimonium	Henkel
Hair Complex Aquosum	Herb/Vitamin Complex	Richter
Hair Spray Additive S	Rosin Acrylate	BASF
Hamamelis	Witch Hazel	Many
Hamp-ene Na2	Disodium EDTA	Grace
Hamp-ex 80	Pentasodium Pentetate	Grace
Hamosyl C-30	Sodium Cocoyl Sarcosinate	Grace
Hamosyl L-30	Sodium Lauroyl Sarcosinate	Grace
Hampshire DEG	Sodium dihydroxyethylglycinate	Grace
Hartolan Super	Lanolin Alcohol	Croda
Hazelnut Oil	Hazelnut Extract	Tri-K
HDK N 20	Silicone	Wacker

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Henna Neutral 714 691	Henna Extract	Schulke
Herbal Extract	Herbal Extract	Haarman
Herbal Tea E-6367	Fragrance	Shaw Mudge
Hetamide MOC	Lauramide DEA	Heterene
Hetester ISS	Isostearyl Stearoyl Stearate	Heterene
Hetester SSS	Stearyl Stearoyl Stearate	Heterene
Hetester 412	Stearyl Stearate	Heterene
Hetoxamine T-5	PEG-5 Tallowamine	Heterene
Hetoxol OL-23	Oleth-23	Heterene
Hetsorb L-20	Polysorbate 20	
Hexaplant Richter	Plant Extracts	Richter
HMF Complex	Acetamide MEA (and) Panthenol (and) Hydrolyzed Keratin Protein (and) Hydrolyzed Mucopolysaccharides (and) Collagen Linoleate (and) Linoleic Acid (and) Arachidonic Acid (and) Sorbitol (and) Wheat Germ Oil (and) Jojoba (and) Tocopherol (and) Soluble Sulfur	Tri-K
HMP	Hydrolyzed Mucopolysaccharides	Tri-K
Hostacerin WO	Polyglycerol-2 Sesquistearate (and) Beeswax (and) Mineral oil (and) Magnesium Stearate (and) Aluminum Stearate	Hoechst
Hyamine 10X	Methylbenzethonium Chloride	Rohm & Haas
Hyasol	Aqueous Solution of Hyaluronic Acid	Pentapharm
Hydrocoll EN-55	Hydrolyzed Animal Protein	Brooks
Hydrocoll G-40	Hydrolyzed Animal Protein	Brooks
Hydrofol 1295 Acids	Fatty Acid	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hydrofol Acid 1655 CG-NF	Stearic Acid	Sherex
Hydrofol Acid 1895	Stearic Acid	Sherex
Hydrogenated Starch Hydrolysate	Humectant	Lonza
Hydrokeratin AL-30	Hydrolyzed Keratin	Brooks
Hydrolastan	Hydrolyzed Elastin	Pentapharm
Hydrolastane	Hydrolyzed Elastin	Finetex
Hydrolyzed Animal Protein	Hydrolyzed Animal Protein	Inolex
Hoe S 1906		Hoechst
Hoe S 2650	Dilaureth-4 Dimonium Chloride	Hoechst
Hoe S 2721	Polyglyceryl-2 Sesquiliiso- stearate	Hoechst
Hoe S 3267	Cocamidopropyl Betaine	Hoechst
Hoe S 3495	PEG-10 Polyglyceryl-2 Laurate	Hoechst
Hoechst Wax S	Acid wax derived from montan wax	Hoechst
Horse Chestnut AMI	Horse Chestnut Extract	Tri-K
Horsetail Extract AMI	Horsetail Extract	Tri-K
Hostacerin CG	Cetearyl Alcohol (and) Tricet- eareth-4 Phosphate (and) PEG- 6 Oleamide (and) Sodium C14-C17- Sec Alkane Sulfonate	Hoechst
Hostacerin DGO	Polyglyceryl-2 Sesquioleate	Hoechst
Hostacerin DGS	Polyglyceryl-2-PEG-4 Stearate	Hoechst
Hostacerin PN 73	Acrylamide/Sodium Acrylate Copolymer	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hostacerin T-3	Cetareth-3	Hoechst
Hostacerin WO	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	Hoechst
Hostaphat KW340N	Trilaureth-4 Phosphate	Hoechst
Hostapon CT Paste	Sodium Methyl Cococyl Taurate	Hoechst
Hostapon KA Pdr.	Sodium Cocoyl Isethionate	Hoechst
Hostapon KTW	Sodium Lauroyl Tauride	Hoechst
Hostapon STT		Hoechst
Hostapon T	Sodium Methyl Oleyl Taurate	Hoechst
Hostapur SAS 30	Sodium C14-17 Sec Alkyl Sulfonate	Hoechst
Hostapur SAS 60	Sodium C14-17 Sec Alkyl Sulfonate	Hoechst
Hydrogenated Castor Oil	Hydrogenated Castor Oil	NL Chem
Hydroviton		Dragoco
Hydroxyprolisilane	Methylsilanol Hydroxyproline	Tri-K
Hygroplex HHG	Hexylene Glycol (and) Glucose (and) Fructose (and) Sucrose (and) Urea (and) Dextrin (and) Alanine (and) Glutamic Acid (and) Aspartic Acid (and) Hexyl Nicotinate	Henkel
Hyladerm	Hyaluronic Acid, 1%	
Hystrene 9718	Stearic Acid	Humko

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Igepal CO-520	Nonoxynol-5	ICI
Igepal CO-530	Polyoxylated Nonylphenol	GAF
Igepal CO-630	Polyoxylated Nonylphenol	GAF
Igepon AC-78	Sodium Isethionate	GAF
Igepon TC-42	Sodium Methyl Cocoyl Taurate	GAF
Imwitor 191	Glyceryl Stearate	Huls America
Imwitor 370	Glyceryl Stearate Citrate	Huls America
Imwitor 375	Glyceryl Citrate/Lactate/ Linoleate/Oleate	Huls America
Imwitor 780K	Isostearyl Diglyceryl Succinate	Huls America
Imwitor 900	Glyceryl Stearate	Huls America
Imwitor 940	Palm Oil Glycerides	Huls America
Imwitor 960K	Glyceryl Stearate SE	Huls America
Incromate SDL	Stearamidopropyl Dimethylamine Lactate	Croda
Incromectant AMEA-70	Acetamide MEA	Croda
Incromectant LMEA	Lactamide MEA	Croda
Incromide CA	Cocamide DEA	Croda
Incromide LR	Lauramide DEA	Croda
Incromine Oxide C	Cocamidopropylamine Oxide	Croda
Incromine Oxide I	Isostearamidopropylamine Oxide	Croda
Incromine Oxide S	Stearyl Dimethyl Amine Oxide	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Incromine SB	Stearamidopropyl dimethylamine	Croda
Incronam 30	Cocamidopropyl Betaine	Croda
Incronol TLS	Triethanolamine Lauryl Sulfate	Croda
Incropol CS-20	Ceteareth 20	Croda
Incroquat Behenyl TMS	Behenyl Trimethyl Ammonium Methosulfate/Cetearyl Alcohol	Croda
Incroquat BTQ-25	Behentrimonium Methosulfate (and) Cetearyl Alcohol	Croda
Incroquat S-85	Stearalkonium Chloride	Croda
Incrosal LS	Disodium Lauryl Sulfosuccinate	Croda
Indopol H-100	Polybutene	Amoco
Indopol H-1500	Polybutene	Amoco
Intermediate 2364	70% DEET, 20% MGK 264, 10% MGK Repellent 326	MGK
Intermediate 6561	70% DEET, 20% MGK 264, 10% MGK Repellent 11	MGK
Iodobio 45 AMI	TEA Hydroiodide	Tri-K
Ionol CP	2,6-di-tert-butyl-4-methylphenol	Shell
Irgasan DP-300	Triclosan	Ciba-Geigy
Iron Oxide PC1136	Iron Oxide	Rasquin
Iron Oxide PC1168	Iron Oxide	Rasquin
Iron Oxide PC1218	Iron Oxide	Rasquin
Iso-Adipat	Diisopropyl Adipate	Dragoco
Isocetyl Stearate	Isocetyl Stearate	Inolex
Isopar K	C11-12 Isoparaffin	Exxon
Isopropyl Isostearate	Isopropyl Isostearate	Gattefosse
Isopropyl Lanolate	Isoprpyl Lanolate	Emery
Isopropyl Myristate	Isopropyl Myristate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Iverlan AWS	PPG-12 PEG-65 Lanolin Oil	Brooks
Jaguar C-13-S	Guar Hydroxypropyltrimonium Chloride	Hoechst
Jaguar C-13-SD	Guar Hydroxypropyltrimonium Chloride	Hoechst
Jaguar C-14-S	Guar Hydroxypropyltrimonium	Hoechst
Jaguar C-17	Guar Hydroxypropyltrimonium Chloride	Hoechst
Jaguar HP-60	Hydroxypropyl Guar	Hoechst
Jojoba Oil	Jojoba Oil	Many
Jordamox LDA	Lauramine Oxide	Mazer
Jordapon C1	Sodium Cococoyl Isethionate	Mazer
Jordapon C1-50	Sodium Cococoyl Isethionate	Mazer
Jordaquat Dimer 18	Benzalkonium Chloride	Mazer
Jordaquat 41	Benzalkonium Chloride	Mazer
Jordaquat 522	Benzalkonium Chloride	Mazer
Jordaquat 1033	Benzalkonium Chloride	Mazer
Jordaquat JS-25	Benzalkonium Chloride	Mazer
Jordawet DMDS	Disodium Oleamido PEG-2 Sulfosuccinate	Mazer
Jordawet DSLES	Disodium Laureth Sulfosuccinate	Mazer
Jorquest 100	Surfactant	Mazer
Jortaine CAB-30	Cocamidopropyl Betaine	Mazer
Jortaine CSB	Cocamidopropyl Hydroxysultaine	Mazer
Jortaine CSB-50	Cocamidopropyl Hydroxysultaine	Mazer
Jortaine LMAB	Lauramidopropyl Betaine	Mazer
Juniper HS	Juniper Extract	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Kaliumsorbate		Hoechst
Kallikrein	Pancreas Extract	Tri-K
Karion		E. Merck
Karion F		E. Merck
Kathon CG	Isothiazolone Microbiocide	Rohm & Haas
Katioran AF	Stearamide DEA (and) Cetear-eth-25	BASF
Kaydol	Mineral Oil	Witco
Kaydol White	Mineral Oil	Witco
Kelate 200	Tetrasodium EDTA	Tri-K
Kelate 220	Tetrasodium EDTA	Tri-K
Keltrol	Xanthan Gum	Merck
Kerasol	Soluble Animal Keratin	Croda
Kessco Glycerol Monostearate S.E.	Glyceryl Stearate S.E.	Akzo
Kessco PEG-100	PEG-4 Dilaurate	Akzo
Kessco PEG-400	PEG-8 Dioleate	Akzo
Kessco PEG-400	PEG-8 Distearate	Akzo
Kessco PEG-1000	PEG-20 Stearate	Akzo
Kessco PEG-6000	PEG-150 Distearate	Akzo
Kessco-653	Fatty Acid Ester	Akzo
Klearol	Mineral Oil	Witco
Klucel GF	Hydroxypropylcellulose	Hercules
Klucel H	Hydroxypropylcellulose	Hercules

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Klucel HF	Hydroxypropyl Cellulose	Hercules
Klucel MF	Hydroxypropyl Cellulose	Hercules
Kronos RN 56	Titanium Dioxide	Degussa
Lactic Acid	Lactic Acid	Tri-K
Lactic Acid (44%)	Lactic Acid	Patco
Lactic Acid (88%)	Lactic Acid	Patco
Lactil	Sodium Lactate (and) Sodium PCA (and) Collagen (and) P-D Arabinohexulose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid	Goldschmidt
Lactoferrin AMI	Lactoferrin	Tri-K
Lactoperoxidase AMI	Lactoperoxidase	Tri-K
Lakeway 301-10	Sodium C14-16 Olefin Sulfonate	Lakeway
Lamepon S	Potassium-Coco-Hydrolysed Animal Protein	Haarman
Lanacet	Acetylated Lanolin	Emery
Lanacet 1705	Acetylated Lanolin	Emery
Lanaetex 75	Acetylated Lanolin Alcohols	Lanaetex
Lanapene	Isopropyl Lanolate (and) Lecithin	Lanaetex
Lanasan CL	Hydrolyzed Animal Protein	Sandoz

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Laneth-5	Spermaceti	Amerchol
Lanette E	Sodium Cetearyl Sulfate	Henkel
Lanette N	Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	Henkel
Lanette O	Cetearyl Alcohol	Henkel
Lanette SX	Cetearyl Alcohol (and) Sodium Lauryl Sulfate	Henkel
Lanette 14	Myristyl Alcohol	Henkel
Lanette 16	Cetyl Alcohol	Henkel
Lanexol AWS	PPG-12-PEG-50 Lanolin	Croda
Lanfrax 1777	Lanolin Wax	Emery
Lanogene	Lanolin Oil	Amerchol
Lanolin	Lanolin	Many
Lanoquat 50	Quaternary Product	Emery
Lanoquat 1756	Quaternium 33 (and) Ethyl Hexanediol	Emery
Lantex 55	PEG-75 Lanolin	Lanaetex
Lantrol	Lanolin Oil	Emery
Lantrol AWS	Lanolin Oil	Emery
Lantrol AWS 1692	PPG-12-PEG-65 Lanolin Oil	Emery
Lantrol 1673	Lanolin Oil	Emery
Lantrol 1674	Lanolin Oil	Emery
Lathanol LAL	Sodium Lauryl Sulfoacetate	Stepan
Laponite XLS	Sodium Magnesium Silicate	
Lauridit KD	Fatty Acid Alkanolamide	Akzo
Lavender	Lavender Extract	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lexaine C	Cocoamidopropyl Betaine	Inolex
Lexamine M-13	Cationic Emulsifier	Inolex
Lexamine S-13	Stearamidopropyl Dimethylamine	Inolex
Lexamul EGDS	Ethylene Glycol Distearate	Inolex
Lexein LP170	Hydrolyzed Animal Protein	Inolex
Lexein QX300	Hydrolyzed Animal Protein	Inolex
Lexein X-250	Hydrolyzed Animal Protein	Inolex
Lexemul 55G	Emulsifier	Inolex
Lexemul 561	Emulsifier	Inolex
Lexgard M	Polycarbonate	GE Plastics
Lexgard P	Polycarbonate	GE Plastics
Leximine S-13		Sherex
Lexol HDS	Isocetyl Stearate	Inolex
Lexol PG 8-10	Propylene Glycol Dicaprylate/ Dicaprata	Inolex
Lexol PG 865	Caprylic/Capric Triglyceride	Inolex
Lexol PG 900	Emollient Ester	Inolex
Lipacide PCO	Amide	Lipo
Lipacide L-9	Amide	Lipo
Lipitein P	Animal Skin Lipids	Hormel
Lipo GMS-450	Glyceryl Stearate	Lipo
Lipo GMS-470	Glyceryl Stearate SE	Lipo
Lipobee 102	Synthetic Beeswax	Lipo
Lipocol C	Polyoxyethylene Fatty Ether	Lipo
Lipocol IS-20	Polyoxyethylene Fatty Ether	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipocol S	Polyoxyethylene Fatty Ether	Lipo
Lipocol S-2	Steareth-2	Lipo
Lipocol S-20	Steareth-20	Lipo
Lipolan Distilled	Distilled Hydrogenated Lanolin	Lipo
Lipolan R	Lanolin Oil	Lipo
Lipolan 31	PEG-24 Hydrogenated Lanolin	Lipo
Lipo Lufa 30/100	Luffa	Lipo
Lipomulse 165	Glyceryl Monostearate	Lipo
Liponate GC	Caprylic/Capric Triglyceride	Lipo
Liponate IPP	Isopropyl Palmitate	Lipo
Liponate MM	Myristyl Myristate	Lipo
Liponate NPGC-2	Neopentylglycol Dicaprylate/ Dicaprata	Lipo
Liponate SPS	Cetyl Esters	Lipo
Liponate TDS	Tridecyl Stearate	Lipo
Liponic EG-1	Glycereth-26	Lipo
Liponic EG-7	Glycereth-7	Lipo
Lipopeg 100-S	PEG-100 Stearate	Lipo
Lipopeg 200DL	PEG-4 Dilaurate	Lipo
Lipophos TA	Phosphate Ester	Lipo
Lipoquat R	Fatty Acid Amide Ethosulfate	Lipo
Liposorb O	Sorbitan Oleate	Lipo
Liposorb O-20	Polysorbate 80	Lipo
Liposorb P	Sorbitan Palmitate	Lipo
Liposorb P-20	Polysorbate 40	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Liposorb S	Sorbitan Stearate	Lipo
Liposorb SQO	Sorbitan Sesquioleate	Lipo
Liposorb T-20	Sorbitan Ester	Lipo
Liposorb TO-20	Polyoxyethylene Sorbitan Ester	Lipo
Lipovol ALM	Sweet Almond Oil	Lipo
Lipovol C-76	Natural Vegetable Oil	Lipo
Lipovol HS	Natural Vegetable Oil	Lipo
Lipovol J	Natural Vegetable Oil	Lipo
Lipovol MOS-70	Tridecyl Stearate (and) Neopentylglycol Dicaprylate/Caprates (and) Tridecyl Trimellitate	Lipo
Lipovol MOS-130	Tridecyl Stearate (and) Tridecyl Trimellitate (and) Dipentaerythrityl Hexacaprylate/Hexacaprate	Lipo
Lipovol O	Natural Vegetable Oil	Lipo
Lipovol SES	Sesame Oil	Lipo
Lipovol SUN	Sunflower Seed Oil	Lipo
Lipowax D	Cetearyl Alcohol (and) Cetareth-20	Lipo
Lipowax NI	Cetearyl Alcohol (and) Ceteth-20	Lipo
Lipowax P	Emulsifying Wax, NF	Lipo
Lipowax P-31	Emulsifying Wax	Lipo
Liquid Vitamin A Palmitate (Code 63828)	Retinyl Palmitate (and) Corn Oil	Roche
Liquid Vitamin D3 (Code 63643)	Cholecalciferol (and) Corn Oil	Roche
Liqui Par	Isopropyl/isobutyl/butylparaben	Mallin.
Liquor Carbonis Detergens Hippocastani	Liquor Carbonis Detergens Hippocastani	Fresenius

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Locron L		Hoechst
Lo-Micron Talc #1	Talc	Whittaker
Lonzest EGMS	Ester	Lonza
Lonzest SML-20	Ester	Lonza
Lunacera Alba	Beeswax	Fuller
Lunacera C40	Wax	Fuller
Lunacera C44	Special Wax	Fuller
Lunacera C46	Wax	Fuller
Lunacera M	Ozokerite Wax	Fuller
Lunacera MW	Ozokerite Wax	Fuller
Lunacera MWN	Ozokerite Wax	Fuller
Lunacera PA 5493	PE-Wax-Paste	Fuller
Lunacera PE-P	PE-Wax	Fuller
Luperco AA	Benzoyl Peroxide	Lucidol
Lusantam 25	UV Absorber	BASF
Lustra-Pearl Glimmer	Mica (and) Titanium Dioxide	Van Dyk
Lustra-Pearl Gloss Pearlescent	Mica (and) Titanium Dioxide	Van Dyk
Lustra-Pearl Gold Pearlescent	Mica (and) Titanium Dioxide (and) Iron Oxide	Van Dyk
Lustra-Pearl Satin	Mica (and) Titanium Dioxide	Van Dyk
Lustra-Pearl Silk Pearlescent	Mica (and) Titanium Dioxide	Van Dyk
Lutensit TC-KD	Cocamide DEA	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lutrol E400	PEG-9	BASF
Luviquat Mono CP	Hydroxyethyl Cetyldimonium Phosphate	BASF
Luviquat FC 370	Polyquaternium-16	BASF
Luviquat FC 550	Polyquaternium-16	BASF
Luviquat FC 905	Polyquaternium-16	BASF
Luviset CA66	Vinyl Acetate/Crotonic Acid Copolymer	Sherex
Luviset CAP	Vinyl Acetate/Crotonic Acid/ Vinyl Propionate Copolymer	BASF
Luviskol	Polyvinylpyrrolidone	BASF
Luviskol K30	Polyvinylpyrrolidone	BASF
Luviskol VA28I	PVP/VA Copolymer	BASF
Luviskol VA37	PVP/VA Copolymer	BASF
Luviskol VA37E	PVP/VA Copolymer	BASF
Luviskol VA37I	PVP/VA Copolymer	BASF
Luviskol VA55E	PVP/VA Copolymer	BASF
Luviskol VA55I	PVP/VA Copolymer	BASF
Luviskol VA64	PVP/VA Copolymer	BASF
Luviskol VAP 343 E	PVP/VA/Vinyl Propionate Copolymer	BASF
Luviskol VAP 343 I	PVP/VA/Vinyl Propionate Copolymer	BASF
Luvitol EHO	Cetearyl Octanoate	BASF
Luvitol HP	Hydrogenated Polyisobutylene	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Madder Red	Basic Red 76	Tri-K
Magnabrite HV	Magnesium Aluminum Silicate	Lehmann
Magnabrite S	Magnesium Aluminum Silicate	Lehmann
Magnesium Carbonate #690	Magnesium Carbonate	Whittaker
Magnesium Sulfate- 7 mol H ₂ O	Magnesium Sulfate	E. Merck
Mahogany	Mahogany	Tri-K
Mapeg CO-36	PEG-36 Castor Oil	Mazer
Mapeg 400 ML	PEG-8 Laurate	Mazer
Mapeg 6000 DS	PEG 150 Distearate	Mazer
Maprofix ES	Alkyl Ether Sulfate	Stepan
Maprofix ESY	Sodium Laureth Sulfate	Stepan
Maprofix LES-60A	Ammonium Laureth Sulfate	Stepan
Maprofix NH	Ammonium Lauryl Sulfate	Stepan
Maprofix SP	Lauryl Sulfate	Stepan
Maprofix TLS-65	Lauryl Sulfate	Stepan
Maprofix TLS-500	TEA-Lauryl Sulfate	Stepan
Maprofix WAC	Sodium Lauryl Sulfate	Stepan
Maprofix WAC-LA	Lauryl Sulfate	Stepan
Maprofix WAQ	Sodium Lauryl Sulfate	Stepan
Maprofix 563	Sodium Lauryl Sulfate	Stepan
Maprolyte C	Cocamidopropyl Betaine	Stepan
Maprosyl C	Cocoyl Sarcosine	Stepan
Maprosyl 30	Sodium Lauroyl Sarcosinate	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Maquat B-50	Myristalkonium Chloride	Mason
Maquat SC-18	Stearalkonium Chloride	Mason
Maquat SC18-35	Stearalkonium Chloride	Mason
Marcol 70	Mineral Oil	Exxon
Marcol 130	Mineral Oil	Exxon
Marlopon AT 50		Chemische
Matricaria Extract	Matricaria Extract	Gattefosse
Maypon 4C	Potassium-Coco Hydrolyzed Animal Protein	Stepan
Maypon 4CT	TEA-Coco-Hydrolyzed Animal Protein	Stepan
Maypon UD		Stepan
Mazer Macol CA-30P	Polyoxyethylene Fatty Ether	Mazer
Mazer Macol CPS	Cetearyl Alcohol (and) Polisorbate 60 (and) PEG-150 Stearate (and) Ceteareth-20	Mazer
Mazer Macol CSA-20	Ceteareth-20	Mazer
Mazer Macol E-1000	PEG-20	Mazer
Mazer Macol E-1450	PEG-32	Mazer
Mazer Macol GMS	Poloxyethylene Fatty Ether	Mazer
Mazer Macol OA-5	Oleth-5	Mazer
Mazer Macol OP-10	Surfactant. HLB: 13.4	Mazer
Mazer Macol P-500	Polypropylene Glycol. MW: 500	Mazer
Mazer Macol 124	Cetearyl Alcohol and Ceteareth-20	Mazer
Mazer Macol 125	Stearyl Alcohol and Ceteareth-20	Mazer

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mazer Macol 159	Glycerol Ester	Mazer
Mazer Macol 165	Glyceryl Stearate (and) PEG-100 Stearate	Mazer
Mazer Macol 165C	Glycerol Ester	Mazer
Mazer Macol 1400	Glycerol Ester	Mazer
Mazer Mafo CAB	Cocamidopropyl Betaine	Mazer
Mazer Mapeg EGDS	Glycol Distearate	Mazer
Mazer Mapeg EGMS	Glycol Stearate	Mazer
Mazer Mapeg S-40	PEG-40 Stearate	Mazer
Mazer Mapeg 200 DL	PEG-4 Dilaurate	Mazer
Mazer Mapeg 200 DS	PEG-4 Distearate	Mazer
Mazer Mapeg 6000 DS	PEG-150 Distearate	Mazer
Mazer Maphos L-13	Phosphate Ester	Mazer
Mazer Masil SF-V	Silicone Fluid	Mazer
Mazer Masil SF VL	Volatile Silicone Fluid	Mazer
Mazer Masil 162-103	Volatile Silicone Fluid	Mazer
Mazer Masil 224-120	Volatile Silicone Fluid	Mazer
Mazer Masil 556	Volatile Silicone Fluid	Mazer
Mazer Masil 1066C	Silicone Glycol	Mazer
Mazer Mazamide CS148	Alkanolmide. Coconut.	Mazer
Mazer Mazamide O-20	Alkanolamide. Oleic.	Mazer
Mazer Mazamide 80	Alkanolamide. Coconut.	Mazer
Mazer Mazol PG810	Glycerol Ester	Mazer
Mazer Mazol 159	PEG-7 Glyceryl Cocoate	Mazer
Mazer Mazol 165C	Glycerol Ester	Mazer

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mazer Mazol 1400	Glycerol Ester	Mazer
Mazer Mazon DF200S	Proprietary Specialty	Mazer
Mazer Mazon 36	Proprietary Specialty	Mazer
Mazer Mazu DF200S	Defoamer	Mazer
Mazer S-Maz 20	Sorbitan Laurate	Mazer
Mazer S-Maz 60	Sorbitan Stearate	Mazer
Mazer S-Maz 80	Sorbitan Oleate	Mazer
Mazer T-Maz 20	Polysorbate 20	Mazer
Mazer T-Maz 28	PEG-80 Sorbitan Laurate	Mazer
Mazer T-Maz 60	Polysorbate 60	Mazer
Mazer T-Maz 80	Polysorbate 80	Mazer
Mazer T-Maz 85	Polysorbate 85	Mazer
Medialan KA	Sodium Cocoyl Sarcosinate	Hoechst
Medialan KF	TEA-Palm Kernel Sarcosinate	Hoechst
Medialan LD	Sodium Lauroyl Sarcosinate	Hoechst
1-Menthol 620001 H&R	Menthol	Haarman
Merquat 100	Polyquaternium-6	Merck
Merquat 550	Polyquaternium-7	Merck
Methocel E4M	Hydroxypropyl Methylcellulose	Dow
Methocel F4M	Hydroxypropyl Methylcellulose	Dow
Methocel K4M	Hydroxypropyl Methylcellulose	Dow
Methocel K15M	Hydroxypropyl Methylcellulose	Dow
Methocel 65HG	Hydroxypropyl Methylcellulose	Dow
Methocel 40-202	Hydroxypropyl Methylcellulose	Dow
Methocel 40-100	Hydroxypropyl Methylcellulose	Dow

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Methylparaben	Methylparaben	Many
MGK Repellent 326	Di-n-propyl isocinchomerate	MGK
MGK 264	N-octyl bicycloheptene dicarb- oxyimide	MGK
MGK Repellent 11	2,3: 4,5-Bis(2-butylene)tetra- hydro-2-furaldehyde	MGK
MGK 5734	N,N-diethyltoluamide(95% meta)	MGK
Micro Dry	Aluminum Chlorohydrate	Reheis
Microthene MN-772	Powdered Polyethylene	U.S.I.
Microwax (HP-67)	Microwax	Schutz
Miglyol-Gel	Caprylic/Capric Triglyceride and Stearylalkonium Hectorite(Bentone) (and) Propylene Carbonate	Huls
Miglyol 810	Caprylic/Capric Triglyceride	Huls
Miglyol 812	Caprylic/Capric Triglyceride	Huls
Miglyol 818	Caprylic/Capric Linoleic Triglyceride	Huls
Miglyol 829	Caprylic/Capric Diglyceryl Succinate	Huls
Miglyol 840	Propylene Glycol Dicaprylate/ Dicaprinate	Huls
Mineral Oil #7NF	Mineral Oil	Amoco
Mink Oil	Mink Oil	Emulan
Miranate LEC	Sodium Laureth-13 Carboxylate	Miranol
Miranate LSS	Disodium Lauryl Sulfosuccinate	Miranol
Miranate SSB	Surfactant	Miranol
Miranol BM Conc.	Lauroamphodiacetate	Miranol
Miranol BT	Lauroamphocarboxyglycinate (and) Sodium Trideceth Sulfate	Miranol
Miranol CS Conc.	Cocoamphohydroxypropylsulfonate	Miranol
Miranol CM Conc. N.P.	Cocoamphoacetate	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Miranol CM-SF Conc.	Cocoamphopropionate	Miranol
Miranol C2M Conc.N.P.	Cocoamphodiacetate	Miranol
Miranol C2M-SF Conc.	Cocoamphodipropionate	Miranol
Miranol DM	Stearoamphoacetate	Miranol
Miranol SM Conc.	Caproamphoacetate	Miranol
Miranol Ester PO-LM4	Polyentaerythrityl Tetra-laurate	Miranol
Miranol HM Conc.	Lauroamphoacetate	Miranol
Miranol H2M Conc.	Lauroamphodiacetate	Miranol
Miranol MHT	Lauroamphoacetate (and) Sodium Trideceth Sulfate	Miranol
Miranol OS-D	Oleoamphohydroxypropylsulfonate	Miranol
Miranol SM Conc.	Caproamphoacetate	Miranol
Miranol 2MCA Modified	Cocoamphodiacetate (and) Sodium Lauryl Sulfate (and) Hexylene Glycol	Miranol
Miranol 2MCA-ESF	Cocoamphodipropionate (and) Sodium Lauryl Sulfate	Miranol
Miranol 2MCAS Modified	Cocoamphodiacetate (and) Sodium Lauryl Sulfate (and) Sodium Laureth Sulfate (and) Propylene Glycol	Miranol
Miranol 2MHT Modified	Lauroamphodiacetate (and) Sodium Trideceth Sulfate (and) Hexylene Glycol	Miranol
Mirapol A-15	Polyquaternium-2	Miranol
Mirapol AD-1	Polyquaternium-17	Miranol
Mirapol AZ-1	Polyquaternium-18	Miranol
Mirapol 9	Polyquaternium-2	Miranol
Mirapol 95	Polyquaternium-27	Miranol
Mirapol 175	Polyquaternium-27	Miranol
Mirataine BB	Lauramidopropyl Betaine	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mirataine CB	Cocamidopropyl Betaine	Miranol
Mirataine CBC	Cocamidopropyl Betaine	Miranol
Mirataine CBS	Cocamidopropyl Hydroxysultaine	Miranol
Mirataine COB	Coco/Oleamidopropyl Betaine	Miranol
Mirataine ODMB-35	Oleyl Betaine	Miranol
Mirataine TM	Dihydroxyethyl Tallow Glycinate	Miranol
Mirataine XL	DEA-Lauryl Sulfate (and) DEA-Lauraminopropionate (and) Sodium Lauraminopropionate (and) Propylene Glycol	Miranol
Modern Crisp Green	Perfume Oil K-79-532	Patco
Modulan	Acetylated Lanolin	Amerchol
Monamate CPA-40	Disodium Cocamido Mipa-Sulfosuccinate	Mona
Monamate LNT-40	Ammonium Lauryl Sulfosuccinate	Mona
Monamate OPA-30	Anionic Detergent	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid R31-42	Lauramide DEA (and) Propylene Glycol	Mona
Monamid 150 ADD	Cocamide DEA	Mona
Monamid 150 LM	Myristamide DEA	Mona
Monamid 150 LW	Lauramide DEA	Mona
Monamid 150 LWA	Lauramide DEA	Mona
Monamid 150 MW	Myristamide DEA	Mona
Monamid 716	Lauramide DEA	Mona
Monamid 718	Stearamide DEA	Mona
Monamid 1007	Lauramide DEA (and) Linoleamide DEA	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monamid 1034	Cocamide DEA	Mona
Monamid 1089	Lauramide DEA	Mona
Monaquat P-TC	Cocamidopropyl PG-Dimonium Chloride Phosphate	Mona
Monaquat P-TS	Stearamidopropyl PG-Dimonium Chloride Phosphate	Mona
Monateric CAB	Cocoamidopropyl Betaine	Mona
Monateric CEM-38	Cocoamphopropionate	Mona
Monateric CSH-32	Dicarboxymethyl Fatty Acid Derived Imidazoline	Mona
Monateric ISA-35	Amphoteric-12	Mona
Monateric LMAB	Lauramidopropyl Betaine	Mona
Monateric 805	Cocoamphodiacetate (and) Disodium Cocamide MIPA-Sulfosuccinate	Mona
Monateric 1202	Dihydroxyethyl Tallow Acetate	Mona
Monawet MO70S	Wetting Agent	Mona
Monawet MO85P	Wetting Agent	Mona
Morton X-303	Cosmetic Ingredient	Morton
Mowiol 10-98	Polyvinyl Alcohol Resin	Hoechst
Mulsifan RT 7	Ethoxylated Triglyceride	Zschimmer
Mulsifan RT 203/80	Pareth-25-12	Zschimmer
Multiwax ML-445	Refined Microcrystalline Wax	Witco
Multiwax W-180	Microcrystalline Wax	Witco
Multiwax 180M	Microcrystalline Wax	Witco
Multiwax 835	Microcrystalline Wax	Witco
Myritol 318	Caprylic/Capric Triglyceride	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Myrj 52	PEG-50 Stearate	ICI
Myrj 52S	PEG-40 Stearate	ICI
Myrj 59	PEG-100 Stearate	ICI
Myverol 18-00	Hydrogenated Animal Glyceride	Eastman
Nadex 360	Dextrin	Nat. Starch
Natrosol 250 HHR	Hydroxyethylcellulose	Hercules
Natrosol 250 HR	Hydroxyethylcellulose	Hercules
Natural Shampoo Base	Shampoo Base	Tri-K
Naturechem GMHS	Glyceryl Hydroxystearate	CasChem
Neobee M-20	Propylene Glycol Dicaprylate/ Dicaprinate	Stepan
Neobee 18	Cosmetic Oil	Stepan
Neodol 25-3S	Surfactant	Shell
Neo-Extrapon Camom- ile Liquid		Dragoco
Neo-Extrapon Linden Blossom Liquid		Dragoco
Neo-Fat 12	Fatty Acid	Azko
Neo-Heliopan A&B	Light Barrier Agent	Haarman
Neo-Heliopan AV	Octyl Methoxycinnamate	Haarman
Neo-Heliopan E1000	Light Barrier Agent	Haarman
Neo-Heliopan Hydro 103089	Phenylbenzimidazole Sulfonic Acid	Haarman
Neo-Heliopan Type AV 660523 H&R	Octyl Methoxycinnamate	Haarman

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Neo Heliopan Type BB, Benzophenone-3 116 210 H&R		Haarman
Neo Heliopan Type MA, Menthyl Anthranilate 600096		Haarman
Neo Heliopan Type OS, Octyl Salicylate 131494		Haarman
Neo-PCL Water Soluble	Mixture of an ethoxylated fatty-acid polyglycol ester and an alkylphenol polyglycol ether	Dragoco
Nettles 5:1 PG	Nettle	Lipo
Neutrol TE	Tetrahydroxypropyl Ethylene-diamine	BASF
Newport Bathing Salt	Mixing Salt	Int. Salt
Newsulfur-W	Soluble Sulfur Complex	Tri-K
Nimco 1780	Lanolin Alcohol	Emery
Nimco 1795	Lanolin Alcohol	Emery
Nimcolan 1740	Petrolatum (and) Lanolin (and) Lanolin Alcohol	Emery
Nimcolan 1747	Petrolatum (and) Lanolin (and) Lanolin Alcohol	Emery
Nimlesterol D	Mineral Oil (and) Lanolin Alcohol	Emery
Nimlesterol 1730	Mineral Oil (and) Lanolin Alcohol	Emery
Nimlesterol 1732	Mineral Oil (and) Lanolin Alcohol	Emery
Ninol 2012EX	Fatty Acid Diethanolamide (FADEA)	Stepan
Nipacide PX	P-chloro-m-xyleneol-PCMX	NIPA
Nipasteril 30K		Akzo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nitrene L-90	Lauramide DEA	Henkel
N,N-diethyltoluamide	N,N-diethyltoluamide	MGK
Noville #88770	Fragrance	Henkel
Novol	Distilled Oleyl Alcohol	Croda
Nutrilan I	Hydrolized Animal Protein	Henkel
Nutrilan L	Hydrolized Animal Protein	Henkel
Octipirox		Hoechst
Octyldimethyl PABA	Octyl Dimethyl P-aminobenzoate	Nat.Starch
Octyl Salicylate	UV Absorber	Felton
Ohlan	Hydrogenated Lanolin	Amerchol
Onymyrrhe	Biological Nail Regenerator	Tri-K
Onyxol 345	Fatty Acid Condensate	Onyx
Oppanol B3	Polyisobutylene	BASF
Organic Silicon	Slenderizing Product	Tri-K
Orgasol 2002D Ex. Nat. Cos.	Nylon-12	Lipo
Orgasol 20003D Ex. White 5 Cos.	Nylon-12	Lipo
Orotic Acid	Orotic Acid	Merck
O Vulcan Pumice	Pumice	Crystal
Oxynex 2004		Akzo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Oxypon 2145	Ethoxylated Glyceryl Iso-stearate	Zschimmer
Ozokerite	Mineral Wax	Int. Wax
Ozokerite	Mineral Wax	F.B.Ross
Ozokerite, 180F	Mineral Wax	F.B.Ross
Ozokerite 1544	Mineral Wax	F.B.Ross
Ozokerite No. 4	Ceresin	Int. Wax
Ozokerite Wax	Mineral Wax	Parson
Ozokerite White 170	Mineral Wax	Strahl
Pale Gold Glitter	.004x.004x.001	Meadowbrook
Palmitic Acid	Palmitic Acid	Akzo
Panthenol	Panthenol	Givaudan
Para Chloro Meta Xylenol	Para Chloro Meta Xylenol	Ottawa
Paraffin 130/135	Paraffin Wax	F.B.Ross
Paraffin Oil 34 cP	Mineral Oil	Hansen
Paraffin Oil 65 cP	Mineral Oil	Hansen
Paraffin Oil 200 cP	Mineral Oil	Goldschmidt
Paraffin Wax #133/35	Paraffin Wax (Refined)	F.B.Ross
Paraffin 143/148	Paraffin Wax	Int.Wax
Paricin 9	Alkyl Hydroxystearate	CasChem
Parsol MCX	Octyl Methoxycinnamate	Givaudan
Parsol 1789	Butyl Methoxydibenzoylmethane	Givaudan
Pationic CSL	Calcium Stearoyl-2-Lactylate	Patco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pationic ISL	Sodium Isostearyl-2-Lactylate	Patco
Pationic SSL	Glycerol Monostearate	Patco
Pationic 138C	Sodium Lauroyl Lactylate	Patco
Pationic 145A	Sodium Stearoyl-1-Lactylate	Patco
Patlac CA-95 NF	Cetyl Alcohol	Patco
Patlac IL	Isostearyl Lactate	Patco
P-Chloro-m-Xylenol-PCMX	Para Chloro Meta Xylenol	NIPA
PCL-Liquid	Mixture of alkyl-branched fatty-acid esters	Dragoco
PCL-Solid	Colorless waxy lipid of neutral odor	Dragoco
Peach Water Soluble	Peach Extract	Tri-K
Pearl-Glo UVR	Bismuth Oxychloride	Van Dyk
Pearlwhite	Pigment	Mearl
Pefalipin		Pentapharm
Perfecta	Petrolatum, USP	Witco
PEG-8 Distearate	PEG-8 Distearate	Stepan
PEG-20 Sorbitan Beeswax	Polyoxyethylene (20) sorbitol beeswax derivative	ICI
PEG 75 Lanolin	PEG 75 Lanolin	Brooks
PEG-120	Methyl Glucose Dioleate	Amerchol
PEG-200	Trihydroxy Stearin	NL Chems
PEG-400	PEG-8	Hoechst
PEG-400	PEG-8	Union Carb.
PEG-400 Monostearate	PEG-20 Stearate	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pelemol G7A	Glycereth-7 Acetate	Phoenix
Penreco Super	Petrolatum	Penreco
Penreco 7	Mineral Oil	Penreco
Penreco #2251	Odorless Kerosene	Scher
Pentaglycan	Glycosaminglycans	Pentapharm
Pentavitin	Carbohydrate Complex	Pentapharm
Peppermint HS	Peppermint Extract	Tri-K
Peptein AH	Hydrolyzed Animal Protein	Hormel
Peptein CAA	Collagen Amino Acids	Hormel
Peptein KC	Potassium Coco-Hydrolyzed Animal Protein	Hormel
Peptein TEAC	TEA Coco-Hydrolyzed Animal Protein	Hormel
Peptein 2000	Hydrolyzed Animal Protein	Hormel
Perfecta	Petrolatum (USP)	Witco
Perfume	Fragrance	Tri-K
Perfume F77-155	Fragrance	Perry Bros.
Perfume (Herbal) M52289	Fragrance	SM Co.
Perfume 40-164P	Fresh Floral	Alpine
Perfume Oil H&R	Fragrance	Haarman
Perfume Oil (PA62053)	Fragrance	Givaudan
Perfume Oil Tandresse 75418B	Fragrance	Haarman
Perostron in Oil	Perostron	Henkel
Petrolatum	Petrolatum	Penreco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Perfecta	Petrolatum	Witco
PF-6 Protein	Hydrolyzed Animal Protein	Hormel
Phenonip	Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben	Nipa
Phenoxyethanol	Phenoxyethanol	Tri-K
Phenylbenzenimidazole Sulfonic Acid	Phenylbenzenimidazole Sulfonic Acid	Rona
Phoskadent Na 211		Hoechst
Phosphoric Acid, Disodium Salt	Disodium Phosphate	Riedel
Phosphoric Acid, Monopotassium Salt	Potassium Phosphate	Riedel
Phyt'Iod	Slenderizing Product	Tri-K
Phytoconcentrol	Aloe Water Soluble	Dragoco
Pigment Sicopharm Black	E172, C.I. 77499, Iron Oxide Pigment	BASF
Pigment Sicopharm Brown	E172, C.I. 77491+77492+77499, Iron Oxide Pigment	BASF
Pigment Sicopharm Red	E172, C.I. 77491, Iron Oxide Pigment	BASF
Pigment Sicopharm Yellow	Yellow Colorant	BASF
Placentaliquid Soluble in Oil		Henkel
Placentaliquid (Water Soluble)		Henkel
Pluronic F-68	Poloxamer-188	BASF
Pluronic F-127	Block Copolymer Surfactant	BASF
Polawax A-31	Emulsifying Wax NF	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polawax	Emulsifying Wax, NF	Croda
Polawax, Regular	Emulsifying Wax	Croda
Polyan	Lanolin Linoleate	Amerchol
Polymer JR	Polyquaternium-10	Union Carb.
Polymer JR-30M	Polyquaternium-10	Union Carb.
Polymer JR-400	Polyquaternium-11	Union Carb.
Polymer LR30M	Polyquaternium-10	Union Carb.
Polyox WSR N-80	PEG-5M	Union Carb.
Polyox WRSN-750	PEG-7M	Union Carb.
Polyox WSR-205	Ethylene Oxide Polymer	Union Carb.
Polypeptide AAS	Animal Protein Derivative	Stepan
Polypeptide LSN	Hydrolyzed Animal Protein	Stepan
Polyquart H	PEG-15 Tallow Polyamine	Henkel
Polysorbate 20	Polysorbate 20	Emery
Polysynlane	Hydrogenated Polyisobutane	Polyester
Polytex 10	Stearamide DIBA-Stearate	Knapp
Pot Marigold HS	Herbal Extract	Tri-K
PPG-3 Myristyl Ether	PPG-3 Myristyl Ether	Croda
PPG-15 Stearyl Ether	PPG-15 Stearyl Ether	ICI
Preservatol	Methylparaben and Propylparaben	Van Dyk
Procetyl AWS	Propoxylate	Croda
Primal ICS	Acrylate/PEG 20 Methacrylate Cop.	Seppic

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Procetyl AWS	PPG-5-Ceteth-20	Croda
Procetyl 10	PPG-10-Cetyl Ether	Croda
Procetyl 50	PPG-50 Cetyl Ether	Croda
Prodipate	Diisopropyl Adipate	Amerchol
Product V8080		Sherex
Produkt GM 4055		Zschimmer
Prolagen MP-1	Propyltrimonium Hydrolyzed Animal Protein	Hormel
Promulgen D	Cetearyl Alcohol (and) Ceteareth-20	Amerchol
Promulgen G	Stearyl Alcohol (and) Ceteareth-20	Amerchol
Promyr	Isopropyl Myristate	Amerchol
Promyristyl PM3	PPG Myristyl Ether	Croda
Propal	Isopropyl Palmitate	Amerchol
1,2-Propanediol USP	Propylene Glycol	BASF
Propellant A-46	Hydrocarbon A-46	Phillips
Propoxyol 1695	PPG-5 Lanolin Wax Glyceride	Emery
Propyl Paraben	Propyl Paraben	Many
1,2-Propylene Glycol	Propylene Glycol	BASF
Prosolal S9		Dragoco
Protegin	Mineral Oil (and) Petrolatum (and) Ozokerite (and) Glyceryl Oleate (and) Lanolin Alcohol	Goldschmidt
Protegin W	Petrolatum (and) Ozokerite (and) Hydrogenated Castor Oil (and) Glycerylisostearate (and) Polyglyceryl-3-Oleate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Protegin WX	Petrolatum (and) Ozokerite (and) Hydrogenated Castor Oil (and) Glycerylisostearate (and) Polyglyceryl-4-Oleate	Goldschmidt
Protegin X	Mineral Oil (and) Petrolatum (and) Ozokerite (and) Glyceryl Oleate (and) Lanolin Alcohol	Goldschmidt
Proteosilane	Peptidosilane	Tri-K
Protopet	Petrolatum (USP)	Witco
Purcellin Oil 2/066210	Cetearyl Octanoate	Dragoco
Pur Oxy Brown 3180	Iron Oxides	Whittaker
Purton CDF	Coconut fatty acid diethanolamide	Zschimmer
Purton SFD	Linoleic acid diethanolamide	Zschimmer
PVP/K-30	Vinylpyrrolidone Polymer	GAF
PVP/VA E-535	PVP/VA Copolymer	GAF
PVP/VA E-735	PVP/VA Copolymer	GAF
Pyridoxine Hydrochloride, USP-FCC (Code 60650)	Pyridoxine Hydrochloride	Roche
Quadrol	Tetrahydropropylethylene diamine	Haarman
Quat-Pro S	Steartrimonium Hydrolyzed Animal Protein	Amerchol
Quinoline Yellow 307007	D&C Yellow No. 10, C.I. 47005	Williams

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Reach AZP-701	Aluminum Zirconium Tetrachloro-hydrox-Gly	Reheis
Red #7 T429 (n)	Red Pigment	Crompton
Red #9 C15-004-35% in Castor Oil	Red #9 in Castor Oil	Sun Chem.
Red Cogilor 348.90	Iron Oxide Red. C.I. 77491	Anstead
Red Iron Oxide 7054	Red Iron Oxide	Whittaker
Refined Avocado Oil	Avocado Extract	Tri-K
Rehydrol	Aluminum Chlorohydrox	Reheis
Rehydrol II	Aluminum Chlorohydrox	Reheis
Relaxant #278 HS	Herbal Blend	Tri-K
Relaxant #678 LS	Herbal Blend	Tri-K
Repellent 790		E.Merck
Resyn 28-1310	Vinyl Acetate/Crotonic Acid Copolymer	Nat.Starch
Resyn 28-2913	Vinyl Acetate/Crotonic Acid/ Vinyl Neodecanoate Copolymer	Nat.Starch
Resyn 28-2930	Vinyl Acetate/Crotonic Acid/ Vinyl Neodecanoate Terpolymer	Nat.Starch
Resyn 2261	Ammonium Vinyl Acetate/ Acrylates Copolymer	Nat.Starch
Reticusol	Super Reticulin	
Revitalin	Aqueous Extract of Bovine Spleens	Pentapharm
Rewo-Amid DC212/S		Rewo
Rewo-Amid DL203/S		Rewo
Rewo-Amid DO280/SE		Sherex
Rewo-Amid L-203		Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rewocid U 185	Undecylenamide MEA	Rewo
Rewopon AM-CA	Amphoteric 6	Rewo
Rewopol HV 14	Nonoxynol-14	Sherex
Rewopol NL3	Sodium Laureth Sulfate	Rewo
Rewopol SBFA30	Disodium Lauryl Alcohol Polyglycoether Sulfosuccinate	Rewo
Rewopol TLS40	Triethanolammonium Lauryl Sulfate	Rewo
Rewopol TLS 90/L	Trialkanolammonium lauryl sulfate	Rewo
Rewopon AM-CA	Amphoteric 6	Rewo
Rewoteric AMB 13	Cocoamidopropyl Betaine	Rewo
Rewoteric AM-CA	Amphoteric 6,977	Rewo
Rezal 36	Aluminum-Zirconium Tetrachlorohydrate (soln)	Reheis
Rezal 36G	Aluminum-Zirconium Tetrachlorohydrate GLY (soln)	Reheis
Rezal 36GP	Aluminum-Zirconium Tetrachlorohydrate GLY (pdr)	Reheis
Rezal 36P	Aluminum-Zirconium Tetrachlorohydrate, Dried form.	Reheis
Rezal 67	Aluminum-Zirconium Pentachlorohydrate (soln)	Reheis
Rezal 67P	Aluminum-Zirconium Pentachlorohydrate (pdr)	Reheis
Rhodigel	Xanthan Gum	Vanderbilt
Rhodigel 23	Xanthan Gum	Vanderbilt
Rice Bran Oil	Rice Bran Oil	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rilsan BHV NAT COS	Nylon powder	Deutsche
Ritachol	Mineral Oil (and) Lanolin Alcohol	RITA
Ritachol 1000	Cetearyl Alcohol (and) Poly- sorbate 60 (and) PEG-150 Stearate (and) Steareth-20	RITA
Ritachol 2000	Liquid Absorption Base	RITA
Ritaderm	Petrolatum (and) Lanolin (and) Sodium PCA (and) Polysorbate 85	RITA
Ritalan	Lanolin Oil	RITA
Robane	Squalane	Robeco
Rose Hip Oil	Rose Hip Seed Oil	Tri-K
Rona Pearl	Silvery Color Timirons	Rona Pearl
Rona Pearl NLO-2X	Bismuth Oxychloride (and) Castor Oil	Rona Pearl
Rosmarin-Bath		Dragoco
Rosemary 5:1 PG	Rosemary Extract	Lipo
Ross Base Oil 2539	Base Oil	F.B.Ross
Ross Jojoba Oil	Jojoba Oil	F.B.Ross
Ross Refined Candelilla Wax	Candelilla Wax	F.B.Ross
Ross Refined #1 Yellow	Carnauba Wax	F.B.Ross
Ross Spermaceti #573	Synthetic Spermaceti	F.B.Ross
Rosswax 573	Cetyl Esters	F.B.Ross
Rosswax 1824	Wax. Melting Point: 140F.	F.B.Ross
Rosswax 2540	Wax. Melting Point: 138F.	F.B.Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ross White Beeswax	Beeswax	F.B.Ross
Ross White #1544	Ozokerite Wax	F.B.Ross
SF-96 (50)	Polydimethyl Siloxane Fluid	GE Silicone
SF-96 (100)	Polydimethyl Siloxane Fluid	GE Silicone
Sandopan DTC	Sodium Trideceth 7-Carboxylate	Sandoz
Sandopan KST	Sodium Ceteth-13-Carboxylate	Sandoz
Sandoxylate SX 424	PPG-1 Isodeceth-12	Sandoz
Sandoz Amide PE	Lauramide-DEA	Sandoz
Sandoz Sulfate A	Ammonium Lauryl Sulfate	Sandoz
Satol Purified	Oleyl Alcohol	Givaudan
Schercamox C-AA	Cocamidopropyl Amine Oxide	Scher
Schercemol DIA	Alcohol Ester	Scher
Schercemol DICA	Diisocetyl Adipate	Scher
Schercemol DID	Diisopropyl Dimerate	Scher
Schercamox DMO	Oleamine Oxide	Scher
Schercemol DO	Decyl Oleate	Scher
Schercemol EGMS	Glycol Stearate	Scher
Schercemol ML	Myristyl Lactate	Scher
Schercemol MM	Myristyl Myristate	Scher
Schercemol PGMS	Propylene Glycol Stearate	Scher
Schercemol 318	Isopropyl Isostearate	Scher
Schercemol 1688	Cetearyl Octanoate	Scher
Schercemol 1818	Isostearyl Isostearate	Scher
Schercomid AME-70	Acetamide MEA	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Schercomid CDO-Extra	Diethanolamide	Scher
Schercomid SLM-S	Lauramide DEA	Scher
Schercomid SL-ML	Diethanolamide	Scher
Schercomid SM	Diethanolamide	Scher
Schercopol CMS-Na	Diethanolamide Monococamido Sulfosuccinate	Scher
Schercopol OMES-Na	Disodium Oleamido PEG-2 Sulfosuccinate	Scher
Schercoquat DAS	Quaternium-61	Scher
Schercoquat IAS-LC	Isostearamidopropyl Ethyl Dimonium Ethosulfate	Scher
Schercoquat SOAS	Soyamidopropyl Ethyldimonium Ethosulfate	Scher
Schercoquat IIB	Quaternary Ammonium Compound	Scher
Schercoquat 21AE	Bis Isostearamidopropyl Ethoxyethyl Dimonium Chloride	Scher
Schercoquat 21AP	Bis Isostearamidopropyl Hydroxypropyl Diammonium Chloride	Scher
Schercotaine CAB-G	Cocamidopropyl Betaine	Scher
Schercoteric I-AN	Amphoteric 12	Scher
Schercoteric MS-SF-2	Amphoteric 2	Scher
Schercowet DOS-70	Sulfosuccinate	Scher
Seakem GP317	Carrageenan	FMC
Sedaplant Richter	Urea (and) Fennel Extract (and) Hops Extract (and) Balm Mint Extract (and) Mistletoe Extract (and) Matricaria Extract (and) Yarrow Extract (and) Allantoin	Henkel
Sequestrene AA	EDTA Chelating Agent	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sequestrene Na2	Disodium EDTA	Ciba-Geigy
Sequestrene Na3	Trisodium EDTA	Ciba-Geigy
Sesame Oil	Sesame Oil	Many
SF-1173	Cyclomethicone	GE Silicone
SF-1188	Dimethicone Copolyol	GE Silicone
SF-1202	Cyclomethicone	GE Silicone
SF-1204	Cyclomethicone	GE Silicone
SF-1214	Cyclomethicone (and) Dimethicone	GE Silicone
SF-1228	Cyclomethicone (and) Dimethicone Copolyol	GE Silicone
SF-1236	Dimethicone	GE Silicone
Shea Butter	Shea Butter	Tri-K
Shellsol K	Hydrocarbon Solvent	Shell
Shell Sol 71	Isoparaffinic Solvent	Shell
Shell Sol 72	Isoparaffinic Solvent	Shell
Sicomet Sunset Yellow 85 E110	Iron oxide pigment. C.I. 77492.	Haarman
Sident 12	Precipitated Silica	Degussa
Sienna Brown	Iron Oxide	Tri-K
Silicon Oil AR200	Siloxane Polymer	Wacker
Silicone F-754	Aminofunctional Dimethyl Polysiloxane Fluid	SWS
Silicone F-755	Aminofunctional Dimethyl Polysiloxane Fluid	SWS
Silicone DC200/50 cp	Dimethicone	Dow Corn.
Silicone DC200/100 cs	Dimethicone	Dow Corn.

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Silicone DC200/200 cs	Dimethicone	Dow Corn.
Silicone Fluid 225	Dimethicone	Dow Corn.
Silicone Fluid 556	Phenyl Dimethicone	Dow Corn.
Silicone Oil AK350	Siloxane Polymer	Wacker
Silicone Oil AK500	Siloxane Polymer	Wacker
Silicone Q2-3225C	Cyclomethicone (and) Dimethicone Copolyol	Dow Corn.
Silicone SF 96-200	Moisture Barrier	GE Silicone
Silicone 193	Surfactant	Dow Corn.
Silicone 200	Dimethicone	Dow Corn.
Silicone 200(100 cts)	Dimethicone	Dow Corn.
Silicone 200(200 cp)	Dimethicone	Dow Corn.
Silicone 200(350 cts)	Dimethicone	Dow Corn.
Silicone 200(325 cts)	Dimethicone	Dow Corn.
Silicone 200(350 cs)	Dimethicone	Dow Corn.
Silicone 225	Dimethicone	Dow Corn.
Silicone 344	Cyclomethicone	Dow Corn.
Silicone 556	Phenyl Dimethicone	Dow Corn.
Silicone 929	Amodimethicone (and) Tallow-trimonium Chloride (and) Nonoxynol-10	Givaudan
Siloxane SWS-03314	Cyclomethicone	SWS
Silozane F-221	Dimethicone	SWS
Silsoft Beauty Aid MG	Cyclomethicone (and) Dimethicone Copolyol	Union Carb.
Sionit K Liquid	Sorbitol	Bayer
Sipon ES	Sodium Lauryl Ether Sulfate	Alcolac

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sipon ESY	Sipon Laureth(1) Sulfate	Alcolac
Sipon L-22	Ammonium Lauryl Sulfate	Alcolac
Sipon LSB	Sodium Lauryl Sulfate	Alcolac
Sipon 201-10	Alkyl Sulfate	Alcolac
Siponate A-246L	Alpha Olefin Sulfonate	Alcolac
Skiro	Lanolin Fatty Acid	Croda
Slenderizing #316HS	Herbal Blend	Tri-K
Slenderizing #616LS	Herbal Blend	Tri-K
Slippery Elm Ext. 5:1 PG	Botanical Complex	Lipo
SM-2101 Silicone	Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6	GE Silicone
S.O.D. AMI	Superoxide Desmutase	Tri-K
Sodium Lactate	Sodium Lactate	Patco
Sodium Stearate	C-1 Grade	Witco
Softigen 701	Glyceryl Ricinoleate	Huls
Softigen 767	PEG-6 Caprylic/Capric Glycerides	Huls
Softisan 100	Hydrogenated Coco-Glycerides	Huls
Softisan 378	Caprylic/Capric/Stearic Triglycerides	Huls
Softisan 601	Glyceryl Cocoate (and) Hydro- genated Coconut Oil (and) Cetareth-25	Huls
Softisan 649	Caprylic/Capric/Isostearic/ Adipic/Triglycerides	Huls
Solan	PEG-60 Lanolin	Croda
Solarium #269HS	Sun-Tanning Product	Tri-K
Solarium #270HS	Sun-Tanning Product	Tri-K
Solarium #668LS	Sun-Tanning Product	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Solbrol M	Methylparaben	Bayer
Solbrol P	Propylparaben	Bayer
Sollagen	Soluble Animal Collagen	Hormel
Solulan C-24	Choleth-24	Amerchol
Solulan L-575	PEG-75 Lanolin	Amerchol
Solulan PB-2	PPG-2 Lanolin Ether	Amerchol
Solulan PB-5	PPG-5 Lanolin Ether	Amerchol
Solulan PB-10	PPG-10 Lanolin Ether	Amerchol
Solulan PB-20	PPG-20 Lanolin Ether	Amerchol
Solulan 5	Laneth-5	Amerchol
Solulan 16	Laneth-16	Amerchol
Solulan 25	Laneth-25	Amerchol
Solulan 75	PEG-75 Lanolin	Amerchol
Solulan 97	Laneth-9 Acetate	Amerchol
Solulan 98	Laneth-10 Acetate	Amerchol
Solulan 575	Lanolin Derivative	Amerchol
Sono Jell No. 9	Mineral Jelly	Witco
Sopanax	O-Tolyl Biguanide	Monsanto
Sorbistat	Sorbic Acid	Pfizer
Sorbitol Solution	Sorbitol Solution	Lipo
Sorbo	Sorbitol	ICI
Sorbo 70	Sorbitol	ICI
Span 60	Sorbitan Monostearate Ester	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Span 80	Sorbitan Oleate	Roche
Spectra-Pearl BNG	Mica (and) Iron Oxide (and) Titanium Dioxide	Van Dyk
Spectra-Pearl GNG	Mica (and) Chromium Oxide Greens (and) Titanium Dioxide	Van Dyk
Spectra-Pearl MTG	Mica (and) Titanium Dioxide (and) Carmine	Van Dyk
Spectra-Pearl MTW	Mica (and) Titanium Dioxide (and) Carmine	Van Dyk
Spectra-Pearl RDG	Mica (and) Iron Oxide (and) Titanium Dioxide	Van Dyk
Spectra-Pearl RDW	Mica (and) Iron Oxide (and) Titanium Dioxide	Van Dyk
Spectra-Sorb UV-9	Benzophenone-3	Am. Cyan.
Spermwax	Cetyl Esters	Robeco
Squalane	Squalane	Tri-K
SR Orange Roughy Oil	C30-C46 Piscine Oil	
SS-4230	Cyclomethicone (and) Trimethyl-siloxysilicate	GE Silicone
SS-4267	Dimethicone (and) Trimethyl-siloxysilicate	GE Silicone
Standamid KD	Cocamide DEA	Henkel
Standamid LD	Lauramide DEA	Henkel
Standamid LDO	Lauramide DEA	Henkel
Standamid LDS	Lauramide DEA	Henkel
Standamid SD	Cocamide DEA	Henkel
Standamid SM	Cocamide MEA	Henkel
Standamid SOD	Soyamide DEA	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Standamox CAW	Cocamidopropylamine Oxide	Henkel
Standamox O1	Oleamine Oxide	Henkel
Standapol Conc. 1002	Cetearyl Alcohol (and) PEG-40 Hydrogenated Castor Oil (and) Stearalkonium Chloride	Henkel
Standamul G	Octyldodecanol	Henkel
Standamul HE	PEG-7 Glyceryl Cocoate	Henkel
Standamul 1414-E	Myreth-3 Myristate	Henkel
Standapol A	Ammonium Lauryl Sulfate	Henkel
Standapol AB-45	Coco-Betaine	Henkel
Standapol AP	Sodium Laureth Sulfate (and) Cocamide DEA (and) Cocamido- propyl Betaine	Henkel
Standapol Conc. 7023	Cocamide DEA (and) DEA-Myreth Sulfate	Henkel
Standapol EA-K	Ammonium Myreth Sulfate (and) Cocamide DEA	Henkel
Standapol EA-40	Ammonium Myreth Sulfate	Henkel
Standapol ES-1	Sodium Laureth Sulfate	Henkel
Standapol ES-2	Sodium Laureth Sulfate	Henkel
Standapol ES-3	Sodium Laureth Sulfate	Henkel
Standapol ES-40	Sodium Myreth Sulfate	Henkel
Standapol OLB-50	Alkyl Ether Sulfate	Van Dyk
Standapol 7130	Glycol Distearate (and) Sodium Laureth Sulfate (and) Propyl- ene Glycol (and) Cocamide MEA (and) Laureth-9	Henkel
Standapol S	Fatty Alcohol Sulfate...Alk- anolamide Blend	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Standapol SH-100	Disodium Monooleamide PEG-2 Sulfosuccinate	Henkel
Standapol SH-135	Sodium Oleamide PEG-2 Sulfosuccinate	Henkel
Standapol SHC-101	Disodium Oleamido PEG-2 Sulfosuccinate (and) Sodium Lauryl Sulfate	Henkel
Standapol T	TEA Lauryl Sulfate	Henkel
Standapol WAQ Special	Sodium Lauryl Sulfate	Henkel
Standapol WAQ-LC	Sodium Lauryl Sulfate	Henkel
Standapol WAS-100	Sodium Lauryl Sulfate	Henkel
Standapol 7021		Henkel
Standapol 7092	Sodium Laureth Sulfate (and) Glycol Stearate	Henkel
Starfol BB	Behenyl Behenate	Sherex
Starfol CP	Cetyl Palmitate	Sherex
Starfol IS	Isostearyl Isosterarate	Sherex
Starfol OO	Oleyl Oleate	Sherex
Starfol OS	Octyldodecyl Stearate	Sherex
Starfol Wax CG	Cetyl Esters	Sherex
Stearal	Stearyl Alcohol	Amerchol
Stearic Acid	Stearic Acid	Henkel
Stearic Acid XXX	Stearic Acid	Henkel
Steel Blue	Basic Blue 99	Tri-K
Stepanhold R-1	PVP/Ethyl Methacrylate/Methacrylic Acid Copolymer	Stepan
Stepan AM-V	Ammonium Lauryl Sulfate	Stepan
Stepanol WAQ	Sodium Lauryl Sulfate	Stepan
Stepanol WAT	TEA-Lauryl Sulfate	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Stepanquat 6585	Dipalmethyl Hydroxyethylmonium Methoxysulfate	Stepan
Ster-O-Pro	Oat Flour	Quaker
St. John's Wort	St. John's Wort	Henkel
Stimucell		Pentapharm
Stimulant #280 HS	Herbal Blend	Tri-K
Straw Yellow	Straw Yellow	Tri-K
Sulframin AOS	Sodium C14 Olefin Sulfonate	Witco
Sunflower Oil	Sunflower Oil	Tri-K
Suntan Bioactivator	Herbal Extract	Tri-K
Superamide 100CG	Lauramide DEA	Clintwood
Super Amide 128T	Lauramide DEA	Stepan
Super Corona Lanolin	Lanolin	Croda
Super Hartolan	Lanolin Alcohol	Croda
Super Pearl	Pigment	Mearl
Super Refined Apricot Kernel Oil	Apricot Kernel Oil	Croda
Super Sterol Ester	Cholesterol & Lanestrol Esters of C10-30 Fatty Acids	Croda
Surco CMEA		Stepan
Surfactol 365	PEG-40 Castor Oil	CasChem
Surfynol 82	Dimethyl octynediol	Air Prod.
Sweet Almond Oil	Sweet Almond Oil	Tri-K
Syloid 63	Hydrated Silica	Davison

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Syloid 74	Hydrated Silica	Davison
Synchrowax AW1-C	C18-36 Acid	Croda
Synchrowax BB	Synthetic Beeswax	Croda
Synchrowax ERL-C	C18-36 Acid Glycol Ester	Croda
Synchrowax HGL-C	C18-36 Acid Triglyceride	Croda
Synthetic Spermaceti Wax	Synthetic Spermaceti Wax	F.B.Ross
T-Base	Mineral Oil (and) PEG-30 Lanolin (and) Cetyl Alcohol	Tri-K
T-Wax	Emulsifying Wax, N.F.	Tri-K
Tagat L	PEG-30 Glyceryl Laurate	Goldschmidt
Tagat L-2	PEG-20 Glyceryl Laurate	Goldschmidt
Tagat O	PEG-30 Glyceryl Oleate	Goldschmidt
Tagat O2	PEG-20 Glyceryl Oleate	Goldschmidt
Tagat R1	PEG-15 Glyceryl Ricinoleate	Goldschmidt
Tagat R40	PEG-40 Hydrogenated Castor Oil	Goldschmidt
Tagat S	PEG-30 Glyceryl Stearate	Goldschmidt
Tagat S2	PEG-20 Glyceryl Stearate	Goldschmidt
Talc 141	Talc	Whittaker
Tea Tree Oil	Melaleuca Alternifolia Extract	Tri-K
Teals	Teals	Sherex
Tegiloxan 100	Dimethicone	Goldschmidt
Tegiloxan 200	Dimethicone	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tegiloxan 350	Dimethicone	Goldschmidt
Tegin	Glyceryl Stearate SE	Goldschmidt
Tegin A	Glyceryl Stearate SE	Goldschmidt
Tegin D6100	PEG-2-Stearate	Goldschmidt
Tegin M	Glyceryl Stearate	Goldschmidt
Teginacid	Glyceryl-Mono-Distearate	Goldschmidt
Teginacid H	Glyceryl Stearate (and) Ceteth-20	Goldschmidt
Teginacid Spezial	Glyceryl Stearate (and) Sodium Lauryl Sulfate	Goldschmidt
Teginacid X	Glyceryl Stearate (and) Ceteareth-20	Goldschmidt
Tego-Betain BL 281	Fatty Acid Amido Alkyl Betaine	Goldschmidt
Tego-Betain F	Cocamidopropyl Betaine	Goldschmidt
Tego-Betain HS	Cocamidopropyl Betaine (and) Glyceryl Laurate	Goldschmidt
Tego-Betain L7	Cocamidopropyl Betaine	Goldschmidt
Tego-Care 150	Glyceryl Stearate (and) Stear- eth 25 (and) Ceteth 30 (and) Stearyl Alcohol	Goldschmidt
Tego-Pearl B48	Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA	Goldschmidt
Tegosoft 189	Isocetadecyl Isononanoate	Goldschmidt
Tenox BHA	BHA	Eastman
Tenox BHT	BHT	Eastman
Tenox 2	Antioxidant	Eastman
Tenox 4	Corn Oil (and) BHA (and) BHT	Eastman

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tenox-6	Antioxidant	Eastman
Tensami 1/05	Phospholipids (and) Xanthan Gum	Tri-K
Tensami 3/03	Natural Emulsifier	Tri-K
Tensami 3/06	Milk Protein (and) Xanthan Gum	Tri-K
Tensami 4/07	Soy Protein and Xanthan Gum	Tri-K
Tensami 8/09	Egg Yolk Oily Extract	Tri-K
Texapon ASV	Sodium Laureth Sulfate (and) Magnesium Laureth Sulfate (and) Sodium Laureth-8 Sulfate (and) Magnesium Laureth-8 Sulfate (and) Magnesium Oleth Sulfate	Henkel
Texapon K12	Sodium Laureth Sulfate	Henkel
Texapon K-14S	Sodium Myreth Sulfate	Henkel
Texapon L100	Alkyl Sulfate	Henkel
Texapon MG3	Magnesium Lauryl Sulfate (and) Disodium Laureth Sulfosuccinate	Henkel
Texapon NSO	Sodium Laureth Sulfate	Henkel
Texapon N25	Alkyl Sulfate	Henkel
Texapon N40	Sodium Laureth Sulfate	Henkel
Texapon SBN	Fatty Alcohol Ether Sulfate/ Sulfosuccinate	Henkel
Texapon SB-3	Disodium Laureth Sulfosuccinate	Henkel
Texapon ST40	Alkyl Sulfate	Henkel
Texapon T42	TEA-Lauryl Sulfate	Henkel
Texapon WW99	Alkyl Sulfate	Henkel
Texwax MH 181	Microcrystalline Wax	Texaco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Texwax MH 181	Microcrystalline Wax	
Thixcin R	Trihydroxystearin	NL Chems
Thymus Peptide	Peptide Fraction from Calf Thymus	Pentapharm
Timica Gold Sparkle	Pearl Powder	Rona Pearl
Timica MIC Bronze Golden	Pearl Powder	Rona Pearl
Timiron Starluster 11P115	Mica (and) Titanium Dioxide	E.Merck
Tinuvin P	UV Absorber	Ciba-Geigy
Titanium Dioxide 47-056 - 55% in Castor Oil		Sun Chem
Titanium Dioxide 3328	Titanium Dioxide	Whittaker
Titriplex III		Merck
Tocopheryl Acetate	Vitamin E Acetate	Tri-K
Tonique #216 HS	Herbal Extract	Tri-K
Tri Col SP-1	Soluble Animal Collagen	Tri-K
Tri-Derm SE	Spleen Extract	Tri-K
Triethanolamine	Triethanolamine	Many
Tri-K Custom Blend 232	Custom Blend	Tri-K
Tri-K HKP	Hydrolyzed Keratin Protein	Tri-K
Tri-K HMP	Hydrolyzed Mucopolysaccharides	Tri-K
Trilane	Squalane	Tri-K
Trilon B	Tetrasodium EDTA	BASF
Trilon BD	Disodium EDTA	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Triquat S	Steartrimonium Hydrolyzed Animal Protein	Tri-K
Tri-Sept M	Methylparaben	Tri-K
Tri-Sept P	Propylparaben	Tri-K
Trisolan	Isopropyl Lanolate (and) Lanolin	Emery
Trisolan 1720	Isopropyl Palmitate (and) Lanolin Oil	Emery
Tristat IU	Imidazolidinyl Urea	Tri-K
Tritein 100	Hydrolyzed Animal Protein	Tri-K
Triton CG-400	Stearalkonium Chloride	Rohm&Haas
Triton N-101	Nonoxynol-10	Rohm&Haas
Triton X-15	Surfactant	Rohm&Haas
Triton X-100	Octoxynol-9	Rohm&Haas
Triton X-200	Surfactant	Rohm&Haas
Triton X-400	Stearalkonium Chloride	Rohm&Haas
Trycol 5964	Laureth-23	Emery
Trycol 5967	Pareth-25-12	Emery
Tween 20	Polysorbate 20	ICI
Tween 40	Polysorbate 40	ICI
Tween 60	Polysorbate 60	ICI
Tween 65	Polysorbate 65	ICI
Tween 70	Polysorbate 70	ICI
Tween 80	Polysorbate 80	ICI
Tween 81	Polysorbate 81	ICI
Tween 85	Polysorbate 85	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tylose C	Cellulose Gum	Hoechst
Tylose CB 200	Cellulose Gum	Hoechst
Tylose CB 30,000	Cellulose Gum	Hoechst
Tylose H	Hydroxyethylcellulose	Hoechst
Tylose H 10,000	Hydroxyethylcellulose	Hoechst
Tylose H 10,000P	Hydroxyethylcellulose	Hoechst
Tylose H 4,000P	Hydroxyethylcellulose	Hoechst
Tylose H 100000 yp	Hydroxyethylcellulose	Hoechst
Ucare JR-400	Polyquaternium-10	Union Carb.
Ucare Polymer JR30M	Polyquaternium-10	Union Carb.
Ucare Polymer JR125	Polyquaternium-10	Union Carb.
Union Polymer LR400	Polyquaternium-10	Union Carb.
Ucon LB-1715	PEG-40 Butyl Ether	Union Carb.
Ucon 50-HB-660	PPG-12-Buteth-16	Union Carb.
Ultrafine Micro Dry	Aluminum Chlorohydrate	Reheis
Ultrahold 8	Acrylate/Acrylamide Copolymer	BASF
Ultramarine Blue 3516	Ultramarine Blue	Thomasset
Unicide U-13	Imidazolidinyl Urea	Lipo
Unipabol U-17	PEG-25 PABA	Lipo
Unipertan P-24	Hydrolyzed Animal Collagen (and) Tyrosine (and) Riboflavin	Lipo
Unipertan P-242	Hydrolyzed Animal Collagen (and) Tyrosine (and) Adenosine Triphosphate	Lipo
Unitrienol T-27	Farnesyl Acetate (and) Farnesol (and) Panthenyltriacetate	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Uvatone 2-6	Octyl Dimethyl PABA	Lipo
Uvinul M-400	Benzophenone-3	BASF
Uvinul MS-40	Benzophenone-4	BASF
Uvinul N539	UV Light Absorber	BASF
Uvinul P25	PEG-25 PABA	BASF
Uvinul 400	Benzophenone-1	BASF
Uvisorb DMO	Octyl Dimethyl PABA	Tri-K
Unitrienol T-27	Farnesyl Acetate (and) Farnesol (and) Panthenyltriacetate	Lipo
V-4166	Fragrance	Shaw Mudge
Vanate TS	Tetrasodium Ethylenediamine Tetraacetate	Vanderbilt
Vancide 89RE	Captan Preservative	Vanderbilt
Vanclay Kaolin	Kaolin	Vanderbilt
Vanseal CS	Chelating Agent	Vanderbilt
Vanseal NACS-30	Chelating Agent	Vanderbilt
Vanseal NALS-30	Chelating Agent	Vanderbilt
Varamide A2	Alkanolamide	Sherex
Varamide A7	Alkanolamide	Sherex
Varamide DU185	Alkanolamide	Sherex
Varamide MA-1	Cocamide DEA	Sherex
Varamide ML-1	Lauramide DEA	Sherex
Varamide ML-4	Alkanolamide	Sherex
Varamide 6CM	Alkanolamide	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varifoam SXC	Blend of Amphoterics, Alkyl Sulfates and Alkanolamides	Sherex
Varion AMK-SF	Surfactant	Sherex
Varion AMV	Surfactant	Sherex
Varion CADG	Surfactant	Sherex
Varion CADG-HS	Cocamidopropyl Betaine	Sherex
Varion CAS	Cocamidopropyl Hydroxy Sultaine	Sherex
Varion CDG	Lauryl Betaine	Sherex
Varion 2C	Cocoamphocarboxy Glycinate	Sherex
Varion 2L	Surfactant	Sherex
Variquat 50MC	Quaternary	Sherex
Varisoft BT-85	Concentrate	Sherex
Varisoft E-228	Concentrate	Sherex
Varisoft OIMS	Concentrate	Sherex
Varisoft TSC	Concentrate	Sherex
Varisoft 475	Concentrate	Sherex
Varonic K215	PEG-15 Cocamine	Sherex
Varonic LI-42	PEG-20 Glyceryl Monotallate	Sherex
Varonic LI-48	PEG-82 Glyceryl Monotallowate	Sherex
Varonic LI-63	PEG-30 Glyceryl Monococoate	Sherex
Varonic LI-67	PGG-78 Glyceryl Monococoate	Sherex
Varonic LI-420	PEG-200 Glyceryl Monotallowate	Sherex
Varox 185E	Amine Oxide	Sherex
Varox 365	Lauramine Oxide	Sherex
Varox 1770	Cocamidopropyl Amine Oxide	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varsulf 5	Sulfosuccinate	Sherex
Varsulf S-1333	Disodium Ricinolamido MEA Sulfosuccinate	Sherex
Varsulf SBFA-30	Disodium Laureth Sulfosuccinate	Sherex
Varsulf SBL-203	Disodium Lauramido MEA Sulfosuccinate	Sherex
Varsulf SBL203/P	Sulfosuccinate	Sherex
Varsulf SBU-185	Disodium Undecylenamido MEA Sulfosuccinate	Sherex
Vaseline DAB8	Vaseline	Parafluid
Veegum	Magnesium Aluminum Silicate	Vanderbilt
Veegum F	Magnesium Aluminum Silicate. Microfine Powder	Vanderbilt
Veegum HS	Magnesium Aluminum Silicate. Max. Electrolyte Stability	Vanderbilt
Veegum HV	Magnesium Aluminum Silicate. High Viscosity	Vanderbilt
Veegum K	Magnesium Aluminum Silicate. Electrolyte Stability	Vanderbilt
Veegum PRO	Magnesium Aluminum Silicate. Dispersion	Vanderbilt
Veegum R	Magnesium Aluminum Silicate.	Vanderbilt
Veegum Regular	Magnesium Aluminum Silicate.	Vanderbilt
Veegum WG	Magnesium Aluminum Silicate.	Vanderbilt
Velsan D8P-3	Isopropyl PPG-2 Isodeceth-7-Carboxylate	Sandoz
Velsan P8-3	Isopropyl C12-15 Pareth-9 Carboxylate	Sandoz
Velsan P8-16	Cetyl C12-15 Pareth-9-Carboxylate	Sandoz

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Velsan P83	Isopropyl C12-15 Pareth-9 Carboxylate	Sandoz
Velvetex AB45	Coco Betaine	Henkel
Velvetex BA-35	Cocamidopropyl Betaine	Henkel
Velvetex BK-35	Cocamidopropyl Betaine	Henkel
Velvetex CDC	Cocoamphodiacetate	Henkel
Veragel Lipoid 1:1	Aloe Extract	Dr.Madis
Veragel Liquid	Aloe Vera Gel	Dr.Madis
Versacryl-40	Octylacrylamide/Acrylates Copolymer	Nat.Starch
Versene NA	Disodium EDTA	Dow Chem.
Versene NA2	Disodium EDTA	Dow Chem.
Versene Powder	Hydroxypropyl Methylcellulose	Dow Chem.
Versene 100	Trisodium Ethylenediamine- tetraacetate	Dow Chem.
Versene 220	Chelating Agent	Dow Chem.
Vinol 523	Polyvinyl Alcohol	Air Prod.
Viscarin TP206	Carrageenan	FMC
Viscarin TP305B	Carrageenan	FMC
Viscarin TP348	Carrageenan	FMC
Viscarin TP389	Carrageenan	FMC
Viscasil 60M	Dimethicone	GE Silicone
Viscontran HEC	Hydroxyethyl cellulose	BASF
Vitamins A&D3 Blend (5:1 Ratio) (Code 63857)	Retinyl Palmitate (and) Chol- escaliferol (and) Corn Oil	Roche

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Vitamin A and D3 Blend Liquid		Neville
Vitamin C	Ascorbic Acid	Roche
Vitamin E, USP-FCC (Code 60524)	Tocopherol	Roche
Vitamin E Acetate (USP-FCC)(Code 60526)	Tocopherol Acetate	Roche
Vitamin E Acetate	Tocopherol Acetate	Tri-K
Vitamin E Nicotinate C	Tocopherol Nicotinate	BASF
Vitamin E, USP	DL-Alpha Tocopheryl Acetate	Neville
Vitamin F Forte CLR	Linoleic Acid (and) Linolenic Acid (and) Arachidonic Acid	Many
Vitamin Oil "Biocorno"	Vitamin Oil	Keimdat
Vitaplant CLR	Herb/Skin Extract	Henkel
Vivaderm	Cosmetic Material	Lipo
Volatile Silicone 7207	Cyclomethicone	Union Carb.
Volatile Silicone 7158	Cyclomethicone	Union Carb.
Volpo S-2	Steareth-2	Croda
Volpo S-10	Steareth-10	Croda
Volpo S-20	Steareth-20	Croda
Vybar 5013	Polymer	Petrolite

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Watercress Extract HS	Watercress Extract	Tri-K
Waxenol 810	Myristyl Myristate	CasChem
Waxenol 821SB	Synthetic Beeswax	CasChem
Wecobee M	Hydrogenated Vegetable Oil	PVO
Wecobee 8	Hydrogenated Vegetable Oil	PVO
Wheat Germ Oil	Wheat Germ Oil	Tri-K
Wheat Milk Extract	Wheat Milk Extract	Tri-K
White Beeswax	Beeswax	F.B.Ross
White Fonoline	Petrolatum	Witco
White Perfecta	Petrolatum	Witco
White Petrolatum	Petrolatum	Witco
White Protopet	Petrolatum	Witco
White Protopet 1S	Petrolatum	Witco
Wickenol 155	Octyl Palmitate	CasChem
Wickenol 161	Diethyl Adipate (and) Octyl Palmitate (and) Octyl Stearate	CasChem
Wickenol 163	Octyl Palmitate	CasChem
Wickenol 171	Octyl Hydroxystearate	CasChem
Wickenol 707	PPG-30 Lanolin Ether	CasChem
Witcamide MAS	Stearamide MEA-Stearate	Witco
Witcamide MEAC	Cocamide MEA	Witco
Witcamide 61	Oleamide MIPA	Witco
Witcamide 70	Stearamide MEA	Witco
Witcamide 82	Cocamide DEA	Witco
Witcamide 511	Oleamide DEA	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Witcamide 5130	Cocamide DEA	Witco
Witcamide 5133	Cocamide DEA	Witco
Witcamide 5195	Lauramide DEA	Witco
Witch Hazel AMI	Witch Hazel Extract	Tri-K
Witco Aluminum Stearate EA	Aluminum Stearate	Witco
Witco Sodium Stearate C-1	Sodium Stearate	Witco
Witco Sodium Stearate C-7	Sodium Stearate	Witco
Witcolate AE-3	Ammonium Pareth-25-3 Sulfate	Witco
Witcolate SE-5	Sodium Laureth Sulfate	Witco
Witconate AOS	Sodium C14-16 Olefin Sulfonate	Witco
Witconate 60T	TEA-Dodecyl Benzene Sulfonate	Witco
Witconate 4072	Disodium Hydrogenated Cottonseed Glyceride Sulfosuccinate	Witco
Witconol APEB	PPG-26-Buteth-26	Witco
Witconol APM	PPG-3 Myristyl Ether	Witco
Witconol APS	PPG-11 Stearyl Ether	Witco
Witconol CD-17	PPG-34	Witco
Witconol CD-18	PPG-27 Glyceryl Ether	Witco
Witconol F26-46	PPG-36 Oleate	Witco
Witconol H-31A	PEG-8 Oleate	Witco
Witconol H-35A	PEG-8 Stearate	Witco
Witconol L32-45	PEG-150 Distearate	Witco
Witconol MST	Glyceryl Stearate	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Witconol PPG-400	PPG-9	Witco
Witconol RHT	Glyceryl Stearate SE	Witco
Witconol 14	Polyglyceryl-4 Monooleate	Witco
Witconol 14F	Polyglyceryl-4 Oleate	Witco
Witconol 18F	Polyglyceryl-4 Stearate	Witco
Wool Wax DAB8	Lanolin	
Xanthan Gum	Xanthan Gum	Kelco
Yeast Extract AMI	Yeast Extract	Tri-K
Yellow Cogilor 138.90	Iron Oxide Yellow	Anstead
Yellow Fonoline	Petrolatum	Witco
Yellow 3170	Iron Oxide	Thomasset
Yellow Protopet 1E	Petrolatum	Witco
Yellow Protopet 2A	Petrolatum	Witco
Yellow #5 6505 (35% in Castor Oil)		Whittaker
Zetesol NL	Sodium Lauryl Ether Sulfate	Zschimmer
Zetesol 856T	MIPA Laureth Sulfate (and) Cocamidopropyl Betaine	Zschimmer
Zinc Omadine	Zinc Pyrithione	Olin
Zinc Pyrithione	Zinc Pyrithione	Pyrion
Zinc Stearate	Zinc Stearate	Witco

Section XVI

Suppliers' Addresses

Air Products and Chemicals
P.O. Box 538
Allentown, PA 18195

Ajinomoto USA, Inc.
Glenpointe Ctr. W.
500 Frank W. Burr Blvd.
Teaneck, NJ 07666-6894

Akzo Chemicals, Inc.
300 South Riverside Plaza
Chicago, IL 60606

Alcolac, Inc.
3440 Fairfield Rd.
Baltimore, MD 21226

Allied Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07960

Alpine Aromatics Int'l., Inc.
51 Ethel Rd. West
Piscataway, NJ 08854-1348

Alzo, Inc.
Matawan, NJ 07744

American Cyanamid Co.
One Cyanamid Plaza
Wayne, NJ 07470

American Lecithin Co.
P.O. Box 4056
Atlanta, GA 30302

Amerchol Corp.
Talmadge Rd.
Edison, NJ 08817

Amoco Chemical Co.
200 E. Randolph Drive
Chicago, IL 60601

Angus Chemical Co.
2211 Sanders Road
Northbrook, IL 60062

BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054

Bayer AG
Geschäftsbereich Organica
Vertrieb M
D-5090 Leverkusen-Bayerwerk, FRG

Bernel Chemical Co., Inc.
P.O. Box 777
Tenafly, NJ 07670

Brooks Industries, Inc.
70 Tyler Place
South Plainfield, NJ 07080

Cabot Corp.
300 Holly Rd.
Boyertown, PA 19512

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002

Central Soya Co., Inc.
P.O. Box 1400
Fort Wayne, IN 46801-1400

Chemische Werke Huls
Postfach 1320
D-4370 Marl,
West Germany

Ciba-Geigy Corp.
3 Skyline Drive
Hawthorne, NY 10532

Clintwood Chemical Co.
4342 S. Wolcott Ave.
Chicago, IL 60609

Croda, Inc.
183 Madison Ave.
New York, NY 10016

Crompton & Knowles Corp.
P.O. Box 33188
3001 N. Graham St.
Charlotte, NC 28233

Custom Essence
Somerset, NJ 08873

Cyclo Products, Inc.
1922 E. 64 St.
Los Angeles, CA 90001

Davison Chemical Division
W.R. Grace & Co.
P.O. Box 2117
Baltimore, MD 21203

Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660

DeSoto, Inc.
2001 N. Grove
Fort Worth, TX 76113

Dow Chemical U.S.A.
Midland, MI 48674

Dow Corning Corp.
Box 0994
Midland, MI 48686-0994

Dragoco, Inc.
Gordon Drive
P.O. Box 261
Totowa, NJ 07511

duPont Co.
1007 Market St.
Wilmington, DE 19898

Dynamit Nobel
GB Kunststoff-Rohstoffe/Fette
D-5210 Troisdorf, FRG

Eastman Chemical Products, Inc.
P.O. Box 431
Kingsport, TN 37662

Elias Fragrances, Inc.
999 E. 46th St.
New York, NY 11203

Emery Division
Quantum Chemical Corp.
Oleochemicals Group
11501 Northlake Drive
Cincinnati, OH 45201

Emery Industries
Quantum Chemical Corp.
11501 Northlake Drive
Cincinnati, OH 45249

Emulan, Inc.
3726 Roosevelt Rd.
P.O. Box 582
Kenosha, WI 53141

Emulsion Systems, Inc.
215 Kent Ave.
Brooklyn, NY 11211

Exxon Co. U.S.A.
P.O. Box 2180
Houston, TX 77252-2180

FMC Corp.
Marine Colloids Division
2000 Market St.
Philadelphia, PA 19103

Felton World Wide
599 Johnson Ave.
Brooklyn, NY 11237

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407

Florida Food Products, Inc.
P.O. Box 1300
Eustis, FL 32727-1300

Fresenius Ninikbedarf
Gluckensteinweg 5
D-6380 Bad Homburg, FRG

H. B. Fuller Co.
3530 N. Lexington Ave.
St. Paul, MN 55126

L. W. Fuller GmbH
Ander Roton Bleiche 2/3
D-3140 Lüneburg, FRG

GAF Chemicals Corp.
1361 Alps Rd.
Wayne, NJ 07470

Gattefosse'
36 Chemin de Genas
BP 603
F-69804 Saint-Priest Cedex,
France

GE Plastics
1 Plastics Ave.
Pittsfield, MA 01201

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188

Givaudan Corp.
100 Delawanna Ave.
Clifton, NJ 07014

Goldschmidt Chemical Corp.
Rt. 2 - Box 1299
Hopewell, VA 23860

Glyco, Inc.
Greenwich, CT 06830

B.F. Goodrich Co.
Specialty Polymers & Chemical
6100 Oak Tree Blvd.
Cleveland, OH 44131

W.R. Grace & Co.
Organic Chemicals Division
55 Hayden Ave.
Lexington, MA 02173

A. Gross & Co.
Newark, NJ 07100

Haarman & Reimer Corp.
P.O. Box 175
70 Diamond Road
Springfield, NJ 07081

C. P. Hall Co.
7300 S. Central Ave.
Chicago, IL 60638

Hampshire Division
W. R. Grace & Co.
Nashua, NH 03061

Hansen & Rosenthal
Heilholtkamp 11
D-2000 Hamburg 60, FRG

Henkel Corp.
300 Brookside Ave.
Ambler, PA 19002

Hercules, Inc.
Hercules Plaza
Wilmington, DE 19894

Heterene Chemical Co., Inc.
295 Vreeland Ave.
P.O. Box 247
Paterson, NJ 07543

Hexcel Corp.
Chemical Products Div.
215 N. Centennial St.
Zeeland, MI 49464

Hoechst Celanese Corp.
Route 202-206 North
Somerville, NJ 08876

Hoffman-LaRoche, Inc.
340 Kingsland St.
Nutley, NJ 07110

Geo. A. Hormel & Co.
P.O. Box 800
Austin, MN 55912

Huls America, Inc.
Turner Place
Piscataway, NJ 08855-0365

Humko Chemical Division
Witco Chemical Corp.
755 Crossover Lane
Ste. 216
Memphis, TN 38117

ICI Americas, Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148

International Flavors &
Fragrances
1515 Hwy 36
Union Beach, NJ 07735

International Salt Co.
Clarks Summit, PA 18411

International Wax Refining
P.O. Box 221
Valley Stream, NY 11580

Keimdiat GmbH
Pfladergasse 9-13
D-8900 Augsburg, FRG

Kelco Division
Merck & Co., Inc.
8355 Aero Drive
San Diego, CA 92123

Knapp Products, Inc.
Lodi, NJ 07644

H. Kohnstamm & Co., Inc.
161 Avenue of the Americas
New York, NY 10013

Lanaetex Products, Inc.
151 3 Ave.
Elizabeth, NJ 07206

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504

Lonza, Inc.
1717 Rte 208
Fair Lawn, NJ 07410

Lucidol Division
Pennwalt Corp.
1740 Military Rd.
Buffalo, NY 14240

Dr. Madis Laboratories Inc.
Madis Bldg.
South Hackensack, NJ 07606

Mallinckrodt, Inc.
P.O. Box 22648
St. Louis, MO 63147

Mane USA
60 Demarest Dr.
Wayne, NJ 07470

Mazer Chemicals, Inc.
3938 Porett Drive
Gurnee, IL 60031

McLaughlin Gormley King Co.
8810-10th Ave. N
Minneapolis, MN 55427

Meadowbrook Corp.
30 Rockefeller Plaza
New York, NY 10112

Mearl Corp.
41 E. 42 St.
New York, NY 10017

Merck & Co., Inc.
P.O. Box 2000
Rahway, NJ 07065

E. Merck AG
Frankfurter Strabe 250
D-6100 Darmstadt, FRG

Miranol Inc.
P.O. Box 436
68 Culver Road
South Brunswick, NJ 08810

Mona Industries, Inc.
76 E. 24 St.
Paterson, NJ 07544

Monsanto Chemical Co.
800 N. Lindbergh Blvd.
St. Louis, MO 63167

Morton Chemical Div.
Morton Thiokol, Inc.
333 W. Wacker Drive
Chicago, IL 60606

NL Chemicals
NL Industries, Inc.
P.O. Box 700
Hightstown, NJ 08520

National Starch and Chemical
Finderne Ave.
Bridgewater, NJ 08807

Neville-Synthese Organics
2800 Neville Road
Pittsburgh, PA 15225-1496

NIPA Laboratories, Inc.
104 Hagley Bldg.
Concord Plaza
3411 Silverside Rd.
Wilmington, DE 19810

Olin Chemicals
Olin Corp.
120 Long Ridge Rd.
P.O. Box 1355
Stamford, CT 06904

Original Bradford Soap Works
200 Providence St.
West Warwick, RI 02893

Ottawa Chemical Division
Ferro Corp.
700 North Wheeling St.
Toledo, OH 43605

Parafluid Mineralol-GmbH
Adenanertal 52
D-2000 Hamburg 1, FRG

Patco
3947 Broadway
Kansas City, MO 64111

Penreco
106 S. Main St.
Butler, PA 16001

Pentapharm AG Basel
4002 Basel,
Switzerland

Petrolite Corp.
6910 E. 14 St.
Tulsa, OK 74112-6618

Pfizer, Inc.
Chemical Division
235 E. 42 St.
New York, NY 10017

Phillips Brothers Chemicals
1 Parker Plaza
Fort Lee, NJ 07024

Phoenix Research Corp.
8075 Alvarado Rd.
La Mesa, CA 92042

Polyester Corp.
Southampton, NY 11968

PVO International, Inc.
World Trade Center
San Francisco, CA 94111

Quaker/QO Chemicals
P.O. Box 2500
West Lafayette, IN 47906

Quantum Chemical Corp.
Emery Division
11501 Northlake Drive
Cincinnati, OH 45249

Reheis, Inc.
235 Snyder Ave.
Berkeley Heights, NJ 07922

Rewo/Sherex Chemical Co.
Box 646
Dublin, OH 43017

Dr. K. Richter GmbH
Chemisches Laboratorium
Bennigsentrabe 25
D-1000 Berlin

Riedel de Haen AG
Karl-Wichert-Str. 3
D-3000 Hannover 61, FRG

Rita Corp.
332 Virginia St.
P.O. Box 556
Crystal Lake, IL 60014

Robeco Chemicals, Inc.
99 Park Ave.
New York, NY 10016

Robertet, Inc.
125 Bauer Drive
P.O. Box 660
Oakland, NJ 07436-3190

Roche Chemical Division
Hoffman-LaRoche, Inc.
Nutley, NJ 07110

Rohm and Haas Co.
Independence Mall West
Philadelphia, PA 19105

Rona Pearl
4 Hook Road
Bayonne, NJ 07002

Frank B. Ross Co., Inc.
P.O. Box 4085
Jersey City, NJ 07304-0085

Sandoz Chemicals Corp.
4000 Monroe Road
Charlotte, NC 28205

Scher Chemicals, Inc.
Industrial West
Clifton, NJ 07012

Schulke & Mayr GmbH
P.O. Box 630230
D-2000 Hamburg 63, FRG

Schuykill Chemical Co.
2346 West Sedgley Ave.
Philadelphia, PA 19132

Georg Schutz GmbH
Kermainzer Str. 162-166
D-6370 Oberusel, FRG

Shaw Mudge & Co.
P.O. Box 1375
Stamford, CT 06904

Shell Chemical Co.
P.O. Box 1422
Houston, TX 77251

Sherex Chemical Co.
P.O. Box 646
Dublin, OH 43017

Spencer Kellogg
P.O. Box 700
Hightstown, NJ 08520

Stepan Co.
22 W. Frontage Rd.
Northfield, IL 60093

Strahl & Pitsch Inc.
230 Great E. Neck Rd.
W. Babylon, NY 11704

Sun Chemical Corp.
411 Sun Ave.
Cincinnati, OH 45232

Sutton Laboratories, Inc.
116 Summit Ave.
Chatham, NJ 07928

SWS Silicones Corp.
Sutton Rd.
Adrian, MI 49221

Syn. Pharma
Pfladregasse 7-13
D-8900 Augsburg 11, FRG

Texaco Chemical Co.
4800 Fournace Place
P.O. Box 430
Bellaire, TX 77401

Tri-K Industries, Inc.
466 Old Hook Road
P.O. Box 312
Emerson, NJ 07630

Ungerer & Co.
4 Bridgewater Lane
P.O. Box U
Lincoln Park, NJ 07035

Union Carbide Corp.
39 Old Ridgebury Rd.
Danbury, CT 06817-0001

Unocal Chemicals
1345 N. Meacham Rd.
Schaumburg, IL 60196

USI Division
Quantum Chemical
11500 Northlake Drive
Cincinnati, OH 45249

Van Dyk
Main & William Streets
Belleville, NJ 07109

R.T. Vanderbilt Co., Inc.
30 Winfield St.
Norwalk, CT 06855

Wacker Silicones
3301 Sutton Rd.
Adrian, MI 49221-9397

Whittaker, Clark & Daniels
1000 Coolidge St.
S. Plainfield, NJ 07080

Williams (Hounslow) Ltd.
Hounslow Middlesex
Greville House
Hibernia Road TW3 3RX, UK

Witco Chemical Corp.
Organics Division
520 Madison Ave.
New York, NY 10022

Witco Chemical Corp.
Sonneborn Division
520 Madison Ave.
New York, NY 10022-4236

Zschimmer & Schwarz
D-5420 Lahnstein, FRG

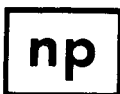
COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 2

by

Ernest W. Flick



NOYES PUBLICATIONS

Park Ridge, New Jersey, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN: 0-8155-1218-X (v. 1)

ISBN: 0-8155-1306-2 (v. 2)

Printed in the United States

Published in the United States of America by

Noyes Publications

Mill Road, Park Ridge, New Jersey 07656

10 9 8 7 6 5 4 3

Library of Congress Cataloging-in-Publication Data
(Revised for vol. 2)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations. I. Title.

TP983.F55 1989 668'.55 89-39099

ISBN 0-8155-1218-X (v. 1)

ISBN 0-8155-1306-2 (v. 2)

Preface

More than 1900 cosmetic and toiletry formulations are detailed in this volume, based on information received from numerous industrial companies and other organizations. This is Volume 2 of the Second Edition of this work; Volume 1 was published in 1989. The formulations in Volume 2 do not duplicate any of those in Volume 1.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances.

The 1989 market for cosmetic and toiletry raw materials was \$1.6 billion. That market is projected to increase to about \$1.8 billion by 1994, thus making the information in the book particularly interesting to anyone considering new products or process variations.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 15 sections:

- I. Antiperspirants and Deodorants
- II. Baby Products
- III. Bath and Shower Products
- IV. Beauty Aids
- V. Creams
- VI. Fragrances and Perfumes
- VII. Hair Care Products
- VIII. Lipsticks
- IX. Lotions
- X. Shampoos
- XI. Shaving Products
- XII. Soaps
- XIII. Sun Care Products
- XIV. Toothpastes
- XV. Miscellaneous

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

XVI. Trade-Named and Other Raw Materials Descriptions.

Each raw material is listed with a brief chemical description and the name of the raw material supplier.

XVII. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade-Named and Other Raw Materials Descriptions section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

March, 1992

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I
Antiperspirants and
Deodorants

ALCOHOL-FREE ROLL-ON DEODORANT

RAW MATERIALS	% By Weight
A. IMWITOR 960	6.0
Cetyl Alcohol	2.0
MIGLYOL 840	5.0
Hostaphat KL 340 N	5.0
Raluben TL	0.5
Aluminum Acetate	0.5
B. Sorbitol 70%	5.0
Carbopol 940 (Carbomer 940-Gel 1%)*	12.0
Alcohol	1.0
Water	up to 100.0
C. Perfume Oil	q.s.
* Carbomer 940-Gel: Carbomer 940 1.0%	
	Triethanolamine 0.6%
	Water up to 100.0%

Preparation:

The Carbomer-Gel is prepared, and Phase A is melted at ca. 60C. Phase B is stirred together and heated up to the same temperature. B is emulsified into A and at ca. 40C, the mass is perfumed.

Characteristics:

The deodorant is a free-flowing emulsion which is mild to the skin and is quickly absorbed without leaving behind a greasy feeling.

SOURCE: Huls America Inc.: Formula 1.5M

ANTIPERSPIRANT STICK

SUBSTANCE	% By Weight
Beeswax	35.0
PCL-liquid 2/066210	33.0
Locron P	20.0
PCL-solid 2/066220	10.0
Perfume oil	2.0

SOURCE: Dragoco Inc.: Suggested Formulation No. VKA 636/60

ANTIPERSPIRANT

RAW MATERIALS	% By Weight
EMPILAN GMS/NSE40	12.0
EMPICOL LZ	2.0
Synthetic spermaceti wax	5.0
Glycerol	10.0
Titanium dioxide	1.0
ALBRITE aluminum chlorhydrate	25.0
Perfume and preservative	qs
Water	Balance

SOURCE: Albright & Wilson Americas: Formula DC1

ANTIPERSPIRANT

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	9.5
Synthetic spermaceti wax	5.0
Glycerol	5.0
Titanium dioxide	2.0
Hexachlorophene	0.5
Perfume and preservative	qs
Water	to 100.0

SOURCE: Albright & Wilson Americas: Formula DC2

QUICK DRYING AEROSOL ANTIPERSPIRANT

MATERIALS	Parts by weight
78-1898	2.00
Microdry Ultrafine	2.00
Magnesium Stearate	0.50
Volatile Silicone 7158	2.00
Isopropyl Myristate	2.00
Anhydrous Ethanol	21.50
Perfume	q.s.
Propellant A 46	70.00

Valve: Precision Valve:
 2X .020" stem
 .080 X .020" body
 .020" button

Can: Enamel Lined

SOURCE: National Starch and Chemical Corp.: Formula 4015-60A

ANTI-PERSPIRANT CREAM

RAW MATERIALS	% By Weight
A Cetyl Alcohol	2,50
Stearyl Alcohol	2,50
Locron P	15,00
Eumulgin M8	3,00
Eutanol G	6,00
B Belsil CM 040	9,00
Water	62,00
Pigments, fragrances	q.s.

Mix A and heat to 70C, form a solid phase with warm water, work in Belsil CM 040 and dilute with water.

Temperature stability: at 45C 4 weeks.

Soft white cream. Leaves no visible traces of aluminum chlorohydrate on the skin.

Formulation 216 AH

ANTI-PERSPIRANT CREAM

RAW MATERIALS	% By Weight
A Cetyl Alcohol	2,50
Stearyl Alcohol	2,50
Locron P	10,00
Eumulgin M8	3,00
Eutanol G	6,60
B Belsil CM 040	9,00
Belsil PDM 20	3,00
Water	63,40
Pigments, fragrances	q.s.

Mix A and heat to 70C, mix in hot water, add B and mix well.

Temperature stability: at 45C over 10 weeks.

Soft white cream. Leaves no visible traces of aluminum chlorohydrate on the skin.

Formulation 217 AH

SOURCE: Wacker Silicone: Formulas

ANTIPERSPIRANT PUMP

INGREDIENTS	% By Weight
REACH 501 Solution	36.1
Alcohol SDA-40	30.0
Propylene Glycol	5.0
Deionized Water	28.5
Cremophor RH40	.2
Fragrance	q.s.

Procedure:

1. Add together ingredients B and D, mix using overhead stirring.
2. Add C, mix 10 minutes.
3. Add A slowly to batch, continue mixing until uniform.
4. Pre-mix F into E, disperse pre-mix into batch while using rapid stirring, mix for 5 minutes.

A consumer accepted hydro-alcoholic formula incorporating an enhanced chlorohydrate system that is proven clinically more effective than aluminum chlorohydrate.

SOURCE: Reheis Inc.: Formula

ANTIPERSPIRANT SUSPENSION ROLL-ON

INGREDIENTS	% By Weight
A. REZAL 36 GP SUF or REACH AZP-701	20.0
B. Bentone Gel VS-5/PC	13.5
C. Siloxane SWS-03314	66.0
D. Silica	0.5
E. Fragrance	q.s.

Procedure:

1. Mix B and C with overhead mixer for 20 minutes.
2. Add A and mix for 15 minutes.
3. Add D and E, mix for 10 minutes.
4. Homogenize for 3 minutes and pour into suitable containers.

This formula yields a smooth and dry feel to the skin upon application.

SOURCE: Reheis Inc.: Formula

ANTI-PERSPIRANT ROLL-ON-1

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	70
Dimethicone	2
Bentone Gel	2
Silica	1
Separation, % (After 7 Days): 12	

ANTI-PERSPIRANT ROLL-ON-2

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	65
Dimethicone	2
Bentone Gel	2
Silica	1
ACUMIST A-12	5
Separation, % (After 7 Days): 9	

ANTI-PERSPIRANT ROLL-ON-3

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	65
Dimethicone	2
Bentone Gel	2
Silica	1
ACUMIST A-18	5
Separation, % (After 7 Days): 4	

ANTI-PERSPIRANT ROLL-ON-4

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	65
Dimethicone	2
Bentone Gel	2
Silica	1
ACUMIST B-6	5
Separation, % (After 7 Days): 3	

Procedure:

Combine all ingredients and shear in a homomixer. ACUMIST is post-added.

SOURCE: Allied Signal Inc.: Technical Data PCP-007

ANTI-PERSPIRANT ROLL-ON-5

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	65
Dimethicone	2
Bentone Gel	2
Silica	1
ACUMIST B-12	5
Separation, % (After 7 Days):	3

ANTI-PERSPIRANT ROLL-ON-6

RAW MATERIALS	% By Weight
Aluminum-Zirconium-Glycine Complex	25
Cyclomethicone	65
Dimethicone	2
Bentone Gel	2
Silica	1
ACUMIST B-18	5
Separation, % (After 7 Days):	3

Procedure:

Combine all ingredients and shear in a homomixer. ACUMIST is post-added.

ROLL-ON ANTIPERSPIRANT-1

RAW MATERIALS	% By Weight
A. Cyclomethicone	45
B. P.G. Dipelargonate	25
C. A-C Polyethylene: A-C 405T	10
D. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days):	3

ROLL-ON ANTI-PERSPIRANT-2

RAW MATERIALS	% By Weight
A. Cyclomethicone	45
B. P.G. Dipelargonate	22
C. A-C Polyethylene: A-C 405T	13
D. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days):	2

Procedure:

Combine component B with the appropriate type of A-C polyethylene from component C and heat to 95C. During cool down slowly add component A. Combine D with the mixture and shear in a homomixer.

SOURCE: Allied-Signal Inc.: Technical Data PCP-007

ROLL-ON ANTIPERSPIRANT-3

RAW MATERIALS	% By Weight
A. Cyclomethicone	40
B. P.G. Dipelargonate	24
C. A-C Polyethylene: A-C 430	16
D. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days):	<1

ROLL-ON ANTIPERSPIRANT-4

RAW MATERIALS	% By Weight
A. Cyclomethicone	40
B. P.G. Dipelargonate	30
C. A-C Polyethylene: A-C 617	10
D. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days):	1

Procedure:

Combine component B with the appropriate type of A-C polyethylene from component C and heat to 95C. During cool down slowly add component A. Combine D with the mixture and shear in a homomixer.

ROLL-ON ANTIPERSPIRANT-1

RAW MATERIALS	% By Weight
A. Cyclomethicone	40
B. P.G. Dipelargonate	25
C. A-C Polyethylene: A-C 405T	10
D. ACUMIST B-6	5
E. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days):	0

ROLL-ON ANTIPERSPIRANT-2

RAW MATERIALS	% By Weight
A. Cyclomethicone	40
B. P.G. Dipelargonate	22
C. A-C Polyethylene: A-C 405T	13
D. ACUMIST B-6	5
E. AL-ZIR-GLY Complex	20
Separation, % (After 7 days):	0

Procedure:

Combine component B with the appropriate type of A-C polyethylene from component C and heat to 95C. During cool down slowly add component A. Combine D and E to the mixture and shear in a homomixer.

SOURCE: Allied Signal Inc.: Technical Data PCP-007

ROLL-ON ANTIPERSPIRANT-3

RAW MATERIALS	% By Weight
A. Cyclomethicone	35
B. P.G. Dipelargonate	24
C. A-C Polyethylene: A-C 430	16
D. ACUMIST B-6	5
E. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days): 0	

ROLL-ON ANTIPERSPIRANT-4

RAW MATERIALS	% By Weight
A. Cyclomethicone	35
B. P.G. Dipelargonate	30
C. A-C Polyethylene: A-C 617	10
D. ACUMIST B-6	5
E. AL-ZIR-GLY Complex	20
Separation, % (After 7 Days): 0	

Procedure:

Combine component B with the appropriate type of A-C polyethylene from component C and heat to 95C. During cool down slowly add component A. Combine D and E to the mixture and shear in a homomixer.

SOURCE: Allied-Signal Inc.: Technical Data PCP-007

ANTI-PERSPIRANT ROLL-ON

RAW MATERIALS	% By Weight
A Locron P	20,00
Wacker HDK H15	1,00
B Lamecreme KS	3,00
BELSIL DM 100	5,00
C BELSIL CM 020	71,00
Pigments, fragrances	q.s.

Mix A and heat to 70-75C, mix B and melt. Mix A and B, add C, cool.

Temperature stability: at 45C 3 weeks
Milky white, liquid.

SOURCE: Wacker Silicone: Formulation 185 AH

ANTI-PERSPIRANT STICK

RAW MATERIALS	% By Weight
A Belsil CM 040	52,50
B Stearyl Alcohol	24,00
Arlacel 165	1,00
Locron P	22,00
Pigments, fragrances	q.s.

Mix B and heat to 65C. Stir in Belsil CM 040.
 Temperature stability: at 45C over 10 weeks.
 White firm stick with little soft rub.
 Formulation 302 AH

ANTI-PERSPIRANT STICK

RAW MATERIALS	% By Weight
A Lanolin Acid	45,00
Belsil SDM 6022	30,00
Locron P	15,00
Belsil DM 350	5,00
B Belsil CM 040	5,00

Melt A, mix in B and fill while hot.
 Temperature stability: at 45C over 10 weeks.
 Firm slightly yellow stick with little rub.
 Formulation 358 AH

DEODORANT STICK

RAW MATERIALS	% By Weight
Sodium Stearate	6,00
Alcohol (cosmetic grade)	65,00
Propylene Glycol	24,80
Belsil CM 040	3,00
Pigments, preservatives, fragrances	q.s.

Mix all components and heat to 60-70C, until all the sodium stearate has melted. Fill at 60C.
 Temperature stability: at 45C over 10 weeks.
 Translucent stick with soft rub.
 Formulation 186 AH

SOURCE: Wacker Silicone: Formulas

DEODORANT STICK

RAW MATERIALS	% By Weight
Sodium Stearate	7.0
IMWITOR 780K	3.0
SOFTIGEN 767	12.0
1,2-Propylene Glycol	8.0
Glycerine	5.0
Water	20.0
Raluben TL	0.5
Ethanol 96%	43.5
Perfume Oil Deosafe 75 428N/II	1.0

Preparation:

All components are melted together at 50C. The mass is then cooled while stirring to about 35C and poured into molds. Before packaging, it is advantageous to store the sticks for a short time.

Characteristics:

The stick is light transparent white, has a very good rub off and a nice cooling effect on the skin.

SOURCE: Huls America Inc.: Formula 1.5N

DEODORANT STICK

RAW MATERIALS	% By Weight
a) Stearin	5.0
1,2-Propylene glycol	46.0
b) Water, distilled	40.0
Sodium hydroxide	1.0
c) Ethyl alcohol 96 vol. %	7.5
Deodorant Richter/K	0.5

Manufacture:

- dissolve while stirring at about 60C;
- heat to about 60C and stir into a). Continue stirring until the solution has cooled to about 50C;
- stir in.
Perfume, and immediately fill into the holders.

In contrast to sticks with a high content of ethyl alcohol, this stick with propylene glycol also keeps well in holders which are not completely airtight, since propylene glycol does not evaporate, and actually inhibits the evaporation of water.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH: Model Formulations 10

DEODORANT STICK

RAW MATERIALS	% By Weight
A. SOFTISAN 100	38.5
MIGLYOL 812	30.0
IMWITOR 960	10.0
Beeswax	20.0
Hexachlorophene	0.5
B. Deosafe 75428 N/I	1.0

Preparation:

(A) is melted at 75-80C. It is then stirred until cooled to ca. 40C. (B) is added and the mass is poured into forms.

SOURCE: Huls America Inc.: Formula 1.5D

DEODORANT STICK WITH A "DRY EFFECT"

RAW MATERIALS	% By Weight
SOFTISAN 100	38.5
MIGLYOL 812	30.0
IMWITOR 960	10.0
Beeswax	20.0
Deosafe 75 428 N/II Perfume Oil	1.5

Preparation:

The components are melted together at ca. 75C, cooled while stirring to a cream-melt consistency, perfumed, and poured into molds.

Characteristics:

The stick is water- and alcohol-free, is absorbed well into the skin, is not greasy, and leaves behind a "dry feeling" on the skin.

SOURCE: Huls America Inc.: Formula 1.5D(1)

DEODORANT/ANTIPERSPIRANT SPRAY

RAW MATERIALS	% By Weight
a) Locron P	37.50
Aerosil	6.25
Deodorant Richter/K	3.75
b) Miglyol 812	48.75
Perfume oil	3.75

Manufacture:

- a) mix in the order given;
- b) add and stir until a paste is obtained.

Concentrate:

Product	8.0%
Propellant 11/12 7030	92.0%

Valve:

R.S-70 gold-lacquered

Actuator:

310-040/020

Note: Shake before use

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model Formulations 10

DEODORANT PUMP SPRAY

RAW MATERIALS	% By Weight
I. Hydagen Deo	5,0
Ethanol, cosm.	60,0
Water, demin.	30,0
II. Collapurol	5,0

Appearance: clear
Cloud point: <0C

Preparation:

Dissolve phase I, then add Collapurol.

SOURCE: Henkel Corp.: Formula no. 89/394/17

DEO PUMP SPRAY

RAW MATERIALS	% By Weight
A Alcohol (cosmetic grade)	30,00
Belsil PDM 20	69,00
B Perfume	1,00
Preservatives, pigments	q.s.
Mix A, add B.	
Temperature stability: at 45C over 10 weeks.	
Colourless clear, low viscosity.	
Formulation 422 AH	

DEODORANT STICK

RAW MATERIALS	% By Weight
Lanolin Acid	50,00
Belsil SDM 6022	36,00
Isopropyl Myristate	5,00
Belsil DM 350	4,00
Belsil CM 040	5,00
Preservatives, pigments, fragrances	q.s.
Melt all components together. Fill while hot.	
Temperature stability: at 45C over 10 weeks.	
Firm, slightly yellow stick with soft rub.	
Formulation 279 AH	

DEODORANT STICK

RAW MATERIALS	% By Weight
A Lanolin Acid	60,00
Belsil SDM 6022	30,00
Belsil DM 35	5,00
B Belsil CM 040	5,00
Melt A, mix in B, fill while hot.	
Temperature stability: at 45C over 10 weeks.	
Firm, slightly yellow stick with little rub.	
Formulation 357 AH	

SOURCE: Wacker Silicone: Standard Formulations

DRY ROLL-ON ANTIPERSPIRANT-A

RAW MATERIALS	% By Weight
A. ABIL Wax 9801	0.50
Isopropyl Myristate	5.00
Cyclomethicone (ABIL B8839/DC 344)	40.00
Quaternium 18 Hectorite (Bentone 38 powder)	2.00
Ethanol - 200 proof or	
Ethanol - 190 proof	2.00
B. Isopropyl Myristate	5.00
Cyclomethicone (ABIL B8839/DC 344)	20.50
C. Aluminum Chlorohydrate	25.00
D. Perfume	QS

DRY ROLL-ON ANTIPERSIRANT-B

RAW MATERIALS	% By Weight
A. ABIL Wax 9801	0.50
Isopropyl Myristate	5.00
Cyclomethicone (ABIL B8839/DC 344)	40.00
Quaternium 18 Hectorite (Bentone 38 powder)	2.00
Ethanol - 200 proof or	
Ethanol - 190 proof	2.00
B. Hexyl Laurate (Standamul CTA or Cetrol A)	3.00
Cyclomethicone (ABIL B8839/DC 344)	22.50
C. Aluminum Chlorohydrate	25.00
Perfume	QS

Procedure:

- Blend ABIL Wax 9801, ABIL B8839 and Isopropyl Myristate. Sprinkle in Bentone 38 powder, avoiding lumps, while using a high speed mixer.
- Add Ethanol. 190 is preferred. Mix. Process through homogenizer with shear until a clear soft gel or clear medium viscosity liquid is formed.
- Mix phase B. Add Aluminum Chlorohydrate. Mix until uniform. Add to phase A gel. Mix/homogenize until well dispersed.
- Add Perfume. Mix.

SOURCE: Goldschmidt Chemical Corp.: Formulas A, B

ENHANCED ANTIPERSPIRANT STICK

INGREDIENTS	% By Weight
A. REACH AZP-501	20.0
B. Siloxane F-222	50.5
C. Stearyl Alcohol	20.0
D. Promyristyl PM-3	5.0
E. PEG-8 Distearate	2.0
F. Talc, 325 mesh	1.0
G. Silica	1.5
H. Fragrance	q.s.

Procedure:

1. Add B to reaction vessel and heat to 65C.
2. Add D and E with moderate stirring.
3. Add C slowly, maintain 65C. Increase agitation and add A. Mix for 5 minutes.
4. Add F, mix 5 minutes.
5. Add G, mix 5 minutes.
6. Add H. Using slow to moderate stirring, cool to 55C. and pour into stick casings.

A smooth feeling, high payout stick incorporating a cost effective enhanced efficacy aluminum-zirconium active demonstrating optimal antiperspirant efficacy.

SOURCE: Reheis Inc.: Formula

ENHANCED ANTIPERSPIRANT CREAM

INGREDIENTS	% By Weight
A. REACH 501 Soln.	40.0
B. Arlacel 165	15.0
C. Cetyl Alcohol	5.0
D. Sorbitol 70% Soln.	3.0
E. Deionized Water	37.0
F. Fragrance	q.s.

Procedure:

1. Combine B and C and heat to 75C.
2. Combine D and E and heat to 75C.
3. Add slowly to B/C combination and cool to 55C. while agitating with overhead mixer.
4. Add A and mix thoroughly.
5. Add F and cool to 35C. Homogenize at 3000 psi.

An aesthetically elegant cream incorporating an enhanced efficacy aluminum chlorohydrate that is stable in aqueous formulations.

SOURCE: Reheis Inc.: Formula

ENHANCED CLEAR HYDRO-ALCOHOLIC ROLL-ON

INGREDIENTS	% By Weight
A. REACH 501 Solution	40.0
B. Procetyl AWS	2.0
C. Natrosol 250MR CS	0.2
D. Deionized Water	15.7
E. SD Alcohol 40	42.1
F. Fragrance	q.s.

Procedure:

1. Disperse C in D. Mix until clear, about 2 hours.
2. Add A gradually. Mix rapidly using overhead stirring to dissolve.
3. In a separate container combine B and E, then add slowly with constant agitation to the rest of the batch.
4. Add fragrance, mix thoroughly and pour into clear roll-on containers

A fast drying, hydro-alcoholic roll-on incorporating an activated aluminum chlorohydrate system that is proven clinically more effective than aluminum chlorohydrate.

SOURCE: Reheis Inc.: Formula

ROLL-ON ANTIPERSPIRANT

INGREDIENT	% By Weight
A. VEEGUM HV, Magnesium Aluminum Silicate	1.00
Deionized Water	29.00
B. Glyceryl Stearate (and) PEG-100 Stearate	8.00
C. Aluminum Zirconium Tetrachlorohydrate GLY, 30% Soln.	33.00
Aluminum Chloride, 32 Baume Soln.	5.50
Aluminum Chlorhydrate, 50% Soln.	16.50
D. Cyclomethicone	7.00
E. Fragrance, Dye, Preservative	q.s.

Features:

This low viscosity emulsion is stabilized with VEEGUM HV which also provides moderate thickening and excellent, dry after-feel. The Aluminum/Zirconium Complex has higher anti-perspirant efficacy than aluminum chlorohydrate.

Preparation:

Add VEEGUM HV to water at 75C and mix with maximum available shear until smooth, uniform and completely free of undispersed particles. In another container, heat B to 75C. Heat C to 55C in a third container. Add B to A with slow mixing and cool to 50C. Add C to A & B. Mix at slow speed until the temperature reaches 25C. Add D and homogenize for 5 minutes. Add E. Mix until uniform and package.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 443

SOFT STICK ANTIPERSPIRANT

INGREDIENTS	% By Weight
Stearic Acid (Triple Press)	15.0
Cetyl Alcohol	15.0
Aluminum Chlorohydrate	20.0
Dow 345 Fluid	44.5
Velsan P816	2.0
Sandopan KST	3.0
Orgasol 2002 D	0.5

Procedure:

Charge to vessel stearic acid, cetyl alcohol, Velsan P816, Sandopan KST to 65-70C. Mix until homogeneous. Discontinue heating. Add Orgasol & Aluminum chlorohydrate. Cool to 55C. Add Dow 345 Fluid slowly; at 45-50C pour into containers. Allow to cool undisturbed.

Soft, smooth non-greasy payoff of this stick is due to the property of Velsan P8-16 to reduce the oily feel of silicone. Non Sandopan KST replaces the traditional crystallizing sodium stearate.

Properties:

Appearance: White stick
 Congealing point: 34.5C

SOURCE: Sandoz Chemicals Corp.: Formulation No. CSP-02

SPRAY DEODORANT

SUBSTANCE	% By Weight
Irgasan DP 300	0.5
PCL-liquid 2/066210	3.0
96% ethyl alcohol (not denatured)	95.5
Perfume oil	1.0

Filling: 30% active substance
 70% propellant gas 12/114 40:60

SOURCE: Dragoco, Inc.: Suggested Formulation No. VD 5/7

SOLID ANTIPERSPIRANT

RAW MATERIAL DESCRIPTION	Sequence	% By Weight
Propylene Glycol	1	25.50
Carbowax 400	1	3.50
Rehydrol 11	2	15.00
Lipamide SM	3	27.00
Witconol APS	4	12.00
D.C. Silicone Fluid 556	4	1.00
Liponate IPP	4	3.50
Liponate PC	4	1.50
SD 40 Alcohol Anhydrous (200 Proof)	5	10.00
Fragrance	6	1.00

Manufacturing Procedure:

1. Weigh out and add Sequence 1 materials into a suitable steam-jacketed kettle equipped with variable or two-speed side-wiping agitator and begin moderate speed agitation.
2. Slowly add Sequence 2 to Sequence 1 with moderate speed side-wiping agitation. When the addition is completed, begin to heat combined Sequence 1 and 2 to 83C; maintain temperature and mix until Sequence 2 is completely dissolved.
3. Slowly add Sequence 3 to batch using slow speed side-wiping agitation. Continue maintaining temperature at 83C and mix until Sequence 3 is completely dissolved.
4. In a separate container, combine Sequence 4 ingredients and heat to 83C with moderate mixing.
5. Maintain 83C temperature and slowly add combined Sequence 4 at 83C to batch using continuous slow speed side-wiping agitation. Mix until Sequence 4 is completely dissolved.
6. Turn off heat; drain steam from kettle and allow batch to cool to 78C, using slow speed side-wiping agitation.
7. At 78C, slowly add Sequence 5 to batch using continuous slow speed side-wiping agitation. Mix until batch is clear (approximately 3-5 minutes).

SOURCE: Lipo Chemicals Inc.: Formula No. 109

SOLID STICK ANTIPERSPIRANT-A

INGREDIENT	% By Weight
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone	51.50
ABIL Wax 9801	0.50
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

SOLID STICK ANTIPERSPIRANT-B

INGREDIENT	% By Weight
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone	51.50
ABIL Wax 2434	0.50
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

SOLID STICK ANTIPERSPIRANT-C

INGREDIENT	% By Weight
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone	51.50
ABIL Wax 9801	0.25
ABIL Wax 2434	0.25
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

Manufacturing Directions:

1. Add the cyclomethicone to a covered mixing tank equipped with a turbine propeller. Begin heating.
2. Add the Fluid AP, Lanette, Castorwax and ABIL Waxes. Bring temperature to 85-87C. Hold for 30 minutes at temperature while mixing.
3. Add the Talc. Do not allow the temperature to drop below 75C during addition. Maintain temperature at 80-85C while mixing for 10-15 minutes.
4. Add the Aluminum-Zirconium Complex. Do not allow the temperature to drop below 70C during addition. Mix for 15-20 minutes at 175-180C.
5. Cool while mixing to 60-62C. Add fragrance.
6. Dispense into containers at 58-61C.

SOURCE: Goldschmidt Chemical Corp.: Formulas A, B, C

TRANSPARENT DEODORANT STICK

RAW MATERIALS	% By Weight
A. Sodium Stearate	8.0
SOFTIGEN 767	40.0
Glycerin	10.0
Sucrose	8.0
Preservative	q.s.
Water	up to 100.0
B. Locron L	1.0
Ethanol (96%)	3.0
Deosafe 75428 N/I	1.0

Preparation:

(A) is heated until melted. (B) is stirred in at ca. 30C., and then the mass is poured into molds. The stick is transparent and slightly yellow. Upon rubbing, it is not too soft, and quickly penetrates the skin.

SOURCE: Huls America Inc.: Formula 1.5C

TRANSPARENT DEODORANT STICK

RAW MATERIALS	% By Weight
A. Sodium Stearate	8.0
SOFTIGEN 767	40.0
Glycerine	10.0
Sucrose	8.0
Water	29.7
Preservative	q.s.
B. Ethanol 96%	3.3
Deosafe 75 428N/II, Perfume Oil	1.0

Preparation:

(A) is added together and heated until melted. (B) is added at ca. 40C, and then the mass is poured into molds.

Characteristics:

The stick is translucent and light yellow. Its rub-off is not too soft, and absorbs quickly into the skin.

SOURCE: Huls America Inc.: Formula 1.5C (1)

UNDERARM ROLL-ON DEODORANT LOTION

INGREDIENTS	% By Weight
Propylene glycol	35.00
Witch hazel	32.70
Water	30.00
Oat Pro oat flour	2.00
KELTROL T xanthan gum	0.30
Preservative and fragrance	to suit

Procedure:

1. Combine KELTROL T and propylene glycol to form a slurry.
2. With good agitation, using a Lightnin'-type mixer, add gum slurry to water. Continue mixing until KELTROL T is hydrated (about 10 minutes). Add preservative.
3. Add oat flour and stir to form a uniform solution. Add fragrance.
4. Package.

The addition of KELTROL T xanthan gum provides ease of application and good cling when the lotion is applied.

SOURCE: Kelco Division: Product Formulation SS-5249

ANTI-PERSPIRANT ROLL-ON

RAW MATERIALS	% By Weight
Water	51,20
Alcohol (Cosmetic grade)	12,00
Belsil DMC 6031	5,00
Wacker HDK H15	1,50
Tylose H 4000 P	0,30
Locron L	30,00

Pigments, fragrances

q.s.

Mix the water and cosmetic alcohol, dissolve Belsil DMC 6031. Add HDK H 15 and Tylose H 4000 P to the solution whilst stirring. Stir in the aluminum chlorhydrate.

Temperature stability: at 45C over 10 weeks.

Cloudy, low viscosity

Formulation 242 AH

ANTI-PERSPIRANT ROLL-ON

RAW MATERIALS	% By Weight
A Belsil DMC 6032	2,00
Water	52,00
B Alcohol (Cosmetic grade)	25,00
C Locron L	20,00
Tylose H 4000 P	0,5-1,0

Pigments, fragrances

q.s.

Mix A, stir B into A, mix in C. The desired viscosity can be regulated with Tylose H 4000 P (add Tylose H 4000 P either mixed with water to A or mix at the end in the finished formulation).

Slightly cloudy, high viscosity.

Formulation 516 AH

SOURCE: Wacker Silicone: Standard Formulations

Section II

Baby Products

BABY BATH

RAW MATERIALS	% By Weight
TEXAPON ASV	40.0
Rewopol SBFA 30	30.0
Comperlan KD	3.0
SOFTIGEN 767	10.0
Extrapone Chamomile Special	1.5
Perfume	q.s.
Water	up to 100.0
Preservative	q.s.

Preparation:

All the materials are put together and stirred to homogeneity at about 40C.

SOURCE: Huls America Inc.: Formula 3.6.1

BABY BATH

RAW MATERIALS	% By Weight
MACKANATE OP	12.0
MACKANATE EL	12.0
Sodium Laureth Sulfate (30%)	10.0
MACKSTAT DM	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add components to water.
2. Heat to 40 degrees C.
3. Blend until clear.
4. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BABY BATH

RAW MATERIALS	% By Weight
MIRATAINE CBS	13.0
CEDEPAL TD 407MF	8.0
Solulan 98	0.5
Water	78.5

Procedure:

Mix all ingredients together and adjust pH to 6.8 with citric acid.

Solids: 13.0%, viscosity: 700 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formula

BABY CARE CREAM W/O

RAW MATERIALS	% By Weight
I.	
Base MM 2007	18,00
Mineral Oil	48,00
PECEOL Isostearique	5,00
Sweet Almonds Oil	2,00
Preservative	Q.S.
II.	
Demineralized Water	15,85
Sodium Borate	0,85
Zinc Oxyde	10,00
Perfume	0,30

Preparation:

Pour II heated up to 90C into I heated up to 90C.

Add the zinc oxyde while stirring, maintain up to 90C for 2-3 mn.

Stir with a high speed stirrer for 2 mn.

Cool down under moderate agitation.

Add perfume. Homogenize if necessary.

SOURCE: Gattefosse: Formula MM 2287

BABY'S SKIN SMOOTHING CREAM

INGREDIENT	% By Weight
Cirami No. 1	2.0000
Shea Butter	1.0000
Babyderme #665 LS	2.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Arlacel 165	5.0000
Hazelnut Oil	4.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Demineralized Water	76.8850
DC 193 Surfactant	1.5000
Tensami 4/07	0.4000
Babyderme #265 HS	3.0000
Tri-Sept M	0.2000
Tri-Stat IU	0.2000
Perfume	0.2000

Procedure:

Combine waxes, oils, vitamin E, and propylparaben in main tank Heat to 75C. Combine water, methylparaben, tensami, & DC 193 in side tank and heat to 75C. Pump water phase into main tank with prop agitation at 75C. Mix until uniform. Switch to sweep agitation and add Babyderme 265 HS and begin cooling to 50C. Add Tristat IU at 50C, and continue cooling to RT. At RT, add the fragrance and mix until fully dispersed and unifrom.

SOURCE: TRI-K Industries, Inc.: Code AMI.011.

BABY CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	17.0
MIGLYOL 812	5.0
Avocado Oil	3.0
Mineral Oil	4.0
SOFTIGEN 701	3.0
Antioxidants	q.s.
B. Glycerin	4.0
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature, and is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

SOURCE: Huls America Inc.: Formula 3.1.2

BABY CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	2.5
Stearic acid	1.2
Lanolin	1.0
Technical white oil	15.0
Glycerol	2.5
Triethanolamine	0.5
Dye, perfume, preservative	qs
Water	Balance

This formulation may be modified to a lotion by omitting the glycerol.

SOURCE: Albright & Wilson Americas: Formula BC1

BABY FOAM BATH, WITH HERBS, RE-FATTING

RAW MATERIALS	% By Weight
a) Texapon ASV	50.0
Cetiol HE	5.0
b) Water, distilled, preserved	36.0
Sodium chloride	4.0
c) Sedaplant Richter	5.0

Manufacture:

- a) dissolve;
 - b) dissolve and stir into a);
 - c) stir in.
- Perfume

Liquid, transparent preparation

Model formulations 23

BABY PROTECTIVE CREAM, TYPE W/O

RAW MATERIALS	% By Weight
a) Adeps lanæ	30.0
Bees-wax	4.0
Lanette 16	1.0
Paraffin oil	15.0
Silicone oil AK500	10.0
Vegetable oil	9.0
Vitamin (A+D3) Concentrate CLR	0.2
Epidermin in Oil	0.3
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	30.5

Manufacture:

- a) melt and bring to about 70C;
 - b) heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume with baby perfume oil, roll.

Model formulations 27

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model Formulations

BABY LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
MIGLYOL 812	5.0
Hostaphat KL 340N	5.0
B. Glycerin	5.0
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature, and is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

SOURCE: Huls America Inc.: Formula 3.2.1

BABY LOTION

INGREDIENTS	% By Weight
Part A:	
Deionized water	79.8
Glucam E-20 methyl gluceth-20	5.0
Glucamate SSE-20 methyl gluceth-20 sesquistearate	1.2
KELTROL T xanthan gum	0.5
Magnesium aluminum silicate	0.5
Methyl paraben	0.2
Part B:	
Light mineral oil	7.0
Cetal cetyl alcohol	3.0
Cosmetic AA lanolin, USP	2.0
Glucate SS methyl glucose sequistearate	0.8

Procedure:

1. Pre-mix KELTROL T and magnesium aluminum silicate.
2. With vigorous agitation, hydrate the gums in deionized water that has been preheated to 170F. Mix 10-15 minutes.
3. After the gums are fully hydrated, add the rest of Part A maintaining heat at 77C (170F).
4. Combine Part B ingredients and heat to 77C (170F) until melted.
5. Combine both parts at 77C (170F).
6. Allow to cool under medium agitation.
7. Add fragrance to suit.

SOURCE: Kelco: Product Formulation SS-4922

BABY LOTION

RAW MATERIALS	% By Weight
I.	
TEFOSE 1500	6,00
PALMITATE DE CETYLE	2,00
Sweet Almonds Oil	4,00
Antioxygen	Q.S.
II.	
Demineralized Water	85,50
CARBOPOL 941	0,10
Glycerin	2,00
Triethanolamine 99% (50% Sol.)	0,20
Perfume	0,20

Preparation:

Disperse the CARBOPOL. Let stand.
 Pour II heated up to 75C into I heated up to 75C.
 Add the triethanolamine solution.
 Cool down under moderate agitation.
 Add perfume.

Formula MM 945 bis

BABY CLEAR LOTION

RAW MATERIALS	% By Weight
Demineralized Water	90,60
Allantoin	0,15
VEGETOL HYDRO MATRICAIRES MCF 793	5,00
Glycerin	3,00
E.D.T.A. Tetrasodic Salt	0,05
Dye C.I. 16255	Q.S.
Preservative	Q.S.
(Perfume	0,30
(SOLUBILISANT GAMMA 2420	0,90

Preparation:

Mix all the components together in the order of formula.
 Mix the perfume and the SOLUBILISANT GAMMA 2420 together.
 Filter

Formula MM 2982/F

SOURCE: Gattefosse: Formulary: Formulas

BABYMILK WITHOUT PERFUME

RECIPE	% By Weight
A. HOE S 3495	1.00
HOSTACERIN DGS	3.00
Mineral oil, high viscosity	10.00
Cetiol SN	8.00
Calendula oil	1.00
Chamomile oil	0.50
Tocopherol	0.50
B. HOSTACERIN PN 73*	0.20
C. ALLANTOIN	0.20
Extrapon Hamamelis	2.00
Water	73.60
Preservative	q.s.

* Alternative thickeners could also be used.

Procedure:

- I. Melt A at 70C, then add B.
- II. Heat C to 70C.
- III. Stir II into I.
- IV. Stir until cool.
- V. Homogenize if necessary.

SOURCE: Hoechst: Guide Formulations: Formula A VI/5200

BABY POWDER

RAW MATERIALS	% By Weight
Talcum	72.0
DYNASAN 114	2.0
Magnesium stearate	8.0
Ground Kaolin P	18.0

Preparation:

The materials are put together and mixed and then passed through a 0.16 mm sieve. Any remainder is milled in a micromill and sieved again until no residue remains.

SOURCE: Huls America Inc.: Formula 3.4.1

BABY OIL

RAW MATERIALS	% By Weight
A.	
Mineral Oil	20.0
SOFTIGEN 701	7.0
MIGLYOL 818	35.5
MIGLYOL 840	35.0
Hostaphat KL 340N	2.0
B.	
Perfume	q.s.

Preparation:

(A) is dissolved with slight heat and then the perfume is added.

SOURCE: Huls America Inc.: Formula 3.3.1

BABY OIL, HERB AND VITAMIN CONTENT

RAW MATERIALS	% By Weight
Vegetable oil	60.5
Isopropyl myristate	30.0
Carrot Oil CLR	0.5
Calendula Oil CLR	4.0
Lantrol	5.0
Antioxidant	q.s.

Manufacture:

Mix at room temperature in the order given.

Perfume with baby perfume oil.

Model formulations 6

BABY OIL SPRAY, HERB/VITAMIN CONTENT

RAW MATERIALS	% By Weight
Isopropyl myristate	17.0
Eutanol G	15.2
Myritol 318	56.0
Lantrol	3.0
Calendula Oil CLR	8.0
Vitamin (A + D3) Concentrate CLR	0.3
Perfume oil	0.5

Manufacture:

Mix at room temperature in the order given.

Concentrate:

Product: 40.0%

Propellant 11/12 5050: 60.0%

Valve: R-70 gold-lacquered

Actuator: 130-013/018

Model formulations 27

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter: Formulas

BABY SHAMPOO

RAW MATERIALS	% By Weight
A. Tego Betain L7	15.0
SOFTIGEN 767	15.0
Perfume	q.s.
B. Texapon N40	35.0
Extrapone Chamomile Special	1.0
Water	12.5
NaCl	1.0

Preparation:

Mix the components of (A) and (B) separately, and then mix (A) and (B) together.

SOURCE: Huls America Inc.: Formulation 3.5.1

BABY SHAMPOO

INGREDIENTS	% By Weight
Water (Deionized)	52.0
Schercomid AME-70	5.0
Schercotaine CAB 45%	10.0
Schercopol OMS-Na 35%	15.0
Ammonium Lauryl Sulfate 30%	15.0
Olive Oil (W) Water Soluble	2.0
Schercomid SLM-LC	1.0
Preservative	q.s.
Citric Acid 50% Sol'n	q.s.
Fragrance	q.s.

Procedure:

1. Heat water 45-50C. With good stirring add the 1st four ingredients. Mix until clear.
2. With continuous agitation add Olive Oil (W) then Schercomid SLM-LC.
3. Adjust pH if necessary with Citric Acid sol'n.
4. Cool to 30C q.s. with Fragrance and Preservative.

Typical Specifications:

Activity: 20%

Viscosity @ 25C: 1900 cps

(If higher viscosity is desired increase Schercomid SLM-LC)

pH @ 25C: 5.5

SOURCE: Scher Chemicals, Inc.: Formula SO-014

BABY SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE OM	30.0
Sodium Laureth Sulfate (25%)	17.0
MACKAM 35HP	4.0
Sodium Chloride	3.0
MACKSTAT DM	qs
Water, Dye, Perfume qs to	100.0

Solids, %: 17.7

pH: 6.7

Viscosity (cps, 25 degrees C): 1000

Cloud Point: <5 degrees C.

Procedure:

Add surfactants to water and blend until clear. Adjust pH to 6.5-7.0 with sodium hydroxide or citric acid. Adjust viscosity with sodium chloride. Add dye, preservative and perfume and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (30%)	15.0
MACKAMIDE C	0.5
MACKAM 35	3.0
MACKANATE OM	5.0
MACKAM 2C	5.0
Sodium Chloride	2.0
MACKSTAT DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust pH to 6.5-7.0 with citric acid.
4. If needed, adjust viscosity with NaCl.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
Sipon ESY	16.00
Mackanate OM	8.00
Mackam 2C	6.00
Mackam J	3.00
Paragon	0.60
Deionized Water	Q.S. to 100.00
Color, Fragrance	Q.S.

Procedure:

1. Add components to water and heat to 35C.
2. Blend until clear.
3. Adjust pH to 6.0-7.0 with citric acid.
4. Adjust viscosity to 1500-5000 cps with NaCl.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula No. BP-38-N

BABY SHAMPOO

RECIPE	% By Weight
A GENAPOL ZRO liquid*	20.00
B GENAPOL AMG	12.00
Perfume	0.30
Water	52.70
Dyestuff solution	q.s.
Preservative	q.s.
C GENAGEN CAB	15.00
D Citric acid---->pH 6-7	q.s.

* If GENAPOL ZRO paste is being used instead of GENAPOL ZRO liquid, 0.4 times the quantity of GENAPOL ZRO liquid is necessary.

Procedure:

- I One after another, the components of B are added to A.
- II Add C to I. The addition of C raises the viscosity.
- III Adjust the pH with D.

Clear, 13.7% active detergent

SOURCE: Hoechst: Guide Formulations: Formula

BABY SHAMPOO

RAW MATERIALS	% By Weight
A. AMPHOLYT JB130	15.0
SOFTIGEN 767	15.0
Perfume	q.s.
B. MARLINAT 242/28	35.0
Extrapone Chamomile Special	1.0
Water	up to 100.0

Preparation:

Mix the components of (A) and (B) separately, and then mix (A) and (B) together.

Description:

This formulation is designed to be exceptionally mild to the skin and eyes, in addition to providing good shampoo performance.

SOURCE: Huls America Inc.: Formulation 3.5.1A

BABY SHAMPOO

RAW MATERIALS	% By Weight
Lamepon S	20.0
Tego Betain L7	20.0
SOFTIGEN 767	4.0
Antil 141 Liquid	5.0
Chamomile Extract	2.0
Color	q.s.
Fragrance	q.s.
Water	up to 100.0

Preparation:

All components are added together, heated up to 40C., and stirred until homogeneous.

Clear, liquid baby shampoo of mild surfactants.

SOURCE: Huls America Inc.: Formula 3.5A

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN CDR10	13.0
EMPICOL ESC3	12.0
EMPILAN CDE	2.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula BS1

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN CDR10	15.0
EMPICOL ESC3	15.0
EMPILAN CDE	1.0
BRIPHOS O3D	2.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula BS2

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN XDR123	30.0
EMPILAN CDE	2.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula BS3

SOURCE: Albright & Wilson Americas: Formulas

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN CDR10	10.0
EMPICOL BSD	30.0
BRIPHOS O3D	1.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula BS4

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN XDR123	20.0
EMPILAN 2125	1.5
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula BS5

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL MD	25.0
EMPIGEN BB	3.0
Citric acid	qs to pH 6.0-6.5
Perfume, dye, preservative	qs
Water	Balance

Formula BS6

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL MD	30.0
EMPIGEN BS	5.0
Citric acid	qs to pH 6.0-6.5
Perfume, dye, preservative	qs
Water	Balance

Formula BS7

SOURCE: Albright & Wilson Americas: Formulas

BABY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL SDD	35.0
EMPIGEN BB	2.0
Perfume, dye, preservative	qs
Water	Balance

SOURCE: Albright & Wilson Americas: Formula BS8

BABY SHAMPOO

RAW MATERIALS	% By Weight
MACKADET BSC	20.0
MACKSTAT DM	q.s.
Citric Acid to pH = 6.5-7.0	
Sodium Chloride qs to viscosity = 2000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKADET BSC to water and heat to 40 degrees C.
2. Add MACKSTAT DM.
3. Adjust pH with citric acid and viscosity with sodium chloride.
4. Add dye, fragrance and cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BABY SHAMPOO WITH HERBS

RAW MATERIALS	% By Weight
a) Texapon ASV	60.0
b) Water, distilled, preserved	30.0
Sodium chloride	7.0
c) Sedaplant Richter	3.0

Liquid, transparent preparation

Manufacture:

- b) dissolve and stir into a);
 - c) stir in.
- Perfume

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH: Model Formulations 23

BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL BM Conc.	17.0
CEDEPAL TD407MF	7.5
Tween 20	10.0
Kessco PEG 6000 Distearate	3.0
Boric Acid	1.0
Water	61.5

Procedure:

Blend all ingredients except boric acid and water. Heat to 60C until uniform. Add water and boric acid and adjust pH to 6.5 with hydrochloric acid.

Solids: 26.1%, viscosity: 800 cps.

OPACIFIED BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS Modified	30.0
Cedemide AX	2.0
Cerasynt IP	0.5
Methocel E4M Premium, 3% Solution	35.0
Water	32.5

Procedure:

- (A) To prepare the Methocel solution add three parts of Methocel E4M to 30 parts of water at 80C. Mix until uniformly suspended. Add 67 parts of cold water with mixing and stir until uniform.
- (B) Combine the MIRANOL 2MCAS Modified, Cedemide AX and Cerasynt IP and heat to 80C. Add the 3% Methocel solution slowly with good mixing, then the remaining water. Mix until uniform. Adjust pH to 7.0 with hydrochloric acid.

Solids: 17.0%, viscosity: 4,000 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

BABY SHAMPOO, TRANSPARENT

INGREDIENTS	% By Weight
A Atlas G 4280	10,000
Rewopal HM 14	8,000
Rewoteric AM-2L	3,000
Rewopol CLN 100	7,500
Tego-Betain L7	3,000
Rewopal PEG 6000 DS	3,000
Phenonip	0,500
Perfume Oil	0,300
B Demineralized Water	63,800
Citric acid (10% aq. solution)	0,400
Creragen Camomile forte 728 790	0,500

Manufacturing Process:

Part A: Weigh all ingredients, heat up to approx. 45C for dissolving the Rewopal PEG 6000 DS and stir slowly until it is completely dissolved.

Part B: Mix all ingredients and part B to part A. Stir slowly until homogeneous.

Final pH value should be 6.7-7.0 and should be controlled.

Remarks: Without any colour dye:

The yellow-brownish colouring of the shampoo depends on the native colouring of the plant extract.

Appr. 13% active surfactant

SOURCE: Haarman & Reimer GmbH: Formula K 9/6-51611 A/E

W/O-BABYCREME

RAW MATERIALS	% By Weight
A: Hostacerin WO	10
LUNACERA M	3
Lanolin	5
LUNACERA PA 5473	5
Vaseline/pharmaceutical jelly	15
Castor oil	5
B: Water, preservative	37
Zinc oxide	20

Procedure:

I Melt A at approx. 80C

II Heat B to approx. 80C

III Add B into A and stir until cool, add perfume at approx. 40C.

SOURCE: H.B. Fuller GmbH: Formula

CONDITIONING BABY SHAMPOO

RAW MATERIALS	% By Weight
VERNATE OP	30.0
Sodium Laureth Sulfate (30%)	14.0
VERNALENE AFC	2.5
VERNAM 35	5.0
Sodium Chloride q.s. to	2000 cps
PARAGON	Q.S.
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust pH to 6.5-7.0 with citric acid.
4. If needed, adjust viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

EMULSIFIED BABY SHAMPOO

RAW MATERIALS	% By Weight
1. MACKADET BSC	30.00
2. MACKESTER EGMS	1.50
3. Sodium Chloride (salt)	1.00
4. MACKSTAT DM	Q.S.
5. Fragrance, Color	Q.S.
6. Deionized Water Q.S. to	100.0

Procedure:

1. Heat the water to 75 degrees C.
2. Add #1 then #2 and start mixing slowly at 75 degrees C. until everything is in solution and is free of lumps.
3. Keep mixing and after 15 minutes start cooling with continuous agitation cool to 35 degrees C. and add #4, #5 and mix in.
4. Then add #3 and blend in well.
5. If slightly higher viscosity is necessary a small amount of extra #3 can be added.

pH: 6.8 -7.2

Viscosity: 1500-2000 cps at 25 degrees C.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CRYSTAL CLEAR BABY SHAMPOO-A

INGREDIENTS	% By Weight
Water	73.6
Sandoz Amide PE	3.0
Sandoz Sulfate 218	11.7
Sandoteric TFL	9.2
Sandopan LS-24	0.5
Dow 193 Surfactant	1.0
Germaben II	1.0

CRYSTAL CLEAR BABY SHAMPOO-B

INGREDIENTS	% By Weight
Water	72.6
Sandoz Amide PE	3.0
Sandoz Sulfate 218	11.7
Sandoteric TFL	9.2
Sandopan LS-24	0.5
Dow 193 Surfactant	1.0
Germaben II	1.0
Velsan P8-16	1.0

Procedure:

Charge to vessel, Sandoz Amide PE, Sandoz Sulfate 218, Sandoteric TFL and Sandopan LS-24. Heat to 62C with stirring. Mix until homogeneous. Add water, stir. Cool to room temperature. While stirring add Germaben II and Velsan D8P-3. Mix well, adjust pH to 5.5 with Citric Acid.

Formulated for mildness and low eye sting, this formula has the additional benefit of a long shelf due to the ability of Sandopan LS-24 to eliminate latent clouding. Formula B includes Velsan P8-16 for body, control and conditioning.

Properties:

pH: 5.5-6.0

Appearance: Clear light yellow

Solids: A. 16% B. 18%

Viscosity: 1100 cps

Ross-Miles: A. 245/245 B.: 240/240

Shake Foam: A. 485/27 B.: <500/17

SOURCE: Sandoz Chemicals Corp.: Formulation No. CHS-28

MILD BABY BUBBLE BATH

RAW MATERIALS	% By Weight
MONATERIC 951A	30.0
MONATERIC LMAB	25.0
MONAMATE LNT-40	30.0
Preservative	0.3
Water	14.7

Procedure:

Combine ingredients. Adjust pH to 6.0-6.5.

Properties:

Appearance: Clear liquid

Nominal activity: 27%

Viscosity: 500 cps

The combination of MONATERICS and MONAMATE LNT-40 provides large and voluminous bubbles at low concentrations which are long lasting even in the presence of soap and hard water. The mild properties of the ingredients in this formula indicate low irritation potential.

SOURCE: Mona Industries, Inc.: MONAMATES: Formula

BABY WASH

RAW MATERIALS	% By Weight
MACKADET BSC	15.0
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

Add component to water and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BABY MILK

COMPONENTS	% By Weight
Stearic Acid	2
Isopropyl Palmitate	2
Shea Butter	10
Beeswax	3
PEG 400 Monostearate	10
Squalane	10
Propylenic Glicol	5
Triisopropanolamin	1,40
Deionized Water	At 100
Perfume and Conservative Agents	Sufficient quantity

SOURCE: La Ceresine: Formula

MILD BABY SHAMPOO

COMPOSITION:	MS-1
PEG-80 Sorbitan Laurate	19.4
Sodium Trideceth Sulfate (70%)	17.2
PEG-150 Distearate	5.0
Cocamidopropyl Hydroxysultaine	5.2
Lauroamphodiacetate	10.6
Sodium Laureth-13 Carboxylate	2.0
Quaternium 15	0.1
Water	40.5
 RAW MATERIALS	 % By Weight
Compound MS-1	50.0
Fragrance, benzyl alcohol, Quaternium-15, color, water	q.s.
Citric acid to adjust pH to 6.8	q.s.
Solids (approximately): 20	
Viscosity (cps): 1000-1500	

MILD BABY SHAMPOO

COMPOSITION:	MS-2
PEG-80 Sorbitan Laurate	17.0
Sodium Trideceth Sulfate (70%)	15.0
PEG-150 Distearate	6.5
Cocamidopropyl Hydroxysultaine	11.6
Lauroamphodiacetate	10.0
Sodium Laureth-13 Carboxylate	2.0
Quaternium 15	0.1
Water	37.8
 RAW MATERIALS	 % By Weight
Compound MS-2	37.5
Fragrance, benzyl alcohol, Quaternium-15, color, water	q.s.
Citric acid to adjust pH to 6.8	q.s.
Solids (approximately): 15	
Viscosity (cps): 1000-1500	

Note: The use of Compound MS-2 represents a cost savings over Compound MS-1

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulations

PEARLESCENT BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS Modified	35.0
Cedemide AX	2.0
Cerasynt IP	0.5
Methocel E4M Premium, 3% Solution	50.0
Water	12.5

Procedure:

Combine MIRANOL 2MCAS Modified, Cedemide AX and Cerasynt IP and heat to 80C. Add 3% Methocel solution and mix until uniform, then add the remaining water. Adjust pH to 6.8-7.0 with hydrochloric acid.

Solids: 20.8%, viscosity: 17,000 cps

CONDITIONING BABY SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
MIRATAINE XL	40.0
MIRATAINE CBS	5.0
Cocamide DEA	2.0
Part B:	
Deionized Water	50.9
MIRAPOL 9	2.1

Procedure:

Heat A and B separately to 75C. With agitation add B to A. Continue agitation until uniform. At 45C adjust pH to 6.8 with citric acid.

Solids: 21.7%, viscosity: 1800 cps

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formula

BABY SHAMPOO

SUBSTANCE	% By Weight
Texapon ASV	43.0
Comperlan KD	3.0
Neo-PCL water-soluble 2/966212	1.0
Sodium chloride	1.5
Water	51.2
Perfume oil	0.3

SOURCE: Dragoco Inc.: Suggested Formulation No. VKS 185/41

Section III

Bath and Shower Products

AFTER SHOWER RINSE OFF BODY MOUSSE

RAW MATERIALS	% By Weight
Phase A:	
CRILL 6	1.25
Mineral Oil 70 csk	31.25
Petrolatum	5.25
POLAWAX	1.20
INCROQUAT BEHENYL TMS	2.00
CROQUAT S	0.50
Phase B:	
Deionized water	58.55
Preservatives	qs

Procedure:

Combine phase A heat to 75C with mixing. Combine phase B and heat to 75C. Add phase A to B with mixing. Cool to room temperature and fill.

Fill: 93% Concentrate, 7% Propellant A31

This rinse-off skin conditioner is analogous to a cream rinse for the skin. The Behenyl Quat provides substantive long lasting conditioning, while the Croquats impart long lasting moisturizing.

SOURCE: Croda Inc.: CRILLS and CRILLETS: Formula SC-157

BODY MOUSSE

INGREDIENTS	% By Weight
Part A:	
Water, deionized	83.72
KELTROL T xanthan gum	0.48
Methyl Parasept methylparaben	0.24
Part B:	
Neofat 18-55 stearic acid	5.71
Polyphenylsilicone #556	1.90
Solulan 98 laneth-10 acetate	0.95
Promyr isopropyl myristate	0.95
Cetal cetyl alcohol	0.48
Triethanolamine (TEA)	0.48
Norda DG-010 fragrance	0.09
Part C:	
Propellant	5.00

This body mousse has fine and rich lather. It is also easily applied and gives a soft, velvety skinfeel.

SOURCE: Kelco: Product Formulation SS-5263

ALCOHOLIC AFTER BATH SPLASH

INGREDIENTS	% By Weight
S.D.A. Alcohol #40	75.0
Isopropyl Myristate	15.0
Ross Jojoba Oil	2.0
Fragrance	8.0

Procedure:

Mix all ingredients in a stainless steel vessel run thru appropriate filter and package.

SOURCE: Frank B. Ross Co., Inc.: Formula

PEARL BODY CLEANSER

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (28%)	60.0
MACKALENE 426	6.0
Ethylene Glycol Distearate	1.0
MACKAMIDE CMA	2.0
MACKERNIUM 007	0.8
MACKSTAT DM	Q.S.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Combine the first four components and heat to 70 degrees C. with continuous mixing.
2. Dilute the MACKERNIUM 007 in the remaining water and slowly add to the blend.
3. Blend until product is homogenous and cool to 50 degrees C.
4. Add MACKSTAT DM, fragrance and dye.
5. Adjust pH with citric acid to 5.0-6.0 and cool.
6. If needed, add sodium chloride to increase viscosity and propylene glycol to reduce viscosity.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

LIQUID BATH LATHER

RAW MATERIALS	% By Weight
Na a-Olefin Sulfonate, 40%	10.0
Ammonium Lauryl Sulfate, 30%	30.0
Cocoyl Sarcosine (Hamposyl C)	3.0
Ammonium Chloride	3.0
Water, preservative, etc., q.s.	100.0

Procedure: Mix surfactants. Dissolve ammonium chloride in warm water and add. Adjust pH to 4.8.

Properties: Crystal clear liquid with excellent rich, creamy lather on skin.

SOURCE: W.R. Grace & Co.-Conn.: Bath and Shave Product Formulary: Formula

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 3600

After 12 weeks: 6000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Rezeptur-Nr. 88/211/1

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Euperlan PK 3000	2.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 5200

After 12 weeks: 6400

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Rezeptur-Nr. 88/211/2

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	35.0
Dehyton K	7.0
Lamepon S	5.0
Euperlan PK 3000	1.5
Sodium chloride	1.8
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 5200

After 12 weeks: 6800

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

SOURCE: Henkel: Cosmetics No. VI/89/Lz

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	35.0
Dehyton K	7.0
Lamepon S	5.0
Euperlan PK 3000	2.5
Sodium chloride	1.8
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 6400

After 12 weeks: 8000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Rezeptur-Nr. 88/211/4

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I	5.0
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 3600

After 12 weeks: 6800

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Rezeptur-Nr. 88/211/5

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I	5.0
Euperlan PK 3000	2.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 4800

After 12 weeks: 6000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

SOURCE: Henkel: Cosmetics No. VI/89/Lz

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I	3.0
Cetiol HE	2.0
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 3600

After 12 weeks: 4800

* If necessary, adjust the pH-value with sodium hydroxide or citric acid

Formulation No. 88/211/7

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I	3.0
Cetiol HE	2.0
Euperlan PK 3000	2.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 4000

After 12 weeks: 6000

* If necessary, adjust the pH-value with sodium hydroxide or citric acid

Formulation No. 88/211/8

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Cetiol HE	2.5
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 2800

After 12 weeks: 4000

* If necessary, adjust the pH-value with sodium hydroxide or citric acid

SOURCE: Henkel: Cosmetics No. VI/89/Lz

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Cetiol HE	2.5
Euperlan PK 3000	2.5
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 3600

After 12 weeks: 5200

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/10

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton K	10.0
Lamesoft LMG	1.0
Euperlan PK 3000	3.0
Sodium chloride	1.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 8800

After 12 weeks: 12000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid.

Formulation No. 88/211/12

ALL OVER THE BODY: SHAMPOO, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton G	10.0
Lamesoft LMG	1.0
Euperlan PK 3000	2.0
Sodium chloride	1.5
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 27600

After 12 weeks: 28000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

SOURCE: Henkel: Cosmetics No. VI/89/Lz

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	20.0
Texapon SB 3	20.0
Arlypon F	2.6
Euperlan PK 3000	2.0
Sodium chloride	2.5
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 3200

After 12 weeks: 8000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/18

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton G	10.0
Lamesoft LMG	1.0
Euperlan PK 3000	2.0
Sodium chloride	0.5
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 10000

After 12 weeks: 11200

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/21

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	20.0
Texapon SB 3	15.0
Arlypon F	3.0
Euperlan PK 3000	2.0
Sodium chloride	2.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 16800

After 12 weeks: 20000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/22

SOURCE: Henkel: Cosmetics No. VI/89/Lz

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon MG 3	40.0
Dehyton K	10.0
Lamesoft LMG	2.0
Euperlan PK 3000	3.0
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 28800

After 12 weeks: 30000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/29

ALL OVER THE BODY: SHAMPOOS, SHOWER BATHS, FOAM BATHS

RAW MATERIALS	% By Weight
Texapon N 25	40.0
Dehyton G	10.0
Lamesoft LMG	3.0
Euperlan PK 3000	2.0
Sodium chloride	0.8
Water, demin.	ad 100

pH-value*: 6-7

Viscosity in mPas:

After production: 22800

After 12 weeks: 22000

* If necessary, adjust the pH-value with sodium hydroxide
or citric acid

Formulation No. 88/211/31

SOURCE: Henkel: Cosmetics No. VI/89/Lz

BATH FOAM

INGREDIENT	% By Weight
Standapol ES-2	44.0000
Standamid KD	1.5000
Texapon ST 40	1.0000
Demineralized Water	44.0000
Relaxant #278 HS	3.0000
Eucalyptus HS	1.5000
Tri-Sept M	0.2000
Tri-Sept P	0.1000
Tristat IU	0.2000
Tween 20	3.0000
Perfume	1.0000
Sodium Chloride	0.5000
Certified Color	QS

Procedure:

1. In the main tank blend the Standamid with the Standapol and mix well.
2. Preblend the Tween with the fragrance and set aside.
3. In the side tank blend the water, Texapon ST40, Herbals, Parabens and Tristat.
4. Add side tank contents to main tank and mix well with prop agitation.
5. Add fragrance blend and mix well.
6. Color as required.
7. Add sodium chloride and adjust viscosity to desired specification.

SOURCE: TRI-K Industries, Inc.: Code AMI.021.

MILD BODY SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE COB	10.0
MIRANOL BT	5.0
MIRAPOL AD-1	2.1
MIRANATE LEC	1.0
CEDEPON LS30PM	20.0
Cerasynt IP	1.0
Aloe Vera	1.0
Sodium Chloride	1.0
Lauric Acid	0.6
Water	58.3

Procedure:

Mix all ingredients and heat until product is uniform. Adjust pH to 7.0 with citric acid.

Solids: 17.0%, viscosity: 2600 cps

SOURCE: Miranol, Inc.: MIRANOL Products for Cosmetics/Toiletries

BATH GEL

RAW MATERIALS	% By Weight
Texapon N 25	50,0
Dehyton K	15,0
Lamesoft LMG	3,0
NaCl	0,8
Nutrilan Elastin E 20	5,0
Water, preservative	ad 100

Viscosity after 1 week: 35.000

pH: 6,2

Appearance: clear

BATH GEL

RAW MATERIALS	% By Weight
Texapon N 25	50,0
Dehyton K	15,0
Lamesoft LMG	3,0
Euperlan PK 3000 AM	3,0
NaCl	0,8
Nutrilan Keratin W	5,0
Water, preservative	ad 100

Viscosity after 1 week: 80.000

pH: 5,6

Appearance: pearlescent

BATH GEL

RAW MATERIALS	% By Weight
Texapon N 25	50,0
Dehyton K	15,0
Lamesoft LMG	3,0
Euperlan PK 3000 AM	3,0
NaCl	0,8
Nutrilan Elastin E 20	5,0
Water, preservative	ad 100

Viscosity after 1 week: 47.500

pH: 5,7

Appearance: pearlescent

SOURCE: Henkel: Cosmetic No. XIX/90: Formulation No. 90/235:
Formulas 3,5,6

HIGHLY PERFUMED BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE COB	10.0
Witconate AOS	35.0
Cedepon LA 30HV	20.0
Cedemide AX	4.0
Perfume	3.0
Surfactol 365	0.5
Dipropylene Glycol	0.5
Water	27.0

Procedure:

Separately mix perfume, Surfactol 365 and Dipropylene Glycol. Mix other ingredients together and heat to dissolve the Cedemide AX. Slowly add the perfume blend with agitation to other ingredients. Adjust pH to 6.2 with citric acid.

Solids: 31.5%, viscosity: 9500 cps

BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE COB	15.0
MIRANOL 2MCA-ESF	30.0
Sodium Lauroyl Sarcosinate	10.0
Water	45.0

Procedure:

Mix all ingredients together and agitate until uniform. Adjust the pH to 6.2 with hydrochloric acid while warm. Allow to cool. Viscosity without fragrance is 41,500 cps. Solids: 22.6%.

Note:

Using Cocamidopropyl Betaine on an equivalent solids basis gives a viscosity of 20,000 cps. The formulation will accept a high percentage of perfume (up to 2.0% for most fragrances).

BATH GEL

RAW MATERIALS	% By Weight
MIRATAINE CBS	29.0
Cedepal SN 303	29.0
Witconate AOS	18.0
Ethyl Alcohol	3.0
Water	21.0

Procedure:

Mix all ingredients together and adjust pH to 7.0 with citric acid.

Solids: 30.1%, viscosity: 60,000 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

BATH GELEE

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (60%)	34.6
MACKAMIDE C	20.0
MACKANATE EL	45.0
Lactic Acid to pH = 6.0-6.5	
MACKSTAT DM	qs
Dye, Fragrance, qs to	100.0

Procedure:

1. Add components in order and heat to 45 degrees C.
2. Blend until homogenous.
3. Adjust pH with lactic acid.
4. Add fragrance and cool to room temperature

BATH GELEE WITH NATURAL LIPID PROTEIN

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (60%)	20.0
MACKAMIDE CS	20.0
MACKANATE CP	20.0
MACKPRO NLP	4.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE CS to sodium laureth sulfate and blend.
2. Add remaining components and heat to 45 degrees C.
3. Blend until homogeneous and adjust pH to 6.5 - 7.0 with citric acid.
4. Cool and fill.

EMOLLIENT BATH GELEE

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (60%)	20.0
MACKAMIDE LLM	20.0
MACKANATE EL	20.0
MACKANATE WGD	10.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE LLM to sodium laureth sulfate.
2. Add the remaining components and heat to 45 degrees C.
3. Blend until homogenous.
4. Adjust pH to 6.5-7.0 with citric acid.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

BATH LOTION

RAW MATERIALS % By Weight

Part A:

1. MACKAM CAP	5.00
2. Sodium Laureth Sulfate (60% Active)	5.00
3. Propylene Glycol	1.00
4. Methyl Salicylate	0.50
5. Peppermint Oil (Redistilled)	1.00
6. Menthol Crystals	0.20

Part B:

7. Hydroxyethyl Cellulose (Cellosize qp 4400)	1.00
8. Deionized Water	51.60

Part C:

9. Deionized Water	22.00
10. Tetrasodium EDTA (Chelon 40% Active)	0.40
11. Sodium Hexametaphosphate	1.00

Part D:

12. Sodium Styrene/Acrylates DivinylBenzene Copolymer (and) Ammonium Nonoxynol-4 Sulfate	1.00
13. Deionized Water	10.00

Part E:

14. MACKSTAT DM	q.s.
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Manufacturing Procedure:

Part A: Prepare in mixing tank #1, #2, #3. And add (at room temperature) items #4, #5, #6, thoroughly blend together. Keep tank covered.

Part B: In separate container prepare part B by dissolving Hydroxyethyl Cellulose (Cellosize qp 4400) 1.00% in 51.60% Deionized Cold Water. And mix until solution is completely clear and free of lumps. Add the clear thick solution to Part A and blend together.

Part C: In a separate container prepare the solution of #9, #10 and #11. Add to above solution.

Part D: In separate vessel dilute #12 with #13 and mix until all particles are completely dissolved. Slowly add to above solution.

Part E: Mix in part E into batch. Blend together well and filter through nylon gauze if necessary. Check pH.

pH: 6.6-7.4

Viscosity: 500-3000

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula AX-AY-146-B

BATH OIL

Composition	% By Weight
Isopropylmyristate	25.0
Eutanol G	20.0
Myritol 318	38.0
Dehydol LS 3	10.0
Fragrance	5.0
Aerosil 200	2.0
Pearl pigment*	0.05-0.1

Brookfield viscosity: 3600 mPas

Manufacturing Process:

Aerosil 200 is added under stirring to a mixture of Isopropylmyristate, Eutanol G, Myritol 318, Dehydol LS 3 and fragrance and homogenized e.g. in an Ultra Turrax. Then the pearl pigment and the dyestuff solution are added under stirring.

* Recommended Pearl Pigments:

All Sparkle pigments, e.g. Timiron Starlight Colors, Colorona Bronze Sparkle, Timiron MP-149

SOURCE: EM Pigments Division: Formula

BATH OIL

SUBSTANCE	% By Weight
PCL-liquid 2/066210	20.0
Eumulgin 05	10.0
Comperlan KD	5.0
Myritol 318	10.0
Paraffin oil 5E	48.0
Perfume oil	7.0

SOURCE: Dragoco, Inc.: Suggested Formulation No. VKB 760/70

SOFTENING BATH OIL

RAW MATERIAL DESCRIPTION	Sequence	% By Weight
Lipovol MOS-70*	1	51.40
Liponate IPP	1	21.13
Dioctyl Adipate	1	21.25
Lipovol SUN	1	5.20
Lipopeg 2-DL	2	1.02
Fragrance	2	q.s.

Procedure:

1. Blend all Sequence 1 ingredients until homogeneous.
2. Weigh Sequence 2 ingredients into an auxiliary vessel/mix well
3. Add Sequence 2 to Sequence 1 while mixing until uniform.
4. Package.

* U.S. Patent No. 4,659,573

SOURCE: Lipo Chemicals Inc.: Formula No. 207

BATH OIL

RAW MATERIALS	% By Weight
A Belsil SDM 6022	1,00
Mineral oil	69,00
B Belsil CM 020	25,00
Arlamol E	5,00
Preservatives, pigments, fragrances	q.s.

Heat A to 50C (mix in Belsil SDM 6022 homogeneously), mix B into A.

Temperature stability: at 45C over 10 weeks.

Colourless, clear, low viscosity.

Formulation 330 AH

BATH OIL

RAW MATERIALS	% By Weight
Belsil CM 040	25,00
Mineral oil	70,00
Arlamol EP	5,00
Preservatives, pigments, fragrances	q.s.

Mix all components.

Temperature stability: at 45C over 10 weeks.

Colourless, clear, low viscosity.

Formulation 350 AH

SOURCE: Wacker Silicone: Standard Formulations

FOOT-CARE BATH WITH VITAMINS, DEODORIZING

RAW MATERIALS	% By Weight
a) Tego-Betaine L7	60.0
Steinazid U185	3.0
Deodorant Richter/K	0.2
b) Water, distilled, preserved	33.8
c) Soluvit Richter	3.0

Manufacture:

a) heat to about 60C, dissolve and allow to cool;

b) and c) stir in.

Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 24

BATH OIL WITH ETHEREAL OILS

RAW MATERIALS	% By Weight
MIGLYOL 829	30.0
SOFTIGEN 767	40.0
Hostaphat KL340 N	10.0
Pine Needle Oil	13.0
Pine Oil	5.0
Rosemary Oil	2.0
Antioxidants	0.01

Preparation:

All components are mixed, heated to approximately 40C. and finally stirred until cold.

Formula 5.3.4

DISPERSIBLE BATH OIL

RAW MATERIALS	% By Weight
MIGLYOL 812	20.0
MIGLYOL 840	67.0
Silicone Oil AR 200	10.0
Perfume Oil	3.0

Preparation:

All components are mixed at room temperature.

Formula 5.3.3

SOURCE: Huls America Inc.: Formulas

BODY OIL

RAW MATERIALS	% By Weight
Sun Flower Oil	3,00
LUBRAFAC Lipo WL 1349	30,00
Silicone Fluid 344	25,00
D.P.P.G.	38,50
Parsol MCX	3,00
Antioxygen	Q.S.
Perfume	0,50

Preparation:

Mix all components together.

SOURCE: Gattefosse: Formula PL 517

BATH OIL-EMOLLIENT TYPE

RAW MATERIALS	% By Weight
Technical white oil	60.0
Decyl oleate	15.0
EMPILAN KB3	15.0
Perfume	10.0
Formula EBO1	

BATH OIL OR BODY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB70	30.0
EMPILAN CDE	10.0
EMPILAN KB12	5.0
Decyl oleate	10.0
Hexylene glycol	qs
Perfume, dye, preservative	qs
Citric acid	pH 6.5-7.0
Water	Balance

A formulation containing decyl oleate which gives an emollient feel, combined with a degree of detergency, is given.

The method of manufacture is to warm all ingredients except the perfume, dye and preservative, with gentle stirring, until homogeneous. The formulation is cooled to less than 35C prior to adding the perfume, dye and preservative.

Formula EBO2

SOURCE: Albright & Wilson Americas: Formulas

ALL NATURAL OIL

RAW MATERIALS	Sequence	% By Weight
Lipovol ALM	1	79.80
Lipolan R	2	5.00
Lipopeg 2-DL	3	5.00
Lipocol 0-2	4	10.00
Propylparaben	5	0.10
Vitamin E USP-FCC	6	0.10

Manufacturing Procedure:

Combine all materials with Lightnin' type agitation. Product may be heated (60C) to aid in the dissolution of the paraben.

Note:

This formula can be converted to a herbal by the addition of oil soluble botanical extracts such as: Arnica, Chamomile, Comfrey and Ginseng.

"Alpha Keri Type Bath Oil"

SOURCE: Lipo Chemicals Inc.: Formula No. 164

BATH OIL-OUTLINE FORMULATION

RAW MATERIALS	% By Weight
Castor oil	30.0-80.0
Perfume	10.0
Ethanol	10.0-60.0
Colour	qs
Formula IBO1	

BATH OIL-OUTLINE FORMULATION

RAW MATERIALS	% By Weight
Isopropyl myristate	62.5
Mineral oil	27.5
Perfume	10.0
Ethanol	qs
Colour	qs
Formula IBO2	

BATH OIL-EMULSIFIABLE FORMULATION

RAW MATERIALS	% By Weight
EMPILAN KB3	20.0
Corn oil	80.0
Perfume, dye, preservative	qs
Formula MBO1	

SOLUBLE BATH OIL

RAW MATERIALS	% By Weight
EMPILAN KB12	25.0
EMPILAN LDE	5.0
Perfume	5.0
Dye and preservative	qs
Water	to 100
Formula SBO1	

SOURCE: Albright & Wilson Americas: Formulas

BATH SALT WITH PEARL PIGMENTS

COMPOSITION

Salt (NaCl) coarse crystalline	990 g
Pearl or color lustre pigment	10 g
Vinylpyrrolidon-Vinylacetate-Copolymer as film forming substance (e.g. Luviskol VA 64, 10% solution in isopropanol + fragrance oil)	40 ml

SOURCE: EM Pigments Division: Formula

SILKY BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
INCROSUL OTS	35.00
INCROMINE Oxide C	3.50
INCROMIDE LR	2.00
CROVOL PK-70	5.00
Sodium Chloride	1.25
Deionized Water	48.75
Phase B:	
CRODAPEARL Liquid	3.00
CROSILK Liquid	.50
Germaben II	1.00

Procedure:

Combine Phase A with slight heating to 65C. When clear, stop heating, continue mixing, and cool to 45C. At 45C add Phase B. Continue cooling and mixing to room temperature and adjust the pH. pH 6.0+-.0.5 with citric acid.

This elegant bubble bath incorporates INCROSUL OTS as the primary surfactant giving long lasting and copious bubbles. Its pearly elegance is enhanced by the addition of CROSILK Liquid. BP-39-1 leaves a conditioned skin afterfeel due to CROVOL PK-70, Croda's ethoxylated modified triglyceride. CROVOL PK-70, is a palm kernel oil derivative, and an effective, mild, super fattening agent.

SOURCE: Croda Inc.: INCROSUL OTS: Formula BP-39-1

BLOOMING BATH LOTION

INGREDIENTS	% By Weight
Part A:	
CUTINA GMS	4.0
EUMULGIN B-1	4.0
CETIOL G-20S	15.0
CETIOL LC	15.0
Part B:	
Water	60.5
Propylene Glycol	1.5
Part C:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Mix and heat Part A 60-65C.
2. Mix and heat Part B 60-65C and add to Part A.
3. Mix until cooled to 40C and add Part C.

This emulsion will "bloom" as it disperses into warm bath water. It is a unique bath lotion due to its stability at a very low viscosity. It contains two emollient oils - CETIOL G-20S and CETIOL LC - both of which are very gentle to delicate skin.

SOURCE: Henkel: Formula H-4821

PEARLESCENT BATH LOTION

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate	40.0
MACKANATE EL	30.0
MACKAM 35 HP	5.0
MACKESTER SP	1.5
Sodium Chloride	1.0
MACKSTAT DM	9.5
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 70 degrees C.
2. Blend until EGMS is completely dispersed.
3. Add sodium chloride and cool to 45 degrees C.
4. Add preservative, fragrance and dye.
5. Cool to room temperature and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BODY CONTOURING GEL

INGREDIENTS	% By Weight
A) Deionized Water	46.195
Carbopol 980	0.500
B) Propylene Glycol	4.000
Trisept M	0.150
Trisept P	0.050
Phenoxyethanol	0.700
C) SDA 40	25.000
Menthol	0.025
Fragrance #901408 All Natural Mint Blend	0.150
Triton X-100	0.500
D) Deionized Water	15.000
Kelate 220	0.030
Triethanolamine (99%)	0.500
FD & C Blue #1 (0.1% aq. soln.)	0.200
E. Slimming Complex G-491	7.000

Procedure:

Disperse Carbomer in water using propeller agitation. Mix until smooth and uniform. Weigh B and mix to disperse. Weigh C and mix until all ingredients are dissolved. Add B to C and mix until all ingredients are dissolved. Weigh D and mix until all ingredients are dissolved. Add D to C and mix until clear. Then add E to C and mix until uniform. Add C to A while mixing with side sweep agitation. Mix until batch is clear and forms a thick gel. Use caution to avoid over-aerating the gel.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-96-2

SILKY BATH GEL

INGREDIENT	% By Weight
A. RHODIGEL	0.50
Deionized Water	55.00
Glycerin	1.00
B. VANSEAL NALS-30	8.00
Cocoamidopropyl betaine	16.00
Sodium laureth sulfate	16.00
C. PPG-3 myristyl ether	3.50
Preservative, color, fragrance	q.s.

Features:

Foam enhancement and skin conditioning properties.
 Good cleaning and rinsing properties.
 Elegant after feel.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 429

BODY EMULSION, HERB CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Stearin	2.0
Wool Wax Alcohols BP	3.0
Lanette 16	2.0
Arnica Oil CLR	3.0
St. John's Wort Oil CLR	3.0
Calendula Oil CLR	3.0
Paraffin oil	6.0
Cetiol V	4.0
Preservative	q.s.
b) Water, distilled, preserved	70.0
Karion F liquid	3.0
Triethanolamine	1.0

Manufacture:

a) Melt and bring to about 80C;

b) Heat to about 80C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

Liquid preparation

Model formulations 25

CREAM BATH, VITAMIN/HERB CONTENT

RAW MATERIALS	% By Weight
Vegetable oil	61.0
Calendula Oil CLR	3.0
Arnica Oil CLR	3.0
Wheat Germ Oil CLR	3.0
Paraffin oil	20.0
Emulgator G 1086	10.0
Antioxidant	q.s.

Manufacture:

Mix at room temperature in the order given. Perfume.

Model formulations 35

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulations

BUBBLE-BATH

RECIPE	% By Weight
A Hostapon CT-paste	8.00
B Water	20.00
C GENAPOL ARO liquid	40.00
GENAPOL AMG	10.00
GENAPOL PGS	4.00
Gelita Sol C	3.00
Perfume	0.50
Water	14.50
Preservative	q.s.
Dyestuff solution	q.s.
D Citric acid----> pH 6-7	q.s.
E Sodium chloride	q.s.

Procedure:

- I Dissolve A in warmed B.
- II Add one after another, the components of C to I.
- III Adjust the pH with D, then adjust the viscosity with E.

With pearl lustre effect, 18.2% active detergent

SOURCE: Hoechst: Formula A I/2008

BUBBLE-BATH GEL

RAW MATERIALS	% By Weight
Texapon N 25	50.0
Perfume	q.s.
Water	40.0
Preservatives	q.s.
Luviquat FC 550	4.0
Comperlan KD	1.0
Sodium chloride	5.0

Preparation: Weigh out in the order given and stir to dissolve.

Properties: Clear gel. Leaves the skin feeling soft and smooth.

Applications: Add approx. 30 ml to bath water.

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552:
Formula 57/005

BUBBLE BATH

FORMULA	% By Weight
Phase A:	
QUATRISOFT Polymer LM-200	1.0
Water	46.5
Phase B:	
Sodium Myreth Sulfate (58% Active)	38.0
Lauramide DEA	7.0
GLUCAM E-20	3.5
SOLULAN L-575	4.0
Perfume and Preservative	q.s.

Procedure:

Disperse the QUATRISOFT Polymer LM-200 with good agitation in water at room temperature. When thoroughly dispersed, heat to 45C with continued mixing. When a clear, uniform solution has developed, begin to add the ingredients of phase B in which they are listed, mixing moderately after each addition. Avoid air entrapment.

Description:

Crystal clear, viscous, pourable bubble bath. QUATRISOFT Polymer LM-200 provides conditioning by virtue of its cationic nature and inherent substantivity to the skin. GLUCAM E-20 contributes to the overall emollient afterfeel. SOLULAN L-575, along with GLUCAM E-20, helps overcome defatting from the anionic surfactant.

SOURCE: Amerchol Corp.: QUATRISOFT Polymer LM-200: Formula T53-140-2

MILD CHILDREN'S BUBBLE BATH

RAW MATERIALS	% By Weight
MACKANATE EL	10.0
MACKANATE CP	10.0
Sodium Laureth Sulfate (30%)	9.0
Natrosol 250HHR	1.0
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Disperse Natrosol 250HHR in cold water.
2. Blend until completely dispersed.
3. Heat to 40 degrees C. and add remaining components.
4. Blend until clear.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

BUBBLE BATH

RAW MATERIALS	% By Weight
Phase A:	
QUATRISOFT Polymer LM-200	1.0
Water	46.5
Phase B:	
Sodium Myreth Sulfate (58% active)	38.0
Lauramide DEA	7.0
GLUCAM E-20	3.5
SOLULAN L-575	4.0
Perfume and Preservative	q.s.

Procedure:

Disperse the QUATRISOFT Polymer LM-200 with good agitation in water at room temperature. When thoroughly dispersed, heat to 45C with continued mixing. When a clear, uniform solution has developed, begin to add the ingredients of phase B in the order in which they are listed, mixing moderately after each addition. Avoid air entrapment.

Description:

Crystal clear, viscous, pourable bubble bath. QUATRISOFT Polymer LM-200 provides conditioning by virtue of its cationic nature and inherent substantivity to the skin. GLUCAM E-20 contributes to the overall emollient afterfeel. SOLULAN L-575, along with GLUCAM E-20, helps overcome defatting from the anionic surfactant.

SOURCE: Amerchol Corp.: QUATRISOFT Polymer LM-200: Formula T53-140-2

POWDERED BUBBLE BATH

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate	40.0
MONAMATE LA-100	10.0
MONAMID CMA	2.0
Sodium Sesquicarbonate	33.0
Citric Acid	15.0

Add ingredients blending well between additions.

SOURCE: Mona Industries Inc.: Formula F-493

BUBBLING MILK BATH

RAW MATERIALS	% By Weight
Phase A:	
INCROSUL OTS	35.00
INCROMINE OXIDE C	3.50
INCROMIDE LR	2.00
CROVOL PK-70	5.00
Germaben II	1.00
Sodium Chloride	0.25
Deionized Water	48.25
Phase B:	
CRODAPEARL LIQUID	3.00
HYDROLACTIN 2500	1.00
Citric acid to pH 6.0+-0.5	

Procedure:

Combine Phase A with slight heating to 65C. When clear, stop heating, continue mixing, and cool to 45C. At 45C, add Phase B. Continue cooling and mixing to room temperature and adjust the pH.

This luxurious bubble bath incorporates INCROSUL OTS as the primary surfactant, giving long lasting and copious bubbles. The use of CROVOL PK-70, a mild, super fattening agent, and HYDROLACTIN 2500, provide the skin with a conditioned feel, leaving it soft and smooth.

SOURCE: Croda Inc.: HYDROLACTIN 2500: Formula BP-42

FOAM BATH, TRANSPARENT

INGREDIENTS	% By Weight
A Texapon NSO	80,000
Rewoteric AM-B 13	6,000
Perfume Oil	3,000
Demineralized Water	8,000
Phenonip	0,500
Sodium chloride	1,400
Sodium hydroxide (10% aq. solution)	0,100
Cremogen Rosemary forte 758 302	0,500
Cremogen Camomile forte 728 790	0,500

Manufacturing Process:

Mix all the ingredients well under stirring. With the addition of sodium hydroxide the pH-value can be adjusted to approx. 7.

Remark: Without any colour dye:

The yellow-brownish colouring of the foam bath depends on the native colouring of the plant extracts.

SOURCE: Haarman & Reimer GmbH: Formula K 12/7-51160 B/E

CLEAR BATH GELEE

RAW MATERIALS	% By Weight
Cocoamphocarboxypropionate and Sodium Lauryl Sulfate (Miranol 2MCA-ESF)	32.0
Coco/oleamidopropyl Betaine	15.0
Sodium Lauroyl Sarcosinate (Hamposyl L-30)	10.0
Water, perfume, preservative, q.s.	100.0

Procedure--Mix in order of listing. Adjust pH to 6.2.
 Properties--High foaming, yet mild, bath and shower gel.

MILD SHOWER GEL

RAW MATERIALS	% By Weight
Cocoamphoglycinate	23.0
Sodium Lauroyl Sarcosinate, 30% (Hamposyl L-30)	20.0
Sodium Lauryl Sulfate, 30%	20.0
Hydroxypropyl Methylcellulose (E4M)	0.3
Water, perfume, preservative, q.s.	100.0

Procedure:

Mix all ingredients. Heat to 50C and adjust pH to 7.0 with lactic acid. Cool.

SOURCE: W.R. Grace & Co.-Conn.: Bath and Shower Product Formulary: Formulas

BATH GELEE WITH SILK PROTEIN QUATERNIZED TO NATURAL SKIN EMOLLIENTS

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (60%)	20.0
MACKAMIDE CS	20.0
MACKANATE EL	20.0
MACKPRO NSP	4.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE CS to sodium laureth sulfate and blend.
2. Add remaining components and heat to 45 degrees C.
3. Blend until homogenous and adjust pH to 6.5 - 7.0 with citric acid.
4. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CLEAR LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB3 or	35.0
EMPICOL ESB50 or	20.0
EMPICOL ESB70	15.0
EMPILAN CDE	5.0
Dye and perfume	qs
Formalin	0.1
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula CLFB1

CLEAR LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB3 or	60.0
EMPICOL ESB50 or	33.0
EMPICOL ESB70	24.0
EMPIGEN BB	5.0
Dye and perfume	qs
Formalin	0.1
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula CLFB2

CLEAR LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB3 or	72.5
EMPICOL ESB50 or	40.0
EMPICOL ESB70	30.0
EMPILAN CDE	10.0
Dye and perfume	qs
Formalin	0.1
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula CLFB3

SOURCE: Albright & Wilson Americas: Formulas

CLEAR LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPIGEN XDR121	60.0
EMPILAN MAA, or EMPILAN CDE or EMPIGEN BB	6.0
AQUALOSE LL100	0.5% max.
Citric or hydrochloric acid	to pH 6.6-7.0
Dye, perfume, preservative	qs
Water	Balance

Formula CLFB4

PEARLISED LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL XC35	75.0
Sodium chloride (viscosity)	qs
Dye, perfume, preservative	qs
Citric acid to pH 6.5-7.0	qs
Water	Balance

Formula PLFB1

PEARLISED LIQUID FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB70	40.0
EMPILAN CDE	2.0
EMPICOL 0627	7.0
Dye, perfume, preservative	qs
Sodium chloride	qs
Citric acid	pH 6.5-7.0
Water	Balance

Formula PLFB2

SOURCE: Albright & Wilson Americas: Formulas

CLEAR SHOWER GEL

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate, 30%	35.0
Cocoamphocarboxypropionate, 40%	15.0
Sodium Lauroyl Sarcosinate, 30% (Hamposyl L-30)	10.0
Cocoamide MEA	3.0
Water, perfume, preservative, q.s.	100.0

Procedure: Mix all ingredients, heat to 60C until clear. Adjust pH to 6.2 with citric acid.

Properties: High lathering gel even on oily skin.

CLEAR SKIN LATHER GEL

RAW MATERIALS	% By Weight
Sodium Cocoyl Glutamate	40.0
Sodium Lauroyl Sarcosinate (Hamposyl L-30)	10.0
Cocamide DEA	10.0
Glycerol	5.0
Water, perfume, preservative, q.s.	100.0

Procedure: Mix ingredients, heat to 50C until clear. Cool.

Properties: Spreadable transparent gel with mild lather.

SOURCE: W.R. Grace & Co.-Conn.: Bath and Shower Product Formulary: Formulas

BATH GEL

RAW MATERIALS	% By Weight
Texapon N 25	50,0
Dehyton K	15,0
Lamesoft LMG	3,0
NaCl	0,8
Nutrilan Keratin W	5,0
Water, preservative	ad 100

Viscosity after 1 week: 75.000

pH: 6

Appearance: clear

SOURCE: Henkel: Cosmetic No. XIX/90: Formulation No. 90/235/2

CREAM BATH

RAW MATERIALS	% By Weight
MIGLYOL 812	34.0
SOFTIGEN 767	20.0
Mineral Oil	25.0
Hostaphat KL 340N	16.0
Perfume	5.0

Preparation:

All the materials are brought together, heated to 40C. and stirred until homogeneous.

Formula 5.3.1

CREAM BATH

RAW MATERIALS	% By Weight
Arlatone T	4.5
Tween 85	18.0
SOFTIGEN 767	21.5
MIGLYOL 812	27.0
Mineral Oil	26.0
Perfume	3.0

Preparation:

All the materials are brought together, heated to about 40C. and stirred until homogeneous.

Formula 5.3.2.

BATH MILK

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
MIGLYOL 812	15.0
MIGLYOL 840	10.0
Hostaphat KL 340N	15.0
B. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
C. Extrapone Hamamelis Special	1.0
D. Perfume	5.0

Preparation:

(A) is melted and brought to 75 - 80C. (B) is mixed and heated to the same temperature, and emulsified into (A). (C) is added at 50C. and (D) at 30C.

Formula 5.4.1.

SOURCE: Huls America Inc.: Formulas

CREAM FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB70	33.0
EMPILAN CDE	3.0
EMPILAN EGMS	3.0
Sodium chloride/hexylene glycol	to adjust viscosity
Dye, perfume, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula CRFB1

CREAM FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB70	33.0
EMPILAN CDE	3.0
EMPICOL 0627	15.0
Sodium chloride/hexylene glycol	to adjust viscosity
Dye, perfume, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula CRFB2

HIGH-ACTIVE MILKY FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL EAA70	10.0
EMPILAN KB3	15.0
EMPILAN CDE	5.0
Glycerol	5.0
Dye, perfume, preservative	qs
Technical white oil	Balance

Formula MFB1A

SOURCE: Albright & Wilson Americas: Formulas

CREAM FOAM BATH, HERB CONTENT

RAW MATERIALS	% By Weight
a) Emulgade F	3.0
Eutanol G	6.0
Cetiol A	6.0
Calendula Oil CLR	3.0
Preservative	q.s.
b) Water, distilled, preserved	24.0
Polyglycol 400 DAB 7	5.0
c) Texapon EVR	30.0
Texapon N 25	20.0
Comperlan KD	3.0

Manufacture:

- a) melt and bring to about 60C;
 - b) heat to about 60C and stir into a);
 - c) heat to about 50C, mix, and stir into the mass after it has cooled to about 50C.
- Continue stirring until the mass has cooled to about 35C.
Perfume, homogenize.

Viscous preparation

Model formulations 6

CARROT CREAM BATH

RAW MATERIALS	% By Weight
Eumulgin 05	5.0
Isopropyl palmitate	30.0
Paraffin oil	35.0
Vegetable oil	27.0
Carrot Oil CLR	3.0
Antioxidant	q.s.

Manufacture:

- Mix at room temperature in the order given.
Perfume.

Model formulations 7

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

FITNESS-SHOWER-BATH

RECIPE	% By Weight
A GENAPOL LRO liquid*	45.00
GENAPOL AMG	10.00
B Menthol	0.20
Camphor	0.10
Rosmarin-bath	0.30
C 1,2-Propylen glycol	2.00
D Water	41.90
Horse chestnut extract	0.50
Preservative	q.s.
E Citric acid----> pH 6.5	q.s.
F Sodium chloride	q.s.

* If Genapol LRO paste is being used instead of Genapol LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I Dissolve B in C.
- II Add the solution of I to A.
- III Add one after another, the components of D to II.
- IV Adjust the pH with E, then adjust the viscosity with F.

Clear, 14.2% active detergent

Formula A I/8046

SPECIAL-BATH

RECIPE	% By Weight
A GENAGEN CA-050	30.00
B Rosmarin-bath	5.00
Isopropyl palmitate	5.00
Water	50.00
GENAPOL LRO liquid*	10.00

* If Genapol LRO paste is being used instead of Genapol LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I One after another the components of B are added to A.

Clear, low foaming

Formula A I/7017

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

FOAM BATH

RAW MATERIALS	% By Weight
Rewopol NL 3	78.0
Marlopon AT 50	8.0
Aminoxyd WS 35	2.0
SOFTIGEN 767	7.0
Perfume	3.0
Hexylene glycol	2.0
Preservative	q.s.

Preparation:

All the materials are put together, heated to about 40C., and stirred until homogeneous.

Formula 5.1.1

FOAM BATH

RAW MATERIALS	% By Weight
Rewopol NL 3	54.0
Rewopol SBFA 30	25.0
Rewo-Amid DC 212/S	3.0
Rewoteric AM-CA	8.0
Perfume	3.0
Hexylene glycol	2.0
SOFTIGEN 767	5.0
Preservative	q.s.

Preparation:

All the materials are put together, heated to about 40C. and stirred until homogeneous.

Formula 5.1.2

FOAM BATH

RAW MATERIALS	% By Weight
Rewopol SBFA 30	34.0
Rewopol NL 3	43.0
Rewo-Amid DL 203/S	3.0
SOFTIGEN 767	4.0
Water	11.0
Perfume	3.0
Hexylene glycol	2.0
Preservative	q.s.

Preparation:

The materials are brought together, heated to about 40C., and stirred until homogeneous.

Formula 5.1.3

SOURCE: Huls America Inc.: Formulas

FOAM BATH

RAW MATERIALS	% By Weight
Rewopol NL 3	44.0
Sarkosine KF	41.0
Pine Oil	5.0
SOFTIGEN 767	10.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C. and stirred until homogeneous.

Formula 5.1.4

MEDICATED FOAM BATH

RAW MATERIALS	% By Weight
Rewopol NL 3	60.0
Rewoamid DL 203/S	6.0
Tego Betain L7	22.0
SOFTIGEN 767	12.0
Preservative	q.s.

To these can be added the following:

Against cellulitis: Adipol	5.0
Celluniol	5.0
Thiomucase (ampoules)	(2,000 TRU)

Extrapone Arkin Special	5.0
Extrapone Chamomile Special	5.0
Extrapone 1 Special	5.0
Hygroplex HHG	5.0
Collagen	5.0
Colorless distilled Hamamelis special	5.0
Soluvit	5.0
Eucalyptol	1.5

Preparation:

All the materials are mixed together, heated to 40C., and stirred until homogeneous.

Formula 5.1.5

SOURCE: Huls America Inc.: Formulas

FOAM BATH

INGREDIENTS	% By Weight
Water	32.45
STANDAPOL ES-2	45.00
LAMEPON S	8.00
VELVETEX BA-35	5.00
STANDAMID LDO	3.00
CETIOL HE	3.00
EUPERLAN PK-810	3.00
SEDAPLANT RICHTER	0.50
Kathon CG	0.05

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.5+-0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

By combining LAMEPON S with ether sulfates and then betaine, a high performance, low irritation product results. The addition of SEDAPLANT RICHTER furthers the formula's image with its blend of herbal extracts and anti-irritants.

SOURCE: Henkel: Formula H-4950

SHOWER GEL

RAW MATERIALS	% By Weight
Hoe S 3267	22,50
Water	53,50
Texapon NA	22,50
Belsil DMC 6032	1,00
Ammonium Chloride	0,50
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 in the water well, add Texapon NA and Belsil DMC 6032, homogenise the mixture, regulate the viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

Clear, thin gel.

SOURCE: Wacker Silicone: Formulation 155 AH

FOAMING BATH LIQUID CREME

RAW MATERIALS	% By Weight
Part A:	
1. Sodium Laureth Sulfate (60% active)	15.0
2. MACKAM 35	6.0
3. MACKAMIDE LLM	1.5
4. Emulvis	1.5
5. MACKANATE EL	0.6
6. MACKESTER EGMS	2.0
7. Tetrasodium EDTA (Chelon 40% Active)	0.15
8. Deionized Water	25.0
Part B:	
9. 2% Solution of Hydroxyethyl Cellulose in Deionized Water (Cellosize qp 4400)	42.0
10. Sodium Hexametaphosphate	2.0
Part C:	
11. Peppermint Oil (Redistilled)	1.0
12. Methyl Salicylate	0.5
13. Menthol Crystals	0.2
14. Polysorbate 20	2.0
Part D:	
15. MACKSTAT DM	q.s.

Manufacturing Procedure:

1. Heat all ingredients of part A in a stainless steel vessel to 75 degrees C. (170 degrees F.) Blend together.
2. In separate container prepare part B by dissolving Hydroxyethyl Cellulose (Cellosize qp 4400) 0.84% in 41.16% Deionized Cold Water. And mix until solution is completely clear and free of lumps.
3. Dissolve item 10 in solution B and heat slowly to 40 degrees C. (104 degrees F.) and add whole mixture to part A, and continue mixing.
4. Prepare the blend of ingredients in part C at room temperature and add to the above mixture.
5. Mix in part D into batch. Check pH. Filter the liquid cream through nylon gauze if necessary.

pH: 6.2-6.8

Viscosity: 5000-10,000

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula AX-AY-146-A

FOAMING BATH OIL-A

INGREDIENTS	% By Weight
Light Mineral Oil	20
PEG 400 Monolaurate	20
Schercemol MEL-9	8
Schercomid AME-100	8
Schercoquat ALA	15
Water, Deionized	29
Color and Fragrance	q.s.

FOAMING BATH OIL-B

INGREDIENTS	% By Weight
Light Mineral Oil	19
PEG 400 Monolaurate	19
Schercemol MEL-9	8
Schercomid AME-100	7
Schercoquat ALA	14
Water, Deionized	33
Color and Fragrance	q.s.

Procedure:

1. Add the first five ingredients (oil phase).
2. With good mixing heat 30-35C until uniform.
3. Cool to 25C and with fast agitation add the water in small increments; mix until clear.
4. Add fragrance and color.

Specifications (A):

Appearance @ 25C: Clear slightly viscous liquid
 Color: Colorless
 pH @ 1.0% sol'n: 4.5
 Viscosity 25C: 500

Specifications (B):

Appearance: Same
 Color: Colorless
 pH @ 1.0% sol'n: 4.5
 Viscosity 25C: 1000

SOURCE: Scher Chemicals, Inc.: Formula SO-013

FOAM BATH IN TUBES

RAW MATERIALS	% By Weight
Rewopol SBFA 30 (40%)	77.0
Rewoteric AM-CA	6.0
Lantrol AWS	4.0
Rewoamid DL 203	3.0
Rewoamid DO 280/SE	4.0
Perfume	3.0
Softigen 767	3.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C and stirred until homogeneous.

Formula 5.1.7

TWO-PHASE FOAM BATH

RAW MATERIALS	% By Weight
Texapon N25	30.0
Water	30.0
MIGLYOL 840	17.0
Mineral Oil	17.0
Hexylene Glycol	4.0
Perfume Oil	q.s. 2.0
L-Blue Z5000/Coloring matter	q.s. 0.02
Preservative	q.s.

Preparation:

The ingredients are mixed together with a mechanical stirrer, homogenized, heated to approximately 50C and well shaken. The desired separation of the phases takes place during heating and the ratio of the separated phases is determined by the duration of homogenization and the speed of the motor. The quantity of the ingredients also plays a part.

Formula 5.2.1

SOURCE: Huls America Inc.: Formulas

FRAGRANT BATH OIL

RAW MATERIALS	% By Weight
Cyclomethicone (ABIL B 8839)	15.0
Mineral Oil	64.0
Phenyltrimethicone (ABIL B AV-20)	5.0
Dimethicone Copolyol (ABIL B 8852)	1.0
C12-15 Alcohols Lactate	15.0
Fragrance	QS

SWIRLING BATH OIL

RAW MATERIALS	% By Weight
Dimethicone (ABIL 350)	5.0
Dimethicone Copolyol (ABIL B 8852)	1.0
Isopropyl Palmitate	20.0
PEG-8 Diisostearate	5.0
Mineral Oil	69.0
Fragrance	QS

FLOATING BATH OIL

RAW MATERIALS	% By Weight
Dimethicone (ABIL 350)	5.0
PEG-4 Dilaurate	5.0
Isopropyl Palmitate	20.0
Mineral Oil	70.0
Fragrance	QS

SOURCE: Goldschmidt Chemical Corp.: Formulas

ELEGANT FOAMING BATH OIL

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate	40.0
MACKANATE EL	30.0
MACKAM 35HP	5.0
MACKESTER SP	1.5
Sodium Chloride	1.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 70 degrees C.
2. Blend until EGMS is completely dispersed.
3. Add Sodium Chloride and cool to 45 degrees C.
4. Add preservative, fragrance and dye.
5. Cool to room temperature and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

GELEE FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB70	57.0
EMPILAN MAA	10.0
EMPILAN KB2	2.0
Ethanol	1.0-1.5
Sodium chloride	4.0
Herbal extracts	qs
Perfume, dye, preservatives	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula GFB1

GELEE FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL ESB70	70.0
EMPILAN MAA	5.0
EMPIGEN OY	5.0
Decyl oleate/isopropyl myristate	5.0
Sodium chloride	2.5
Herbal extracts	qs
Perfume, dye, preservatives	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula GFB2

POWDERED FOAM BATH

RAW MATERIALS	% By Weight
EMPICOL LZ	40.0-60.0
Sodium tripolyphosphate	5.0
Dye and perfume	qs
Sodium sesquicarbonate	to 100

Formula PFB1

SOURCE: Albright & Wilson Americas: Formulas

HAND & BODY CLEANSER

RAW MATERIALS	% By Weight
Water and Preservative	23.2
MONATERIC 951A	25.5
MONAMATE OPA-30	35.0
Alpha Olefin Sulfonate	15.3
Hexylene Glycol	1.0

Procedure:

Add ingredients in order listed and blend. No heat will be needed. When pH is adjusted to 7.0 viscosity = approximately 6000 cps but will vary according to the AOS used.

This high foaming, very mild formula leaves skin and hair with a smooth talc feel.

SOURCE: Mona Industries, Inc.: Technical Bulletin No. 967:
MONATERIC 951A

SKIN CLEANSER

RAW MATERIALS	% By Weight
Sodium Laureth (1) Sulfate (25%)	28.0
MONAMATE LNT-40	12.5
MONAMID 716	3.0
MONAQUAT PT-C	2.5
Water	52.7
Sodium Chloride	1.3

Procedure: Blend ingredients in order listed at room temperature.

Adjust pH to 6.0.

Appearance: Clear liquid

Viscosity: Approximately 3,000 cps

SOURCE: Mona Industries, Inc.: MONAMID 716

HERBAL FOAM BATH

RAW MATERIALS	% By Weight
a) Genapol LRO liquid	50.0
Medialan KF	12.0
b) Water, distilled, preserved	30.0
Sodium chloride	5.0
c) Hexaplant Richter	3.0

Manufacture:

- a) heat to about 50C and mix;
- b) dissolve and stir into a);
- c) stir in.

Perfume.

liquid, transparent preparation

HERBAL CREAM FOAM BATH

RAW MATERIALS	% By Weight
a) Emulgade F	4.0
Eutanol G	6.0
Cetiol A	6.0
Preservative	q.s.
b) Water, distilled, preserved	23.0
Polyglycol 400 DAB 7	5.0
c) Texapon EVR	30.0
Texapon N 25	20.0
Comperlan KD	3.0
d) Hexaplant Richter	3.0

Manufacture:

- a) melt and bring to about 70C;
- b) heat to about 70C and stir into a);
- c) heat to about 50C, mix and stir into the mass after it has cooled to about 50C.

Continue stirring until the mass has cooled to about 35C;

- d) stir in.

Perfume, homogenize.

viscous preparation

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 17

HIGH FOAMING SHOWER GEL

RAW MATERIALS	% By Weight
Standapol ES-3	20.0
INCRODET TD-7C	7.0
CROSULTAINE C-50	20.0
CROTHIX	1.0
CROVOL A-70	2.0
BHT	0.1
Disodium EDTA	0.1
Perfume	0.5
Germaben II	1.0
Deionized Water	48.3
pH-6.3 w/NaOH	

Procedure:

Combine the Standapol ES-3, Incrodet TD-7C, Crosultaine C-50, Disodium EDTA, Germaben II and deionized water with mixing. Combine the Crothix, Crovol A-70 and BHT with mixing and heat to 65-70C with mixing. Continue mixing the Crothix premix and cool to 50C. Add the perfume to Crothix phase and mix until uniform. When clear, add Crothix phase to the surfactant phase with mixing. Adjust pH to specification with NaOH solution.

pH:6.3. pH specification 6.0 to 6.5

Viscosity: 8,000 cps

This formula uses an optimized combination of CROSULTAINE C-50, INCRODET TD-7C and SLES to produce a clear, high foaming, low color, and low odor bath and shower gel. CROTHIX is used to provide the body and viscosity seen in the formula, and CROVOL A-70 is used to solubilize the fragrance and maintain the clarity of the product.

SOURCE: Croda Inc.: CROSULTAINES: Formula BP-41

SHOWERBATH

RAW MATERIALS	% By Weight
Texapon SB 3	25.0
Dehyton K	10.0
Lamepon S	8.0
Arlypon F	5.0
Sodium chloride	2.0
Perfume, preservative	q.s.
Water	ad 100.0

Excellent skin and mucous membrane compatibility

SOURCE: Henkel: Henkel KGaA R-CC Cospha: Formulation no. 89/216/4

LOW IRRITATION FOAM BATH/BODY SHAMPOO

INGREDIENTS	% By Weight
Water	32.35
STANDAPOL SH-124-3	40.00
APG-600	12.00
LAMEPON S	9.00
STANDAMID LDS	3.00
STANDAMOX LAO-30	3.00
CETIOL HE	0.50
Kathon CG	0.05
Fragrance Novarome JL-67	0.10

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.0+0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

The combination of APG-600 with the protein and sulfosuccinate contributes to the mildness of this formulation.

SOURCE: Henkel: Product Information APG: Formula H-4979

LOW IRRITATION SHOWER CLEANSER

INGREDIENT	% By Weight
Standapol ES-3	10.5
APG-600 SP	12.0
Lamepon S	8.0
Cetiol HE	0.5
Propylene Glycol	1.0
Cationic Guar C-261	0.35
Euperlan PK-810	3.0
Citric Acid	to pH 5.5-6.0
Water	Balance

Comment:

This elegant formulation provides a combination of gentle cleaning and skin moisturization.

SOURCE: Henkel: Use of APG Surfactants: Formula

MILD SHOWER CLEANSER

INGREDIENTS	% By Weight
Water	62.60
STANDAPOL ES-3	10.50
APG-600	12.00
LAMEPON S	9.00
CETIOL HE	0.50
EUPERLAN PK-810	3.00
Propylene Glycol	1.00
COSMEDIA GUAR C-261N	0.75
Sodium Chloride	0.50
Kathon CG	0.05
Fragrance V-4503	0.10

Procedure:

- 1) Charge kettle with water. Maintain moderate stirring while blending ingredients at room temperature. Add Standapol ES-3, APG-600, and Lamepon S.
- 2) Slurry Guar C-261N with Cetiol HE and propylene glycol. Stir until Guar is hydrated. Add to main batch under agitation.
- 3) Stir in Euperlan PK-810, Kathon CG, fragrance and sodium chloride, one at a time.
- 4) Adjust the pH to 5.5-6.0 with 50% citric acid.
- 5) Continue stirring until product is homogeneous. Fill off.

Comments:

This elegant formulation provides a combination of gentle cleaning and skin moisturization.

Formula H-4980

SHOWER GEL

INGREDIENTS	% By Weight
Water	q.s. to 100
STANDAPOL T	30.00
STANDAPOL EA-1	10.00
LAMEPON S	9.00
STANDAMID LDO	2.50
STANDAMOX LAO-30	3.00
Sodium Chloride	2.00
Kathon CG	0.05

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.5+-0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

The high level of protein contributes to the mildness of this elegant preparation.

Formula H-4953

SOURCE: Henkel: Formulas

OIL FOAM BATH

RAW MATERIALS	% By Weight
DYNACERIN 660	10.0
MIGLYOL 829	26.0
SOFTIGEN 767	10.0
Texapon WW 99	50.0
Color (1% in SOFTIGEN 767)	1.0
Fragrance	3.0
Preservative	q.s.

Preparation:

All components are stirred together at room temperature.
Formula 5.2.2.

OIL FOAM BATH
(also for children)

RAW MATERIALS	% By Weight
Rewopol TLS	22.0
Rewo-Amid DL 203	15.0
Lantrol AWS	20.0
MIGLYOL 812	20.0
SOFTIGEN 767	2.0
MIGLYOL 840	10.0
SOFTIGEN 701	3.0
Coloring matter	4.0
Perfume	4.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C.
and stirred until homogeneous.
Formula 5.2.3

OIL FOAM BATH

RAW MATERIALS	% By Weight
Zetesol 856 T	42.0
Purton CDF	8.0
Mulsifan RT 7	15.0
MIGLYOL 810	15.0
Water	ad 100.0
Perfume	3.0
Preservative	q.s.

Preparation:

All the materials are brought together, heated to about 40C
and stirred until homogeneous.
Formula 5.2.4

SOURCE: Huls America Inc.: Formulas

SHOWER-BATH

RECIPE	% By Weight
A. GENAPOL LRO liquid*	40.00
B. GENAPOL AMG	13.00
GENAPOL TSM	4.00
Perfume	0.50
Water	34.50
Dyestuff solution	q.s.
Preservative	q.s.
GENAGEN CAB	8.00
C. Citric acid----> pH 6	q.s.
D. Sodium chloride	q.s.

* If Genapol LRO paste is being used instead of Genapol LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I Add one after another, the components of B to A.
- II Adjust the pH with C, then adjust the viscosity with D.

With silky lustre effect, 19% active detergent

Formula A I/8038

SHOWER-BATH

RECIPE	% By Weight
A. HOSTAPON CT-paste	6.00
B. Water	20.00
C. GENAPOL AMG	15.00
Perfume	0.50
GENAPOL PGS	4.00
Water	48.50
Preservative	q.s.
Dyestuff solution	q.s.
HOE S3267-1	8.00
D. Citric acid----> pH 6.5	q.s.
E. Sodium chloride	q.s.

Procedure:

- I Dissolve A in warmed B.
- II Add one after another, the components of C to I.
- III Adjust the pH with D, then adjust the viscosity with E.

With pearl lustre effect, 10.8% active detergent

Formula A I/8045

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

SHOWER FOAM

SUBSTANCE	% By Weight
Texapon N 40	77.0
Comperlan KD	3.0
Water	13.0
Cremophor RH 410	2.0
Perfume oil	2.0
Neo-PCL water soluble 2/966212	2.0
Extrapone Seaweed super 2/032453	1.0
Colorant: Pale blue 5/060083	

The consistency can be increased with sodium chloride.

Suggested Formulation No. VKD 439/50

CREAM FOAM BATH

SUBSTANCE	% By Weight
Texapon N 40	60.0
Euperlan PK 771	7.0
Neo-PCL water-soluble 2/966212	4.0
Steinamid L 203	3.0
Extrapone Chamomile 2/060350	1.0
Water	22.0
Perfume oil	3.0

Suggested Formulation No. VKSCH 348/51

SOURCE: Dragoco, Inc.: DRAGOCO PCL-Products: Formulas

FOAM BATH, PEARLY

RAW MATERIALS	% By Weight
Texapon N 25	36.0
Dehyton K	12.0
Euperlan PK 771	7.0
Nutrilan Elastin E 20	5.0
Sodium chloride	0.6
Water (preservative, color, perfume)	ad 100

pH set to: 6.5

Viscosity: approx. 9,800 mPas

SOURCE: Henkel: Cosmetics No. XXII/89/Lz: Formula 89/189/1

SHOWER GEL

RAW MATERIALS	% By Weight
Texapon N 25	30.0
Dehyton K	20.0
Cetiol HE	1.0
Nutrilan Elastin E 20	10.0
Sodium chloride	1.0
Water (preservative, color, perfume)	ad 100

pH set to 6.5

Viscosity: approx. 11,600 mPas

SOURCE: Henkel: Cosmetics Nr. XXII/89/Lz: Formula No. 89/190/1

SHOWER GEL

INGREDIENT	% By Weight
Standapol ES-2	35.0000
Standamid KD	3.0000
Demineralized Water	39.9000
Tego Betaine L7	10.0000
Texapon ST 40	2.0000
Abil B 8851	1.0000
Eucalyptus HS	2.0000
Peppermint HS	1.5000
Tri-Sept M	0.2000
Tri-Sept P	0.1000
Tristat IU	0.2000
Tween 20	3.5000
Perfume	0.6000
Certified Color	QS

Procedure:

1. In the main tank, blend the Comperlan with the Texapon N40.
2. Blend the fragrance with the Tween and set aside.
3. In the side tank, blend the water, Tego Betaine, Texapon ST40, Abil B 8851.
4. Add the side tank contents to the main tank and mix well with prop agitation.
5. Add the herbal blends to the batch and mix well.
6. Add the parabens and Tristat IU to the batch and mix well.
7. Add the fragrance blend to the batch and mix well.
8. Color as required.

SOURCE: TRI-K Industries, Inc.: Code AMI.022

SHOWER SOAP

RAW MATERIALS	% By Weight
MACKANATE EL	20.0
MACKANATE OM	15.0
Sodium Lauryl Sulfate	10.0
MACKAMIDE LLM	6.0
MACKPEARL LV	3.0
MACKERNIUM 007	2.5
MACKSTAT DM	qs
Citric Acid qs to pH 6.0	
Sodium Chloride qs to 10,000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Disperse MACKERNIUM 007 in water.
2. Add remaining component and heat to 40 degrees C.
3. Adjust pH with citric acid.
4. Adjust viscosity with sodium chloride.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

LIQUID SHOWER SOAP

RAW MATERIALS	% By Weight
Na a-Olefin Sulfonate, 40%	20.0
Sodium Lauroyl Sarcosinate, 30% (Hamposyl L-30)	10.0
Cocoamide MEA	3.0
Ammonium Chloride	2.0
Water, preservative, color, q.s.	100.0

Procedure:

Heat water and first two ingredients to 80C, add cocoamide MEA, stir until clear. Cool to 40C, add remaining ingredients and adjust to pH 5.0 w/citric acid.

Properties: Lathers richly without drying the skin.

FOAMING BATH OIL

RAW MATERIALS	% By Weight
Sodium Lauroyl Sarcosinate, 30% (Hamposyl L-30)	21.0
Sodium Laureth Sulfate, 28%	42.0
Cocoamide DEA	6.0
PPG-15 Stearyl Ether	10.0
Water, preservative, etc., q.s.	100.0

Procedure: Mix all ingredients. Stir until clear.

Properties: The PPG-15 stearyl ether provides emollient properties to this high foaming bath additive.

SOURCE: W.R. Grace & Co.-Conn.: Bath and Shower Product Formulary: Formulas

TRANSPARENT BATH AND SHOWER BAR

RAW MATERIALS	% By Weight
Sodium Stearate	24.0
Propylene Glycol	6.0
Glycerine	16.0
Sorbeth-40 (Witconol SE-40)	11.0
Cocoamide DEA	18.0
Cocoyl Sarcosine (Hamposyl C)	10.0
Urea	3.0
Water	10.0
Monoethanolamine	2.0

Procedure:

Mix all ingredients except sodium stearate. Heat to 50-60C with moderate mixing. Add sodium stearate slowly in small increments. Raise temperature to 85-90C. Stir until clear. Stop agitation, allow all bubbles to rise to surface and pour into molds. Cool and remove.

Properties:

A mild transparent detergent bar.

NON-DEFATTING BODY WASH

RAW MATERIALS	% By Weight
Lauramphocarboxyglycinate	35.0
Sodium Laureth (3) Sulfate, 27%	15.0
Sodium Lauroyl Sarcosinate, 30% (Hamposyl L-30)	10.0
Oleth-10 Phosphate	2.0
Water, perfume, preservative, etc., q.s.	100.0

Procedure: Mix all ingredients and adjust to pH 7.0 with HCl.

Properties: Mild and good lathering shower liquid suitable for dry skin.

SOURCE: W.R. Grace & Co.-Conn.: Bath and Shower Product Formula-
ulary: Formulas

FOAM BATH

RAW MATERIALS	% By Weight
Texapon NSO, unpreserved	50.0
Rewoamid DC 212 IS	3.0
Barlox 12	2.0
Common salt	1.5
Water	43.5
Adjusted with citric acid to pH 5-6.	

SOURCE: Schulke & Mayr GmbH: EUXYL K400: Formula

VITAMIN FOAM BATH

RAW MATERIALS	% By Weight
a) Texapon N 40	44.0
Comperlan KD	3.0
b) Texapon TH	30.0
c) Water, distilled, preserved	20.0
d) Soluvit Richter	3.0

Manufacture:

a) heat to about 50C and mix;

b), c) and d) stir in.

Perfume

VITAMIN BATH GEL

RAW MATERIALS	% By Weight
a) Texapon TH	20.0
Tego-Betaine L 7	30.0
b) Water, distilled, preserved	47.0
c) Soluvit Richter	3.0

Manufacture:

a) heat to about 70C and mix;

b) heat to about 50C and stir into a).

Allow to cool to about 35C;

c) stir in.

Perfume

VITAMIN SHOWER FOAM

RAW MATERIALS	% By Weight
a) Arkypo RLM 45N	8.0
Arkyposal EO 20 PA	28.0
b) Water, distilled, preserved	60.0
c) Soluvit Richter	3.0
d) Perfume oil	1.0

Manufacture:

a) heat to about 50C and mix;

b), c) and d) stir in.

Concentrate:

Product: 88.0%

Propellant 12/114 4060: 12.0%

Valve:

R-70 micoflex

Foam actuator:

350-025

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 24

Section IV

Beauty Aids

ABSORBANT FACIAL MASK FOR OILY SKIN

INGREDIENTS		% By Weight
A. Deionized Water		60.7
Magnesium Aluminum Silicate		1.5
Hydroxypropylmethylcellulose		1.5
Sorbitol		4.0
Methylparaben		0.2
Polysorbate 80		2.0
B. Stearic Acid		3.0
Glyceryl Stearate and PEG 100 Stearate	5.0	
Ceresine Wax		5.0
Stearyl Alcohol		2.0
Kaolin		8.0
C. Titanium Dioxide		1.0
Iron Oxides		0.2
Polyethylene		1.5
D. ELASTEIN 5000		4.0
E. Diazolidinyl Urea		0.3
Fragrance		0.1

Procedure:

Begin heating water to 80 degrees C, slowly sift in magnesium aluminum silicate. At 80 degrees C, sift in hydroxypropylmethylcellulose, add rest of Part A. Mix until uniform. Add Part B ingredients in order, mix until homogeneous. Premix iron oxides with titanium dioxide and polyethylene beads and sift into mixture. Blend until color is uniform. Slowly add ELASTEIN 5000, mix well, cool to room temperature. Add part E ingredients. Mix until homogeneous.

Description:

This astringent mask absorbs facial oils and exfoliates dead skin cells. ELASTEIN 5000 helps restore skin elasticity by binding needed moisture.

SOURCE: Geo. A. Hormel & Co.: Formulation Guide

ACNE LOTION WITH MICROENCAPSULATED SALICYLIC ACID

RAW MATERIALS	Sequence	% By Weight
Keltrol F, 1% Sol'n	1	81.75
Liponic EG-1	1	5.00
Microencapsulated Salicylic Acid	1	4.00
Unicide U-13	1	0.25
Lipomulse 165	2	2.50
Unitrienol T-27	2	1.50
Liponate 2-DH	2	5.00

Procedure:

1. In main kettle, combine Sequence 1 ingredients under Lightnin' mixing and heat to 75C.
2. In auxiliary kettle, combine Sequence 2 ingredients under Lightnin' mixing and heat to 78C.
3. At proper temperature, add Sequence 2 to Sequence 1 under Lightnin' mixing and maintain temperature for 5-10 minutes. Begin cooling.
4. Cool to 25C.

Formula No. 479

BODY MOISTURIZER BALM

RAW MATERIAL	Sequence	% By Weight
Deionized Water	1	63.75
Triethanolamine 99%	1	0.60
Uniphen P-23	1	0.50
Hypan SA100H	2	0.30
Liponate NPGC-2	3	32.50
Lipo Lecithin	3	1.15
Orgasol 2002D Ex. Nat. Cos.	4	1.00
Fragrance	5	0.20

Procedure:

1. Combine Sequence 1 ingredients under Lightnin' mixing. Heat to 65C.
2. Slowly sprinkle in Sequence 2 ingredient under Lightnin' mixing. Maintain heat until a clear gel is obtained.
3. In a separate vessel, combine Sequence 3 ingredients and heat to 75C.
4. At proper temperature, add Sequence 3 to combined Sequence 1 and 2. Begin to cool.
5. At approximately 60C, run product through colloid mill with recirculation for a minimum of five minutes.
6. Switch to sweep mixing and continue cooling.
7. Slowly add Sequence 4 to batch.
8. At 40C, add Sequence 5.

Formula No. 424

SOURCE: Lipo Chemicals Inc.: Formulas

ACNE SCRUB

RAW MATERIALS	% By Weight
Part A:	
1. A-C 617	0.9
2. A-C 540	0.9
3. Mineral Oil, 70 s.s.	4.5
4. Phenyl Dimethicone	0.9
5. Propylene Glycol Dipelargonate	9.5
6. Lanolin Alcohol & Petrolatum	1.8
7. Laneth-25	0.9
8. Sorbitan Stearate	1.2
9. Propylparaben	0.1
Part B:	
10. Sorbitol (70%)	4.5
11. Polysorbate 60	1.6
12. Carbomer 940	0.7
13. Imadazolidinyl Urea	0.3
14. Methylparaben	0.2
15. Triethanolamine	0.7
16. Water	61.3
17. ACUSCRUB 44	10.0

Procedure:

Blend Part A ingredients and heat to 90C. Disperse Carbomer 940 in water, add remaining Part B ingredients (except ACUSCRUB 44) and heat to 90C. Add Part B to Part A and shear in homomixer. Cool to 50C, add perfume and ACUSCRUB 44 with slow agitation.

FACIAL SCRUB

RAW MATERIALS	% By Weight
50% TEA Lauryl Sulfate	70
Lauramide DEA	13
DEA - Oleth 3 Phosphate	3
Lauryl Dimethyl Ammonium Hydrolyzed Animal Protein	3
Propylene Glycol	4
Collagen Amino Acids	2
ACUSCRUB 40	5

Procedure:

Combine all ingredients except ACUSCRUB 40. Warm to 70C with agitation until homogeneous. Cool to 50C, then slowly add ACUSCRUB 40.

SOURCE: Allied-Signal Inc.: ACUSCRUB Mild Abrasive: Formulas

AEROSOL MOISTURIZING FACIAL MASK

RAW MATERIALS	% By Weight
A. Emulgator E 2149	3.0
MIGLYOL 812	10.0
Arkopal N 100	1.0
B. Tego Betain L7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic Acid, anhydrous	0.2
Hygroplex HHG	5.0
Water	75.6
Preservative	q.s.
C. Perfume	q.s.

Preparation:

(A) and (B) are brought to 70C. (B) is emulsified into (A) and (C) is added to the emulsion, while stirring continuously until cool.

Filling: Emulsion	85 parts
Gas 12/114 (40:60)	15 parts

Formula 6.2.5

AEROSOL FACIAL MASK FOR CHAPPED SKIN

RAW MATERIALS	% By Weight
A. Emulgator E 2149	3.0
MIGLYOL 812	10.0
Arkopal N 100	1.0
B. Tego Betain L7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic Acid	0.2
Preservative	q.s.
Water	80.1
C. Epidermin in Oil	0.5
Perfume Oil	q.s.

Preparation:

(A) and (B) are brought to 70C. (B) is emulsified into (A). The Epidermin in Oil and the perfume oil are added to the emulsion while stirring continuously until cool.

Filling: Emulsion:	85 parts
Gas 12/114 (40:60):	15 parts

Formula 6.2.7

SOURCE: Huls America Inc.: Formulas

AIRY SKIN CONDITIONING MOUSSE

CONCENTRATE FORMULA	% By Weight
QUATRISOFT POLYMER LM-200	1.0
Propylene Glycol	2.0
Ethanol SD-40	15.0
Deionized Water	82.0
Preservative and Perfume	q.s.

Concentrate Procedure:

Mix ethanol with water at room temperature. Add QUATRISOFT POLYMER LM-200 and other ingredients with water/ethanol mixture using rapid stirring at room temperature until polymer is completely dissolved.

Aerosol Fill Procedure:

Fill Aluminum mousse can and charge with A-46 Propellant using a weight ratio of 100 parts of product to 20 parts of propellant.

Description:

The light airy and stable foam in this formula is produced solely by QUATRISOFT POLYMER LM-200. When applied to the skin, it breaks quickly, leaving a soft, velvety feel attributed to the cellulosic cationic QUATRISOFT POLYMER LM-200

Formula T-55-9-1

SKIN CONDITIONING MOUSSE

CONCENTRATE FORMULA	% By Weight
Phase A:	
SOLULAN 16	1.5
GLUCAM P-10	1.5
SOLULAN 98	2.0
Phase B:	
Deionized Water	78.5
QUATRISOFT POLYMER LM-200	0.5
Preservatives	1.0
Phase C:	
SD Alcohol 40	15.0

Concentrate Procedure:

Add QUATRISOFT POLYMER LM-200 to agitating water at 25C. Heat to 70C and mix until dissolved. Add preservatives to complete phase B. In a separate container add Phase A ingredients and heat to 70C with agitation. Add phase B to A and mix until uniform. Cool to 40C and add phase C. Cool to 25C when uniform.

Aerosol Fill Procedure:

Fill aluminum mousse can and charge with A-46 Propellant using 90% product and 10% propellant.

Description:

Aerosol skin conditioner with emollient feel during and after application.

Formula T54-129-2A

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formulas

ALOE ANIONIC MOISTURIZER

RAW MATERIALS	% By Weight
Water	49.3
Carbomer 940	0.2
Anhydrous lanolin	5.0
Stearic acid	2.6
Stearyl alcohol	1.1
Light mineral oil	15.0
Triethanolamine 99	1.8
Aloe Vera Gel	25.0
Fragrance & preservatives	q.s.

ALOE NONIONIC MOISTURIZER

RAW MATERIALS	% By Weight
Water	75.2
Glycerin	3.5
PEG-75 stearate	2.6
Propylene glycol dicaprylate/dicaprate	2.0
PEG-25 castor oil	0.5
Light mineral oil	3.0
Glyceryl monostearate	3.0
Cetyl alcohol	1.0
Ceteareth-4	0.7
Laneth-10 acetate	1.0
Aloe Vera Gel	7.5
Preservatives & fragrance	q.s.

SOURCE: Florida Food Products, Inc.: Formulas 1 and 2

OVERNIGHT MOISTURIZER

RAW MATERIALS	% By Weight
Part A:	
PHOSPHOLIPID EFA	4.00
PEG-32	2.00
Glycerin	2.00
Water	73.00
Part B:	
Steareth-2	2.50
Cetearyl Alcohol	4.00
Cetyl Palmitate	4.00
Myristyl Myristate	4.00
Isopropyl Palmitate	3.00
Dimethicone (100 cS)	1.50

A powerful moisturizer designed to sustain the normal state of healthy skin. The high substantivity towards skin helps to provide moisture regulation.

SOURCE: Mona Industries, Inc.: Phospholipid EFA: Formula

ALOE VERA GEL MASK

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	57.55
Uniphen P-23	1	0.50
Triethanolamine 99%	1	0.10
Hypan SA100H	2	0.05
Witch Hazel	3	2.00
Carbopol 940 (2% Disp'n)	3	27.50
Aloe Vera Gel	3	5.00
Triethanolamine 99%	4	0.50
Deionized Water	4	1.00
Trisodium EDTA	5	0.10
Phenoxyethanol	5	0.70
Deionized Water	5	5.00

Procedure:

1. In main kettle, combine Sequence 1 ingredients and heat to 65C under Lightnin' mixing.
2. Slowly sprinkle Sequence 2 ingredient into batch and maintain temperature until a clear, uniform gel is obtained. Begin cooling.
3. In a separate vessel, combine Sequence 3 ingredients at room temperature and add to combined Sequence 1 and 2 after they have cooled to 55-60C. Switch to sweep when batch thickens.
4. Add premixed Sequence 4 to batch under slow sweep to minimize aeration.
5. In a separate vessel, combine Sequence 5 ingredients at room temperature and mix until all powder is dissolved. Slowly add Sequence 5 to batch when batch has cooled to 40C.
6. Continue cooling to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 459

SYNDET BEAUTY BAR

RAW MATERIALS	% By Weight
MONAMATE LA-100	40.0
PEG-8	20.0
PEG-75	30.0
MONAMID S	10.0

Procedure:

Add all ingredients and mix while heating gradually, being careful not to scorch, until melted and uniform. (approx. 95C). Pour into mold while hot. Allow to set.

Properties:

Appearance: Pale cream colored solid

pH (10% sol'n): 6.8

This formulation is easily prepared and forms a hard bar. Copious lather with a soap-like feel and a talc-like after-feel.

SOURCE: Mona Industries, Inc.: MONAMATES: Formula

ANHYDROUS CREAM MAKEUP

RAW MATERIALS	% By Weight
AMERCHOL RC	5.0
MODULAN	5.0
SOLULAN PB-2	5.0
Petrolatum	40.0
Mineral Oil, 70 vis.	22.0
Microcrystalline Wax (190-195F m.p.)	8.0
Pigments, micronized	15.0
Perfume and Preservative	q.s.

Procedure:

Heat all ingredients except the pigment blend to 85C. Add the pigment blend to melted wax phase at 85C. Mix until uniform. Cool to 60C and pour.

Description:

In this glossy cream, AMERCHOL RC aids in pigment dispersion while also working to give color definition and shade uniformity. The combination of AMERCHOL RC with SOLULAN PB-2 and MODULAN gives excellent feel while helping to reduce the greasiness associated with the mineral oil and petrolatum. They also add emollience and the necessary tack to ensure good finger pickup while keeping the product in place during and after application.

EMULSION MAKEUP

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	4.5
AMERLATE P	0.9
Stearic Acid, XXX	2.7
Glyceryl Monostearate, neut.	1.8
Mineral Oil, 70 vis.	4.5
Water Phase:	
Propylene Glycol	4.5
Triethanolamine	0.9
Water	70.2
Titanium Dioxide, Talc & Pigments	10.0
Perfume and Preservative	q.s.

Procedure:

Add the water phase at 85C to the oil phase at 95C while stirring. Continue mixing, and cool to 30C. Add to the micronized powder blend in increments, mixing well after each addition.

Description:

Glossy emulsion makeup with rich creamy feel. Spreads and blends easily. A heavy-viscosity fluid that gives light coverage.

SOURCE: Amerchol Corp.: AMERCHOL Series: T33-21-4/4R

ANHYDROUS MAKE-UP BASE

RAW MATERIALS	% By Weight
A. MIGLYOL 812	80.0
DYNASAN 118	20.0
B. Pigment:	
Titanium Dioxide	3.0
Talc	3.0
Zinc Oxide	3.0
Sicomet-Brown 70	0.3
Sicomet-Brown 75	0.3

Preparation:

MIGLYOL 812 is heated up to ca. 69C., in a container having good temperature control. Dynasan 118 is stirred into the Miglyol 812. The mass is then stirred until cooled. Important: Dynasan 118 cannot be completely dissolved, but rather partially dissolved (note temperature).

90.4g of this mass is worked very well into the finely ground pigment little by little.

It is advantageous to homogenize the make-up before filling.
Formula 2.1E

MAKE-UP FOUNDATION CREAM WITH SILICONE OIL 1

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
DYNASAN 110	3.0
MIGLYOL 812	5.0
MIGLYOL 840	7.0
DYNACERIN 660	5.0
Stearic Acid	5.0
Cetyl Alcohol	1.0
Hostaphat KL 340 N	3.0
Volatile Silicone 344	3.0
B. Hygroplex HHG	5.0
Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Talcum	2.0
Zinc Oxide	2.0
Titanium dioxide	2.0
Sicomet Brown 70	0.7
Sicomet Brown 75	0.3
E. Perfume Rivalia	0.2

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and then (B) and (C) are emulsified into (A). The pigments are pulverized, and then the cream is stirred into the pigments, little by little. Perfuming is done below 40C.

Formula 2.1F

SOURCE: Huls America Inc.: Formulas

ANTI-ASH MOISTURIZER

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	20.0
Wheat Germ Oil	5.0
Avocado Oil	2.0
Purcellin Oil	8.0
IMWITOR 780K	5.0
Antioxidants	q.s.
B. Beeswax	3.0
C. Hygroplex HHG	5.0
Magnesium Sulfate	2.0
Preservative	q.s.
Water	up to 100.0
D. Collagen	3.0
Fragrance	0.2

Preparation:

All components in (A) are worked into the Miglyol Gel gradually. (B) is added and the mixture is heated up to 75-80C. (C) is mixed together and brought up to the same temperature. It is then emulsified into (A + B) in several portions. (D) is added at ca. 30C.

SOURCE: Huls America Inc.: Formula 1.2C

PRESSED POWDER BLUSH

RAW MATERIALS	% By Weight
I. Kaolin	2,00
Orgasol 2002 D. Nat. Cos. Extra	6,00
Talcum	60,30
PRECIROL ATO 5	3,00
Magnesium Carbonate	1,00
Lipophilic Titanium Dioxide	10,50
Methyl Paraben, Sodium Salt	0,20
II. ISOSTEARATE D'ISOSTEARYLE	6,00
LABRIFIL ISOSTEARIQUE	2,00
Iron Oxyde Red N27 (CI 77491)	5,40
F D C Red 3 Aluminum Lake (CI 45430:1)	3.60

Preparation:

Mix well together the components of I. Add II and the pigments. Mix well and grind. Sift. Compact at 100 kg of pressure.

SOURCE: Gattefosse: Formula MM 2703

ANTI-BACTERIAL CLEANSING CREAM

RAW MATERIALS	% By Weight
MACKANATE LO-SPECIAL	83.0
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.8
Chloroxylenol	0.5
MACKSTAT DM	Q.S.
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-SPECIAL and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Add Chloroxylenol.
6. Cool to 50 degrees C. with mild agitation.
7. Add MACKSTAT DM and fragrance and cool with continuous agitation.

Remarks: The product has cream pearlescent consistency and can be packaged into a tube, jar or a high viscosity dispenser.

NEUTRA FACIAL CLEANSER TYPE

RAW MATERIALS	% By Weight
1. Glycerin	11.00
2. Oleic Acid Light Grade	8.00
3. MACKADET 40K	12.00
4. MACKAM MLT	8.00
5. MACKAM 35	6.00
6. MACKAMIDE LLM	2.00
7. Triethanolamine	3.00
8. Chelon	0.30
9. Sodium Hydroxide 50% Solution	0.5-0.10
10. MACKSTAT DM	qs
11. Color	qs
12. Fragrance	qs
13. Deionized Water	qs

pH: 8.7-9.3

Viscosity: 5000-6000 cps

Procedure:

1. Into the manufacturing tank add number 13 then #7 then #1, #2, #3, #4, #5, #6, #8 and start warming the mixture using low speed agitation, until everything is completely dissolved.
2. Adjust the pH with #9 diluted with water and mix until the liquid is homogeneous and crystal clear.
3. Add more diluted Sodium Hydroxide solution, if necessary, to bring the pH upwards.
4. Start cooling and add the remainder of the ingredients mix until cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: AY-144 #2

ANTI-WRINKLE CREAM

RAW MATERIALS	Sequence	% By Weight
Deionized water	1	53.20
Liponic EG-1	1	3.00
Trisodium EDTA	1	0.05
Uicide U-13	1	0.25
Triethanolamine, 99%	1	1.00
Carbopol 934 (2% aq. disp'n)	2	12.00
Deionized water	2	8.00
Stearic Acid #132	3	2.00
Lipopeg 6000DS	3	0.25
Liponate MM	3	3.00
Lipo GMS-450	3	2.00
Lipocol C	3	1.50
Lipovol MOS-70*	3	5.00
Liponate PC	3	5.00
Unitrienol T-27	3	2.00
Silicone 200 fluid (200 cts)	3	0.40
Propylparaben	3	0.10
Butylparaben	3	0.05
Orgasol 2002 UD Nat. Cos.	4	1.00
Fragrance SMCO #V5148	5	0.20

* Patent No. 4,659,573

Manufacturing Procedure:

1. In main kettle, under variable speed Lightnin' mixing, heat Sequence 1 ingredients to 75C.
2. In side kettle, under Lightnin' mixing, heat Sequence 3 ingredients to 78C.
3. In small kettle, under Lightnin' mixing, thoroughly disperse Sequence 2 ingredients. Mix until there are no fish eyes.
4. At proper temperatures, add combined Sequence 3 ingredients to combined Sequence 1 ingredients under Lightnin' mixing. Maintain temperature for 15 minutes. Begin cooling.
5. Remove Lightnin' mixer. Add side-wiping-double action blades. Add premixed Sequence 2 ingredients at 65-70C. Stir in thoroughly.
6. Cool to 45C. Add Sequence 4 ingredients and disperse thoroughly. Cool to 42C. Add Sequence 5 ingredient and disperse thoroughly. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 384

BLACK MAKEUP FILM PROTOTYPE

RAW MATERIALS	Sequence	% By Weight
Ceraphyl 55	1	10.00
Lipomulse 165	1	2.00
Lipo PE Base PG-29	2	55.00
Carbopol 934 (2% Disp'n)	2	5.00
Triethanolamine, 99%	2	0.10
Silicone Q2-3225C	3	10.00
Cosmetic Black	4	17.90

Procedure:

1. Combine Sequence 1 ingredients and heat to 70C with mixing.
2. Combine Sequence 2 ingredients and heat to 70C with Lightnin' mixing.
3. Add Sequence 1 to Sequence 2 at temperature with mixing. Then add Sequence 3.
4. Add Sequence 4 under Lightnin' mixing.
5. Mix and cool to 55C. Switch to colloid mill.
6. Cool.

Description:

A prototype of a water-resistant film which is resistant to running water but easily removed with water and rubbing.

SOURCE: Lipo Chemicals Inc.: Formula No. 506

NONIONIC MAKE-UP

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSIL DMC-287	4.00
GLUCATE SS	1.50
GLUCAMATE SSE-20	4.25
PROMULGEN G	3.00
SOLULAN C-24	1.00
PROPAL	5.00
CETAL	1.00
Mineral Oil	4.00
Glyceryl Stearate	0.50
Pigments	10.00
Water Phase:	
GLUCAM E-20	3.00
Xanthan Gum (2% aqueous)	37.25
Deionized water	27.50
Preservative	q.s.

Procedure:

Heat water phase to 75C and mix until uniform with propeller agitation. Heat oil phase to 75C, mixing with a homogenizer. Add the water phase to the oil phase at 75C while mixing with a homogenizer for 20 minutes at 75C. Cool to 30C while continuing to homogenize.

Description:

AMERSIL DMC-287 imparts lubricating and emolliency properties to this nonionic make-up which contribute to shade development and uniform color coverage. Product stability. Humectancy.

SOURCE: Amerchol Corp.: AMERSIL Surfactants: Formula T63-62-2

BODY OIL SPRAY

INGREDIENT	% By Weight
Rice Bran Oil	10.0
Canola Oil	50.0
Safflower Oil (Hi Oleic)	20.0
Olive Oil	10.0
Sweet Almond Oil	5.0
Apricot Kernel Oil	3.0
Sesame Oil	1.75
White Flower Bouquet #891116	0.2
D-Delta Rich Tocopherols Concentrate	0.05

Procedure:

Mix until clear and uniform. Can be sprayed using a Calmar Mark II High Viscosity spray dispenser.

Formula #MS-2-90-2

BODY OIL SPRAY

INGREDIENT	% By Weight
Rice Bran Oil	4.0
Canola Oil	50.0
Safflower Oil (Hi Oleic)	20.0
Olive Oil	10.0
Sweet Almond Oil	4.0
Apricot Kernel Oil	1.0
Sesame Oil	0.75
Siltech FVC	10.0
White Flower Bouquet #891116	0.2
D-Delta Rich Tocopherols Concentrate	0.05

Procedure:

Mix until clear and uniform. Can be sprayed using a Calmar Mark II High Viscosity spray dispenser.

Formula #MS-2-90-3

SOURCE: TRI-K Industries, Inc.: Formulas

BODY POWDER

RAW MATERIALS	% By Weight
A Belsil BNP	5,00
HDK N20	2,50
HDK H20	2,50
Talc	4,00
Starch	30,20
Kaolin	10,00
Magnesium Stearate	1,00
Bentone 38	1,00
B Isopropylmyristate	6,00
Perfume	1,80
Pigments	q.s.

Mix A well, add B in portions, homogenize thoroughly.
Formulation 1056 AH

FACE MASK

RAW MATERIALS	% By Weight
A Polyviol W 25/140	10,00
Alcohol (Cosmetic grade)	25,00
B Water	45,00
Belsil DMC 6035	2,00
C Triethanolamine	3,00
Alcohol (Cosmetic grade)	15,00
Preservatives, fragrances, pigments	q.s.

Mix Polyviol W 25/140 and the cosmetic alcohol and stir into B. Heat to approx. 85C in water bath (whilst stirring), until a clear lump-free solution is produced. Cool to at least 40C and add to C whilst stirring.

Temperature stability: at 45C over 10 weeks.

Clear yellow, high viscosity. Produces a film on the skin which can be pulled or rubbed off after approx. 10 minutes.

Formulation 313 AH

SOURCE: Wacker Silicone: Standard Formulations

BOTANICAL NAIL STRENGTHENER

INGREDIENT	% By Weight
Nail Bioregenerator	100.0

A botanical nail treatment containing Myrrh extract and Panthenol. Daily application via massage onto the nail, the cuticle, and the nail matrix will not only help increase the strength and flexibility of the nails but also aids the healing of wounds around the nail.

SOURCE: TRI-K Industries, Inc.: Formula

CUTICLE MESSAGE OIL

RAW MATERIALS	Sequence	% By Weight
Lipovol SOY	1	64.70
Lipolan R	1	25.00
Lipovol WGO	1	10.00
Benzoic Acid	1	0.05
Dehydroacetic Acid	1	0.05
Vitamin A Palmitate	2	0.10
Vitamin E Acetate	2	0.10

Manufacturing Procedure:

1. Combine Sequence 1 ingredients with Lightnin' mixing and warm to dissolve benzoic and dehydroacetic acids.
2. Cool to room temperature and add Sequence 2 ingredients. Mix until homogeneous. Package.

SOURCE: Lipo Chemicals Inc.: Formula No. 380

CUTICLE SOFTENER

RAW MATERIALS	% By Weight
SOFTIGEN 767	20.0
Glycerin	10.0
Triethanolamine	5.0
Sodium Salicylate	10.0
Disodium EDTA	0.05
Ethanol 96%	10.0
Water	45.0
Fragrance	0.2

Preparation:

All ingredients are mixed at room temperature.

SOURCE: Huls America Inc.: Formula 1.5B

CLAY MASK

RAW MATERIALS	% By Weight
Bentonite	15.0
Titanium dioxide	2.0
Allantoin	0.2
Glycerin	3.8
Arnica	2.0
Extrapone Chamomile Special	6.0
SOFTIGEN 701	5.0
Preservative	q.s.
Water	up to 100.0

Preparation:

All components are weighed into a mixing vessel and stirred with a high-speed mixer until smooth.

SOURCE: Huls America Inc.: Formula 6.2.4

VITAMIN MASK

RAW MATERIALS	% By Weight
A. MIGLYOL 812	10.0
MIGLYOL 840	2.0
Aluminum Distearate	2.0
B. SOFTISAN 378	3.0
Stearic Acid	4.0
Emulgade F	6.0
Purcellin Solid	3.0
Purcellin Oil	4.0
Preservative	q.s.
C. Sorbitol	4.0
Allantoin	0.3
Algipon 578L 2% in H ₂ O	58.3
Preservative	q.s.
D. Collagen	3.0
Vitamin A/Palmitate	0.3
Vitamin E	0.1
Perfume	q.s.

Preparation:

(A) is heated to 75-80C. (B) and also (C) are heated to the same temperature. First (B), then (C) is added to (A). (D) is stirred in at about 40C. Before filling, it is recommended to homogenize the mask.

SOURCE: Huls America Inc.: Formula 6.2.1

CLEANSER FOR AROUND THE EYES AND FACE

INGREDIENT	% By Weight
Demineralized Water	56.8650
Carbopol 940	0.2000
Tensami 1/05 AMI	1.0000
Amigel, 2%	25.0000
Tri-Sept M	0.2000
Tristat IU	0.2000
Tensami 8/09	10.0000
687 Demaquillant LS	3.0000
Jjoba Oil	3.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Perfume	0.2000
TEA 99%	0.2200

Procedure:

1. Disperse the Carbopol in water in main tank while heating to 75C.
2. Add the Tensami 1/05, Amigel Solution, and methylparaben with prop agitation.
3. Mix the Tensami 8/09, 687 Blend, Jjoba, Vitamin E, and propylparaben at 75C.
4. Add the oil phase to the main tank with prop agitation and mix until uniform.
5. Switch to sweep agitation and begin cooling to 50C.
6. Add the TEA and Tristat IU while cooling to 50C.
7. Continue cooling to RT and add perfume.

SOURCE: TRI-K Industries, Inc.: Code AMI.001

CONDITIONING FACIAL CLEANSER

RAW MATERIALS	% By Weight
Water	43.7
50% Citric Acid	0.3
Sodium Laureth Sulfate (1 Mole 25%)	35.0
MONAMATE LNT-40	5.0
PHOSPHOTERIC QL-38	8.0
MONATERIC CAB-LC	8.0

Procedure:

Blend ingredients in order listed, readjusting pH if necessary to 5.5-6.0. Add fragrance, color and preservative as required. Package.

Formulation Properties:

Physical Appearance: Clear Liquid
Viscosity: 6,600 cps

SOURCE: Mona Industries, Inc.: Formula F-579

CLEANSING GEL

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	10.90
Triethanolamine 99%	1	0.50
Uniphen P-23	1	0.50
Unicide U-13	1	0.30
Liponic EG-1	1	0.50
Methylparaben	1	0.25
Hypan SA100H	2	0.25
Carbopol 941 (2% Disp'n)	3	40.00
Deionized Water	4	1.00
Triethanolamine 99%	4	0.80
Natrosol 250 HHR (2% Solution)	5	20.00
Sipon LT-6	5	25.00

Procedure:

1. Combine Sequence 1 ingredients under Lightnin' mixing and heat to 75C, until all preservatives are dissolved.
2. Sprinkle Sequence 2 into Sequence 1 and mix for five minutes and begin cooling.
3. At 60C, add Sequence 3 to batch, switching to sweep mixing when batch thickens.
4. Add premixed Sequence 4 to batch and continue cooling.
5. At 30C, add premixed Sequence 5 to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 441

TRANSPARENT SKIN CARE GEL

RAW MATERIALS	% By Weight
Lamecreme DGE 18	15.0
EUMULGIN HRE 60	12.5
Cetiol 868	25.0
Glycerol 86%	5.0
Water	ad 100.0

Cospha formulation no. 91/133/32

SKIN TREATMENT GEL

RAW MATERIALS	% By Weight
TEXAMID 775 (5% sol.)	15.0
Glycerol 86%	10.0
Preservative, perfume	q.s.
Water	45.0
LIPOCUTIN VE	30.0

Cospha formulations no. 89-343-5

SOURCE: Henkel: Henkel KGaA: R-Cc Cospha: Formulas

CLEANSING MILK I

RAW MATERIALS	% By Weight
A. SOFTISAN 378	3.0
MIGLYOL 812	5.0
IMWITOR 375	1.0
Emulgade F	3.0
Isopropyl myristate	5.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume oil concentrate 38 877	0.2

Preparation:

(A) is melted and brought to 75-80C. (B) is heated to the same temperature and then slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.5A

CLEANSING MILK 2

RAW MATERIALS	% By Weight
A. IMWITOR 900	8.0
MIGLYOL 840	7.0
Cremophor A 6	2.0
Cremophor A 25	3.0
B. Sorbitol	5.0
Preservative	q.s.
Water	100.0
C. Perfume Oil Concentrate 38 805	0.5

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C., the perfume is added.

Formula 1.4.6A

SOURCE: Huls America Inc.: Formulations

CLEANSING MILK

RAW MATERIALS	% By Weight
A Stearic Acid	4,40
Mineral oil, high viscosity	10,00
Belsil DMC 6032	2,50
Belsil DM 350	3,00
B Water	78,30
Triethanolamine	1,80
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65C. Mix B into A.

Temperature stability: at 45C over 10 weeks.

Thin white lotion. Good cleansing effect and pleasant feeling on the skin.

Formulation 396 AH

COMPACT POWDER

RAW MATERIALS	% By Weight
A Talc	25,00
Kaolin	25,00
Titanium Dioxide	5,00
Calcium Carbonate	10,00
Magnesium Stearate	5,00
Belsil BNP	10,00
Zinc Stearate	12,50
B Isopropylmyristate	3,50
Oleyl Oleate	4,00
Fragrances, pigments	q.s.

Mix A well, heat B and add it in portions, homogenize thoroughly.

Formulation 1057 AH

SOURCE: Wacker Silicone: Standard Formulations

CLEANSING MILK

RAW MATERIALS	% By Weight
A-A1 Arlancel 165	1.50
Schercemol NGDC	20.00
B-B1 Deionized Water	37.00
Propylene Glycol	3.00
Carbopol 941 2% Aq. Sln.	25.00
B2 Deionized Water	10.00
Keltrol	0.20
B3 Triethanolamine	0.50
B4 Schercomid AME-100	1.50
C- Germaben II	1.00
D- Fragrance	0.30
E- Cucumber Extract	q.s.

Procedure:

Phase B:

In the main beaker disperse B1 at 75C.

Disperse B2 in a separate beaker at ambient temperature.

Add B2 to B1.

Add B3 to the main beaker at 75C.

Add B4 to the main beaker at 75C.

Phase A:

Blend A together at 75C.

Add Phase A to Phase B at 75C with continuous mixing until a homogenous emulsion is formed (at least 15 minutes at 75C).

Cool batch to 60C and add Phase C.

Continue to cool batch to 30C and add fragrance.

Formula L-213-1

FACIAL GEL CLEANER

INGREDIENTS	% By Weight
Water	66.25
Schercoquat IAS-LC	0.40
Schercotaine CAB-G (35%)	8.00
Schercopol OMES-Na (35%)	10.00
Sodium Lauryl Sulfate (30%)	15.00

Procedure:

1. Heat water to 50C. With stirring add Schercoquat IAS-LC until it is dissolved.

2. Add the other ingredients in the order given, with continual agitation while allowing the batch to cool.

3. Q.S. with Fragrance and Preservative.

Appearance: Gel

Viscosity: 8,000 cps.

SOURCE: Scher Chemicals, Inc.: Formulas SO-008

CLEANSING MILK

COMPONENTS	% By Weight
Beeswax	0,7
Isopropyl Palmitate	2
Arlacel 60	1,5
Isopropyl Lanolate	0,8
Tween 60	2
Vaseline Oil	6
Antioxidants and Preservative Agents	Sufficient quantity
Allantoin	0,1
EDTA	0,2
Carbomer 941	0,4
Distilled Water	Sufficient quantity
TEA	0,7
Propylenic Glycol	6
PEG 400	1,5
Vegetable Glicolic Matters	1
Perfume and Preservative Agents	Sufficient quantity

SALINE MOISTURIZING MILK

COMPONENTS	% By Weight
Stearyl 5 OE Stearate	4
Stearyl Alcohol 21 OE	2
Paraffin	5
Jojoba Oil	5
Propylenic Glycol	4
NaCl	5
Urea	5
Deionized Water	at 100
Perfume and Preservative Agents	Sufficient Quantity
Milk for skins	with important salt quantity

SOURCE: La Ceresine: Formulas

CLEANSING MILK, VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Tween 85	3.0
Arlacel 83	3.0
GS Ointment Wax H-43	1.0
Bees-wax	1.0
Paraffin oil	17.0
Vitamin F Glyceryl Ester CLR	3.0
Isopropyl palmitate	2.0
Preservative	q.s.
b) Water, distilled, preserved	64.7
Karion F liquid	5.0
Magnesium sulphate	0.3

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 31

ORANGE BEAUTY MILK

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
IMWITOR 375	5.0
MIGLYOL 812	5.0
MIGLYOL 818	2.0
B. Lemon Oil	0.3
C. Preservative	q.s.
Water	up to 100.0
D. Ascorbic Acid	0.2
Water	5.0
E. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. and then (B) is added.

(C) is mixed and heated to the same temperature. (C) is slowly emulsified into (A + B). (D) and (E) are stirred in at about 30C. Before filling, it is beneficial to homogenize the cream.

Note: Without the lemon oil and ascorbic acid, this cream can also be used as a skin milk.

SOURCE: Huls America Inc.: Formula 1.3.6

CLEANSING MILK (W/O)

RAW MATERIALS	% By Weight
Lanolin Anhydrous	5.0
Propylene Glycol Monostearate	3.0
POLYSYNLANE	38.0
I.P.M.	4.0
Paraffin Wax	4.0
Bee's Wax	16.0
Potassium Hydroxide	0.7
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Cosmetic Formulation

FACIAL MILK

RAW MATERIALS	% By Weight
A.	
ARLACEL 165	5.5
G-1702 Beeswax Derivative	3.0
Lanette 16	1.5
Eutanol G	1.5
Paraffin oil (light min)	1.5
Isopropylmyristate	4.0
Glycerine	3.0
Silicon oil 350 cp	1.0
B.	
Water	78.5
C.	
Perfume	0.3
Preservative	

Formulation Nr. 14 O/W

MOISTURIZING MILK

RAW MATERIALS	% By Weight
A.	
ARLATONE 983 S	1.5
Brij 76	1.5
Lanette 16	0.8
Paraffin oil (light mineral)	9.0
Miglyol 812	4.0
B.	
Karion F	5.0
Carbopol 941	0.15
Triethanol amine	0.15
Water	77.70
C.	
Perfume	0.2
Preservative	

Formulation Nr. 4 O/W

SOURCE: Schulke & Mayr GmbH: EUXYL K400: Formulations

CLEAR BODY/FACIAL CLEANSER AND SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (28%)	25.0
MACKANATE EL	20.0
MACKAM 35HP	8.0
MACKERNIUM 007	0.5
MACKALENE 426	2.5
MACKSTAT DM	Q.S.
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Dissolve MACKERNIUM 007 in water.
2. Add remaining components and heat to 40 degrees C.
3. Blend until clear and adjust pH to 5.0-6.0 with citric acid.
4. If needed, add sodium chloride to adjust viscosity to 5,000 cps.

pH: 5.7

Viscosity (cps): 6800

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CONDITIONING FACIAL AND BODY CLEANSER

RAW MATERIALS	% By Weight
MIRANOL H2M Conc.	25.0
MIRATAINE COB	10.0
Cedepal SN 303	10.0
Sodium Lauroyl Sarcosinate	8.0
Cedemide CX	2.0
Propylene Glycol	1.0
Water	44.0

Procedure:

Blend all ingredients and adjust pH to 7.0 with citric acid.

Solids: 24.4%, viscosity: 3400 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formula

CLEAR EYE GEL

RAW MATERIALS	% By Weight
Deionized water	57.75
Carbomer 940 (3% aqueous slurry)	25.00
Triethanolamine (10% aqueous solution)	11.25
GLUCAM E-10	5.00
BIOCARE SA	1.00
Perfume and preservative	q.s.

Procedure:

Add Carbomer 940 slurry to water with gentle agitation; when fully dissolved mix in remaining ingredients, triethanolamine last. Slowly mix to avoid air entrapment until gel is formed.

Description:

Soft gel for easy application near eye area. Facial stress lines and wrinkles are effectively lifted and masked by BIOCARE SA, a "skin-activated" complex, resulting in a soft smooth appearance. GLUCAM E-10 helps maintain moisture necessary for this delicate area.

SOURCE: Amerchol Corp.: BIOCARE SA: Formula T61-133-8

CLEANSING GEL

RAW MATERIALS	% By Weight
UCARE Polymer SR-10	0.30
POLYOX WSR N-3000 (1% Aq. Solution)	5.00
GLUCAM E-20	1.00
Cocobetaine (43%)	4.45
Citric Acid	0.29
Cocamide DEA	5.00
Ammonium Lauryl Sulfate (28%)	53.57
Glycol Distearate	0.75
Deionized water	29.64
Perfume and preservative	q.s.

Description:

Off-white, slightly pearlescent, flowing cleansing gel. Can be used for all conditioning, cleansing applications. UCARE Polymer SR-10 imparts a substantive film on the skin which reduces the irritation potential of the surfactant while conditioning as well. GLUCAM E-20 improves foam properties. Formula can also be used as a shave gel where POLYOX WSR N-3000 adds slip to ensure a smooth shave by reducing razor drag.

SOURCE: Amerchol Corp.: UCARE Polymers: Formula T54-199-1

CLEAR RINGING GEL

RAW MATERIALS	Sequence	% By Weight
Lipocol SC-15	1	2.0
Lipolan 31	1	10.0
Mineral Oil Carnation	1	15.0
Lipamide LMWC	1	5.0
Lipocol L-4	1	5.0
Glycerine	2	5.0
Water	2	58.0
Preservative (Sorbic Acid or Potassium Sorbate)	2	q.s.
Color	2	q.s.
Perfume	3	q.s.

Procedure:

Combine Sequence 1 ingredients and heat to 75C. Combine Sequence 2 ingredients and heat to 75C. Add Sequence 1 to Sequence 2 while stirring slowly. Add Sequence 3 when cooled to 45C. Stop stirring when cooled to 40C to avoid air entrapment.

SOURCE: Lipo Chemicals Inc.: Formula No. 184

MOISTURIZING GEL

INGREDIENTS	% By Weight
Carbopol 941, 2% aq. soln. (pH adjusted to 5.0)	75.20
Schercoquat ALA, 1% aq. soln.	22.55
Schercotaine CAB-G (35%)	2.25

Procedure:

1. Prepare 1% aq. solution of Schercoquat ALA by dissolving it in hot water, approx. 80C.
2. Mix Schercoquat ALA Solution and Schercotaine CAB-G into Beaker A.
3. In a separate Beaker B, heat Carbopol 941 solution to 70-75C, while mixing.
4. Slowly add A to B while mixing. Mix until solution is homogeneous, maintaining temperature of 70-75C.
5. Cool to room temperature while stirring.

SOURCE: Scher Chemicals, Inc.: Formula 222-59

COMPACT MAKE-UP

RAW MATERIALS	% By Weight
A. IMWITOR 900	8.0
Lanolin	4.0
Beeswax, white	7.0
Paraffin	10.0
SOFTISAN 100	10.0
Stearic Acid	3.0
MIGLYOL 840	10.0
Sorbitol	5.0
MIGLYOL 812	18.0
B. Perfume	1.0
C. Ferric oxide PC 1136	0.5
Cosmetic Sienna Oxide CS-10051	0.5
Talcum	8.0
Zinc Oxide	8.0
Titanium Dioxide	8.0

Preparation:

(A) is melted and gradually added to the homogeneously mixed (C). It is then heated again and stirred until cold. (B) is then stirred in and the whole is homogenized.

Formula 2.1.1

FLUID MAKE-UP

RAW MATERIALS	% By Weight
A. IMWITOR 960	6.0
IMWITOR 900	4.0
MIGLYOL 812	7.0
MIGLYOL 840	5.0
Mineral Oil	5.0
Hostaphat KL 340N	6.0
DYNASAN 114	4.0
B. Sorbitol	5.0
Glycerin	3.0
Chlorohexidine Digluconate	0.5
Water	up to 100.0
C. Perfume	q.s.
D. Pigments:	q.s.
Titanium Dioxide	3.0%
Talcum	3.0%
Zinc Oxide	3.0%
Brown Ferric Oxide PC 1136	0.5%
Cosmetic Sienna Oxide CS 10051	0.5%

Procedure:

(A) is melted and brought to 75-80C. (B) is then mixed, heated to the same temperature and then slowly emulsified in (A). 90 g. of the emulsion are gradually added to 10 g. of the thoroughly mixed pigments and stirred. Finally (C) is stirred in and homogenized.

Formula 2.1.2

SOURCE: Huls America Inc.: Formulas

COMPACT ROUGE BASE

RAW MATERIALS	Sequence	% By Weight
Liponate IPM	1	23.21
Ganex V-220	1	10.20
Ozokerite Wax 170 MF	1	42.88
Multiwax 195 M	1	12.26
Lipovol SES-S	1	4.09
Lipovol A-S	1	6.13
Propylparaben	1	0.41
Vitamin E	1	0.82

Procedure:

Weigh Sequence 1 ingredients into a steam-jacketed kettle. Heat to 80-85C, mix well until homogeneous. Use molten to manufacture compact rouge #187 or store in receptacle which allows melting. Material is a solid at room temperature.

Formula No. 187A

PROTECTIVE EMULSION FILM

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	2.60
Carbopol 934 (2% disp'n)	1	10.00
Lipo PE Base EG-557	1	55.00
Perlatum 410CG	2	15.00
Copolymer 3225C	2	10.00
Liponate NPGC-2	2	5.00
Lipomulse 165	2	2.00
Triethanolamine 99%	3	0.20
Deionized Water	3	0.20

Procedure:

1. In main kettle, combine Sequence 1 ingredients under Lightnin' mixing and heat to 75-78C.
2. In auxiliary kettle, combine Sequence 2 ingredients under Lightnin' mixing and heat to 80C.
3. At proper temperatures, add Sequence 2 to Sequence 1 switching to sweep mixing when batch thickens. Begin cooling to 70C.
4. At 70C, add premixed Sequence 3 to batch and continue to cool under slow sweep to 25C.

Formula No. 511

SOURCE: Lipo Chemicals Inc.: Formulas

COMPLEXION TONING MASK

RAW MATERIALS	% By Weight
A. MIGLYOL 812	12.0
Aluminum Distearate	2.0
Purcellin Oil	5.0
B. Emulgade F	6.0
Cetyl Alcohol	2.0
Stearic Acid	4.0
C. Sorbitol	4.0
Algipon 578L, 2% in water	60.1
Allantoin	0.5
Soluvit	3.0
Preservative	q.s.
D. Perfume	0.4

Instead of Soluvit, the following can also be incorporated:

1. Esculin	3.0
2. Collagen	3.0
3. Witch Hazel	3.0
4. Placenta Liquid	3.0
5. Camphor (0.2g dissolved in 2.8g Ethanol)	3.0

Preparation:

(A) is stirred into (B) and both are brought to 65C. (C) is heated to the same temperature and stirred into (A + B).

Finally (D) is added.

Formula 6.2.2

COMPLEXION TONING MASK (GEL TYPE)

RAW MATERIALS	% By Weight
A. Ethanol 96%	15.0
Water	50.0
Carbopol 940	1.0
B. Water	13.1
Soluvit	3.0
Glycerin	4.0
SOFTIGEN 767	10.0
Hygroplex HHG	3.0
Triethanolamine	0.6
Allantoin	0.1
Preservative	q.s.

Instead of Soluvit, the following can be incorporated:

1. Esculin	3.0
2. Collagen	3.0
3. Witch Hazel	3.0
4. Placenta Liquid	3.0
5. Camphor (0.2g dissolved in 2.8g Ethanol)	3.0

Preparation:

(A) is mixed at room temperature. (B) is mixed at room temperature and then stirred into (A). Perfume can also be added.

Formula 6.2.3

SOURCE: Huls America Inc.: Formulas

CREAM MASCARA

RAW MATERIALS	% By Weight
A Belsil DM 350	2,00
Belsil CM 025	3,00
Cetyl Alcohol	2,00
Stearic Acid	9,90
Vaseline	5,50
Mineral Oil	4,10
B Triethanolamine	3,10
Water	61,30
Colour	9,10
Preservatives, perfume	q.s.

Mix A and heat to 60C, stir in B. Add the pigments and work in until a homogeneous mixture is formed.

Temperature stability: at 45C over 10 weeks.

Creamy soft.

Formulation 195 AH

MASCARA

RAW MATERIALS	% By Weight
A Belsil DM 350	2,00
Belsil PDM 200	4,00
Cetyl Alcohol	5,00
Stearic Acid	19,80
Petrolatum	5,50
Mineral Oil, high viscosity	4,10
B Triethanolamine	6,20
Water	43,40
C Colour	10,00
Preservatives, perfume	q.s.

Heat A to 60C, add B whilst stirring quickly. Work in C homogeneously.

Temperature stability: at 45C 8 weeks.

Firm cream.

Formulation 211 AH

SOURCE: Wacker Silicone: Formulas

CREAM ROUGE FORMULA

RAW MATERIALS	% By Weight
Part A:	
Ross Refined #1 Yellow Carnauba Wax	6.0
Ross Ozokerite Wax 77W	10.0
Mineral Oil	24.0
Isopropyl Palmitate	27.0
Part B:	
Talc	10.0
Titanium Dioxide	20.0
Color	3.0

Procedure:

Melt Part A to 70C. When cooled run together with part B on a three roll mill.

JOJOBA MOUSSE

INGREDIENTS	% By Weight
A Water D.I.	80.0
Celquist H-100	0.5
B Polawax A-31	1.5
Jojoba Oil	1.0
PVP (K-30)	1.5
C SDA-40B (Reg)	15.2
Glydant	0.2
Perfume	0.1

Manufacturing Directions:

1. Stir A till clear solution.
2. Add B and heat and stir till dissolved.
3. Cool and add C pH-4

Aerosil Fill: 85% of above concentrate
15% of A-46 Propellant

MOISTURE STICK BASE

RAW MATERIALS	% By Weight
Mineral Oil 80/90 Visc.	47.0
Ross Wax 26-1152	28.0
Ross Wax 15-1182	2.0
Ross Wax 1824	10.0
Jojoba Oil	2.0
Amerlate P	10.0
Vitamin E	1.0

Procedure:

Melt all ingredients together in a kettle to 170F under agitation. When mixed thoroughly pour into molds. Capping may be necessary.

SOURCE: Frank B. Ross Co., Inc.: *Cosmetic Formulary: Formulas*

CREAMY FROSTED EYESHADOW, CREASE RESISTANT

INGREDIENTS	% By Weight
Part A:	
Sandopan KST	10.70
Stearic Acid	5.30
Velsan P8-3	5.30
Part B:	
Water, preservatives, fragrance	Q.S.
Part C:	
Cloisonne Copper	25.00

Procedure:

Heat and melt Part A. Heat Part B. Add A to B. Cool and add Part C.

An emollient, but crease-resistant eye shadow emulsion. Silky feel and moisturizing properties.

SOURCE: Sandoz Chemicals Corp.: Formulation No. CPP-01

LONG WEARING PRESSED EYESHADOW

RAW MATERIALS	% By Weight
A. Talc, USP	48.50
Mica	15.00
Sericite	15.00
Zinc Stearate	1.50
Pigments (FD&C, D&C, Iron Oxides, Ultramarines, Titanium Dioxide)	15.00
B. TEGOSOFT 189	0.40
ABIL Wax 9801	0.30
ABIL WAX 2434	0.30
Mineral Oil	4.00
Fragrance, Preservatives	QS

Procedure:

Mix all ingredients of part A in a blender. Combine the ingredients of B part and spray or slowly add to part A using a blender. Pulverize through a screen. Press into godets.

The long wearing properties of this eyeshadow are enhanced by the pigment dispersion. The pigment dispersion is optimized by the use of Cetyl Dimethicone and Stearoxy Dimethicone. The Isostearyl Isononanoate contributes to the creamy application.

SOURCE: Goldschmidt Chemical Corp.: Formula

DEPILATORY-CREAM (O/W)

RAW MATERIALS	% By Weight
A Eumulgin B 1	2,00
Lanette N	4,00
Softisan 601	2,00
Paraffin oil low viscosity	2,00
Isopropyl myristate	1,00
B Urea	3,00
Propanediol-1,2	5,00
Water, demineralized	72,00
C Calcium thioglycollate trihydrate	7,50
Calcium hydroxide	1,50

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down to 25C while stirring. Add perfume at 40C as required. Homogenize with the roller-mill.

pH: 12,5

Formula 81-1/89

DEPILATORY-CREAM (O/W)

RAW MATERIALS	% By Weight
A Thioglycollic acid (80%)	6,00
Lithium hydroxide-monohydrate (56% LiOH)	7,90
Water, demineralized	20,00
B Hostacerin DGS	6,00
Hostacerin T 3	5,00
Stearic acid	3,00
Paraffin oil high viscosity	3,00
C Urea	4,00
Water, demineralized	45,10

Procedure:

Dilute Thioglycollic acid with the water of Phase A. Add Lithium hydroxide slowly while cooling (the temperature of the solution should not exceed 30C) and stirring. Heat phases B and C to 80C. Add phase C to phase B, cool while stirring. Add phase A at 40C. Add perfume as required. Homogenize with the roller-mill.

pH: 12,2

Formula 12-1/90

SOURCE: E. Merck, Darmstadt: Formulas

DEPILATORY-CREAM (O/W)

RAW MATERIALS	% By Weight
A Emulgade 1000 Ni	10,00
Paraffin oil high viscosity	2,00
Dow Corning 200 (100 cs)	2,00
B Glycerine	5,00
Water, demineralized	72,00
C Calcium thioglycollate trihydrate	7,50
Calcium hydroxide	1,50

Procedure:

Heat phase A and phase B to 75C. Add phase B slowly to phase A while stirring. Homogenize. Cool down to 25C while stirring. Add phase C at 40C. Add perfume as required. Homogenize with the roller-mill.

pH: 11,8

Viscosity: 26.000 mPas

SOURCE: E. Merck, Darmstadt: Formula 18-1/90

FACIAL EXFOLIATING CREAM

INGREDIENTS	% By Weight
Oil Phase:	
CERAPHYL 28	0.25
CERAPHYL 55	10.00
Shea Butter	1.00
FOAMOLE M	5.00
CERASYNT IP	3.00
CHROMA-LITE Aqua	2.25
Water Phase:	
Deionized Water	q.s.
Hydroxyethylcellulose	2.00
Premix:	
Glycerin	3.00
Propylparaben	0.20
Methylparaben	0.20
CERAPHYL GA	3.00
Phenoxyethanol	0.50
Squalane	0.05
Fragrance	0.25
Jojoba Wax (40/60)	3.00

Procedure:

1. Heat water to 85C.
2. Disperse hydroxyethylcellulose in water until clear and uniform.
3. Add paraben premix.
4. Heat oil phase to 85C and mix until uniform.
5. Add oil to water phase. Mix well with sweep blade.
6. Homogenize.
7. Cool to 40C while mixing.
8. Add remaining ingredients in order listed, mixing well between additions.

SOURCE: Van Dyk & Co., Inc.: Formula #G135-12-1

DETERGENT CLEANSING GEL

RAW MATERIALS	% By Weight
Carbomer 1342	2.00
Incronam 30	20.00
Coconut diethanolamide	2.00
Crovrol PK70	2.00
Tris Amino	to pH 6.0
Water, deionized	to 100.0
Preservatives, perfume, color	q.s.

Hydrate Carbopol in hot water (65-70C). Neutralize to pH 6.0. Add remaining ingredients (perfume predissolved in Crovrol) and stir until homogenous.

SOURCE: Angus Chemical Co.: Formula PF-0155: Suggested by B.F. Goodrich

FACIAL CLEANSER

INGREDIENTS	% By Weight
A) Distilled Water	56.95
DeSulf ES-301	30.00
Trisept M	0.20
Trisept P	0.05
Kelate 220	0.05
Tristat IU	0.30
B) Tritaine PB	8.00
C) De Mide ML-100	2.00
D) Citric Acid (50% aq. solution)	0.40
E) Fragrance E 6367	0.05
F) Tritein Milk Polypeptide	2.00

Procedure:

Weigh water and heat to 50 deg. C. Add remaining Phase A ingredients, in order, mixing after each addition. Add Phase B while mixing. When uniform, add C while mixing. When uniform add D, E and F while mixing. Mix and cool to room temperature.

SOURCE: TRI-K Industries, Inc.: Formula # MS-2-72-1

CREAM DEPILATORY

INGREDIENTS	% By Weight
Evanol	6.50
Calcium Thioglycolate	5.40
Calcium Hydroxide	7.00
Sodium Lauryl Sulfate	0.02
Sodium Silicate	3.43
Perfume	as desired
Water	q.s.

Heat the water to 75C. Stirring, add the Lauryl Sulfate, Sodium Silicate and Evanol. Continue stirring at 75C until dissolved. Remove heat and continue stirring to room temperature. Add the Calcium Hydroxide and perfume. Finally, add the Calcium Thioglycolate powder to the cream. Continue stirring until uniform. Assay for Thioglycolic Acid content of 2.7%. Package.

DRY HAND AND SKIN FORMULA

INGREDIENTS	% By Weight
Oil Phase:	
CERAPHYL ICA	1.00
CERAPHYL 41	0.30
CERAPHYL 45	1.00
CERAPHYL 28	1.00
Methylparaben	0.25
Propylparaben	0.25
Cetyl Alcohol	1.00
Caprylic/Capric Triglyceride	6.00
Petrolatum (USP)	0.50
Stearic Acid	1.00
Stearyl Alcohol	0.75
Water Phase:	
Water, Deionized	76.05
Triethanolamine, 99%	0.60
Glycerin	7.00
Premix:	
Imidazolidinyl Urea	0.30
Water, Deionized	3.00

Procedure:

1. Heat Oil Phase to 85C. Mix well.
2. Heat Water Phase to 85C. Mix well.
3. Add Oil Phase to Water Phase at 85C. Mix phases together using a sweep blade. Do not aerate.
4. Cool while mixing at 45C.
5. Homogenize at low speed. Do not aerate.
6. Cool to 35C. while homogenizing.
7. Stir in preservative premix.
8. Allow to stabilize overnight at room temperature.

SOURCE: Van Dyk & Co., Inc.: Formula #G135-29-1

MAKE UP FOUNDATION

COMPONENTS	% By Weight
Monolaurate Propyleneglycol	6,0
Glycmonos	1,2
Migliol 8,2	2,8
WFA Amerlate	1,4
G Eutanol	6,7
Carnauba Wax	0,5
L101 Amerchol	6,9
Stearine	4
Isopropyl Lanolate	1,4
Pigments and Talc	12,5
TEA	3
Veegum HV	1,4
CMC 12M 31F	0,2
Water	At 100
Antiox Antioxidant and Perfume	Sufficient quantity

SOURCE: La Ceresine: Formula

ELASTIN SKIN GEL

RAW MATERIALS	% By Weight
a) Ethanol 96% v/v	20.0
Water, distilled, preserved	50.0
Carbopol 940	0.5
Preservative	q.s.
b) Water, distilled, preserved	24.0
Triethanolamine	0.5
c) Elastin CLR	5.0

Manufacture:

- a) disperse with rapid stirring at room temperature;
 - b) and c stir into a).
- Perfume.

Model formulations 11

MOISTURE EMULSION TYPE O/W

RAW MATERIALS	% By Weight
a) Tegin	2.4
Acetulan	2.0
Cetiol V	4.5
Isopropyl palmitate	2.0
Eutanol G	1.0
Stearin	0.8
b) Water, distilled, preserved	82.3
Hygroplex HHG	5.0

Liquid preparation

Manufacture:

- a) Melt and bring to about 70C;
 - b) heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume, homogenize

Model formulations 18

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

ENRICHED CREAM CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
Water	90.25
Tegamine 18	1.50
Citric Acid Monohydrate	0.60
Methyl Paraben	0.20
Phase B:	
Tegin	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Phase C:	
Propylene Glycol	1.00
ABIL Quat 3270	0.50
ABIL B 8851	0.40
ABIL Wax 2440	0.35
Phase D:	
Propyl Paraben	0.10
Sodium Chloride (35% Sodium)	0.60
Perfume	Q.S.
Color	Q.S.

Directions:

- 1) Add ingredients of phase A in descending mix and heat material at 70C until dispersed.
- 2) Melt and mix solids of phase B separately. Disperse phase B into A with agitation.
3. Begin ambient cooling of batch. Add pre-mixed materials of phase C to reactor.
4. Add material of phase D at 40C. Homogenize. Dispense at 35C.

SOURCE: Goldschmidt Chemical Corp.: Formula

O/W-CLEANSING-MILK

RECIPE	% By Weight
A HOE S 3495	0.50
HOSTACERIN DGS	3.00
Cetyl alcohol	1.00
Mineral oil, high viscosity	15.00
Cetiol SN	8.00
Solulan 98	2.00
B HOSTACERIN PN 73*	0.20
C Water	70.00
Preservative	q.s.
D Perfume	0.30

* Alternative thickeners could also be used.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries: Formula A VI/4200

ENRICHED MAKEUP FOUNDATION

RAW MATERIALS	% By Weight
Part A.	
PHOSPHOLIPID EFA	3.00
Steareth-20	3.25
0.5% Kelzan AR in 0.1% NaCl	67.50
Pigment	15.00
Methyl Paraben	0.25
Part B.	
Steareth-2	1.75
Cetearyl Alcohol	2.50
Myristyl Myristate	3.00
Isopropyl Myristate	2.50
Dow Fluid 200/100 cs.	1.00
Propyl Paraben	0.25

Procedure:

Combine ingredients in phases A and B as shown and heat to 55C. Blend phase B into phase A with sufficient homogenization to ensure good emulsification. Stir cool to 40C., add fragrance, and package.

Comments:

This liquid foundation is enhanced by the presence of PHOSPHOLIPID EFA which may help bind pigment to skin for a longer lasting application. Further benefits include a non drying afterfeel and a reduction in epidermal water loss through the use of PHOSPHOLIPID EFA.

Formula F-571

REPLENISHING CREME RINSE

RAW MATERIALS	% By Weight
Water	87.80
Natrosol 250 HHR	0.70
Kessco Ethylene Glycol Distearate	2.00
Lanette O	2.50
MONAQUAT TG	6.70
PHOSPHOLIPID EFA	0.30

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60C and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5-5.0. Add color, fragrance and preservative as required. Continue agitation and cooling until pearl develops.

Physical Appearance: White pearled lotion
Formula F-577

SOURCE: Mona Industries, Inc.: Formulas

ESSENTIAL SKIN MOISTURIZER

RAW MATERIALS	% By Weight
Deionized water	94.5
CELLOSIZÉ POLYMER PCG-10	0.5
GLUCAM E-10	2.0
Glycerin	2.0
BioCare SA	1.0
Preservative and perfume	q.s.

Procedure:

Disperse CELLOSIZÉ POLYMER PCG-10 in water; facilitate mixing with gentle heating. When solution is clear, add GLUCAM E-10 and glycerin and cool to room temperature. Add BioCare SA and perfume below 35C.

Description:

Clear flowing gel. BIOCARE SA, a "skin-activated" complex, effectively lifts and masks wrinkles and facial lines, and provides an emollient afterfeel. This simple system provides excellent slip during rub-in, spreading to a thin, nongreasy film. GLUCAM E-10 enhances the exceptional humectant properties of the Hyaluronic Acid in BIOCARE SA. Effective as an all-day moisturizer or overnight replenisher.

Formula T61-140-1

HYDROALCOHOLIC FACIAL TONER

RAW MATERIALS	% By Weight
Deionized water	48.35
Alcohol-SD 40	48.35
Witch Hazel	2.00
Menthol, USP	0.30
BIOCARE SA	1.00
Color and preservative	q.s.

Procedure:

Dissolve menthol in water with mixing. Add remaining ingredients. Mix until clear.

Description:

Clear, cooling formula suitable for skin cleansing and freshening. BIOCARE SA, a "skin-activated" complex, effectively improves appearance and feel of skin by tightening and lifting wrinkles and facial lines resulting in a non-tacky, smooth surface.

Formula T61-127-1

SOURCE: Amerchol Corp.: BIOCARE SA: Formulas

EYE MAKE-UP REMOVER (CREAM)

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
Lanette N	4.0
MIGLYOL 812	3.0
SOFTISAN 378	7.0
Mineral Oil	7.0
Hostaphat KL 340N	0.5
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.8

EYE MAKE-UP REMOVING LOTION

RAW MATERIALS	% By Weight
A. Emulgade F	5.0
MIGLYOL 812	3.0
SOFTISAN 378	3.0
Hostaphat KL 340N	1.0
B. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Formula 1.4.9

SOURCE: Huls America Inc.: Formulas

EYE MAKE-UP REMOVING STICK

RAW MATERIALS	% By Weight
SOFTISAN 100	20.0
SOFTISAN 378	35.0
Beeswax, white	5.0
Petrolatum	15.0
MIGLYOL 812	3.0
SOFTIGEN 701	2.0
Paraffin	12.0
Mineral Oil	18.0

Preparation:

All the materials are melted down and stirred until cold into a creamy consistency and then poured out into a mold.

Formula 1.4.10

EYE MAKE-UP REMOVING PENCIL

RAW MATERIALS	% By Weight
SOFTISAN 378	45.0
SOFTIGEN 701	2.0
Petrolatum	40.0
Castor Oil	10.0
Beeswax, white	3.0
Antioxidants	q.s.
Perfume	q.s.

Preparation:

All ingredients are melted, stirred until cold into a creamy consistency and poured into a mold.

Formula 1.4.11

MAKE-UP REMOVER

RAW MATERIALS	% By Weight
A. Petrolatum	40.0
MIGLYOL 812	5.0
IMWITOR 780K	3.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.7

SOURCE: Huls America Inc.: Formulas

EYE SHADOW (TUBE)

COMPONENTS	% By Weight
Base:	
Lanolate Isopropyl	83
Cocoa Butter	at 100
Miglyol 812	9,6
White Beeswax	7,6
Ozokerite	0,7
Candelilla	7,6
Carnauba	2
Pres. and Antiox	0,4
Base	75
Talc	10,8
TiO ₂	4
Nacre	At 100

EYE SHADOW (COMPRESSED POWDER)

COMPONENTS	% By Weight
Hydrogenated Lanoline	74,1
Isopropyl Lanolate/Palmitate	19,8
Microcrystalline Wax	5
BHA	0,05
Parapropil	0,05
Base/Pigments and Nacre	20/80 - 15/85

WATERPROOF MASCARA

COMPONENTS	% By Weight
Yellow Beeswax	7
Isostearilic Alcohol	0,5
Stearine	8
Isostearic Acid	1,5
BHA	0,05
Vit E Acetate	0,05
Zinc Stearate	3
Thermites	16,5
Parpropile	0,1
Distilled Water	At 100
Carboset 525	4
TEA	3
Propylene Glycol	1,5
Paramethyl	0,15
Perfume	0,1
Ethanol	6,5
Dowicil 200	0,15

SOURCE: La Ceresine: Formulas

EYE SHADOW CREAM
WATERPROOF

RAW MATERIALS	% By Weight
Phase A:	
Dow Corning 3225C	5.0
Bentone Gel SIL	21.0
Isododecane Soltrol 100	24.0
Witconol 14	2.0
Antaron V-220	8.0
Phase B:	
Germall 115	0.2
Sodium chloride	1.0
Water	18.8
Phase C:	
Pearl pigments	20.0

Manufacturing Procedure:

Oily phase A:

Antaron V-220 is added to Solvent ID and dissolved by heating to about 50-60C. All other ingredients of the oily phase A are added and the suspension is homogenized with an Ultra Turrax.

Manufacturing of the eye shadow:

Phase A and pearl pigment are heated to 60C under stirring--then the cold aqueous phase is added and the mixture is homogenized for about 1 minute.

SOURCE: EM Pigments Division: Formula

POT EYESHADOW

INGREDIENTS	% By Weight
Mineral Oil 70/80	40.0
Petrolatum	15.0
Ross Ozokerite Wax 77W	20.0
Ross Refined Candelilla Light Flakes	4.0
Pigment Paste	20.0
Preservative	1.0

Procedure:

Grind color with oil and petrolatum in roller mill. Heat waxes until melted and add pigment paste. Maintain 85C for 30 minutes with agitation. Pour into molds.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formula

FACE CLEANSING FOAM, LECITHIN CONTENT

RAW MATERIALS	% By Weight
a) Texapon ASV	50.0
Comperlan OD	4.0
Cetiol HE	3.0
b) Water, distilled, preserved	40.5
c) Lecithin water-dispersible CLR	2.0
d) Perfume oil	0.5

Manufacture:

- a) heat to about 50C and mix;
b), c) and d) stir in.

Concentrate:

Product:	90.0%
Propellant 12/114 4060:	10.0%

Valve:

R-70 micoflex

Foam actuator:

1450-018

Model formulations 19

PLACENTA FOAM MASK, FOR APPLICATION TO AGEING SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgade F	4.0
Eumulgin B1	0.5
Eutanol G	7.0
Myritol 318	9.0
Preservative	q.s.
b) Water, distilled, preserved	74.2
c) Placentaliquid water-soluble	5.0
d) Perfume oil	0.3

Manufacture:

- a) melt and bring to about 70C;
b) heat to about 70C and stir into a).
Continue stirring until the emulsion has cooled to about 35C;
c) and d) stir in.

Concentrate:

Product:	88.0%
Propellant 12:	12.0%

Valve: AR-74 R/Neo BL

Foam Actuator: SF 66/6

Model formulations 21

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

FACE GEL, FOR APPLICATION TO GREASY AND BLEMISHED SKIN

RAW MATERIALS	% By Weight
a) Ethyl alcohol 96 vol. %	30.0
Water, distilled	50.0
Carbopol 934	1.0
b) Water, distilled	12.7
Biosulphur Powder (20% dispersion in glycerin)	5.0
Triethanolamine	0.8
c) Vitamin B Complex CLR	0.5

Manufacture:

- disperse at room temperature with rapid stirring;
 - slowly stir into a);
 - stir in slowly.
- Perfume.

Preparation of the 20% dispersion with Biosulphur Powder in glycerin: Stir 20g Biosulphur Powder into 80g glycerin and roll.

Model formulations 28

FACE MASK AS FOAM, FOR APPLICATION TO AGEING SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgator E2149	3.0
Miglyol 812	4.0
Isopropyl myristate	4.0
Vitaplant CLR oil-soluble	2.0
Preservative	q.s.
b) Water, distilled, preserved	71.5
Karion F liquid	3.0
c) Vitaplant CLR water-soluble	2.0
d) Ethyl alcohol 96 vol. %	10.0
Perfume oil	0.5

Manufacture:

- melt and bring to about 70C;
 - heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C;
- and d) stir in.

Concentrate:

Product:	88.0%
Propellant 12:	12.0%
Valve: 04-1220/05-0310/06-6010/07-1901/12-1361	
Foam actuator: 02-2094/10-2715	

Model formulations 34

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

FACE POWDER-MATTE

INGREDIENTS	Phase	% By Weight
Italian Talc	1	48.70
Mica M	1	30.00
Potato Starch	1	7.50
Methyl paraben	1	0.20
Propyl paraben	1	0.10
Iron oxides	1	5.00
Isopropyl Palmitate	3	7.50
White Petrolatum	3	0.50

FACE POWDER-SOFT LUSTRE

INGREDIENTS	Phase	% By Weight
Italian Talc	1	48.70
Mica M	1	25.00
Potato Starch	1	7.50
Methyl paraben	1	0.20
Propyl paraben	1	0.10
Iron oxides	1	5.00
Timiron MP-1005	2	5.00
Isopropyl Palmitate	3	7.50
White Petrolatum	3	0.50

Manufacturing Procedure:

Combine phase one - pulverize twice using a hammer mill through an 0.027" screen. Add pearl pigment. Blend with gentle agitation until dispersed. Combine phase 3. Heat to 60C until homogenous. Spray onto batch with continuous agitation.

SOURCE: EM Pigments Division: Formula

OVERNIGHT MOISTURE REPLENISHING CREME

RAW MATERIALS	% By Weight
I. Water	81.50
PHOSPHOLIPID SV	3.00
Steareth-20	0.20
Methyl Paraben	0.25
II. Steareth-2	1.30
Cetearyl Alcohol	4.00
Myristyl Myristate	4.00
Isopropyl Myristate	4.00
Dimethicone (100 c.s.)	1.00
Lanolin Alcohol	0.50
Propyl Paraben	0.25

SOURCE: Mona Industries, Inc.: Formula F-590

FACIAL BEAUTY LOTION

RAW MATERIALS	% By Weight
Phase A:	
PROMULGEN D	1.5
Stearic Acid, xxx	3.0
AMERCHOL L-101	5.0
ACETULAN	2.0
Cetyl Palmitate	1.0
OHLAN	0.5
Phase B:	
Carbomer 934 (3% aqueous)	10.0
Water	65.0
Phase C:	
Triethanolamine (10% aqueous)	12.0
Perfume and Preservative	q.s.

Procedure:

Heat all phases to 80C. Begin mixing at 80C phase B to phase A. Upon completion of phasing, immediately add phase C. Mix well while slowly cooling to 35C, at which time perfume may be added. Mix and cool to room temperature.

Popular type daily facial care lotion. Promulgen D, OHLAN AMERCHOL L-101 combine to yield excellent stability. Emollience derived from Amerchol L-101 and an elegant, non-greasy, velvety feel from ACETULAN.

SOURCE: Amerchol Corp.: PROMULGEN: Formula T50-73-3

PLACENTA SKIN TREATMENT

INGREDIENTS	% By Weight
Part A:	
LANETTE N	7.0
EUTANOL G	5.0
CETIOL S	2.0
Part B:	
Water	78.8
Glycerine	3.0
Part C:	
PLACENTALIQUID WATER-SOLUBLE	4.0
Dowicil 200	0.2
Fragrance	q.s.

Procedure:

1. Mix and melt Part A (60C).
2. Heat Part B and add to Part A.
3. Cool to 35C and add Part C.

Creamy white emulsion. PLACENTA LIQUID water-soluble is recommended for revitalization and regenerating aging skin.

SOURCE: Henkel: Formula HOB-154-47

FACIAL CLEANSER

INGREDIENT	% By Weight
Part A:	
Deionized Water	89.55
Cocoamphodiacetate (Miranol C2M Conc. NP)	1.00
Quaternium-15 (Dowicil 200)	0.10
Methylparaben	0.10
Propylparaben	0.05
Part B:	
Isostearyl Benzoate (Finsolv SB)	4.00
Diocetyl Maleate (Bernel Ester DOM)	2.00
Caprylic/Capric Triglyceride	1.00
Octyl Hydroxystearate (Wickenol 171)	1.00
Permulen TR-2	0.20
Carbopol 980	0.60
Part C:	
Aminomethyl Propanol (95%) (AMP-95)	0.40

This cleansing formulation is light, non-greasy and water-rinsable. It provides thorough cleansing without drying the skin.

SOURCE: Angus Chemical Co.: Formula PF-0164: Suggested by B.F. Goodrich Chemical

FACIAL CLEANSER

RAW MATERIALS	% By Weight
Water	78.0
MONAMATE LA-100	12.0
PHOSPHOTERIC QL-38	10.0

Procedure:

Add ingredients in order listed while warming to 50C. Adjust to level desired with 50% citric acid while warm. The product may require 24 hours or more to set up to a soft paste or cream consistency.

This bright white non-greasy cleanser has the consistency of whipped cream. Its very mild, high foaming lather cleans completely and leaves the skin with a soft talc feel. It can be used as is or enhanced by addition of emollients.

SOURCE: Mona Industries, Inc.: Formula C-259

FACIAL GEL

RAW MATERIALS	% By Weight
Water	50.0
Sipon ES-2	30.0
PHOSPHOTERIC QL-38	20.0

Procedure:

Add ingredients in order listed with agitation. Adjust pH to 6.0. Add color, fragrance and preservative as required.

This formulation gently cleanses while leaving a soft talc like after feel to skin.

Formula F-483

NIGHT TIME MOISTURIZER

RAW MATERIALS	% By Weight
I. PHOSPHOLIPID EFA	4.00
Carbowax 1450	2.00
Glycerine	2.00
Water	73.00
II. Brij 72	2.50
Lanette O	4.00
Myristyl Myristate	4.00
Cutina CP	4.00
Isopropyl Palmitate	3.00
Dimethicone 100 c.s.	1.50

Procedure:

Combine ingredients for (I) and (II) separately and heat to 65C. Homogenize (II) into (I) with continued heating until sufficiently mixed. Stir-cool to 45C. Add fragrance, color, preservative and pack.

This creme is designed specifically for use in the facial area after washing or bathing. The combination of humectants and emollients together with the skin conditioning of the PHOSPHOLIPID EFA provides a powerful barrier to drying while enhancing skin feel.

Formula F-495

SOURCE: Mona Industries, Inc.: Formulas

FACIAL MOISTURIZER

INGREDIENTS	% By Weight
A. Deionized Water	77.9
Carbomer 940	0.5
Sorbitol	1.0
Methylparaben	0.2
B. Polysorbate 80	1.5
Glyceryl Stearate and PEG 100 Stearate	3.0
Cottonseed Oil	8.0
Stearyl Alcohol	1.0
Triethanolamine	0.5
C. DERMATEIN GSL	5.0
D. Dimethicone	1.0
Diazolidinyl Urea	0.3
Fragrance	0.1

Procedure:

Begin heating water to 80C; sift Carbomer into water with constant agitation; mix until clear. Add rest of Part A. Mix well. Add part B ingredients in order. Mix until homogeneous. Begin cooling to room temperature. Slowly add DERMATEIN GSL; mix until smooth. Add rest of Part D ingredients. Mix until uniform.

Description:

This light, facial lotion demonstrates how DERMATEIN GSL replenishes the lipid lost from dry skin. DERMATEIN GSL rejuvenates skin by increasing the skin's ability to bind moisture.

SOURCE: Geo. A. Hormel & Co.: Formula 621-26

HAND AND BODY MOISTURIZER

MATERIALS	% By Weight
Phase A:	
Drakeol-10	7.00
Estol EHP 1543	2.00
Pristerine 4904	3.50
Estol 1462	3.00
Myrj 52	1.00
Abil B8852	1.00
Lanolin Oil	0.20
Phase B:	
Deionized Water	76.60
Triethanolamine	1.30
Pricerine 9083	2.00
DERMACRYL-79	1.00
Phase C: Carbopol 934	0.20
Phase D: Germaben IIE	1.00
Phase E: Fragrance Q4696	0.20

SOURCE: National Starch and Chemical Co.: DERMACRYL-79:
Formula 6238-118B

FACIAL SCRUB, WATER-FREE

RAW MATERIALS	% By Weight
A. MIGLYOL 812	66.0
IMWITOR 780K	5.0
Teginacid	3.4
Texapon L 100	1.5
Mineral Oil	2.5
Preservative	q.s.
B. Zinc peroxide	1.05
Potato Starch	5.0
Almond Bran	5.0
C. Aerosil 200	4.0
Syloid 244	6.0
Perfume Oil	q.s.

Preparation:

(A) is melted. (B) is gradually stirred into (A) with the high-speed mixer. Finally (C) is slowly added while stirring.

Formula 1.5.13

HERBAL AEROSOL FACIAL MASK

RAW MATERIALS	% By Weight
A. Emulgator E 2149	3.0
MIGLYOL 812	10.0
Arkopal N 100	1.0
B. Tego Betain L7	2.0
Sorbitol (70%)	3.0
Allantoin	0.2
Orotic Acid, anhydrous	0.2
Extract of herbs	2.0
Water	78.6
Preservative	q.s.
C. Perfume	q.s.

Preparation:

(A) and (B) are brought to 70C. (B) is emulsified into (A) and (C) is added to the emulsion, while stirring continuously until cool.

Filling: Emulsion: 85 parts
Gas 12/114 (40:60): 15 parts

Formula 6.2.6

SOURCE: Huls America Inc.: Formulas

FACIAL TONER

RAW MATERIALS	% By Weight
Cremophor NP 10	0.5
Cremophor NP 14	0.5
(-)-alpha-Bisabolol	0.2
Perfume	0.1
D-Panthenol USP	0.5
Ethanol	15.0
Water	83.2
Formulation 1	

FACIAL TONER

RAW MATERIALS	% By Weight
Cremophor NP 10	0.75
Cremophor NP 14	0.75
Hamamelis Extract	2.00
(-)-alpha-Bisabolol	0.20
Perfume	0.10
D-Panthenol USP	0.50
Water	95.70
Formulation 2	

SOURCE: BASF Corp.: D-Panthenol: Formulations 1 and 2

TONER (DRY/EXTRA DRY SKIN)

RAW MATERIALS	% By Weight
Purified Water	84.05
Witch Hazel-nonalcoholic	5.00
Aluminum Chlorohydrate 50% sol'n	5.00
Liponic EG-1	3.00
Liponic 70-NC	2.00
Allantoin	0.15
Lipocol L-23	0.50
Perfume	----
BTC-50	0.05
Unicide U-13	0.10
Methylparaben	0.15
F.D.C. Blue #1 (0.1% aq. sol'n)	0.05 mls per kilo

SOURCE: Lipo Chemicals Inc.: No. 141

FACIAL TONER FOR OILY SKIN

INGREDIENTS	% By Weight
A Ethylalcohol (96Vol.%) denatured	10,000
Perfume Oil	0,100
Cremophor RH 455	0,500
B Demineralized Water	78,600
Potassium sorbate	0,300
Cremogen M-82 730 337	5,000
1,2-Propylene glycol	5,000
D-Panthenol	0,500

Manufacturing Process:

Part A: Dissolve perfume oil and Cremophor RH 455 in the ethyl alcohol.

Part B: Dissolve all ingredients in water and add to part A while stirring.

Allow to store the facial toner for 2-4 weeks at low temperatures (approx. 5-10C). Then filter the facial lotion with fine clarifying sheets at this temperature.

Remark: Without any colour dye:

the yellow-brownish colouring of the facial toner depends on the native colouring of the plant extract.

SOURCE: Haarman & Reimer GmbH: Formula K 4/2-51602/E

BLUSH

COMPONENTS	% By Weight
Lanoline	20
Vaseline	25
G Eutanol	20
Microcrystalline Wax	15
Ozokerite	10
Talc	10
Pigments	at 100
Perfume	0,2
Antiox Antioxidant	Sufficient quantity

SOURCE: La Ceresine: Formula

FLUID MAKE-UP

RAW MATERIALS	% By Weight
I	
HYDROLACTOL 70	12,00
Cetyl Alcohol	2,00
M.O.D. WL 2949	3,00
D.P.P.G.	4,00
Mineral Oil	4,00
A (Brown Pigments (CI 77492-77491-77490) (LABRAFIL Isostearique	1,15 0,50
B (Yellow Pigment (CI 77401) (LABRAFIL Isostearique	0,35 0,20
C (Lipophilic Titanium Dioxide (LABRAFIL Isostearique	4,50 1,00
II	
Demineralized Water	60,00
Blanose CMC 7 LFD	1,00
Veegum HV	1,00
Preservative	Q.S.
S.A.B.	5,00
Perfume	0,30

Preparation:

In a first step, prepare A, B and C by using a three-rolls mill (3 times)

Disperse the BLANOSE and the Veegum in demineralized water. Heat I and II up to 75C and mix well the dispersion of pigments in I by using a high speed stirrer.

Pour II at 75C into I at 75C. Stir using normal conditions.

Cool down and around 30C, add the other components. Mix well until homogeneous.

SOURCE: Gattefosse: Formula MM 3226

WATERPROOF MAKE-UP

RAW MATERIALS	% By Weight
A. Silicone Oil AR 200	30.0
Stearic Acid	7.0
Cetyl Alcohol	2.0
SOFTIGEN 767	4.0
B. Water	up to 100.0
Preservative	q.s.
C. Triethanolamine	0.6
D. Pigments	
Zinc oxide	3.0%
Talcum	3.0%
Titanium dioxide	3.0%
Iron oxide brown PC 1218	0.5%
Cosmetic Sienna Oxide	0.5%
CS-10051	
E. Perfume	q.s.

SOURCE: Huls America Inc.: Formula 2.1.3

FOUNDATION MAKE-UP

INGREDIENTS	% By Weight
Part A:	
CARNATION light mineral oil	12.28
PROMYR isopropyl myristate	3.93
EMEREST 2400 glyceryl stearate	3.93
NEO-FAT 18-55 stearic acid	3.93
Propyl PARASEPT propylparaben	0.10
Part B:	
Water, deionized	63.85
Propylene glycol	4.91
Triethanolamine (TEA)	1.47
KELTROL T xanthan gum	0.49
Methyl PARASEPT methylparaben	0.20
Part C:	
Pigment blend	4.91

Procedure:

- Mix together all ingredients of Part A and heat to 70-75C (160-170F).
- Using a high-shear mixer, hydrate KELTROL T in the water. This requires at least 10 minutes of mixing. While mixing, add the remaining Part B ingredients.
- Heat to 70-75C (160-170F).
- Add Part B to Part A while mixing.
- Add Part C and continue mixing until homogeneous.

In this formulation, KELTROL T xanthan gum exhibits the excellent suspending and emulsion stabilizing properties.

SOURCE: Kelco Division: Product Formulation SS-4787

EYE-LINER(W/O-EMULSION)

COMPOSITION	% By Weight
Oil phase:	
Dow Corning 3225C	6
Dow Corning 344	10
Bentone GEL SIL	15
Soltrol 130	18
Witconol 14	3
Ganex V-220	2-3
Aqueous phase:	
Germall 115	0.2
MgSO ₄ 7H ₂ O	0.7
Water	ad 100.0
Pearl pigment	20.0

SOURCE: EM Pigments Division: Formula

FULL BODY SCRUB

RAW MATERIALS	% By Weight
1. A-C 617	2.0
2. Stearic Acid	0.5
3. Lanolin Oil	6.0
4. Isopropyl Palmitate	12.5
5. Sorbitan Monostearate	1.3
6. Polyoxyethylene 20 Sorbitan Monostearate	1.8
7. Sorbitol (70%)	5.0
8. Carbomer 940	0.3
9. Diazolidinyl Urea	0.8
10. Water	69.6
11. Triethanolamine (TEA)	0.2
12. Perfume	Q.S.
13. ACUSCRUB 50 or 51	10 Parts

Procedure:

Weigh 1-6 and heat to 90C. Then weigh 7-10 and heat with agitation using homomixer to 85C. Combine 1-10 and mix well. Then add TEA and shear until cream is very smooth. Cool to 55C and add perfume and ACUSCRUB 50 or 51 with slow agitation.

HAND SCRUB

RAW MATERIALS	% By Weight
Sodium C14-16 Olefin Sulfonate (40%)	30.00
Cocamidopropylbetaine	6.70
Cocamide DEA	2.00
Glycol Stearate	1.00
Ammonium Chloride	2.50
Citric Acid	qs to pH 6.0
Methylparaben	0.15
Propylparaben	0.05
Water	qs to 100
ACUSCRUB 50	5.00

Procedure:

Heat water to 70C. Slowly add all ingredients, except ACUSCRUB 50 and mix until homogeneous. Cool to 55C. Mix and add ACUSCRUB 50.

SOURCE: Allied-Signal Inc.: ACUSCRUB Mild Abrasive: Formulas

GEL FACIAL CLEANSER

RAW MATERIALS	% By Weight
Water	52.1
Methyl Paraben	0.2
MONAMATE OPA-30	16.7
MONATERIC CSH-32	16.7
MONATERIC ISA-35	14.3

15.6% active

Mixing Procedure:

Add ingredients in the order listed while warming to 50C, using slow agitation. Adjust pH while hot with phosphoric acid and pack warm. At pH 6.0 viscosity is approximately 35,000 cps.

This is non-irritating to eyes and skin, offers excellent rinseability and leaves skin soft and smooth.

MILD CONDITIONING FACIAL CLEANSER

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (1 mole EO) (25% active)	28.0
MONAMATE C-1142	12.5
MONAMID 1089	3.0
MONAQUAT P-TC	2.5
Cerasynt IP	1.5
Preservative	0.3
Water	52.2

Procedure:

Mix all ingredients into water stirring between additions. Heat while mixing to melt the solid materials (approx. 70C). Cool with stirring. At <40C add perfume and colors. Adjust pH to 5.0-6.0.

Properties:

Appearance (25C): Pearled liquid

Nominal Activity: 17%

In this formulation, MONAMATE C-1142 provides mild, effective cleansing while MONAQUAT P-TC softens and conditions the skin.

SOURCE: Mona Industries, Inc.: Formulations

GENTLE MAKEUP REMOVER WITH NATURAL INGREDIENTS

INGREDIENT	% By Weight
Deionized Water	56.8650
Carbomer 940	0.2000
Tensami 1/05 AMI	1.0000
Amigel, 2% Aq. Soln.	25.0000
Tri-Sept M	0.2000
Tristat IU	0.2000
Tensami 8/09	10.0000
Demaquillant 687 LS	3.0000
Jojoba Oil	3.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Allerderm No. M-3012	0.2000
Triethanolamine 99%	0.2200

Procedure:

Disperse the Carbomer in water in main tank while heating to 75C.

Add the Tensami 1/05, Amigel Solution, and Methylparaben with prop agitation.

Mix the Tensami 8/09, Jojoba, Vitamin E, and Propylparaben at 75C.

Add the oil phase to the main tank with prop agitation and mix until uniform.

Switch to sweep agitation and begin cooling to 50C.

Add the TEA and Tristat IU while cooling to 50C.

Continue cooling; add perfume and Blend 687 LS at 45C.

Cool to room temperature.

A gentle makeup remover based on plant extracts, natural emulsifiers and natural oils.

SOURCE: TRI-K Industries, Inc.: Formula #AMI.001.A

MAKE-UP REMOVER LOTION

RAW MATERIALS	% By Weight
I. TEFOSE 2000	7,00
Cetyl Alcohol	2,00
Isostearate D'isostearyle	8,00
M.O.D. WL 2949	5,00
II. Demineralized Water	77,50
Carbopol 941	0,10
Triethanolamine 99% (50% solution)	0,20
Preservative	Q.S.
Perfume	0,20

SOURCE: Gattefosse: Formula MM 3360

HANDS, FACE, AND BODY NOURISHER

RAW MATERIALS	% By Weight
A VEEGUM	1.25
Water	49.60
Sodium borate	0.15
B Sorbitol, 70% Soln.	21.60
Arlacel 186	2.40
Marcol 130	14.50
Petrolatum	5.00
Nimlesterol D	2.50
Waxenol 821 S.B.	3.00
Preservative	q.s.

Procedure:

Add VEEGUM to the water slowly, agitating at maximum available shear until smooth. Add sodium borate slowly with mixing until uniform. Heat to 70C. Heat B to 75C. Add A to B and mix until smooth and uniform.

Formula No. 379

ULTRA RICH HAND AND BODY NOURISHER

INGREDIENT	% By Weight
A VEEGUM Ultra	1.50
Deionized Water	79.00
B Glycerin	3.00
Aloe Vera Gel	2.00
C LIPACIDE PCO	1.00
Cetyl Esters	1.00
Glyceryl Stearate SE	2.50
Isopropyl Palmitate	5.00
Sorbitan Palmitate	2.25
Polysorbate 40	2.75
D Preservative, Fragrance	q.s.

Procedure:

Heat the water to 55C. Add VEEGUM Ultra slowly while mixing at 500 rpm with a propeller stirrer. Increase mixer to 1500-1700 rpm and mix for 30 minutes while maintaining temperature at 55C. Add B to A and mix until uniform. Heat C to 60C and add to (A and B). Mix (A, B and C) for 30 minutes. Avoid air entrapment. Slow mixer to 1000 rpm and mix while cooling to 35C. Add D and mix until uniform. Package.

Features:

It features the "dry touch" application properties. Anti-irritant. VEEGUM Ultra whitens and brightens this cosmetic formula.

Formula No. 447

SOURCE: R.T. Vanderbilt Co., Inc.: Formulas

HERB/VITAMIN SKIN OIL

RAW MATERIALS	% By Weight
Vegetable oil	32.0
Avocado Oil CLR	10.0
Wheat Germ Oil CLR	4.0
St. John's Wort Oil CLR	4.0
Carrot Oil CLR	5.0
Isopropyl myristate	45.0
Antioxidant	q.s.

Manufacture:

Mix at room temperature in the order given.
Perfume.

Model formulations 25

SKIN-FUNCTION OIL AS SPRAY, VITAMIN CONTENT

RAW MATERIALS	% By Weight
Vegetable oil	60.0
Isopropyl palmitate	32.0
Wheat Germ Oil CLR	6.0
Epidermin in Oil	1.0
Antioxidant	q.s.
Perfume oil	1.0

Manufacture:

Mix at room temperature in the order given.

Concentrate:

Product:	40.0%
Propellant 11/12 5050:	60.0%
Valve: R-70 gold-lacquered	
Actuator: 130-013/015	

Model formulations 35

SKIN OIL, FOR APPLICATION TO AGEING SKIN

RAW MATERIALS	% By Weight
Miglyol 812	50.0
Wheat Germ Oil CLR	3.0
Peroestron in Oil	1.0
Placentaliquid oil-soluble	3.0
Isopropyl myristate	43.0
Antioxidant	q.s.

Manufacture:

Mix at room temperature in the order given.

Model formulations 20

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

LIPOSOME EYE TREATMENT

RAW MATERIALS	% By Weight
Dermasome RP	3.0
Dermasome TRF	3.0
Carbopol 1342	0.5
Finsolv TN	2.0
Glycerine	2.0
Brookswax D	1.0
AMP-95	0.4
Germaben 2	1.0
Fragrance	0.1
Water	87.0

Procedure:

Disperse Carbopol. Heat to 70C, add Brookswax and Finsolv, Glycerine, Germaben. Neutralize. Cool to 40C. Add fragrance and Dermasomes with gentle agitation.

SOURCE: Angus Chemical Co.: Formula PF-0154 suggested by ChemMark Development, Inc.

MOISTURIZING SKIN MILK

RAW MATERIALS	% By Weight
POLYSYNLANE	6.0
I.P.M.	4.0
Lanolin Wax	1.0
Stearic Acid	2.5
Cetanol	0.5
Glyceryl Mono Stearate	1.0
PEG-200 Mono Stearate	1.5
Solulan 16	1.0
Triethanolamine	0.3
Propylene Glycol	6.0
Perfume & Preservatives	q.s.
Water	ad 100.0

SOURCE: Polyether Corp.: Formula

SKIN OIL

SUBSTANCE	% By Weight
PCL-liquid 2/066210	10.0
Isopropyl myristate 2/044111	30.0
Extrapone VC Special 2/032431	1.0
Paraffin oil 5E	58.5
Perfume oil	0.5

SOURCE: Dragoco, Inc.: Suggested Formulation No. VKM 192/42

LIQUID EYELINER

INGREDIENTS	% By Weight
Phase A:	
Deionized Water	84.00
Xanthan Gum	1.00
Phase B:	
Propylene Glycol	2.00
Phase D:	
Iron Oxide	10.00
Phase E:	
Germaben II	1.00
Phase F:	
Titanium Dioxide	2.00

Formula 6460-114B

LIQUID EYELINER

INGREDIENTS	% By Weight
Phase A:	
Deionized Water	82.00
Xanthan Gum	1.00
Phase B:	
Propylene Glycol	2.00
Phase C:	
PVP/Eicosene Copolyol	2.00
Phase D:	
Iron Oxide	10.00
Phase E:	
Germaben II	1.00
Phase F:	
Titanium Dioxide	2.00

Formula 6470-114B

LIQUID EYELINER

INGREDIENTS	% By Weight
Phase A:	
Deionized Water	81.25
Xanthan Gum	1.00
Phase B:	
Propylene Glycol	2.00
Triethanolamine	0.75
Phase C:	
DERMACRYL-79	2.00
Phase D:	
Iron Oxide	10.00
Phase E:	
Germaben II	1.00
Phase F:	
Titanium Dioxide	2.00

SOURCE: National Starch & Chemical Corp.: DERMACRYL-79

LIQUID MAKEUP

RAW MATERIALS	% By Weight
A. Water, Deionized	71.70
Veegum, Regular	0.50
CMC-7LF	1.00
B. Titanium Dioxide 3328	4.40
Cosmetic Brown 7061	0.35
Pur Oxy Brown 3180	0.35
Brown Extender 7147	0.90
Methyl Paraben	0.20
Propyl Paraben	0.10
C. Schercemol MM	2.00
Schercemol PGMS	2.50
Arlacel 165	2.00
Propylene Glycol	7.00
Schercemol DID	7.00
D. Fragrance	q.s.

Procedure:

1. Prepare phase A by sifting Veegum and CMC in water using high speed homogenizer.
2. Add ingredients of phase "B" one at a time. Continue to homogenize for 2 hours until a fine slurry is obtained.
3. Prepare phase "C" by melting the solids at 75C.
4. Cool batch to 55C. Add fragrance and continue to cool to 35C.

SOURCE: Scher Chemicals, Inc.: Formula

LIQUID MAKEUP

RAW MATERIALS	% By Weight
A. Gelwhite GP	1.2
Keltrol	0.2
Propylene Glycol	3.0
Triethanolamine	1.0
Water	58.4
B. Iron Oxides	1.2
Talc	3.0
Titanium Dioxide	6.0
C. Mineral Oil, Light	10.0
Isopropyl Palmitate	5.0
Nimlesterol D	5.0
Oleic Acid	6.0
Preservatives	q.s.

Procedure: Slowly add Gelwhite CP to the water while agitating at maximum available shear. Add Keltrol slowly and mix at moderate speed until smooth. Add the propylene glycol and triethanolamine while mixing with medium shear. Blend B and grind in mortar with a portion of A until well mixed. Combine the remainder of A while mixing and heat to 60C. Combine C and heat to 65C. Add C to A/B, mixing at minimum speed until smooth and uniform. Continue slow mixing until temperature drops to 30C. Add desired preservatives with slow stirring until smooth and uniform.

SOURCE: Southern Clay Products: Formula

LIQUIFYING CREAM MAKEUP REMOVER

RAW MATERIALS	% By Weight
Penreco Mineral Oil #9	51.08
Petrolatum Alba	32.8
Rosswax 60-0254	9.1
Ross Ceresine Wax 1160/7	7.0
Beta Carotene 30%	0.02
Fragrance	q.s.
Preservative	q.s.

Procedure:

Melt ingredients one thru four in a steam jacketed kettle to 170F with good agitation. When fully mixed cool, add the rest of the ingredients and pack at about 130F.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

MAKE-UP REMOVER

RAW MATERIALS	% By Weight
MACKANATE CP	35.0
MACKANATE UM	5.0
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

COMPACT MAKE-UP

RAW MATERIALS	% By Weight
A. SOFTISAN 100	10.0
IMWITOR 900	8.0
MIGLYLOL 812	18.0
MIGLYOL 840	10.0
SOFTISAN 649	4.0
Beeswax	7.0
Paraffin	9.68
Stearic Acid	3.0
Sorbitol	5.0
Oxydex 2004	0.02
B. Perfume 10 776	0.3
C. Iron Oxide PC 1136	0.5
Pure Oxy Siena 3179	0.5
Talc	8.0
Titanium Dioxide	8.0
Zinc Oxide	8.0

SOURCE: Huls America Inc.: Formula 2.1.1A

LONG WEARING CREAMY LIPSTICK

RAW MATERIALS	% By Weight
A. Castor Oil	50.05
TEGOSOFT 189	3.00
ABIL Wax 9801	1.00
Mineral Oil	9.00
Candelilla Wax	4.35
Carnauba Wax	3.00
Ozokerite	3.00
ABIL Wax 9810	3.15
ABIL Wax 2440	2.00
Lanolin Alcohol	3.00
BHA	0.05
B. Pigments	3.00
ABIL Wax 9801	0.40
Castor Oil	4.00
C. Titanium Dioxide (and) Mica	11.00
D. Fragrance	QS

Procedure:

Melt part A together at 80C. Mix. Grind the pigments of part B into the oils and waxes of part B using a triple roll mill. Add to part A. Mix at 80C. Add part C. Cool to 55C. Add fragrance. Mold.

The long wearing characteristics of this lipstick are enhanced by the use of Cetyl Dimethicone in the pigment grind. The Behen-oxy Dimethicone contributes both to gloss and to the creamy texture. The C24-28 Alkyl Dimethicone contributes gloss and structure to the stick. The Isostearyl Isononanoate provides slip and emolliency.

SOURCE: Goldschmidt Chemical Corp.: Formula

ABRASIVE FACIAL SCRUB LOTION

RAW MATERIALS	% By Weight
Part A:	
MIRATAINE ODMB-35	7.0
MIRANOL MHT	30.0
Propylene Glycol	2.0
Citric Acid	0.65
Water	47.2
Part B:	
Cetyl Alcohol	3.0
Polytex 10	3.0
Part C:	
Microthene MN-772	7.15

Procedure:

Heat Part A and Part B to 60C. While stirring, add Part B to Part A. Continue stirring and allow to cool. At 45-50C, add Part C. Continue agitation until product reaches room temperature.

Solids: 28.8%

SOURCE: Miranol Inc.: MIRANOL Products: Formula

LOW IRRITATION FACIAL CLEANSER/MAKE-UP REMOVER

INGREDIENTS	% By Weight
Water	69.85
TEXAPON ASV	15.00
APG-600	8.00
VELVETEX CDC	5.00
Sodium Chloride	2.00
Kathon CG	0.05
Fragrance V-5439	0.10

Procedure:

Charge kettle with water. Add the other ingredients, in the order listed, under agitation. (Note: Pre-heat APG-600 to 40-45C under agitation). Adjust pH to 6.0±0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

APG-600 boosts performance of extra mild surfactants while maintaining or decreasing irritation potential.

SOURCE: Henkel: Product Information APG: Formula H-4978

LOW IRRITATION FACIAL CLEANSER/MAKE-UP REMOVER

INGREDIENT	% By Weight
Texapon ASV	15.0
APG-600 SP	8.0
Velvetex CDC	5.0
Citric Acid	to pH 5.5-6.0
Water	Balance

Comment:

APG-600 SP boosts performance of extra-mild surfactants while maintaining or decreasing irritation potential.

A 12% total actives mixture (50:50) of Texapon ASV and APG-600 SP exhibited a 24 hour Draize Eye Score of only 3.3.

CLEANSING TOWELETTE

INGREDIENT	% By Weight
Standapol SH-124-3	5.0
APG-600 SP	3.0
Cetiol HE	0.5
Citric Acid	to pH 6.0-6.5
Water	Balance

Comment:

An easy to formulate product that can be applied to towelettes via dipping or spraying.

SOURCE: Henkel: Use of APG Surfactants: Formulas

LUXURIOUS MAKEUP (W/O)

RAW MATERIALS	% By Weight
A Veegum	1.2
Water	37.9
Magnesium Sulfate	0.4
B Talc	5.5
Kaolin	1.5
Titanium Dioxide	5.0
Iron Oxides	3.0
C. Mineral Oil Light	15.0
POLYSYNLANE	8.0
Ritachol	8.0
Lanapene	7.0
70% Sorbitol Solution	5.0
Witcamide 511	1.5
Preservatives	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continually until smooth. Grind B and add to A, mixing until uniform. Add A and B to C and mix until smooth and uniform.

An economical, cold process W/O emulsion. An elegant moisturizing makeup for dry skin. No color streaking or settling. The makeup spreads smoothly with a rich, non-greasy feel, leaving a uniform pigment film plus the effective emollients and moisturizers of the external phase. This formula would be a suitable base for a line of luxurious makeups for the mature woman with dry skin problems.

SOURCE: Polyether Corp.: Formula

COMPACT CREAM MAKE UP

COMPOSITION	% By Weight
Syncrowax HGLC	12.0
Syncrowax HRC	3.0
Miglyol 812	7.0
Crodamol PMP	44.8
Stearic acid	3.0
Talc	15.0
Titanium dioxide	2.5
Pearl lustre pigment	12.5
Fragrance	0.2

SOURCE: EM Pigments Division: Formula

MAKE-UP FOUNDATION WITH SILICONE OIL 2

RAW MATERIALS	% By Weight
A. DYNASAN 114	5.0
DYNACERIN 660	5.0
IMWITOR 900	4.0
IMWITOR 370	4.0
MIGLYOL 818	3.0
MIGLYOL 840	3.0
Volatile Silicone 344	4.0
B. Hygroplex HHG	5.0
Hostacerin PN 73-Gel 1%	12.0
Preservative	q.s.
Water	up to 100.0
C. Talcum	2.0
Zinc oxide	2.0
Titanium dioxide	2.0
Sicomet Brown 70	0.9
Sicomet Brown 75	0.1
D. Perfume Silky	0.2

Preparation of Hostacerin-Gel:

Hostacerin PN 73	1.0%
Water	up to 100.0%

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (B) is slowly emulsified into (A). The pigments are pulverized, and then the cream is stirred into the pigments a little at a time. Perfuming is done below 40C.

SOURCE: Huls America Inc.: Formula 2.1G

MOISTURIZING MAKE-UP FOUNDATION

RAW MATERIALS	% By Weight
Part A:	
PHOSPHOLIPID EFA	3.00
0.5% Kelzan AR in 1.0% NaCl	72.50
Pigment	15.00
Steareth-20	1.60
Methyl Paraben	0.25
Part B:	
Isopropyl Myristate	2.00
Hexyl Laurate	2.00
Steareth-2	2.40
Dimethylpolysiloxane (200 cS)	1.00
Propyl Paraben	0.25

An elegant product containing PHOSPHOLIPID EFA which provides smooth feel and coverage while eliminating the normal drying effects of cosmetic pigments on skin.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID EFA: Formula

MASCARA

RAW MATERIALS	% By Weight
A. Veegum	2.0
Tylose CB 30 000	0.1
1,2-Propyleneglycol	1.5
Water	68.0
Preservative	q.s.
B. MIGLYOL 812	2.0
Pigments	4.0
C. Beeswax, white	3.5
IMWITOR 191	2.0
Carnauba wax	5.0
Stearic acid	1.0
Arlatone T	2.0
D. Morpholine	0.4
Colophony	1.5
Luviskol VA64	2.0
Ethanol 96%	5.0
Perfume	q.s.

Preparation:

(A) is mixed and heated to about 60C. (B) is mixed, (C) is added to (B), and both phases are heated to about 60C. (B+C) is stirred into (A). (D) is dissolved and added at about 30C.

SOURCE: Huls America Inc.: Formula 2.3.1

MASCARA

RAW MATERIALS	% By Weight
I. APIFIL	8,00
COMPRITOL 888 ATO	1,50
Castor Oil	2,00
II. Demineralized Water	53,60
Carbopol 934	0,30
Triethanolamine 99% (50% Sol.)	0,60
Preservative	Q.S.
III. Iron Oxyde Black N 16 (CI 77499)	7,00
Talcum	10,00
LABRAFIL Isostearique	10,00
Copolymer 845	7,00

Preparation:

Disperse the Carbopol in demineralized water. Let stand.

Heat I and II at 75C.

Under stirring, pour II at 75C into I at 75C. Add the T.E.A. solution and preservative.

Maintain stirring while cooling.

At about 30-35C, add III and the Copolymer. Maintain stirring until homogenous. (Part III will be prepared using a three rolls mill - 3 times).

SOURCE: Gattefosse: Formula MM 3448

MASCARA

RAW MATERIALS	% By Weight
A Belsil SDM 6022	5,00
B Belsil PDM 200	4,00
Cetyl Alcohol	5,00
Stearic Acid	19,00
Petrolatum	5,50
Mineral oil, high viscosity	4,10
C Triethanolamine	6,00
Water	41,40
Colour	10,00
Preservatives, perfume	q.s.

Melt A at 60C, mix in B whilst stirring quickly. Work in C homogeneously.

Temperature stability: at 45C over 10 weeks.

Firm cream.

SOURCE: Wacker Silicone: Formulation 212 AH

EYE MASCARA

RAW MATERIALS	% By Weight
1. A-C 617	12.0
2. A-C 540	2.0
3. Mineral Spirits	68.0
4. Dihydroabietyl Alcohol	5.0
5. Candelilla Wax	2.4
6. Aluminum Stearate	0.5
7. Butyl Parahydroxy Benzoate	0.1
8. Iron Oxide	10.0

Procedure:

Mix 1-5 and heat with agitation until all solid waxes have dissolved. Then sprinkle with stirring 6 and 7; when all is dissolved, add 8 and shear with homomixer or grind in with 3 roll mill.

SOURCE: Allied-Signal Inc.: Personal Care Products: Formula

MASCARA

COMPONENTS		% By Weight
Fischer Trops Wax N1		7,5
Fischer Trops Wax N2		4,5
Methyl Abietate		2
Glyceril Monostearate	85C	6
Stearine		4
Castor Oil		4
BHA		0,05
Para Oxibenzoate Mixing		0,2
Dem Water		At 100
Germall 115		0,15
Polyvivilic Alcohol (at 10% in water)	80C	32
Propyleneglycol		2
TEA (at 20% in water)		6
Black Iron Oxide		12
Perfume		0,2
Bronopol		0,3

A part of the waxes can be replaced by microcrystalline wax.

SOLID MASCARA

COMPONENTS		% By Weight
1-Base:		
Carnauba		5,6
Candelilla		15
Beeswax		15
Stearine		9,1
Microcrystalline Wax		9,1
TEA		11,3
Eutanol G		15,1
Preservative Agents		0,4
Perfume		0,4
2-Pigments:		19
Iron and Titane Oxide Mixing		

SOURCE: La Ceresine: Formulas

MASCARA

RAW MATERIALS	% By Weight
A. Gelwhite GP	1.5
CMC 7LF	0.2
Water	28.3
Sorbitol, 70%	5.0
Solulan 98	2.5
Propylene Glycol	5.0
B. Talc	4.0
Iron Oxides	3.5
C. Deodorized Kerosene	35.0
Carnauba Wax, yellow No. 1	5.0
Candelilla Wax, synthetic	7.0
Arlacel 186	3.0
Preservatives	q.s.

Procedure:

Slowly add Gelwhite GP to the water while mixing at maximum available shear. Add the CMC 7LF and mix at moderate speed until smooth. Add the sorbitol, Solulan 98 and propylene glycol in order and mix until smooth. Blend B and grind in mortar with a portion of A until well mixed. Combine with the remainder of A and mix until smooth and uniform. Combine C and heat to 70C. Heat A/B to 75C and add to C with slow speed mixing. Continue mixing until temperature cools to 30C. Add desired preservatives and mix until smooth and uniform.

SOURCE: Southern Clay Products: GELWHITE Formulary II: Formula

WATERPROOF/SMUDGEPROOF MASCARA

RAW MATERIALS	% By Weight
Phase A:	
Carnauba Wax	1.00
Candellila Wax	5.00
Beeswax	5.00
Ozokerite	2.00
Emersol 132 NF	5.00
Cetyl Alcohol	3.00
Lanolin Oil	3.00
Phase B:	
Deionized Water	54.25
DERMACRYL-79	5.00
Propylene Glycol	3.00
Ammonium Hydroxide 54%	2.75
Phase C:	
7133 Purified Black Oxide	10.00
Phase D:	
Germaben II E	1.00

SOURCE: National Starch and Chemical Co.: Formula 6238-62A

MASKING STICK

RAW MATERIALS	% By Weight
A. MIGLYOL 829	6.0
IMWITOR 900	10.0
SOFTISAN 378	18.0
SOFTISAN 649	7.0
Eutanol G	3.0
Lanolin Alcohol	3.0
Petrolatum	6.0
Beeswax	7.0
Candelilla Wax	2.0
Paraffin	3.0
Span 20	2.0
Wheat Germ Oil	4.0
Propylene Glycol	3.0
Methylparaben	0.2
BHT	0.02
B. Zinc Oxide	9.0
Allantoin	0.1
Titanium Dioxide	8.0
Talc	8.0
Iron Oxide Brown PC 1136	0.5
Sienna Oxide CS-10051	0.5
C. Fragrance GC 10776	0.2

Preparation:

(A) is melted together at 80C. (B) is mixed together well and (A) is then homogeneously stirred into (B). At ca. 50C., fragrance is added and the mass is poured into molds at ca. 45C.

SOURCE: Huls America Inc.: Formula 2.1A

MASQUE WITH WHITE CLAY AND FRUITS

RAW MATERIALS	Parts By Weight
A) Oily Phase:	
Arlacel 165	50
Sipol C6	20
Petrolatum	60
Tocopherol	0,2
B) Water Phase:	
Deionized Water	497,7
C) White Clay	300
D) Strawberry Extract	40
Kiwi HS (AMI)	30
Bronopol (AMI)	0,6
Myacide SP (AMI)	0,5
Strawberry Perfume	1

SOURCE: TRI-K Industries, Inc.: Formula

"MATTE-FINISHED" MAKE-UP

RAW MATERIALS	% By Weight
A) Schercemol CO	7.0
Schercemol DID	1.0
Arlacel 60	3.0
Glucamate SSE 20	3.0
Schercemol GMS	0.5
Dow Silicone fl. 350 cps	1.0
Escalol 507	1.0
B) Veegum (4% aq.)	15.0
Water	55.0
Glycerin	2.0
Germaben II	1.0
C) Pigments:	
Talc 141 BC	2.1
Titanium Dioxide 328	6.4
7055 Iron Oxide Yellow	0.45
7061 Iron Oxide Brown	0.8
7054 Iron Oxide Red	0.25
D) Cucumber Extract	0.50

Procedure:

Part B:

1. Disperse Veegum slurry in water until uniform.
2. Add the rest of the water phase, mixing well.

Part C: Mix part C.

3. Add Part C to Part B and mix for 5 minutes or until fully dispersed.

In main beaker mix ingredients of Phase A.

Heat both Phases A and Part B & C to 70C. Add Phase B, C to A with moderate agitation.

Cool batch to room temperature with continuous mixing, then add Part D.

SOURCE: Scher Chemicals Inc.: Formula L-213-23

MAKE-UP REMOVER

RAW MATERIALS	% By Weight
Dehyton G	20
Lamacit GML 20	15
Nutrilan Elastin P	3
Water, demin. Preservative	62

SOURCE: Henkel: Cosmetic No. XIX/90

MILD FACIAL CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-SPECIAL	83.0
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.8
MACKSTAT DM	qs
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-SPECIAL and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation.

PEARLESCENT SKIN CLEANSER
(CREAM CONSISTENCY)

RAW MATERIALS	% By Weight
MACKANATE LO-SPECIAL	83.0
MACKAMIDE PKM	4.0
Stearic Acid	0.3
MACKERNIUM 007	0.8
MACKSTAT DM	qs
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-SPECIAL and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

MOISTURIZING EMULSION, O/W

RAW MATERIALS	% By Weight
I. Emulgade SE	8.0
Cetiol V	5.0
IPP	3.0
Paraffin oil, viscous	4.0
II. Glycerine 86%	3.0
Water, deionized	ad 100.0
III. Collapurone DAK	5.0
Hydagen B	0.2

Viscosity: 5,000 mPas

Formula no. 89/169/8

SKIN EMULSION W/O

RAW MATERIALS	% By Weight
Dehymuls HRE 7	7.0
Cetiol V	20.0
Microwax 7694	1.0
Zincum N 29	1.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.5
Preservative, perfume	q.s.
Water	ad 100.0

Formulation no. 88/080/47

SOURCE: Henkel: Formulas

ASTRINGENT

RAW MATERIALS	% By Weight
Demineralized water	40.00
Ethanol 39C (190 proof)	18.90
Tween 80 emulsifier	1.00
Propylene glycol USP	2.00
Witch hazel	35.00
Germaben II E preservative	1.00
Eastman Vitamin E TPGS (20% water solution)	2.00
Perfume	0.10

Procedure:

USING a propeller mixer add all ingredients at room temperature and mix well until a clear product is obtained.

SOURCE: Eastman Chemical Products: Formula

MOISTURIZING MILK

RAW MATERIALS	% By Weight
A. IMWITOR 940	3.0
MIGLYOL 812	7.0
Almond Oil	5.0
IMWITOR 375	3.0
Antioxidants	q.s.
B. Hygroplex HHG	3.0
Preservative	q.s.
Water	ad 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is heated to the same temperature and slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Formula 1.3.5

SKIN MILK

RAW MATERIALS	% By Weight
A. SOFTISAN 378	4.0
DYNACERIN 660	5.0
MIGLYOL 812	5.0
Silicone Fluid AR200	3.0
Emulgade F	5.0
Isopropyl Myristate	4.0
IMWITOR 375	3.0
B. *Carbopol Gel 1%	10.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	8.5
* Carbopol Gel: Carbopol 940:	1.0%
Triethanolamine	0.6%
Water	up to 100.0%

Preparation:

(A) is heated to 75-80C. (B) is mixed and heated to the same temperature and then heated to (A). Perfume is added at about 30C.

Formula 1.3.7

SOURCE: Huls America Inc.: Formulas

MOISTURIZING MILK

RAW MATERIALS	% By Weight
A. DYNASAN 114	6.0
IMWITOR 900	8.0
Siponic E-3	2.0
Plurafac A-38	3.0
MIGLYOL 812	3.0
MIGLYOL 840	3.0
B. Glycerin	4.0
Preservative	0.5
Water	up to 100.0
C. Hygroplex HHG	5.0
D. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature and (C) is added. (B + C) are slowly emulsified in. (D) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Formula 1.3D

SKIN PROTECTION MILK

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
MIGLYOL 812	12.0
MIGLYOL 840	3.0
B. Preservative	q.s.
Water	up to 100.0
C. Fragrance	q.s.

Preparation:

(A) is mixed together and heated up to 75-80C. (B) is brought up to the same temperature and emulsified into (A). (C) is added at ca. 30C.

Formula 1.3.9A

SOURCE: Huls America Inc.: Formulas

MULTI-PROTECTION SKIN MOISTURIZER (CATIONIC)

INGREDIENTS	% By Weight
Phase A:	
Cetyl Alcohol	2.00
Drakeol 7	3.00
Petrolatum	1.00
Trivent NP-13	2.50
Abil B 8852	1.00
Cerasynt 945	1.00
Dow Corning 200 Fluid, 350 CS	0.20
Vitamin E Acetate	0.20
Brij 721	1.00
Phase B:	
Deionized Water	70.90
Monaquat P-TS	2.00
Allantoin	0.50
Aloe Vera Gel 1:1	5.00
CELQUAT SC-240	0.50
Propylene Glycol	4.00
DRY FLO-C	4.00
Phase C:	
Germaben II E	1.00
Phase D:	
Fragrance Q-4698	0.20

Procedure:

Heat water, Monaquat and Allantoin to 50C. Add CELQUAT SC-240, disperse thoroughly and heat to 80C. Prepare Propylene Glycol and DRY FLO-C slurry and add to water phase. Mix Phase B and heat to 80C. Add Phase B to Phase A at 80C and mix for 15 minutes. Cool to 35C and add Phase C and Phase D to it. Cool to room temperature and homogenize.

pH: 5.8

This is a soft elegant cationic lotion with fast rub-in resulting in a non-greasy, moisture barrier film leaving the skin with a luxurious feel. The lotion provides conditioning, moisturizing, and protecting effects to the skin. This formula has compatibility with the skin's pH resulting in a more comfortable feeling after its use.

SOURCE: National Starch and Chemical Co.: Formula 6142-19-1

MULTIVITAMIN FACE FOAM, TYPE O/W

RAW MATERIALS	% By Weight
a) Amphisol	3.0
Stearin	3.0
Isopropyl myristate	2.0
Diethylene glycol monostearate	1.5
Cutavit Richter	2.0
Preservative	q.s.
b) Water, distilled, preserved	85.0
1,2-Propylene glycol	3.0
Perfume oil	0.5

Manufacture:

- a) Melt and bring to about 85C;
 - b) heat to about 85C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C;
- c) stir in.

Concentrate:

Product:	85.0%
Propellant 12:	15.0%

Valve:

R-70 micoflex

Actuator:

350-025

Model formulations 9

EMULSION, FOR APPLICATION TO GREASY AND BLEMISHED SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Cremophor A6	2.0
Cremophor A25	3.0
Stearin	9.0
Isopropyl palmitate	2.0
Deodorant Richter/K	0.3
Preservative	q.s.
b) Water, distilled, preserved	80.6
Karion F liquid	3.0
Aminodermin CLR	0.1

Manufacture:

- a) Melt and bring to about 70C;
 - b) heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume, homogenize.

Model formulations 10

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulations

NATURAL OIL-BASED GEL (ALSO NIGHT CREAM)

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL Type B	18.0
MIGLYOL 812	15.0
MIGLYOL 818	3.0
Lanolin	3.0
Peanut Oil	37.5
Avocado Oil	3.0
Carrot Oil	2.8
Wheat Germ Oil	1.5
Atlas G 1096	5.0
Vanillin	0.02
Aerosil 200	2.1
Antioxidants	5.0
B. Beeswax	5.0
Hartolan Super	4.0

Preparation:

All components in (A) are worked well into the MIGLYOL GEL, little by little. (B) is added, and both are heated up to 75C. (A) + (B) is then cooled while stirring to a creamy homogenous consistency.

Formula 1.5.7

SKIN CARE GEL (MICROEMULSION)

RAW MATERIALS	% By Weight
A. SOFTIGEN 767	25.0
Marlowet TA 25	18.0
Eusolex 6007	0.5
Isopropyl Myristate	5.0
Preservative	q.s.
Water	up to 100.0
B. Perfume 69 918	0.3

Preparation:

(A) is heated to 70C and stirred down to 30C.
Then (B) is added.

Formula 1.50

SOURCE: Huls America Inc.: Formulas

NONIONIC LIQUID MAKEUP

RAW MATERIALS	% By Weight
A Veegum	0.75
Keltrol	0.15
Water	67.10
Glycerin	4.00
Citric acid	0.30
B Talc	5.00
Titanium dioxide	5.00
Iron oxides	3.70
C Ritachol	5.00
Crodamol MM	2.50
POLYSYNLANE	2.00
Oleyl alcohol	2.00
Cosmowax	2.00
Tween 85	0.05
Preservative	q.s.

Procedure:

Add the dry blend of Veegum and Keltrol to the water slowly, agitating continuously with the highest shear available until smooth. Add the glycerin and citric acid and mix until smooth. Mix B (grind if necessary) until homogeneous. Add B and A and mix until uniform. Heat A and B to 60-65C. Heat C to 60-65C. Add C to A and B and mix until cool.

SOURCE: Polyesther Corp: Formula

W/O LIQUID MAKEUP

RAW MATERIALS	% By Weight
Phase A:	
ABIL WE-09	4.50
ABIL B 8839	5.00
ABIL Wax 9801	1.00
Caprylic/Capric Triglyceride	1.00
Synthetic Wax	0.45
Hydrogenated Castor Oil	0.45
Mineral Oil	4.50
Phase B:	
Talc, USP	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
Phase C:	
Water	68.90
Sodium Chloride	0.50
Preservatives, Fragrance	QS

A W/O emulsion based liquid makeup with improved pigment grinds due to the Cetyl Dimethicone and superior application and wear due to the emulsification system.

SOURCE: Goldschmidt Chemical Corp.: Formula

OIL FREE MAKEUP BEIGE

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	54.950
Veegum Reg	1	1.000
CMC-7MF	1	0.500
Propylene Glycol, USP	2	5.000
Methylparaben	2	0.300
Propylparaben	2	0.100
Unicide U-13	3	0.500
Sequestrene Na3T	3	0.050
1,3-Butylene Glycol	3	5.000
Liponic EG-1	3	5.000
Triethanolamine, 99%	3	1.350
Silicone Copolymer F-754	3	5.000
Liponate TDS	3	0.750
Titanium Dioxide 3328	4*	7.901
Umber A-3315	4	0.024
Red 3551	4	0.202
Blue 3516	4	0.038
Brown 3176	4	0.691
Yellow 3178	4	1.066
Talc 1615	4	0.638
Kaolin 2747	4	1.440
Oleic Acid	5	3.000
Lipomulse 165	5	5.000
Lipopeg 6000-DS	5	0.500

* Sequence 4 add as dry mix.

Procedure:

1. Disperse Sequence 1 with homogenizing mixer.
2. Predisperse Sequence 2 in a separate kettle.
3. Add Sequence 2 to Sequence 1. Mix well.
4. Add Sequence 3 to combined Sequence 1 and 2 and mix well.
5. Add Sequence 4 as dry mix to combined Sequence 1, 2 and 3.
6. Begin heating to 75C with continuous homogenization.
7. Heat Sequence 5 to 75C-80C and mix well.
8. Add Sequence 5 to combined Sequence 1, 2, 3 and 4. Homomix for 15 minutes.
9. Remove homomixer. Change to Lightnin' mixer.
10. Start cooling batch under continuous Lightnin' mixing.
11. Cool to 25C and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 216

OILY SKIN MASK

RAW MATERIALS	% By Weight
I. TEFOSE 2000	12,00
GELEOL	2,00
M.O.D. WL 2949	4,00
VEGETOL Huileux Calendula WL 1072	3,00
Antioxygen	Q.S.
II. Demineralized Water	58,80
Zinc Oxyde	10,00
Kaolin Speswhite	5,00
Preservative	Q.S.
VEGETOL Hydro Bardane MCF 777	3,00
ATELOGLYCANE	2,00
Perfume	0,20

Preparation:

Disperse the powders in the water (part II).

Under stirring pour II heated up to 75C into I heated up to 75C.

Cool down while stirring and around 30C, add the other components.

Homogenize if necessary.

SOURCE: Gattefosse: Formula MM 2966

PEELABLE LIQUID FACE MASK

INGREDIENTS	% By Weight
Part A:	
Water, deionized	61.5
VINOL polyvinyl alcohol resin	8.0
Propylene glycol	6.0
KELTROL T xanthan gum	0.5
Color	to suit
Part B:	
SDA alcohol (40-2)	20.0
AMEROXOL DE-20 oleth-20	4.0
Preservatives	to suit

Procedure:

Part A:

1. Hydrate KELTROL T in the deionized water using a high-shear mixer for 10-15 minutes.
2. Heat to 93C (200F).
3. Add the polyvinyl resin and mix until dissolved.
4. When fully dissolved, add the propylene glycol.
5. Cool to 38C (100F).

Note: If color is used, add it after hydrating the gum and before adding the resin.

Part B:

1. Dissolve the oleth-20 in the alcohol.
2. When Part A has cooled to 38C (100F), add Part B.
3. Mix thoroughly.

SOURCE: Kelco: Product Formulation SS-4909

O/W-SKINMILK

RECIPE	% By Weight
A HOE S 3495	1.00
Mineral oil, low viscosity	5.00
Isopropyl palmitate	5.00
Eutanol G	3.00
B HOSTACERIN PN 73*	0.30
C Water	85.40
Preservative	q.s.
D Perfume	0.30

* Alternative thickeners could also be used.

Manufacturing at room temperature

Procedure

- I Mix A and B.
- II Stir C into I, then add D.
- III Homogenize if necessary.

Formulation A VI/1450

O/W-SKINMILK

RECIPE	% By Weight
A HOE S 3495	2.00
Sun flower oil	13.00
Wheat germ oil	3.00
Tocopherol	0.50
B HOSTACERIN PN73*	0.40
C Glycerol	3.00
Water	77.80
Preservative	q.s.
D Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

- I Mix A and B.
- II Stir C into I, then add D.
- III Homogenize if necessary

Formula A VI/1452

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-SKINMILK

RECIPE	% By Weight
A HOSTAPHAT KW 340N	3.00
Mineral oil, low viscosity	3.00
Isopropyl palmitate	3.00
Jojoba oil	5.00
B HOSTACERIN PN 73*	0.60
C Glycerol	3.00
Water	82.10
Preservative	q.s.
D Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenize if necessary.

Formula A VI/1301

O/W-MASSAGE-MILK

RECIPE	% By Weight
A HOSTACERIN KL 340N	3.00
HOSTACERIN DGS	5.00
Mineral oil, high viscosity	35.00
Isopropyl palmitate	12.00
Silicone fluid	1.00
B HOSTACERIN PN 73*	0.20
C Glycerol	3.00
Water	40.50
Preservative	q.s.
D Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenize if necessary.

Formula A VI/1112

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

PEARLESCENT BODY/FACIAL CLEANSER AND SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (28%)	45.0
MACKALENE 426	5.0
MACKERNIUM 007	0.6
MACKAMIDE PKM	3.8
EGDS	1.0
MACKSTAT DM	Q.S.
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Dilute MACKERNIUM 007 in water and blend until dispersed.
2. Add remaining component except MACKSTAT DM and heat to 70 degrees C.
3. Blend until homogenous and cool to 50 degrees C.
4. Add remaining components and adjust pH to 5.0-6.0 with citric acid.

pH: 5.5

Viscosity (cps): 11,000

Formula BP-4A

PEARLESCENT BODY/FACIAL CLEANER AND SHAMPOO

RAW MATERIALS	% By Weight
1. Ammonium Lauryl Sulfate 28%	45.00
2. Mackalene 426	5.00
3. Mackernium 007	0.60
4. Mackamide PKM	3.00
5. Ethylene Glycol Distearate	1.00
6. Mackstat DM	QS
7. Deionized Water	100.00
8. Color, Fragrance	QS

pH: 5.00-6.00

Viscosity: 1400-3000 cps

Procedure:

Into main stainless steel mixing tank weigh in #1, #2, #4, #5, and start heating to 70C (160F), (and do not go above this temperature). Start mixing and keep temperature at 70C (160F) until everything is fully dissolved. In a separate container dissolve #3 in the DI water #7 and heat to 70C (160F) and add this hot blend to the main mixing tank and keep mixing till solution is completely homogenous and no undissolved particles are noticeable.

Start cooling while agitating well. At 50C (120F) add item #6 then item #8, cool to room temperature while mixing. Adjust pH if too high with a little citric acid.

Formula No. BP-4A

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

PLACENTA GEL, FOR APPLICATION TO AGEING SKIN

RAW MATERIALS	% By Weight
a) Ethyl alcohol 96 vol. %	15.0
Water, distilled	50.0
Carbopol 934	1.0
b) Water, distilled	18.2
Glycerin	10.0
Triethanolamine	0.8
c) Placentalliquid water-soluble	5.0

Manufacture:

a) disperse at room temperature with rapid stirring;

b) slowly stir into a);

c) stir in slowly

Perfume.

Model formulations 21

PLACENTA SKIN OIL, FOR APPLICATION TO AGEING SKIN

RAW MATERIALS	% By Weight
Vegetable oil	38.0
Avocado Oil CLR	10.0
Wheat Germ Oil CLR	4.0
Placentalliquid oil-soluble	3.0
Isopropyl myristate	45.0
Antioxidant	q.s.

Manufacture:

Mix at room temperature in the order given.

Perfume.

PLACENTA EYE BALSAM, ANHYDROUS

RAW MATERIALS	% By Weight
Dehymuls K	25.0
Cetiol V	19.0
Vaseline	35.0
Bees-wax	10.0
Wheat Germ Oil CLR	3.0
Placentalliquid oil-soluble	3.0
Cetiol SN	5.0
Antioxidant	q.s.

Manufacture:

Melt at about 70C in the order given. Stir until the mass has cooled to about 35C.

Perfume.

Model formulations 22

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

ROUGE STICK

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	14.0
SOFTISAN 649	12.0
MIGLYOL 829	7.0
IMWITOR 780K	6.0
SOFTIGEN 767	6.0
Na-Stearate	1.0
Rewopal PIB	19.0
Lanfrax	13.0
Candelilla Wax	8.0
Beeswax	7.0
Oxydex 2004	0.02
B. Iriodin TI 100	4.0
Sicometro Red	2.0
Sicometbraun Brown	1.0
C. Perfume Ombre Musk D40 032	0.3

Preparation:

(A) is melted. (B) is added and mixed into (A). (C) is added, then it is poured into molds.

SOURCE: Huls America Inc.: Formula 2.1B

HERBAL MOISTURIZING MIST

INGREDIENT	% By Weight
A) Distilled Water	86.25
Tristat IU	0.50
B) Pot Marigold HS	2.00
Centella Asiatica HS	1.00
Mallow HS	1.00
Cornflower HS	1.00
Trisept M	0.20
Trisept P	0.05
C) DC 193 Surfactant	2.00
D) Silhydrate C	6.00

Procedure:

Weigh A and mix until clear. Weigh parabens and mix into botanicals until dissolved. Add B to A while mixing. Then add C and then D. Mix until clear. Product can be dispensed through a pump spray container.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-69-1

SESAME BODY OIL

RAW MATERIAL	Sequence	% By Weight
Liponate IPM	1	55.00
Lipovol SES	1	44.35
BHA	2	0.05
PEG-40 Sorbitan Peroleate	3	0.60
Fragrance	3	q.s.

Manufacturing Procedure:

1. Blend Sequence 1 ingredients with stirring.
2. Add Sequence 2 ingredients and mix until dissolved. Warm slightly if required.
3. Add premixed Sequence 3 ingredients at 40-42C. Mix until clear

Formula No. 379

VITAMIN E BODY OIL

RAW MATERIALS	Sequence	% By Weight
Lipovol SUN	1	17.698
Vitamin E dl-alpha-Tocopherol	1	3.350
Vitamin A Palmitate with Vitamin D2	1	0.002
Liponate PC	2	25.000
Liponate GC	2	17.500
Lipovol SES	2	18.000
Lipovol VGA	2	13.000
Liponate IPP	2	5.000
Dehydroacetic Acid	3	0.100
Benzoic Acid	3	0.050
Fragrance	4	0.300

Procedure:

1. In batch vessel, mix Sequence 1 materials until a clear solution is obtained.
2. Add Sequence 2 materials and mix until a clear solution is obtained.
3. Add Sequence 3 materials, mix and heat to 67-70C until dissolved.
4. Cool with mixing to 45C, add Sequence 4 (fragrance), mix until clear.
5. Cool with mixing to 25C.

Note: As an alternative to heating the entire batch, the Sequence 3 materials can be pre-dissolved with heating in the Sesame Oil and this mixture added to the batch.

This luxurious emollient oil is designed for application to all parts of the body. It spreads rapidly without tack or drag and leaves the skin soft and supple without greasiness.

Formula No. 121

SOURCE: Lipo Chemicals Inc.: Formulas

SKIN REJUVENATING OIL

RAW MATERIALS	% By Weight
MIGLYOL 812	50.0
MIGLYOL 840	40.0
MIGLYOL 818	3.0
Perostron in oil	1.0
Wheat Germ Oil	3.0
Placentaliquid, soluble in oil	3.0
Antioxidants	q.s.
Perfume	q.s.

Preparation:

All ingredients are mixed one after the other at room temperature.

Formula 1.5.3

REGENERATING OIL

(Invigorating as a Body and Face Massage)

RAW MATERIALS	% By Weight
MIGLYOL 812	50.0
MIGLYOL 818	10.0
Mineral Oil	39.8
Vitamin-A-Palmitate	0.1
Vitamin-E	0.1
Perfume Oil	q.s.

Preparation:

All ingredients are mixed at room temperature.

Formula 1.5.4

PRESTIGE FACIAL OIL

RAW MATERIALS	% By Weight
MIGLYOL 840	75.0
MIGLYOL 818	5.0
Silicone Oil AR 200	7.0
Mink Oil	3.0
Walnut Shell Oil	5.0
Carotene Oil	5.0
Antioxidants	q.s.

Preparation:

The oils are mixed at room temperature.

Formula 1.5.5

SOURCE: Huls America Inc.: Formulas

SKIN TONIC AGAINST ACNE

RAW MATERIALS	% By Weight
I. Eumulgin SML 20	3,0
Monomuls 90 L 12	0,3
Glycerin 86%	5,0
Allantoin	0,3
Water, demin.	ad 100
II. Ethanol 96%	20,0
Farnesol	0,3
Chlorhexidindigluconat	1,0
III. Collapurool	8,0
Appearance: clear	
Cloud point: <0C	

Preparation:

Heat phase I until Monomuls 90-L 12 has melted, cool with agitation, add phase II until everything is dissolved, and finally add Collapurool below 30C by mixing.

Formula no. 89/394/13

SKIN TONIC (SENSITIVE, DRY SKIN)

RAW MATERIALS	% By Weight
I. Lamacit GML 20	5,0
Monomuls 90 L 12	0,5
Glycerin 86%	5,0
Allantoin	0,3
Hamamelis extract	12,0
Water, demin., preservative	59,2
II. Ethanol, cosm.	8,0
III. Collapurool	10,0
Appearance: clear	
Cloud point: <0C	

Preparation:

Heat phase I until Monomuls 90 L 12 has melted, cool with agitation, and then add ethanol and Collapurool one after the other below 30C.

Formula 89/394/15

SOURCE: Henkel: Cosmetics Nr. X/90/Lz: Formulas

SKIN TONIC (NORMAL SKIN)

RAW MATERIALS	% By Weight
I. Lamacit GML 20	5,0
Monomuls 90 L 12	0,5
Glycerin 86	5,0
Allantoin	0,2
II. Ethanol cosm.	15,0
Water, demin.	64,3
III. Collapurol	10,0

Appearance: clear
 Cloud point: <0C

Preparation:

Heat phase I until Monomuls 90-L 12 has melted, cool with agitation, and then add ethanol and Collapurol one after the other at 30C.

Formula no. 89/394/11

SKIN TONIC (GREASY SKIN)

RAW MATERIALS	% By Weight
I. Lamacit GML 20	3,0
Glycerin 86%	5,0
Allantoin	0,2
Hamamelis extract	5,0
Ethanol, cosm.	20,0
Water, demin.	61,8
II. Collapurol	5,0

Appearance: clear
 Cloud point: <0C

Preparation:

Dissolve phase I at room temperature, then add Collapurol.

Formula no. 89/394/12

SOURCE: Henkel: Cosmetics Nr. X/90/Lz

STYLING MOUSSE
WITH PEARL PIGMENTS

COMPOSITION	% By Weight
Luviskol VA 64	2.0
Dehyquart SP	0.6
Gafquat 755 N	1.4
Cetiol HE	1.0
Ethanol	3.0
Pearl pigment	1.0
e.g. TIMIRON Super Violet or DICHRONA YG	
Water, demineralized	ad 100.0

Manufacturing process:

The different ingredients have to be solved or suspended in warm water by stirring. Then the suspension is to be filled in cans under addition of propellant gas.

As propellant a mixture of Propan/Butan can be recommended in ratio of 25:75.

Proportion suspension/propellant about 92:8.

Valve: ST-10 (Aluminum plate, without microflex lacquer)

4-slit-box, stem-hole 1X.018, without suction pipe.

Foam head: ST 500

Shake well before use!

TRANSPARENT MASCARA
NO COLOR MASCARA

RAW MATERIALS	% By Weight
Propandiol (1,2)	2.0
Water, demineralized	75.0
Germall 115	0.2
Pearlpigment (e.g. TIMIRON Starlight Colors)	0.03-0.05
Carbopol 940	0.2
Ethanol (95%)	3.0
Triethanolamine	0.2
Water, demineralized	18.4
Luviskol K30	1.0

Preparation of the Gel:

The pigment is dispersed in the Propandiol-Water solution containing Germall. Carbopol 940 is added and dissolved under stirring, and stirring is continued until a clear solution is obtained. Then Ethanol and the TEA/water mixture are added successively. Finally Luviskol K30 can be added to soften the gel.

SOURCE: EM Pigments Division: Formulas

TRANSLUCENT FACE POWDER WITH HUMECTANT PROTEIN

INGREDIENTS	% By Weight
A. Talc	74.0
Magnesium Stearate	6.0
Cyclomethicone	12.0
Acrylates Copolymer	3.0
B. POLYPRO 15000	2.0
C. Methylparaben	0.2
Imidazolidinyl Urea	0.2
D. Talc	1.9
Iron Oxides	0.7

Procedure:

Combine Part A in a suitable vessel, blend until uniform. Slowly add Hydrolyzed Collagen, mix well. Add Part C ingredients in order, mix until homogeneous. Mill premix D to a uniform particle size, add to mixture and blend until the product has a homogeneous consistency.

Description:

This fine powder absorbs facial oils and keeps makeup looking fresh. The addition of Hydrolyzed Collagen helps bind moisture to the skin and add durability to foundation makeup.

SOURCE: Geo. A. Hormel & Co.: Formulation Guide

FACE MASK CONCENTRATE FOR OILY SKIN

RAW MATERIALS	% By Weight
78-1898	40.00
Veegum F	20.00
Citric Acid	10.00
Kaolin	30.00
Preservative, Fragrance	QS

Procedure: Blend the powders until uniform.

Directions for Use:

Add enough water to form a spreadable paste, about 1 part concentrate to 1 part water. Apply to face and allow to dry. Remove with warm water.

SOURCE: National Starch and Chemical Corp.: Formula 4015-60C

W/O CREAMY FOUNDATION

RAW MATERIALS	% By Weight
A CRODAMOL PMP	1.00
CRILL 6	2.00
SYNCROWAX HR-C	3.20
Squalene	3.50
Silicone L-45	3.00
Di-Octyl Adipate	2.00
B Pigments:	
A1160 Brown Iron Oxide	1.00
A1301 Yellow Iron Oxide	0.50
A1249 Red Iron Oxide	0.50
Talc 1003	12.00
574 Titanox 1000	1.00
C Water deionized	66.80
Glycerin	2.00
Magnesium Sulphate	0.70
Methyl paraben	0.20
Propyl paraben	0.10
Biopure 100	0.50

Procedure:

Heat Phase A to 75-80C. Heat Phase C to same temperature respectively. Add the aqueous phase to oils under very slow agitation to ensure maximum stability of the w/o phase. Pulverize Phase B until homogeneous and no streaking of colors is evident. Allow the emulsion to cool to 55C, then add pigments. Continue stirring and fill off at room temperature.

A low solids w/o makeup base designed for normal to dry skin. CRILL 6, Sorbitan Isostearate, imparts water resistant properties as well as emulsification, so the make-up is not displaced by perspiration. SYNCROWAX HR-C, Glyceryl Tribehenate, adds a cushioned feel and stabilization needed in a water-in-oil system. CRODAMOL PMP, a light non-greasy ester, gives good spreadability and play time.

SOURCE: Croda Inc.: CRILLS AND CRILLETS: Formula MU-52

W/O LIQUID MAKEUP - OIL FREE

RAW MATERIALS	% By Weight
Phase A:	
ABIL WE-09	4.50
ABIL B 8839	10.50
ABIL Wax 9801	1.00
Synthetic Wax	0.45
Hydrogenated Castor Oil	0.45
Phase B:	
Talc, USP	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
Phase C:	
Water	68.90
Sodium Chloride	0.50
Preservatives, Fragrance	QS

Mix the ingredients of Phase A together, heat to 70C. When uniform, cool to 50C. Add Phase B. Mill. Heat water to 50C. Add the sodium chloride. Mix. Gently stream into Phase A/B with lightning mixer. Cool to 35C, add preservatives and fragrance. Homogenize. A very stable soft creamy lotion results with a good pigment dispersion.

A W/O emulsion based liquid makeup with improved pigment grinds. Superior application and wear due to the emulsification system.

W/O LIQUID MAKEUP: COLD MIX FORMULA

RAW MATERIALS	% By Weight
Phase A:	
ABIL WE-09	5.0
ABIL Wax 2434	3.0
ABIL B 8839	9.0
Caprylic/Capric Triglyceride	6.0
Titanium Dioxide	4.0
Iron Oxides	1.0
Phase B:	
Propylene Glycol	3.0
Sodium Chloride	0.8
Water	68.2
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. In a vessel, grind the Titanium Dioxide and pigments into the rest of the ingredients of Phase A.
2. In a separate vessel, blend the ingredients of Phase B.
3. Slowly with agitation, add Phase B to Phase A. Mix until uniform.
4. Add the ingredients of Phase C with agitation.
5. Homogenize and dispense.

SOURCE: Goldschmidt Chemical Corp.: Formulas

Section V

Creams

ACNE CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
MIGLYOL 840	8.0
Lanette N	5.0
B. Propylene Glycol	3.0
Allantoin	0.2
Preservative	q.s.
Water	ad 100.0
C. p-Chloro-m-cresol	0.5
D. Sulphur	2.0
Titanium Dioxide	5.0
Cosmetic Sienna Oxide CS-10051	0.5
E. Perfume Oil	q.s.

Preparation:

(A) is melted at 75-80C. (B) is brought to the same temperature. (C) is added to (B) and (B + C) are emulsified into (A). D is finely ground, and the cold-stirred cream is gradually stirred into (D). Then the perfume is added.

Formula 1.1.18

ANTI-WRINKLE CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	7.0
Stearic Acid	7.0
MIGLYOL 812	1.5
MIGLYOL 840	3.0
MIGLYOL 818	2.0
B. Glycerin	2.0
Preservative	q.s.
Distilled Water	up to 100.0
C. Triethanaolamine	0.9
D. Water-soluble Liquid Placenta (or Collagen)	5.0
Perfume	q.s.

Preparation:

(A) is melted and brought to 80-85C. (B) is mixed and brought to the same temperature. (C) is added to (B), and (B + C) is emulsified into (A). (D) is stirred in at 35C. Before filling, it is beneficial to homogenize the cream.

Formula 1.1.6

SOURCE: Huls America Inc.: Formulas

AEROSOL HAND CREAM MOUSSE

RAW MATERIALS	% By Weight
Oil Phase:	
CRODAMOL PMP	1.5
SUPER CORONA LANOLIN	2.5
CRILLET 3	3.0
Stearic Acid XXX	5.35
Water Phase:	
Deionized water	85.15
Glycerin	2.5
Perfume, preservatives	qs

Procedure:

Combine oil phase and heat to 70C with mixing. Heat water phase to 70C. Add water phase to oil phase. Cool. At 45C add fragrance. Cool to room temperature and fill.

Fill: 90% Concentrate, 10% Propellant A46

This hand cream mousse is appropriate for family or industrial use, where the hygiene of an aerosol dispenser is important. CRODAMOL PMP helps to modify and improve the otherwise heavy emollience of the other components.

Formula SC-152

NON-STRIPPING CLEANSING CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
POLAWAX	15.00
CRODACOL C-95	1.00
SUPER REFINED Sesame Oil	7.50
SUPER REFINED Apricot Kernel Oil	7.00
CRILL 6	3.00
Water Phase:	
AMINOFOAM C	.50
Germaben II	1.00
Silicone F754	2.00
Water, deionized	63.00

Procedure:

Heat the oil phase to 75C, heat the water phase to 75C. Add the water phase to the oils. Continue stirring to room temperature. pH 6.80

An effective cleansing cream that exhibits good oil solubilizing without stripping the skin. CRILL 6 is the auxiliary emulsifier and solubilizer. SUPER REFINED vegetable oils act as oil solubilizers. AMINOFOAM C provides exceptionally good rinse-off.

Formula SC-139

SOURCE: Croda Inc.: CRILLS and CRILLETS: Formulas

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 45	2.0
Cutina CBS	8.0
Cetiol V	11.0
Paraffin oil, thin-bodied	5.0
Triethanolamine 99%	0.2
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.4	
Viscosity in mPas: 190000	
Formula no. 89/298/17	

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 25	2.0
Cutina CBS	8.0
Cetiol V	11.0
Paraffin oil, thin-bodied	5.0
Triethanolamine 99%	0.2
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.4	
Viscosity in mPas: 200000	
Formula no. 89/298/18	

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 45	4.0
Cutina CBS	8.0
Eutanol G	11.0
Paraffin oil, thin-bodied	5.0
Potassium hydroxide 20%	2.0
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.8	
Viscosity in mPas: 200000	
Formula no. 89/298/26	

These all-purpose creams cause a smooth, gentle feel to the skin. They are rich and penetrate into the skin quickly.

SOURCE: Henkel: Cosmetics No. VI/90/Lz: Formulas

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 25	4.0
Cutina CBS	8.0
Eutanol G	11.0
Paraffin oil, thin-bodied	5.0
Potassium hydroxide 20%	2.0
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.8	
Viscosity in mPas: 200000	
Formula no. 89/298/27	

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 45	4.0
Cutina MD	9.0
Eutanol G	11.0
Paraffin oil, thin-bodied	5.0
Potassium hydroxide 20%	1.0
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.3	
Viscosity in mPas: 300000	
Formula no. 89/298/58	

ALL-PURPOSE CREAM WITH CONVENTIONAL EMULSIFIER BASIS

RAW MATERIALS	% By Weight
Cutina FS 25	4.0
Cutina MD	9.0
Eutanol G	11.0
Paraffin oil, thin-bodied	5.0
Potassium hydroxide 20%	1.0
Glycerin 86%	5.0
Water, preservative	ad 100
pH-value conc.: 7.4	
Viscosity in mPas: 300000	
Formula no. 89/298/59	

These all-purpose creams cause a smooth, gentle feel to the skin. They are rich and penetrate into the skin quickly.

SOURCE: Henkel: Cosmetics no. VI/90/Lz: Formula

ALL-PURPOSE DRY SKIN CREAM

FORMULA	% By Weight
Water Phase:	
GLUCQUAT 100	1.0
Deionized water	83.0
Oil Phase:	
GLUCAM P-20 Distearate	2.0
GLUCATE DO	0.5
PROMULGEN D	4.5
ACETULAN	2.0
CETAL	1.0
Mineral oil, 70 vis.	5.0
Cetyl Palmitate	1.0
Perfume and preservative	q.s.

Procedure:

Dissolve GLUCQUAT 100 into deionized water, and heat to 80C with adequate agitation. Combine oil phase ingredients, and heat to 80C with propeller mixing. Slowly add water phase to oil phase, and mix until uniform. When material starts to thicken during cooling, change to slow sweep agitation.

Description:

GLUCQUAT 100 provides skin conditioning while acting together with the GLUCAM P-20 Distearate to maintain moisture in the skin. GLUCATE DO (w/o) and PROMULGEN D (o/w) act as a nonionic emulsifier pair. ACETULAN imparts a smooth, velvety afterfeel while improving rub-in.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T62-126-2

HAND CREAM O/W

RAW MATERIALS	% By Weight
I. CUTINA GMS	8,0
LANETTE O	2,0
CETIOL V	5,0
EUTANOL G	2,0
Baysilon M 350	0,5
EUMULGIN B 2	0,5
CUTINA E 24	2,0
COPHEROL F 1300	1,0
II. Glycerol 86%	3,0
Water, demin.	74,5
preservatives	
III. COLLAPURON DAK	1,5

Viscosity in mPas: 170000

SOURCE: Henkel: Cosmetics No. III/91: Formula 90/227/7

ALMOND VANISHING CREAM WITH COLLAGEN

RAW MATERIALS	% By Weight
Phase 1:	
Rosswax 63-0412	5.9
Rosswax 573	8.9
Amerlate P	0.7
Emerest 2314	0.7
Emerest 2316	0.7
Glyceryl Monostearate SE	0.37
Almond Oil-Lipovol ALM	1.0
Phase 2:	
Emery 916 Pure Glycerine	6.0
Water	73.46
Triethanolamine	0.9
Phase 3:	
Collasol	0.37
Phase 4:	
Germaben II	1.0

Procedure:

In separate steam jacketed kettles heat both Phase (1) and (2) to a temperature of 170F. with agitation. When the temperature is reached, add Phase (1) to Phase (2) with continued agitation. Next add Phase (3) and then Phase (4) both with agitation. Cool to 120F. and package.

APRICOT VANISHING CREAM

RAW MATERIALS	% By Weight
Phase (1):	
Rosswax 63-0412	6.64
Rosswax 573	9.2
Amerlate P	0.8
Emerest 2314	0.8
Emerest 2316	0.8
Glyceryl Monostearate SE	0.4
Apricot Kernal Oil	1.3
Lipovol P	
Phase (2):	
Water	71.9
Emery 916 Pure Glycerine	6.2
Triethanolamine	.96
Phase (3):	
Germaben II	1.0
Fragrance GK-19	q.s.

Procedure:

In separate steam jacketed kettles, heat both Phase (1) and (2) to a temperature of 170F. with agitation. When the temperature is reached, add Phase (1) to Phase (2) with continued agitation. Cool to 130F., add Phase (3) and fragrance. Continue to cool to 120F and package.

SOURCE: Frank B. Ross Co., Inc.: *Cosmetic Formulary: Formulas*

ALOE VERA NIGHT CREAM

RAW MATERIALS	% By Weight
A Deionized Water	69.625
Tetra Sodium EDTA	0.075
Propylene Glycol	3.50
Methylparaben	0.20
*Spray Dried Aloe Vera Gel H-200	0.10
B Adol 52 NF	2.00
Ritachol 1000	2.00
Emersol 132	4.00
Polysorbate Palmitate	0.70
Ritachol	0.70
Mineral Oil	10.00
Ritaderm	3.00
Dimethicone 200	1.00
BHA	0.10
Propylparaben	0.10
C Sodium Borate	0.20
D Fragrance	0.15
Imidazolidinyl Urea	0.25

Procedure:

1. Heat phase A to 75 degrees C. with agitation.
2. Heat phase B to 75 degrees C. with agitation.
3. When both phases are at 75 degrees C., add phase A to phase B. Mix 30 minutes.
4. Add phase C and cool with agitation until temperature reaches 50 degrees C.
5. Add phase D and agitate until temperature reaches room temperature.

* NOTE: 1 pound of Spray Dried Aloe Vera Gel H-200 is equivalent to 200 pounds of Aloe Vera Gel 1:1.

SOURCE: Meer Corp.: Formula PC-AVNC1020

VANISHING CREAM

RAW MATERIALS	% By Weight
Stearic Acid	15.0
Cetanol	1.5
Glyceryl Monostearate	N.S.E.
POLYSYNLANE	7.0
Potassium Hydroxide	0.5
Glycerine	5.0
Perfume & Preservatives	q.s.
Water	ad 100.0

SOURCE: Polyester Corp.: Formula

ALLROUND-CREAM

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	10.00
B Water	69.60
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 80C.
 II Stir B into I at room temperature.
 III Stir until cool.
 IV At 40C add C to III.

Formula A VI/2703

TINDET-DAY-CREAM

RECIPE	% By Weight
A HOSTAPHAT KW340N	3.00
HOSTACERIN DGS	8.00
Cocoa butter	1.00
Mineral oil, low viscosity	8.00
Almond oil	5.00
B Water	49.00
Preservative	q.s.
C Magnabrite HV (4% in water)	17.50
D Titan dioxide	6.00
Talcum	1.00
Pigment Sicopharm yellow	0.60
Pigment Sicopharm red	0.40
Pigment Sicopharm black	0.10
E Perfume	0.40

Procedure:

- I Melt A at 70C.
 II Heat B to 70C.
 III Stir II into I.
 IV Stir until cool.
 V Add D into C, then homogenize.
 VI At 40C stir V into IV, then add E.

Formula A VI/1708

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

ANTI-ACNE CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 601	36.0
MIGLYOL 812	6.0
SOFTIGEN 701	3.0
Propyleneglycol	4.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.
D. Zinc Oxide	3.0

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature and then slowly emulsified into (A). (C) is stirred in at about 40C. The prepared cream is added gradually to (D). Before filling, it is beneficial to homogenize the cream.

Formula 1.2A

ATHLETE'S MEDICATED FOOT CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	7.0
MIGLYOL 812	9.0
Stearic Acid	5.0
Cetyl Alcohol	1.0
SOFTIGEN 701	0.5
B. Cosmetic Grade Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Menthol	0.5
Mountain Pine Oil	2.0
Spike-Oil	1.0
Coloring matter	0.3

Preparation:

(A) and (B) are heated separately to app. 70C. (C) is added to (B) and the mixture of (C) and (B) is emulsified into (A). (D) is added at app. 30C.

Formula 1.5J

SOURCE: Huls America Inc.: Formulas

ANTIWRINKLE CREAM FOR NORMAL SKIN

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	60.40
Liponic EG-1	1	3.00
Trisodium EDTA	1	0.05
Unicide U-13	1	0.25
Triethanolamine 99%	1	1.00
Carbopol 934 (2% Aq. Disp'n)	1	12.00
Silymarin Phytosome	2	1.00
Stearic Acid #132	3	2.00
Lipopeg 6000-DS	3	0.25
Liponate MM	3	3.00
Lipo GMS-450	3	2.00
Lipocol C	3	1.50
Lipovol MOS-70	3	5.00
Liponate PC	3	5.00
Unitrienol T-27	3	2.00
Silicone 200 Fluid (200 cts)	3	0.40
Propylparaben	3	0.10
Butylparaben	3	0.05
Orgasol 2002UD Nat. Cos.	4	1.00

Procedure:

1. In main kettle, combine Sequence 1 ingredients and heat to 75C under homogenizer.
2. Slowly sprinkle Sequence 2 ingredient into Sequence 1 under homomixer, being sure all powder is dissolved.
3. In side kettle, combine Sequence 3 ingredients under Light-nin' mixing and heat to 78C.
4. At proper temperatures, add Sequence 3 to combined Sequences 1 and 2 under homogenizer and mix at temperature for 5 minutes.
5. Switch to side wiping agitation and begin cooling.
6. At 30C slowly sprinkle Sequence 4 into batch and continue cooling.
7. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 485

ANTI-WRINKLE CREAM, O/W, "HIGH QUALITY"

RAW MATERIALS	% By Weight
I. Cutina CBS	12.0
Cutina E 24	2.0
Eumulgin B 2	1.0
Eutanol G	3.0
Cetiol SB 45	3.0
Cetiol S	4.0
II. Glycerine 86%	5.0
Water, deionized, preservative	ad 100.0
III. Collapur	6.0

Viscosity: 100,000 mPas

Formula no. 89/170/1

ANTI-WRINKLE CREAM O/W, EXKLUSIVE

RAW MATERIALS	% By Weight
I. Emulgade SE	6.0
Lanette O	1.5
Cetiol V	5.0
IPP	3.0
Paraffin oil, viscous	4.0
II. Glycerine 86%	3.0
Water, deionized, preservative	ad 100.0
III. Collapuron DAK	20.0
Hydagen B	0.2

Viscosity: 70,000 mPas

Formula no. 89/169/3.1

ANTI-WRINKLE CREAM, O/W

RAW MATERIALS	% By Weight
I. Cutina CBS	10.0
Cutina E 24	2.0
Eumulgin B 1	1.0
Cetiol V	6.0
Cetiol 868	6.0
II. Glycerine 86%	4.0
Water, deionized, preservative	ad 100.0
III. Collapuron DAK	11.0

Viscosity: 150,000 mPas

Formula no. 89/169/6

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz: Formulas

ARNICA CREAM

RAW MATERIALS	% By Weight
A Edenor C 18.98	6.0
Lanette 16	2.5
Tegin 4011	2.0
PCL-Liquid	2.0
Phytoconcentrol	3.0
Arnika	2.0
B Dragophos	2.5
Glycerine	3.0
Water	76.5
C Perfume	0.3
Preservative	
Formulation Nr. 2 O/W	

DAY CREAM

RAW MATERIALS	% By Weight
A Arlatone 983 S	6.0
Lanette 16	1.0
Edenor C 18/98	5.0
Eutanol G	3.0
B Glycerine	3.8
Water	76.6
C Perfume	0.3
Preservative	
Formulation Nr. 1 O/W	

NON-IONIC HYDROPHILIC CREAM

RAW MATERIALS	% By Weight
Vaseline	25.0
Cetyl stearyl alcohol	10.0
Glycerine, 85%	10.0
Polysorbate 60	5.0
Water	49.5
EUXYL K 400	0.5

SOURCE: Schulke & Mayr GmbH: EUXYL K400: Formulas

AVOCADO CREAM, PARAFFIN-FREE

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL Type B	15.0
MIGLYOL 812	8.0
IMWITOR 780K	5.0
Hydroviton	5.0
Avocado Oil	6.0
Sesame Oil	4.0
B. Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Collagen	3.0
Perfume Oil	q.s. 2.0

Preparation:

All components of (A) are gradually incorporated into Miglyol-Gel. Phase (A) is stirred until homogeneous and then heated to approximately 75-80C. (B) is also heated to this temperature and is emulsified into (A) gradually. (C) is added below 40C.

Formula 1.2.9

OILY CREAM (COLD CREAM)

RAW MATERIALS	% By Weight
A. Petrolatum	11.0
Aluminum Distearate	2.0
B. IMWITOR 780K	10.0
White Beeswax	2.0
SOFTISAN 378	11.0
MIGLYOL 812	5.0
C. Preservative	q.s.
Water	up to 100.0
D. Perfume	q.s.

Preparation:

(A) is heated to about 90C. until it is a gel. (B) is melted, brought to the same temperature and slowly added to (A). (C) is brought to 75-80C. and emulsified in (A + B). (D) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.2.10

SOURCE: Huls America Inc.: Formulas

BARRIER CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	9.5
Soft paraffin	3.0
Beeswax	5.0
Talc	10.0
Glycerol	5.0
Water	Balance
Formula BRC1	

BARRIER CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	11.0
Beeswax	4.0
Lanolin	6.0
Glycerol	4.0
EMPIWAX SK	2.2
EMPICOL LZ	0.8
Zinc Stearate	15.0
Water	Balance
Formula BRC2	

FACIAL WASHING CREAM

RAW MATERIALS	% By Weight
EMPILAN CDE	18.0
EMPICOL ESB3	9.0
Myristyl ethoxymyristate	10.0
EMPILAN EGMS	5.0
EMPILAN GMS/SE40	4.0
Decyl oleate	5.0
Colour, perfume, preservative	qs
Water	Balance
Formula FWC1	

FACIAL WASHING CREAM

RAW MATERIALS	% By Weight
Propylene glycol	7.0
EMPICOL ESB3	3.0
Myristyl ethoxymyristate	10.0
LAUREX CS	6.0
Silicone fluid (400 cs)	4.0
Colour, perfume, preservative	qs
Water	Balance
Formula FWC2	

Two formulations are given as examples of rinsable, facial washing creams intended as alternatives to conventional soaps. The creams would normally be smoothed into the dry skin, and then rinsed with water to remove.

SOURCE: Albright & Wilson Americas: Formulas

BARRIER CREAM
COLD MIX FORMULA

RAW MATERIALS	% By Weight
Phase A:	
ABIL WE-09	5.0
Decyl Oleate	5.0
Caprylic/Capric Triglyceride	5.0
Isopropyl Myristate	5.0
Silica	0.5
Phase B:	
Sodium Citrate (solution)*	20.0
Water	58.7
Hydroxyethylcellulose	0.8
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.
* 100 G Sodium Citrate/1 liter water. pH adjusted to 5.0 with Citric Acid.	

Procedure:

1. In a vessel, blend together the ingredients of Phase A until uniform.
2. In a separate vessel, disperse the Hydroxyethylcellulose into the water.
3. Add Phase B slowly to Phase A with agitation.
4. Add Phase C, mix until dispersed.

MOISTURIZING CREAM
COLD PROCESS W/O

RAW MATERIALS	% By Weight
Phase A:	
ABIL WE-09	5.0
Mineral Oil	5.0
Caprylic/Capric Triglycerides	5.0
Isopropyl Myristate	5.0
Silica (Aerosil R812)	0.5
Phase B:	
Water	77.9
Sodium Chloride	0.8
Tylose H20	0.8
Preservatives	Q.S.
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Mix the oils of Phase A together. Slowly add the silica. Mix well.
2. Dissolve the sodium chloride in the water. With fast agitation, add the hydroxyethyl cellulose. Mix until uniform.
3. Add Phase B slowly into Phase A with agitation.
4. Homogenize.
5. Preservatives, perfume and color can be added at anytime.

SOURCE: Goldschmidt Chemical Corp.: Formulas

BARRIER CREAM

RAW MATERIALS	% By Weight
A Cremophor A 6	2.0
Cremophor A 25	2.0
Cetyl alcohol	5.0
Glycerol monostearate	5.0
Paraffin oil	9.0
Abil 100	1.0
B Glycerol	10.0
Luviquat FC 550	5.0
Water	61.0
Preservatives	q.s.
C Perfume	q.s.

Preparation:

Heat phases A and B separately to ca. 70C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in phase C.

Properties:

Soft, white cream. Conditions and protects skin (e.g. against oil) and leaves it soft to the touch.

Applications: Apply sparingly and rub into the skin.

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 952:
No. 50/045

O/W NIGHT CREAM

RAW MATERIALS	% By Weight
Cremophor A6	3.0
Cremophor A25	1.5
Glyceryl Mono stearate	3.0
Luvitol EHO	12.0
1,2-Propylene Glycol USP	2.0
(-)-alpha-Bisabolol	0.2
Tegiloxan 100	0.5
D-Panthenol 50P	6.0
Perfume	0.2
Preservative	0.5
Water	68.1

SOURCE: BASF Corp.: D-Panthenol: Formula

BLEACH CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 370	7.0
IMWITOR 900	6.0
MIGLYOL 812	18.0
MIGLYOL 840	9.0
B. Glycerin	15.0
Preservative	q.s.
Water	up to 100.0
C. Zinc Peroxide	2.0
D. Perfume ES 15843	0.3

Preparation:

(A) is melted and heated up to 75-80C. (B) is heated to the same temperature and gradually stirred into (A). The emulsion is gradually added to (C) and stirred in. Finally (D) is added.

Formula 1.1.13A

GLYCERIN CREAM WITHOUT PARAFFIN

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
IMWITOR 900	7.0
Special Oil 619	18.0
MIGLYOL 840	9.0
B. Glycerin	15.0
Preservative	q.s.
Water	up to 100.0
C. Perfume 74 706	0.3

Preparation:

(A) is heated to 75-80C. (B) is heated to the same temperature and is emulsified into (A). (C) is added at 30C.

Formula 1.1.13B

SOURCE: Huls America Inc.: Formulas

BODY CREAM

RAW MATERIALS	% By Weight
A Teginacid	6,00
Isopropyl Myristate	1,00
Belsil DM 350	1,00
Mineral Oil, low viscosity	4,00
Lanette O	1,00
B Water	73,50
Glycerine	1,50
C Belsil CM 040	10,00
Belsil BNP	2,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65-70C, stir B into A, stir C into AB.
 Temperature stability: at 45C over 10 weeks.
 Formulation 912 AH

COVER CREAM

RAW MATERIALS	% By Weight
A Candelilla Wax	5,50
Belsil SDM 6022	6,70
Stearic Acid	3,00
B Water	45,80
Propylene Glycol	3,40
Triethanolamine	1,30
C Belsil BNP	10,00
Titanium Dioxide	4,00
Pigments	2,00
D Belsil CM 040	18,30
Preservatives, fragrances	q.s.

Heat A and B each to 70C. Add B to A. Mix C to AB homogeneous-ly. Cool to approx. 30C and add D.
 Temperature stability: at 45C over 10 weeks.
 Formulation 781 AH

SOURCE: Wacker Silicone: Standard Formulations

BODY CREAM OR SKIN CARE CREAM, O/W

RAW MATERIALS	% By Weight
I. Emulgade SE	6.0
Lanette O	1.0
Cetiol V	3.0
IPP	3.0
Paraffin oil, viscous	4.0
Cetiol SB 45	2.0
II. 86% glycerine	3.0
Gluadin AGP	0.5
Allantoin	0.2
Deionized water, preservative	ad 100.0

Viscosity: 50,000 mPas

Formula no. 89/118/7.1

BODY SOFT CREAM, O/W FOR DRY, CHAPPED SKIN

RAW MATERIALS	% By Weight
I. Emulgade SE	6.0
Lanette O	1.5
Cetiol V	4.0
Cetiol 868	8.0
II. Glycerine 86%	5.0
Nutrilan Elastin P	5.0
Water, deionized, preservative	ad 100.0

Viscosity: 50,000 mPas

Formula no. 89/168/3

BODY CREAM OR CARE CREAM, O/W

RAW MATERIALS	% By Weight
I. Emulgade SE	6.0
Lanette O	1.0
Cetiol V	3.0
IPP	3.0
Paraffin oil, viscous	4.0
Cetiol SB 45	2.0
II. Glycerine 86%	3.0
Gluadin AGP	0.5
Allantoin	0.2
Water, deionized, preservative	ad 100.0

Viscosity: 50,000 mPas

Formula no. 89/118/7.1

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz & Nr. XIII/Lz

CARE CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Paraffin oil, subl.	4.0
Cetiol J 600	6.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100
Viscosity: 150000 mPas	
Formula no. 89/213/63	

CARE CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Paraffin oil, subl.	8.0
Cetiol SB 45	8.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100
Viscosity: 165000 mPas	
Formula no. 89/213/71	

O/W CARE CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Almond oil	16.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100
Viscosity: 82000 mPas	
Formula no. 89/213/72	

SOURCE: Henkel: Cosmetics No. XIV/90: Formulas

CHAMOMILE CREAM W/O

SUBSTANCE	% By Weight
A. Neo-PCL self-emulsifying W/O 2/066255	23.0
Miglyol 812	7.2
Nipasteril 30 K	0.3
Extrapone VC Special 2/032431	1.0
B. Water	62.5
Magnesium sulfate	0.5
Karion F	5.0
Neo-Extrapone Chamomile 2/060350	0.2
C. Perfume oil	0.3

Suggestions on preparation:

During manufacture the phases should be emulsified with a stirrer at about 400 to 500 rpm. Stirring speed must be maintained throughout the process. The cream must be homogenized.

Suggested Formulation No. VKC 424/54

HAND CREAM

SUBSTANCE	% By Weight
A. Tegin M	8.0
PCL-solid 2/066210	5.0
Isopropyl myristate 2/044111	5.5
Beeswax DAB 7	2.0
Nipasteril 30 K	0.3
Cetyl alcohol	1.0
Calendula oil 2/383530	0.5
Silicone oil AK 100	0.5
B. Dragophos 2/918500	2.0
Water	69.8
Propylene glycol	3.0
Glycerin	2.0
C. Perfume oil	0.4

Suggested method of preparation:

Heat phases A and B separately to about 80C and emulsify phase B into phase A with a stirrer. For optimal emulsification the emulsifier Dragophos 2/918500 should be suspended in the water phase.

Suggested Formulation No. VKH 488/50

SOURCE: Dragoco, Inc.: Formulas

CLEANSING CREAM

RAW MATERIALS	% By Weight
Phase I:	
Myvaplex 600P concentrated glyceryl monostearate	6.00
Emersol 132 USP/NF Lily stearic acid	4.00
Petroleum jelly, USP	10.00
Drakeoil #9	10.00
Isopropyl myristate	10.00
SF18 (350 cP) silicone fluid	2.00
Phase II:	
Demineralized water	49.60
Propylene glycol USP	5.50
Triethanolamine 98%	0.70
Germaben II E preservative	1.50
Methyl paraben USP	0.20
Phase III:	
EASTMAN Vitamin E 6-81	0.30
Phase IV:	
Perfume	0.20

Procedure:

1. Heat Phase I and Phase II separately to 80C with propeller mixing until all chemicals are dissolved and uniform.
2. At 80C while propeller mixing, add Phase II to Phase I, w/o.
3. Continue mixing while cooling slowly to 50C. Adjust mixing to 50C due to viscosity change (thickening occurs).
4. At 50C add Phase III while mixing. Once uniform, add Phase IV with mixing.
5. Continue to adjust mixing as needed. Force cool, if needed, until emulsion reaches 32C. The product will look somewhat unstable at this stage. Inversion will occur at 32C and the cream will become very smooth and white. Continue to force cool to room temperature.

Typical Properties:

pH: 7.71

Oven Stability: Four months at 45C--No separation

Freezer Stability: No separation after three thaws

Room Temperature Stability: Six months at 25 to 27C--No separation

Cycle Stability: No separation

Centrifugation: 7 hours at 3000 rpm--No separation

SOURCE: Eastman Chemical Products, Inc.: Formulation

CLEANSING CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
MIGLYOL 812	5.0
Stearic Acid	7.0
Cetyl Alcohol	2.0
Castor Oil	1.0
Sunflower Oil	4.0
Antioxidants	q.s.
B. Glycerin	4.0
Preservative	q.s.
Water	ad 100.0
C. Triethanolamine	0.9
D. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B). (B + C) are emulsified into (A). At about 30C, the perfume is added.

Formula 1.4.3

CLEANSING CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
Lanette N	4.0
MIGLYOL 812	3.0
SOFTISAN 378	3.0
Mineral Oil	7.0
Hostaphat KL 340N	0.5
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in as about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.4

SOURCE: Huls America Inc.: Formulas

CLEANSING CREAM

RAW MATERIALS	% By Weight
A. Schercemol MM	4.00
Stearic Acid, Triple Pressed	3.00
Schercemol 318	7.00
Schercemol PGMS	4.00
Propyl Paraben	0.20
Arlacel 165	2.50
Cetyl Alcohol	1.00
B. Triethanolamine	1.50
Carbowax 400	5.00
Water, Deionized	71.35
Methyl Paraben	0.20
C. Fragrance	0.25

Procedure:

1. Prepare Part A. Heat it to 70-75C.
2. Prepare Part B. Heat it to 70-75C.
3. Add Part B to Part A with continual stirring.
4. Cool to 40C with agitation. Add fragrance.

SOURCE: Scher Chemicals, Inc.: Formula

CLEANSING CREAM

FORMULA	% By Weight
Oil Phase:	
OHLAN	3.0
AMERLATE P	2.0
Beeswax	10.0
Mineral Oil, 80-90 vis.	44.0
Glyceryl Stearate	2.0
Ozokerite	5.0
Water Phase:	
Borax	0.6
Water	28.6
BioCare Polymer HA-24	3.8
Germaben IIE	1.0

Description:

Glossy, w/o cleansing cream with the properties of a night cream. BioCare Polymer HA-24 is designed to deliver Hyaluronic Acid as a substantive molecular complex to the skin. Enhanced softening and lubricating properties without greasiness or tackiness. This formulation is very effective on dry areas, such as heels and elbows. Water-retaining function holds moisture yet allows skin to breathe. OHLAN contributes to the stability of the w/o cream. AMERLATE P is an excellent emollient.

SOURCE: Amerchol Corp.: BIO CARE Polymer HA-24: Formula
T56-31-3

CLEANSING CREAM

INGREDIENTS	% By Weight
Phase A:	
Mineral Oil	40.0
Beeswax	5.5
Velsan P8-16	2.7
Velsan D8P-3	5.0
Naturechem GMHS	0.3
Arlacel 60	3.5
Tween 60	2.9
Phase B:	
Propylene Glycol	4.0
Borax	0.1
Water, Fragrance, Preservatives	Q.S.

Procedure:

Heat A and B separately to 70C. Add B to A with rapid agitation. Discontinue heating and stir to set point.

An emollient cream for makeup removal incorporating Velsans as moisturizers. This water-in-oil product is designed to be wiped away with a tissue. Velsans help to reduce the oily after-feel.

SOURCE: Sandoz Chemicals Corp.: Formulation No. CSC-09

SCRUBBING CREAM

INGREDIENT	% By Weight
Cirami No. 1	2.0000
Arlacel 165	5.0000
Cetyl Alcohol	1.0000
Sunflower Oil	5.0000
Tri-Sept P	0.1000
Vitamin E Acetate	0.0150
Brookswax D	1.5000
Diatami 60-200 Micron	8.0000
Relaxant #278 HS	3.0000
Tri-Sept M	0.2000
Tristat IU	0.2000
Perfume	0.2000
Demineralized Water	73.7850

Procedure:

1. Combine waxes, oils and propylparaben in main tank and heat to 75C.
2. Heat water to 75C and add methylparaben.
3. Add water phase to main tank with prop agitation and mix until uniform.
4. Switch to sweep agitation and begin cooling to 50C.
5. Add Diatami and mix until uniformly dispersed.
6. Continue cooling to 40C. and add Tristat IU and fragrance.

SOURCE: TRI-K Industries, Inc.: Code AMI.009.

COLD CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	9.5
Beeswax	3.0
LAUREX CS	3.0
Liquid paraffin	30.0
Glycerol	8.0
Perfume, preservative	qs
Water	Balance

COLD CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	9.5
Liquid paraffin	14.0
Glycerol	3.0
White soft paraffin	9.0
Hard paraffin	6.0
Perfume, preservative	qs
Water	Balance

Formula CC2

COLD CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	8.0
Liquid paraffin	5.0
White soft paraffin	4.0
Lanolin (hydrous)	1.0
Perfume, preservative	qs
Water	Balance

Formula CC3

SOURCE: Albright & Wilson Americas: Formulas

COLD CREAM FORMULATION WITH JOJOBA OIL-A

RAW MATERIALS	% By Weight
Part A:	
Ross Beeswax Substitute 628/5	11.0
Ross Fully Refined Paraffin Wax 150/160	2.0
Mineral Oil 80/90	45.5
Glycerol Monostearate S.E.	0.3
Ross Jojoba Oil	2.0
Part B:	
Borax	0.8
Water	38.4
Fragrance	q.s.
Preservative	q.s.

COLD CREAM FORMULATION WITH JOJOBA OIL-B

RAW MATERIALS	% By Weight
Part A:	
Ross Beeswax Substitute 628/5	13.0
Ross Fully Refined Paraffin Wax 150/160	0.0
Mineral Oil 80/90	47.5
Glycerol Monostearate S.E.	0.3
Ross Jojoba Oil	0.0
Part B:	
Borax	0.8
Water	38.4
Fragrance	q.s.
Preservative	q.s.

COLD CREAM FORMULATION WITH JOJOBA OIL-C

RAW MATERIALS	% By Weight
Part A:	
Ross Beeswax Substitute 628/5	13.0
Ross Fully Refined Paraffin Wax 150/160	0.0
Mineral Oil 80/90	45.5
Glycerol Monostearate	0.3
Ross Jojoba Oil	2.0
Part B:	
Borax	0.8
Water	38.4
Fragrance	q.s.
Preservative	q.s.

Procedure:

Heat Part A to 170F. and agitate. Heat Part B to 170F. and agitate. Cool to 160F. and add Part A to Part B at 160F with good agitation. Cool slowly with agitation and pour at 110F.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formula

COLD CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
"Amerchol" L-101	3.00
"Acetulan"	4.00
Beeswax	10.00
Ozokerite	7.00
Glycerol Monostearate	2.00
Mineral Oil	30.00
Water Phase:	
Borax	0.60
Triethanolamine, 99%	0.25
POLYOX WSR-205	0.50
Water, preservatives, fragrance	q.s.

Preparation Procedure:

1. Dissolve the POLYOX WSR-205 in the available water.
2. Then add the borax and triethanolamine.
3. Heat the water phase to 80C.
4. Heat the oil phase to 80C.
5. Add the water phase to the oil phase while stirring vigorously.
6. Add the preservatives and fragrance when the mix reaches the appropriate temperature.
7. Continue stirring until the temperature reaches 30-35C.
8. The pH may be adjusted if desired with citric acid.

SOURCE: Union Carbide Corp.: POLYOX Water-Soluble Resins:
Formula

ALL-PURPOSE CREAM, VITAMIN CONTENT TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Adeps lanae	3.0
Bees-wax	3.0
Vegetable oil	7.7
Isopropyl palmitate	7.0
Vitamin F Glyceryl Ester CLR	3.0
Tocopherol Oil CLR	3.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	48.1
Karion F liquid	5.0
Magnesium sulphate	0.2

Manufacture:

- a) melt and bring to about 70C;
 - b) heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume, roll.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 26

COLD CREAM (O/W)

RAW MATERIALS	% By Weight
POLYSYNLANE	32.0
Mineral Oil	4.0
Paraffin Wax	4.0
I.P.M.	8.0
Bee's Wax	3.0
Lanolin	8.0
Propylene Glycol	4.0
Potassium Hydroxide	0.3
Arlacel 40	2.5
P.O.E. sorbitol Bee's Wax	1.0
Stearic Acid	1.5
Perfume & Preservatives	q.s.
Water	ad. 100.0

EMOLLIENT CLEANSING CREAM

RAW MATERIALS	% By Weight
Amerchol CAB	5.0
Amerlate P	2.0
POLYSYNLANE	30.0
Bee's Wax	10.0
Arlacel 60	2.0
Ozokerite	5.0
Carbopol 940	0.2
Triethanol Amine (10% soln.)	2.0
Tween 60	3.0
Propylene Glycol	4.0
Preservatives & Perfume	q.s.
Water	ad 100.0

ENRICHED NIGHT CREAM (W/O)

RAW MATERIALS	% By Weight
AL Lanolate	0.6
Lanolin Alcohol	2.5
Mineral Oil	7.5
Paraffin Wax	2.5
POLYSYNLANE	12.0
I.P.M.	6.0
Olive Oil	1.0
Dehymuls E	2.5
Propylene Glycol	6.0
Perfume & Preservatives	q.s.
Water	ad 100.0

SOURCE: Polyesther Corp.: Formulas

CREAM CONCEALER (SPF 8) (MEDIUM)

INGREDIENTS	% By Weight
Phase A:	
Ozokerite	0.60
Candelilla Wax	0.90
Carnauba	0.60
Beeswax (white, bleached)	0.40
Glyceryl Tribehenate	6.00
Polyethylene	1.00
CERAPHYL 375	12.00
Phase B:	
CERAPHYL 41	6.00
ESCALOL 557	2.30
ESCALOL 567	0.30
Propylparaben	0.15
BHA	0.05
Dimethicone	9.20
CERAPHYL 847	15.70
CERAPHYL GA	3.00
Phase C:	
MICA DD	19.61
Aluminum Starch Octynylsuccinate	14.00
Titanium Dioxide	5.00
CHROMA-LITE Red	0.88
CHROMA-LITE Yellow	1.16
CHROMA-LITE Brown	0.88
CHROMA-LITE Black	0.24
Ultramarine Blue	0.03

Procedure:

1. Heat Phase A to 100C. Mix until uniform.
2. Heat Phase B to 85C. Mix until uniform.
3. Add Phase B to Phase A at 85C.
4. Add Phase C using PK blender. Mix until uniform.
5. Add Phase C to base.
6. Pour at 85C.

SOURCE: Van Dyk & Co., Inc.: Formula #K137-28-2

CLEANSING CREAM (MAKE UP REMOVER)

COMPONENTS	% By Weight
Ozokerite	5
Stearic Isopropanolamid	3
Vaseline	100
Vaseline Oil	22
Isostearilic Alcohol	3
Bentone Gel MIO	11
Antiox Antioxidant	Sufficient quantity

SOURCE: La Ceresine: Formula

CREAM, FOR APPLICATION TO GREASY AND BLEMISHED SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Lamecreme IR 1	10.0
Softisan 100	3.0
Lanette 16	1.0
Miglyol 812	10.0
Deodorant Richter/K	0.3
Preservative	q.s.
b) Water, distilled, preserved	69.7
Karion F liquid	5.0
c) Biosulphur Powder	1.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

CREAM MASK, FOR APPLICATION TO GREASY AND BLEMISHED SKIN
TYPE O/W

RAW MATERIALS	% By Weight
a) Cutina MD-A	12.0
Eumulgin B1	4.0
Cetiol V	5.0
Eutanol G	5.0
Deodorant Richter/K	0.3
Preservative	q.s.
b) Texamid 578L (2% aqueous solution)	67.7
Karion F liquid	5.0
c) Biosulphur Powder	1.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

Preparation of the 2% aqueous Texamid 578 L solution:

Introduce 20g Texamid 578L into 980g distilled, preserved water at room temperature, with rapid stirring. Continue stirring until the solution is free from lumps.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 4

CREAM, O/W

RAW MATERIALS	% By Weight
a) Cutina E 24	3.0
Cutina MD	5.0
Myritol 318	6.0
Lanette O	2.0
Cetiol V	6.0
Phenonip	3.0
b) Water, distilled	62.4
Phenonip	0.3
Glycerin	5.0
c) Proteodermin	10.0

Manufacture:

a) melt and bring to approx. 70C,

b) heat to approx. 70C and stir into a).

Continue stirring until the cream has cooled to approx.

30C,

c) stir in.

Perfume, homogenize

CREAM, O/W

RAW MATERIALS	% By Weight
a) Emulgator E 2149	7.0
Tagat S	1.0
Isopropyl myristate	5.0
Cetyl alcohol	2.0
Paraffinum subl.	10.0
Phenonip	0.3
b) Water, distilled	66.4
Phenonip	0.3
Glycerin	3.0
c) Proteodermin	5.0

Manufacture:

a) melt and bring to approx. 70C,

b) heat to approx. 70C and stir into a).

Continue stirring until the cream has cooled to approx.

30C,

c) stir in.

Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 PROTEODERMIN: Formulas

CREAM O/W

RAW MATERIALS	% By Weight
a) Eumulgin 286	3.00
Cetiol J 600	5.00
Phenonip	0.30
Water, distilled	80.70
Hostacerin PN 73	1.00
b) Glycoderm	10.00

Preparation:

- a) Mix in the order given; stir until free of lumps.
- b) Stir in slowly.
Perfume.

GLYCODERM Formula No. 8078

CREAM, W/O

RAW MATERIALS	% By Weight
a) Arlacel 582	10.0
Bees wax	3.0
G 4909	3.0
Miglyol 812	10.0
Cetiol S	10.0
Phenonip	0.3
b) Water, distilled	50.7
Phenonip	0.3
Magnesium sulfate	0.7
Glycerin	2.0
c) Proteodermin	10.0

Manufacture:

- a) Melt and bring to approx. 70C,
- b) Heat to approx. 70C and stir into a).
- Continue stirring until the cream has cooled to approx. 30C,
- c) Stir in.
Perfume, roll.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
PROTEODERMIN Formula

DAY CREAM

INGREDIENTS	% By Weight
A Arlatone 983 S	1,200
Brij 76	1,200
Cutina MD	4,000
Neo Heliopan, Type E 1000 656083	2,500
Neo Heliopan, Type BB 116210	0,700
Isopropyl myristate	2,000
Baysilone Fluid M 10	0,800
Finsolv TN	6,000
Solbrol P	0,050
B Demineralized Water	48,400
Solbrol M	0,150
Glycerin 86%	4,000
Germall 115	0,200
C Demineralized Water	25,000
Carbopol 954	0,400
Sodium hydroxide (10% aq. solution)	1,200
Perfume Oil	0,200
Cremogen Camomile forte 728 790	2,000

Manufacturing Process:

Part A: Heat up to 75C.

Part B: Heat up to 85C.

Add part B to part A slowly while stirring. Cool while stirring to 55C.

Part C: Disperse the Carbopol in the water using high speed agitation. Mix to form a uniform dispersion free from lumps. Add sodium hydroxide solution while stirring to form a high viscid gel. Add part C to part A/B while stirring. At 35C add the fragrance, the cremogen and cool down while stirring to room temperature.

The pH value of the finished cream should be at 6.5-7.0.

Remark: Without any colour dye:

the yellow-brownish colouring of the cream depends on the native colouring of the plant extract.

Instruction:

In EEC countries the use of more than 0.5% Benzophenone-3 in sunscreen products is liable to declare: contains Oxybenzone.

SOURCE: Haarman & Reimer GmbH: Formula K 2/1-45847 H/E

DAY CREAM

RAW MATERIALS	% By Weight
A Stearic Acid	25,00
Belsil PDM 20	5,00
B Glycerine	8,00
Aminomethylpropanol	1,50
Water	60,50
Preservatives, perfume, pigments	q.s.

Heat A and B each to 75C. Stir A slowly into B. Stir cold.
Temperature stability: at 45C over 10 weeks.

White firm cream with a silky shine. Absorbed well, leaves a dry feeling on the skin.

Formulation 399 AH

DAY CREAM

RAW MATERIALS	% By Weight
A Lanette N	15,00
Eutanol G	5,00
Belsil DM 350	10,00
Belsil PDM 20	2,00
B Glycerine	5,00
Water	63,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 70C. Stir B into A, stir cold.

Temperature stability: at 45C over 10 weeks.

Soft white cream. Absorbed well, slightly cooling effect.

Formulation 404 AH

EMOLLIENT CREAM

RAW MATERIALS	% By Weight
A Arlacel 165	6,00
Arlamol E	3,00
Cetyl Alcohol	5,00
Petrolatum	3,00
Belsil PDM 20	2,00
B Sorbitol 70%ig	10,00
Water	71,00
Preservatives, fragrances, pigments	q.s.

Heat A to 70C, heat B to 72C. Stir B into A, stir cold.

Temperature stability: at 45C over 10 weeks.

White firm cream. A slightly cooling effect.

Formulation 405 AH

SOURCE: Wacker Silicone: Standard Formulations

DAY CREAM

RAW MATERIALS	% By Weight
A) Stearic Acid	25.0
Phenyl Dimethicone	5.0
B) Glycerine	8.0
Aminomethyl propanol	1.5
Water	60.5
Preservative	q.s.
Perfume, pigments	q.s.

Procedure:

Heat (A) and (B) each to 75C. Stir A slowly into B. Stir cold.

Temperature Stability: Over ten weeks at 45C.

Provides a white firm cream with a silky shine. Absorbed well, leaves a dry feeling on the skin.

SOURCE: Angus Chemical Co.: Formula PF-0165 suggested by Wacker-Chemie GmbH

URBAN PROTECTION DAY CREAM

INGREDIENT	% By Weight
Demineralized Water	65.000
Carbopol 1342, 2%	15.000
Glycerine	2.000
Brookswax D	1.000
Finsolv TN	2.000
DC 200 Fluid, 350 cs	0.500
Germaben II-E	1.000
Biomin Se/P/C	0.300
Dermasome SOD	10.000
Dermasome E	3.000
AMP	0.200

Procedure:

1. Disperse the Carbopol in Water while heating to 75C.
2. Add the Glycerin and mix well.
3. Blend the Finsolv TN, Brookswax D, and Silicone Fluid at 70C until uniform and add to Water Phase. Mix until uniform.
4. Add the AMP and mix until uniform with fast propellor agitation.
5. Cool to 50C and add the Biomin Se/P/C and Germaben with sweep agitation.
6. Cool to 35C and add the Dermasomes.
7. Fragrance as desired and mix well.
8. Adjust pH to 5.0 with Citric Acid if required.

This light textured day cream contains an effective level of natural antioxidants to provide protection from urban environmental influences. The antioxidants are in the form of Liposomes as Dermasome SOD and Dermasome E to provide enhanced penetration and efficacy and the Protein-bound Biomin Se/P/C.

SOURCE: Angus Chemical Co.: Formula PF-0163

DAY CREAM, OILY

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
MIGLYOL 812	6.0
MIGLYOL 840	6.0
SOFTISAN 649	5.0
DYNACERIN 660	3.0
Stearic Acid	5.0
Cetyl Alcohol	3.0
B. Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Fragrance	q.s.

Preparation:

(A) is heated up to ca. 75C. (B) is heated up to the same temperature. (C) is added to (B). (B) and (C) are emulsified into (A). (D) is added at about 30C.

Formula 1.1.1

DAY CREAM WITH AZULENE

RAW MATERIALS	% By Weight
A. Stearic Acid	5.0
IMWITOR 960	5.0
Cetyl Alcohol	1.0
Mineral Oil	5.0
MIGLYOL 812	5.0
MIGLYOL 840	5.0
B. Water	up to 100.0
Sorbitol	5.0
Preservative	q.s.
C. Triethanolamine	0.9
D. Perfume A 103 751	0.3
Azulene	0.1

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and then (B + C) are slowly emulsified into (A).

Below 40C., (D) is added.

Formula 1.1.2

SOURCE: Huls America Inc.: Formulas

DAYCREAM O/W

SUBSTANCE	% By Weight
A. Dragil 2/027011	12.0
Isopropyl myristate 2/044111	2.0
PCL-solid 2/066220	2.0
Nipasteril 30 K	0.3
B. Water	80.3
Karion F	3.0
C. Perfume oil	0.4

Suggested Formulation No. VKC 103/40

DAY CREAM O/W

SUBSTANCE	% By Weight
A. Neo-PCL self-emulsifying O/W	
2/066280	23.00
Isodragol 2/050300	3.00
Isopropyl myristate 2/044111	2.00
Nipasteril 30 K	0.30
Hostaphat KL 340 N	1.00
B. Distilled water	65.75
1,2-propylene glycol	3.00
Glycerin DAB 7	1.50
Borax	0.15
C. Perfume oil	0.30

Suggested Formulation No. VKC 716/70

SOURCE: Dragoco, Inc.: Formulas

SOFT DAY CREAM

RAW MATERIALS	% By Weight
POLYSYNLANE	15.0
Stearic Acid	3.0
Cetanol	1.5
Arlacel 60	2.0
Tween 60	1.0
Propylene Glycol	6.0
Perfume & Preservatives	q.s.
Water	ad 100.0

SOURCE: Polyester Corp.: Formula

DAY CREAM WITH VEGETABLE OIL

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
MIGLYOL 818	3.0
MIGLYOL 840	2.0
Stearic acid	5.0
Cetyl alcohol	1.0
Sunflower oil	5.0
Almond oil	5.0
Antioxidants	q.s.
B. Preservative	q.s.
Water	ad 100.0
C. Triethanolamine	0.7
D. Collagen CLR	4.0
Perfume oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and (B + C) are emulsified into (A). (D) is added at 30C.

SOURCE: Huls America Inc.: Formula 1.1.3

DAY CREAM, HERB/VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Tagat S	5.0
Tegin M	2.0
Stearin	2.0
Adeps lanae	1.0
Vitamin F Glyceryl Ester CLR	2.0
Avocado Oil CLR	5.0
Calendula Oil CLR	2.0
Preservative	q.s.
b) Water, distilled, preserved	67.0
Carbopol 934	1.0
c) Water, distilled, preserved	11.0
Triethanolamine	2.0

Manufacture:

- Melt and bring to about 80C;
 - disperse with rapid stirring, heat to about 80C and stir into a);
 - stir in.
- Perfume, homogenize

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model Formulations 3

DAY REGENERATIVE CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Cutina CBS	11.0
Lanette 16	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	9.0
Preservative	q.s.
b) Water, distilled, preserved	60.0
Karion F liquid	5.0
c) Elastin CLR	10.0

Manufacture:

- a) melt and heat to approx. 70C;
 b) heat to approx. 70C and stir into a).
 Continue stirring until the cream has cooled down to approx.
 35C;
 c) stir in.
 Perfume, homogenize.

FACE/NECK CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgator E2155	10.0
Cutina BW	3.0
Liquid paraffin	10.0
Isopropyl myristate	8.0
Vaseline	3.0
Myritol 318	3.0
Preservative	q.s.
b) Water, distilled, preserved	48.0
Karion F liquid	5.0
c) Collagen CLR	5.0
d) Elastin CLR	5.0

Manufacture:

- a) melt and heat to approx. 70C;
 b) heat to approx. 70C and stir into a).
 Continue stirring until the cream has cooled down to approx.
 30C;
 c) and d) stir in.
 Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 11

DEPILATORY CREAM

COMPOSITION	% By Weight
Phase A:	
Lanette O	10.0
Emulgin B 1	2.0
Cetiol V	3.0
Phase B:	
Urea	4.0
Water	ad 100.0
Phase C:	
Calcium thioglycolate	7.5
Calcium hydroxide	1.5
Phase D:	
Pearl pigment (silver or interference types)	+5.0

Manufacturing process:

The ingredients of phase A and B are separately heated to 75C. Under stirring phase B is added to phase A. The mixture is homogenized. At appr. 40C. the ingredients of C are added under stirring and if necessary the mixture is homogenized once more. Finally the pearl pigment is added and stirring is continued until a homogeneous cream is obtained.

PEELING CREAM WITH PEARL PIGMENTS

RAW MATERIALS	% By Weight
Lanette N	8.0
Eutanol G	5.0
Cetyl alcohol	2.0
Sorbitol	5.0
Preservatives	0.2
Allatoin	0.1
Texapon N 25	5.0
Polymist B6	1.0
Timiron MP-115	5.0

Manufacturing Process:

Oily phase and water phase are heated separately to 70-74C. Then water phase will be stirred into the oil phase, slowly cooled and homogenized at about 60C. Finally, fragrance, pearl pigment and polyethylene powder are to be stirred into carefully at 40C.

SOURCE: EM Pigments Division: Formulas

DEPILATORY CREAM

RECIPE	% By Weight
A HOSTACERIN DGS	6.00
HOSTACERIN T-3	5.00
Stearic acid	3.00
Mineral oil, high viscosity	3.00
B Urea	4.00
Water	48.50
Preservative	q.s.
C Thioglycollic acid 80%	6.00
Lithium hydroxide	4.50
Water	20.00

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir II into I.
- IV Stir until cool.
- V Add the solution of C to IV at room temperature.

SOURCE: Hoechst: Guide Formulations: Formula A VI/8702

PLACENTA SKIN CREAM

INGREDIENTS	% By Weight
Part A:	
LANETTE 16	5.00
CETIOL 1414E	5.00
EUMULGIN B-1	0.40
EUMULGIN B-2	0.35
Part B:	
Water	83.95
Sorbitol	3.00
Dowicil 200	0.10
Part C:	
Fragrance	0.20
Part D:	
Placentaliquid Water-Soluble	2.00

Procedure:

Heat Part A to 75-80C. Heat Part B to 75-80C. Add Part B to Part A under agitation. Cool to 45C and add Part C. At 35C, add Part D. Continue mixing until product reaches room temperature. Fill off.

Comments:

This smooth and shiny cream, containing CETIOL 1414-E, rubs in easily leaving an emollient feel on the skin.

SOURCE: Henkel: Suggested Formula H-4826

DRY SKIN CARE CREAM

RAW MATERIALS	% By Weight
I. APIFAC	12,00
Mineral Oil	10,00
M.O.D. WL 2949	6,00
II. Demineralized Water	63,30
Carbopol 934	0,30
Glycerin	5,00
Preservative	QS
Triethanolamine 99% (50% solution)	0,60
CEVENYL	2,00
Racemic Alphabisabolol	0,50
Perfume	0,30

Preparation:

Disperse the Carbopol. Let stand.

Pour II heated up to 80C into I heated up to 80C. Add the T.E.A. solution and the CEVENYL and stir quickly.

Then cool down with normal stirring.

Around 30-35C, add the other components.

Formula MM 3011

HANDS CREAM

RAW MATERIALS	% By Weight
I. EMULCIRE 61 WL 2659	10,00
Stearic Acid	2,00
M.O.D. WL 2949	5,00
Silicone 200 (100CS)	0,50
II. Demineralized Water	79,30
Glycerin	3,00
Preservative	Q.S.
Perfume	0,20

Preparation:

Under stirring pour II heated up to 75C into I heated up to 75C.

Cool while stirring and around 30C, add the other components.

Formula MM 2934

SOURCE: Gattefosse: Formulas

DRY SKIN CREAM

FORMULA	% By Weight
Phase A:	
QUATRISOFT POLYMER LM-200	0.2
Water	36.1
Phase B:	
Carbomer 940	0.2
Water	39.8
Triethanolamine (99%)	0.2
Phase C:	
Propylene Glycol	3.0
GLUCAMATE SSE-20	3.5
Phase D:	
AMERCHOL L-101	8.0
MODULAN	1.0
Glyceryl Monostearate, Neutral	2.0
GLUCATE SS	1.5
Mineral Oil	4.5
Perfume and Preservative	q.s.

Procedure:

Disperse QUATRISOFT POLYMER LM-200 in water at room temperature with good agitation. When thoroughly dispersed, heat to 75C until uniform. Mix phase B separately until uniform at room temperature. Add phase A to phase B, minus triethanolamine with mixing. When thoroughly mixed, add the triethanolamine with mixing until gel-like. Heat AB and phase C to 75C. Add phase C to AB. Heat phase D to 75C and add to ABC. Cool to room temperature with mixing.

Description:

Soft, white, glossy cream for use on dry skin. QUATRISOFT POLYMER LM-200 (cationic cellulosic polymer) is substantive to the skin, imparting a smooth, silky afterfeel. The nonionic emulsifying pair of GLUCATE SS (w/o) and GLUCAMATE SSE-20 (o/w) produces a stable emulsion over a wide temperature range. AMERCHOL L-101 acts as a w/o stabilizer in this o/w cream, and along with MODULAN, also provides emolliency.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-147-1

DRY SKIN CREAM(O/W)

FORMULA	% By Weight
Oil Phase:	
PROMULGEN D	0.7
GLUCAM P-20 DISTEARATE	2.0
GLUCATE DO	0.5
ACETULAN	2.0
Cetyl Alcohol (CETAL)	1.0
Stearic Acid, xxx	4.0
Mineral Oil, 70 vis.	5.0
Cetyl Palmitate	1.0
Water Phase:	
Carbomer 934	0.3
Triethanolamine (10% aqueous)	17.0
Water	66.5
Perfume and Preservative	q.s.

Procedure:

Disperse the carbomer 934 in water with vigorous agitation. Heat the oil and water phases, minus the triethanolamine, to 85C. Add water phase to oil phase with moderate agitation. Immediately add the triethanolamine. Mix while cooling to room temperature. Add perfume at 40C.

Soft, glossy cream for dry skin. Good temperature stability and auxiliary emulsification are provided by Promulgen D and Glucate DO. Glucam P-20 Distearate functions as the moisturizer. The combination of Acetulan and Glucam P-20 Distearate impart the velvety emollient afterfeel and excellent rub-in.

SOURCE: Amerchol Corp.: PROMULGEN: Formula T51-34-3

ALL PURPOSE CREAM

RAW MATERIALS	% By Weight
Cutina FS 25	4.0
Cutina MD	9.0
Eutanol G	11.0
Paraffin oil, thin liquid	5.0
Potassium hydroxide (20% sol.)	1.0
Glycerol	5.0
Perfume, preservative	q.s.
Water	ad 100.0

SOURCE: Henkel: Cospha Formulation no. 89/298/59

DRY SKIN CREAM

RAW MATERIALS	% By Weight
Part (A):	
Modulan	3.7
Amerchol L-101	4.2
Isopropyl Myristate	2.7
Sodium Stearate Pure	10.0
Glyceryl Mono Stearate SE	1.8
Ross Spermaceti Wax Sub. 573	5.5
Ross Jojoba Oil	1.8
Part (B):	
Water	59.7
Emery 916 Glycerine Pure	9.2
Triethanolamine	1.4
Part (C):	
Preservative	q.s.
Part (D):	
Fragrance	q.s.

Procedure:

Melt Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached, mix Part (A) to Part (B) and cool. Package in containers at below 120F.

SOURCE: Frank B. Ross Co., Inc.: *Cosmetic Formulary: Formulas*

SKIN-CARE CREAM

RAW MATERIALS	% By Weight
A ARLACEL 481	6.0
Beeswax	1.0
Paraffin oil	19.0
MIGLYOL 812	3.0
Magnesium stearate	1.0
B 1,2-polypropylene glycol	3.7
Magnesium sulphate-7H ₂ O	0.7
Water	65.3
C. Perfume	0.3
Preservative	

SOURCE: Schulke & Mayr GmbH: *EUXYL K400: Formulation Nr. 6*

ELEGANT COLLAGEN CREAM I

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
MIGLYOL 812	5.0
MIGLYOL 840	5.0
Stearic acid	5.0
Cetyl alcohol	1.0
Mineral oil	5.0
B. Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Collagen	5.0
Azulene	0.1
Perfume oil A 103.751	0.3

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and then (B + C) are slowly emulsified into (A). Below 40C., (C) is added.

Formula 1.1.2A

ELEGANT COLLAGEN CREAM II

RAW MATERIALS	% By Weight
A. SOFTISAN 100	2.0
MIGLYOL 812	4.0
MIGLYOL 840	10.0
DYNACERIN 660	6.0
Lanette N	10.0
Lanolin Oil	3.0
B. Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Collagen	5.0
Perfume oil GC 10 776	0.3

Preparation:

(A) is melted and heated to about 70C. (B) is heated to the same temperature and stirred into (A). (C) is added at about 35C.

Formula 1.1.11A

SOURCE: Huls America Inc.: Formulas

ELEGANT COLLAGEN DAY CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL 812	5.0
MIGLYOL 840	5.0
IMWITOR 960	5.0
Stearic Acid	5.0
Mineral Oil	5.0
Cetyl Alcohol	1.0
B. Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Perfume Oil A 103.751	0.3
Collagen	5.0

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is heated to (B) and (B + C) are emulsified into (A). Below 40C (D) is added.

Formula 1.1.2B

COLLAGEN CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A. SOFTISAN 100	2.0
SOFTISAN 645	5.0
MIGLYOL 812	4.0
MIGLYOL 840	10.0
DYNACERIN 660	6.0
Lanette N	10.0
B. Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0
C. Collagen	5.0
Perfume Oil	q.s.

Preparation:

(A) is melted and heated to about 75-80C. (B) is heated to the same temperature and stirred into (A). (C) is added at about 35C.

Formula 1.1.11B

SOURCE: Huls America Inc.: Formulas

EMOLLIENT CREAM

INGREDIENT	% By Weight
Demineralized Water	79.8850
Cirami No. 1	3.0000
Jojoba	2.0000
Arlacel 165	5.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Tri-Sept M	0.2000
Tensami 4/07	0.4000
Horsetail Extract AMI	3.0000
Wheat Milk Extract AMI	1.0000
Organic Silicone AMI	1.0000
Tri Col SP-1	0.5000
Tristat IU	0.2000
Perfume	0.2000

Procedure:

1. Combine oil phase materials in main tank and heat to 75C. to dissolve.
2. Heat water to 75C. and add with prop agitation to main tank.
3. Add Methylparaben, Tensami and mix until uniform. Switch to sweep agitation.
4. Begin cooling to 50C. and add Tristat IU.
5. Add Horsetail, Wheat Milk Extracts and Organic Silicone and mix until uniform.
6. Cool to RT and add the Collagen. Mix until uniform.
7. Add fragrance and mix until uniform.

SOURCE: TRI-K Industries, Inc.: Code AMI.005.

EMOLLIENT CREAM

INGREDIENTS:	% By Weight
Part A:	
CUTINA CBS	10.00
EUMULGIN B-1	3.00
Part B:	
Water	85.85
Germaben II	1.00
Part C:	
Fragrance	0.15

Procedure:

Heat Part A to 70-75C. Heat Part B to 70-75C. While agitating, add Part B to Part A. Remove heat and continue mixing during cooling step. When the batch temperature has reached 40-45C, add Part C. Continue stirring for 15-30 minutes. Fill off.

SOURCE: Henkel: Formula H-4877

EMOLLIENT CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/NSE40	2.5
EMPILAN KM50	5.0
Stearic acid	2.0
Technical white oil	25.0
Glycerol	10.0
Triethanolamine	0.8
Dye, perfume, preservative	qs
Water	Balance

Formula EL1

FOUNDATION CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	8.0
LAUREX CS	9.0
Glycerol	5.0
Talc	3.0
Preservative, perfume	qs
Water	Balance

Formula FC1

FOUNDATION CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	4.5
LAUREX CS	5.0
Glycerol	5.0
Lanolin (hydrous)	2.5
Technical white oil	20.0
Preservative, perfume	qs
Water	Balance

Formula FC2

SOURCE: Albright & Wilson Americas: Formulas

EXTRA BODY CONDITIONING CREAM

INGREDIENTS	% By Weight
Water	90.05
TEGAMINE 18	1.50
Citric Acid - monohydrate	0.60
TEGIN	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Sodium Chloride	0.60
ABIL Wax 2440	0.35
Propylene Glycol	1.00
ABIL Quat 3272	0.50
ABIL B8851	0.40
Color, Preservatives, Fragrance	QS

Procedure:

1. Heat the water to 70-75C. Add the TEGAMINE 18. Disperse well. Add the Citric Acid. Mix well. NOTE: To facilitate mixing, some water can be held from the batch to dissolve the Citric Acid prior to adding to the batch.
2. Add the Ceteth - 2 Cetyl Alcohol, Sodium Chloride and ABIL Wax 2440. Mix.
3. Begin cooling. Cool to 45-50C while mixing. Mix the Propylene Glycol and the ABIL Quat 3272 together and add to the batch. Mix.
4. Switch to sweep mixer. Cool to 35-40C. Add the ABIL B 8851, Color, Preservatives, and Fragrance. Mix.
5. Continue cooling. Fill.

SOURCE: Goldschmidt Chemical Co.: Formula GCC 13-37

NIGHT CREAM

RAW MATERIALS	% By Weight
A. MIRANOL ESTER PO-LM4	5.0
Mineral Oil	25.0
Arlacel 165	6.0
Isopropyl Myristate	5.0
Stearic Acid	1.0
Cetyl Alcohol	0.5
B. Water	47.0
Carbopol 934, 3% solution	5.0
Propylene Glycol	5.0
C. Triethanolamine	0.5

Procedure:

Heat A and B separately to 75C. With agitation, add B to A, then C. Continue agitation until uniform and cool to room temperature.

SOURCE: Miranol Chemical Co.: MIRANOL Products for Cosmetics and Toiletries: Formula

EXTREME PROTECTION TYPE CREAM

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	61.85
Propylene Glycol	1	4.00
Disodium EDTA	1	0.05
Methylparaben	1	0.25
Unicide U-13	1	0.25
Monawet MO-70R	1	0.10
Capsul 51-6329	2	0.10
Titanium Dioxide 3228	3	0.50
Octyl Methoxycinnamate	4	4.00
Benzophenone 3	4	2.00
Liponate NPGC-2	4	12.50
Lipo GMS-450	4	2.00
Lipocol C	4	2.00
Carolene	4	1.50
Lipopeg 39-S	4	1.00
Liposorb TS	4	0.50
Lecithin	4	0.50
Silicone 200 Fluid (200 cts)	4	0.50
Propylparaben	4	0.10
Urea	5	0.05
Deionized Water	5	1.00
Fragrance	6	0.25
Hylucare 1%	7	5.00

Procedure:

1. In main kettle, combine Sequence 1 ingredients under Lightnin' mixing and heat to 75C.
2. Sprinkle Sequence 2 into Sequence 1 and mix at 75C until thoroughly dispersed.
3. Sprinkle Sequence 3 into combined Sequences 1 and 2 and mix at 75C until thoroughly dispersed.
4. In a side kettle, combine Sequence 4 ingredients under Lightnin' mixing and heat to 78-80C.
5. At proper temperatures add Sequence 4 to combined Sequences 1, 2 and 3, switching to sweep mixing as batch thickens and begin cooling.
6. At 35C, add premixed Sequence 5 to batch and continue cooling.
7. At 35C, add Sequence 6 to batch and continue cooling.
8. At 30C, add Sequence 7 to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 462

EYE CREAM

INGREDIENTS	% By Weight
Part A:	
Water	68.00
Carbopol 934	10.00
Propylene Glycol	3.00
EMULGADE 1000 NI	5.00
CETIOL LC	5.00
Mineral Oil	3.00
Part B:	
COLLAGEN CLR	5.00
Germaben II-E	1.00
Dyes	q.s.

Procedure:

Prepare 2.0% solution of Carbopol 934. Add remaining ingredients of Part A in the order listed above, under agitation while heating to 70-75C. Take heat off and continue stirring. At 30-35C, add individual ingredients of Part B. Continue stirring until product reaches room temperature. Fill off.

Comments:

This elegant eye cream utilizes a combination of emollient ester and paraffin to form a highly effective cream. EMULGADE 1000 NI provides an excellent base for skin care "treatment" products.

SOURCE: Henkel: Cream Bases: Formula H-4883

DEPILATORY CREAM

RAW MATERIALS	% By Weight
A Emulgator E 2155	8,00
Tagat S	2,00
Fluilan	5,00
Stearyl Alcohol	2,00
Isopropyl Myristate	5,00
B Glycerine	3,00
Water	52,00
Belsil DMC 6033	1,00
C Calcium Oxide	3,00
Calcium Thioglycolate	5,00
Water	14,00
Preservatives, fragrances, pigments	q.s.

Heat A and B to 75C, stir B into A. Stir in C at 45C.
 Temperature stability: 8 week at 45C.
 Beige-coloured cream.

SOURCE: Wacker Silicone: Formulation 319 AH

EYE CREAM WITH SILK

INGREDIENT	% By Weight
Tri-Tein Silk AA	2.0000
Demineralized Water	40.8000
Sorbitol 70%	5.0000
Epsom Salts	0.2500
Tri-Sept M	0.2000
Tri-Sept P	0.0500
Dehymuls K	20.0000
White Beeswax	3.5000
White Petrolatum	15.0000
Pot Marigold LS	2.0000
Arnica LS	2.0000
Squalane	4.0000
Tristat IU	0.2000
Colts Foot HS	2.0000
Horsetail HS	1.0000
Tri-Lastin 10 F	2.0000

Procedure:

Heat water to 75C. and add the Sorbitol, Epsom Salt & Parabens. Heat oil phase materials to 70C. and mix until uniform and clear. Add water phase to oil phase and mix w/prop agit. 1/2 hour or until uniform.

Cool to 50C. w/prop and switch to sweep agitation.

Continue cooling. Add the Tristat IU, Coltsfoot, Horsetail, Silk & Elastin

Mix until uniform and free of lumps.

Perform necessary QC and pack in aseptic manner.

Note: No fragrance has been included in the formula as this is an eye area cosmetic. If one is to be included, use an irritation/allergy tested type such as the Allerderm line of fragrances from Shaw Mudge.

SOURCE: TRI-K Industries, Inc.: Code 045

EYE CREAM WITH COLLAGEN

INGREDIENTS	% By Weight
Cutina KD-16	8.00
Cetiol MM	8.00
Cetiol G-16S	10.00
Generol 122E-10	3.00
Vitaplant CLR Oil-Soluble	1.00
Calendula Oil	1.00
Covitol 1100 (Part A)	1.00
Water	58.00
Sorbitol (Part B)	5.00
Preservative (Part C)	q.s.
COLLAGEN CLR (Part D)	5.00

This smooth opaque white cream melts upon application and runs in easily. Enriched with Vitamin E and Collagen.

SOURCE: Henkel: Formula HOB-215-10-D

FACE CLEANSING CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	20.0
Mineral Oil	10.0
MIGLYOL 812	5.0
TEGO-BETAIN L7	15.0
B. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature and then slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.1

CLEANSING CREAM

RAW MATERIALS	% By Weight
A. Emulgade F	12.0
SOFTISAN 378	5.0
MIGLYOL 812	5.0
IMWITOR 375	0.5
B. Glycerin	3.0
Preservative	q.s.
Distilled Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.4.2

SOURCE: Huls America Inc.: Formulas

FACE/NECK CREAM

RAW MATERIALS	% By Weight
a) Dehydag Wax N	10.0
Cetiol V	10.0
Anhydrous lanolin	2.0
Miglyol 812	5.0
Phenonip	0.3
b) Distilled water	62.4
Phenonip	0.3
Karion F liquid	5.0
c) Collagen CLR	5.0
Manufacture:	
a) melt and bring to about 70C;	
b) warm to about 70C and stir into a).	
Continue stirring until the cream has cooled to about 35C;	
c) stir into the cream.	
Perfume, homogenize.	
Cream semi-fatted O/W	
For the as yet unwrinkled face (and neck)	
i.e., prophylactic care of the skin and maintenance of its	
elasticity.	
pH of the preparation: 3.9	

FACE/NECK CREAM

RAW MATERIALS	% By Weight
a) Cutina MD	6.0
Eumulgin B	3.0
Lanette C	3.0
Anhydrous lanolin	3.0
Cetiol V	8.0
Miglyol 812	6.0
Isopropyl palmitate	10.0
Phenonip	0.3
b) Distilled water	43.9
Phenonip	0.3
Veegum	1.5
Karion F liquid	5.0
c) Collagen CLR	10.0
Manufacture:	
a) melt and bring to about 70C;	
b) warm to about 70C, stir well until the Veegum is finely	
distributed, and stir into a).	
Continue stirring until the cream has cooled to about 35C;	
c) stir into the cream.	
Perfume, homogenize.	
Cream O/W	
For the mature and older face (and neck)	
i.e., therapeutic care of the skin and renewal of its	
elasticity	
pH of the preparation: 4.7	

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

FACE/NECK EMULSION

RAW MATERIALS	% By Weight
a) Emulgade F	3.0
Eumulgin B	0.3
Eutanol G	8.0
Miglyol 812	11.0
Phenonip	0.3
b) Distilled water	69.1
Phenonip	0.3
Karion F liquid	3.0
c) Collagen CLR	5.0

Manufacture:

- a) melt and bring to about 70C;
 b) warm to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir into the emulsion.

Perfume, homogenize.

Liquid emulsion O/W

For the as yet unwrinkled face (and neck)

i.e., prophylactic care of the skin and maintenance of its elasticity

pH of the preparation: 4.05

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formula

PLACENTA SKIN TREATMENT CREAM

INGREDIENTS	% By Weight
Part A:	
LANETTE N	7.00
EUTANOL G	5.00
CETIOL S	2.00
Part B:	
Water	78.00
Glycerine	3.00
Part C:	
PLACENTALIQUID Water-Soluble	4.00
Germaben II-E	1.00

Procedure:

Heat Part A to 60C. Heat Part B to 60C. Add Part B to Part A under agitation. Continue stirring while cooling. At 35C, add individual components of Part C. Continue stirring until product reaches room temperature.

Comments:

Lanette N produces a creamy white emulsion. PLACENTALIQUID water-soluble is recommended for revitalizing and regenerating aging skin.

SOURCE: Henkel: Cream Bases: Formula H-4888

FACIAL CLEANSING CREAM

INGREDIENTS	% By Weight
Part A:	
LANETTE SX	10.00
EUTANOL G	10.00
Mineral Oil	15.00
White Petrolatum	2.00
Part B:	
Water	62.00
Part C:	
Germaben II-E	1.00
Fragrance & Dyes	q.s.

Procedure:

Mix and heat Part A to 70C. Heat Part B to 70C and add to Part A under agitation. Continue mixing until product reaches 40C. At this temperature, add individual ingredients of Part C. Continue mixing until product reaches room temperature. Fill off.

Comments:

This cream spreads easily and is an efficient cleanser. This branched chain alcohol leaves the skin feeling non-greasy and non-tacky.

SOURCE: Henkel: Cream Bases: Formula H-4882

CLEANSING CREAM

RAW MATERIALS	% By Weight
A Lanette N	12,00
Petrolatum	9,00
Paraffin	2,00
Mineral oil, low viscosity	5,00
Isopropyl Myristate	2,00
B Belsil DMC 6035	3,00
Glycerine	4,00
Water	63,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 70C, mix B well into A.
Temperature stability: at 45C over 10 weeks.
White firm cream.

SOURCE: Wacker Silicone: Formulation 361 AH

FACIAL NIGHT CREAM

INGREDIENTS	% By Weight
A. Deionized Water	53.7
Sorbitol	1.0
Methylparaben	0.2
B. C14-16 Alcohols Benzoate	15.0
Lanolin	1.0
Petrolatum	5.0
Beeswax	8.0
Polysorbate 80	4.0
Glyceryl Stearate and PEG 100 Stearate	2.0
Stearic Acid	3.0
Triethanolamine	0.6
C. DERMATEIN GSL	5.0
D. Dimethicone	1.0
Diazolidinyl Urea	0.3
Fragrance	0.2

Procedure:

Begin heating water to 80C; add rest of Part A ingredients. Mix well. Add Part B ingredients in order. Mix until homogeneous. Begin cooling to room temperature. Slowly add DERMATEIN GSL; mix until smooth. Add rest of Part D ingredients. Mix well.

Description:

Through the night DERMATEIN GSL replenishes the lipid lost from skin during the day. DERMATEIN GSL rejuvenates the skin's ability to bind moisture.

SOURCE: Geo. A. Hormel & Co.: Formula 621-27

W/O SKIN CARE CREAM

RAW MATERIALS	% By Weight
Vaseline	20.0
Arlacel 83	2.5
Cremophor WO 7	1.5
Luvitol EHO	5.0
Calcium stearate	1.0
D-Panthenol USP	4.0
Lunacera MW	6.0
Perfume	0.3
Preservative	0.5
Water	59.2

SOURCE: BASF Corp.: D-Panthenol: Formula

FACIAL SCRUB CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 601	10.0
IMWITOR 900	10.0
MIGLYOL 812	15.0
Cremaphor A6	1.2
Cremaphor A25	1.8
Purcellin Oil	5.0
B. Dehyton AB 30	5.0
Allantoin	0.2
Salicylic Acid	0.5
Titriplex 111	1.0
Preservative	q.s.
Water	ad 100.0
C. Almond bran	3.0
Perfume oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C, (C) is added.

SOURCE: Huls America Inc.: Formula 1.5.12

CREAM, FOR APPLICATION TO GREASY AND BLEMISHED SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	10.0
Spermaceti	3.0
Isopropyl palmitate	7.0
Myritol 318	10.0
Deodorant Richter/K	0.5
Preservative	q.s.
b) Water, distilled, preserved	65.3
Karion F liquid	4.0
Aminodermin CLR	0.2

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C. Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 1

FOUNDATION CREAM

RAW MATERIALS	% By Weight
A Lamecreme KSM	20,00
Olive Oil	5,00
B Glycerine	4,00
Water	69,50
Belsil PDM 20	1,00
Belsil CM 020	0,50
Preservatives, perfume, pigments	q.s.

Melt A, mix B and heat to 65C. Work B into A whilst stirring quickly.

Temperature stability: 8 weeks at 45C.

Firm cream. Absorbed well.

Formulation 191 AH

FOUNDATION CREAM

RAW MATERIALS	% By Weight
A Crodawax GP 200	13,00
Mineral oil	30,00
Belsil PDM 20	4,00
B Glycerine	9,00
Water	44,00
Preservatives, perfume, pigments	q.s.

Mix A and melt, heat B to 65C, work B into A whilst stirring quickly. Stir whilst cooling.

Thin cream. Absorbed well.

Formulation 192 AH

DAY CREAM

RAW MATERIALS	% By Weight
A Stearic Acid	14,00
B Propylene Glycol	6,00
Triethanolamine	1,50
Water	72,50
C Ethanol 96%ig	2,50
Belsil DM 100	1,50
Belsil CM 040	2,00
Preservatives, fragrances, pigments	q.s.

Melt the stearic acid at approx. 65-70C, mix B and heat to approx. 70C. Work A into B whilst stirring quickly. Slowly add C.

Temperature stability: at 45C over 10 weeks.

Soft white cream with a silky shine. Absorbed quickly.

Formulation 190 AH

SOURCE: Wacker Silicone: Standard Formulations

FOUNDATION CREAM

RAW MATERIALS	% By Weight
A Lamecreme KSM	20,00
Olive Oil	4,00
Belsil BNP	3,00
B Glycerine	4,00
Water	67,50
Belsil PDM 20	1,00
Belsil CM 020	0,50
Preservatives, fragrances, pigments	q.s.

Heat A to 70C, mix B and heat to 65C. Add B into A with high agitation.

Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 780 AH

MINERAL OIL CREAM-W/O

RAW MATERIALS	% By Weight
1. A-C 617	3.0
2. A-C 540	1.0
3. Beeswax	2.0
4. Mineral Oil, 70 vis.	25.0
5. Isopropyl Stearate	3.0
6. 2-Ethyl Hexyl Stearate	9.4
7. Triglycerol Diisostearate	3.5
8. Propyl-P-Hydroxybenzoate	0.2
9. Sorbitol (70%)	7.0
10. Sodium Borate, Anhydrous	0.3
11. Methyl-P-Hydroxybenzoate	0.3
12. Magnesium Sulfate	0.3
13. Water	45.0

Procedure:

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-13 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 77C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Protototype Formulations: Formula

FOUNDATION CREAM I
(and Pigmented Foundation Cream)

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
DYNASAN 110	3.0
MIGLYOL 812	5.0
MIGLYOL 840	10.0
DYNACERIN 660	5.0
Stearic Acid	5.0
Cetyl Alcohol	1.0
B. Hygroplex HHG	5.0
Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Dragosantol	1.0
Perfume GC 10 776	0.2

Preparation:

"A" is heated up to 75-80C. "B" is heated up to the same temperature and then "C" is added. "B + C" is emulsified into "A". "D" is added at ca. 30C.

FOUNDATION CREAM 1a
(Containing Pigment)

The following pigments are added to 93 grams of the Foundation Cream I:

RAW MATERIALS	% By Weight
Titanium Dioxide	2.0
Talcum	2.0
Zinc Oxide	2.0
Sicomet Brown 70	0.7
Sicomet Brown 75	0.3

SOURCE: Huls America Inc.: Formula 2.1D (1)

GENERAL PURPOSE O/W CREAM

RAW MATERIALS	% By Weight
1. A-C 540	2.0
2. Mineral Oil, 70 vis.	5.0
3. Dow Fluid 556	1.0
4. Emerest 2388	10.5
5. Amerchol 400	2.0
6. Solulan 25	1.0
7. Arlancel 60	2.0
8. Sorbitol (70%)	5.0
9. Tween 60	1.0
10. Carbopol 940	0.75
11. Germall 115	0.4
12. Triethanolamine	0.75
13. Water	68.6

Procedure:

Disperse Carbopol in water. Weigh 1-7 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

W/O SOFTCREME

RAW MATERIALS	% By Weight
A: Dehymuls K	8
LUNACERA M	4
LUNACERA PA 5473	4
Paraffin oil, highly viscous	10
Isopropyl myristate	8
B: Glycerine	4
Water, preservative	62

Procedure:

I Melt A at approx. 80C
 II Heat B to approx. 80C
 III Add B into A and stir until cool, add perfume at approx. 40C

SOURCE: H.B. Fuller GmbH: Guide Formulation

GENERAL PURPOSE O/W CREAM

RAW MATERIALS	% By Weight
1. A-C 617	1.0
2. A-C 540	1.0
3. Mineral Oil 70 s.s.	5.0
4. Dow Fluid 556	1.0
5. Propylene Glycol Dipelargonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlacel 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol (70%)	5.0
12. Carbopol 940	0.75
13. Germall 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.3

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

W/O SOFTCREME

RAW MATERIALS	% By Weight
A: Abil WE 09	5
LUNACERA 256	2
LUNACERA PA 5473	2
Paraffin oil	6
Isopropyl myristate	5
Tegosoft 189	2
B: Water, preservative	73
NaCl	2
Glycerine	3

Procedure:

- I Melt A at approx., 80C
- II Stir B at ambient temperature
- III Add B into A and stir until cool, add perfume at approx. 40C

SOURCE: H.B. Fuller GmbH: Guide Formulation

GENERAL PURPOSE W/O CREAM

RAW MATERIALS	% By Weight
1. A-C 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Mineral Oil, 70 vis.	8.2
5. Dow Fluid 200, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	10.0
7. Triglycerol Diisostearate	5.5
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Sodium Borate, Anhydrous	0.3
11. Methyl-P-Hydroxybenzoate	0.2
12. Germall 115	0.3
13. Water	59.4

Procedure:

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-13 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

W/O CREME

RAW MATERIALS	% By Weight
A Hostacerin WO	8
LUNACERA M	4
LUNACERA PA 5473	4
Paraffin oil, highly viscous	10
Isopropyl palmitate	8
B Glycerine	4
Water, preservative	62

Procedure:

I Melt A at approx. 80C

II Heat B to approx. 80C

III Add B into A and stir until cool, add perfume at approx. 40C

SOURCE: H. B. Fuller GmbH: Guide Formulation

GLYCERIN HAND CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
MIGLYOL 812	10.0
Mineral oil	3.0
Cetyl alcohol	3.0
Hostaphat KL 340N	5.0
B. *Carbopol-Gel 1%	20.0
Glycerin	30.0
Preservative	q.s.
Distilled water	up to 100.0
C. Perfume	q.s.
* Carbopol-Gel Preparation:	
Carbopol 940	1.0%
Triethanolamine	0.6%
Distilled water	up to 100.0%

Preparation:

(A) is melted and heated up to 75-80C. (B) is mixed and heated to the same temperature. (B) is gradually stirred into (A). (C) is added at about 40C.

Formula 1.1.15

GLYCERIN CREAM WITHOUT PARAFFIN

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
IMWITOR 900	7.0
MIGLYOL 812	18.0
MIGLYOL 840	9.0
B. Glycerin	15.0
Preservative	q.s.
Water	up to 100.0
C. Perfume 74 706	0.3

Preparation:

(A) is heated to 75-80C. (B) is heated to the same temperature and is emulsified into (A). (C) is added at 30C.

Formula 1.1.13

SOURCE: Huls America Inc.: Formulas

HAND AND BODY MOISTURE CREAM

INGREDIENTS	% By Weight
Part A:	
EUMULGADE 1000NI	1.00
CUTINA GMS	3.00
LANETTE O	1.00
EUTANOL G-16	8.00
MYRITOL 318	2.50
Stearic Acid XXX	3.50
CALENDULA OIL CLR	3.00
Silicon Fluid	0.25
Propylparaben	0.10
Butylparaben	0.05
Part B:	
Propylene Glycol	2.5
Veegum R (2% Aq. Disp)	20.0
Triethanolamine	1.5
Trisodium EDTA	0.05
Methylparaben	0.30
Germall II	0.30
Part C:	
Fragrance	0.15

Procedure:

- 1) Melt and heat Part A to 75-80C.
- 2) Heat, with stirring Part B to 75-80C.
- 3) Using moderate agitation, add Part A to Part B.
- 4) Cool to 40-45C and add fragrance.
- 5) Stir down to 25C and package.

Comments:

This is an elegant moisturizing cream enhanced by the presence of Calendula Oil.

SOURCE: Henkel: CLR Herbal Extracts: Formula H-4963

HAND CREAM

RAW MATERIALS	% By Weight
A Stearic Acid	15,00
Isopropyl Myristate	2,00
Belsil DM 350	10,00
B Sodium Hydroxide	1,00
Glycerine	18,00
Water	54,00
Preservatives, perfume	q.s.

Heat A to 80C, heat B to a little over 80C. Stir B slowly into A, stir cold.

Temperature stability: at 45C over 10 weeks.

Soft, white cream with a good protective effect.

SOURCE: Wacker Silicone: Formulation 196 AH

HAND CREAM(1)

RAW MATERIALS	% By Weight
a) Dehydag Wax N	8.0
Stearin	3.0
Isopropyl palmitate	5.0
Silicone oil Bayer M500	5.0
Phenonip	0.3
b) Distilled water	68.4
Phenonip	0.3
Karion F liquid	5.0
c) Collagen CLR	5.0

HAND CREAM(2)

RAW MATERIALS	% By Weight
a) Dehydag Wax N	8.0
Stearin	3.0
Isopropyl palmitate	5.0
Silicone oil Bayer M500	5.0
Phenonip	0.3
b) Distilled water	63.4
Phenonip	0.3
Karion F liquid	5.0
c) Collagen CLR	10.0

Manufacture:

- a) melt and bring to about 70C;
 b) warm to about 70C and stir into a).
 Continue stirring until the cream has cooled to about 35C;
 c) stir into the cream.
 Perfume, homogenize.

Cream O/W

For the wrinkle-tending backs of the hands
 Prophylactic or therapeutic care of the skin of the hands,
 which--like that of the face--is an external criterion of
 youthfulness or age, and for maintenance or renewal of its
 elasticity.

pH of the preparations: 3.92

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

HAND CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	12.0
LAUREX CS	2.0
Technical white oil	6.0
Anhydrous lanolin	1.0
Decyl oleate	10.0
Glycerol	5.0
Water	Balance
Formula HCR1	

HAND CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	8.0
LAUREX CS	1.0
Glycerol	12.5
Stearic acid	5.0
Titanium dioxide	1.0
Water	Balance
Formula HCR2	

HAND CREAM

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	6.5
LAUREX CS	1.0
Glycerol	12.5
Stearic acid	5.0
Titanium dioxide	1.0
Water	Balance
Formula HCR3	

SOURCE: Albright & Wilson Americas: Formulas

HAND CREAM

RAW MATERIALS	% By Weight
A. DYNASAN 114	6.0
IMWITOR 370	5.0
IMWITOR 900	6.0
MIGLYOL 812	10.0
MIGLYOL 840	5.0
B. Glycerin	8.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil 74 706	0.2

Preparation:

(A) is heated to 75-80C. (B) is brought up to the same temperature and emulsified into (A). (C) is added at about 30C.

Formula 1.1.14

CHAMOMILE HAND CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 601	38.0
MIGLYOL 829	6.0
Paraffin	3.0
B. Sorbitol	5.0
Propylene Glycol	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil	q.s.
Extrapone Chamomile Special	2.0

Preparation:

(A) and (B) are heated separately to 75-80C., and (B) is emulsified into (A). The perfume is added below 40C.

Formula 1.1.16

SOURCE: Huls America Inc.: Formulas

HAND CREME

INGREDIENTS	% By Weight
A Deionized Water	66.0
Hydroxypropylmethylcellulose	1.0
Sorbitol	3.0
Methylparaben	0.2
Aloe	1.0
B Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.0
Petrolatum	5.0
Lanolin	3.0
Cocoa Butter	5.0
Dimethicone	5.0
C DERMATEIN GSL	5.0
D Triethanolamine	0.3
Diazolidinyl Urea	0.3
D & C Red No. 33 (0.1%)	0.1
Fragrance	0.1

Procedure:

Heat water to 80C; sift Hydroxypropylmethylcellulose into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Begin cooling to room temperature. Slowly add DERMATEIN GSL, mix until smooth. Add TEA to neutralize; add rest of Part D ingredients. Mix until uniform.

SOURCE: Geo. A. Hormel & Co.: Formula 621-25

W/O-CREME

RAW MATERIALS	% By Weight
A: Glucate DO	3
Stellux A.I.	5
LUNACERA MW	5
Paraffin oil	13
Isopropyl myristate	6
B: Karion F	5
Water, preservative	63

Procedure:

I Melt A at approx. 70C
 II Heat B to approx. 70C
 III Add B into A and stir until cool, add perfume at approx. 40C

SOURCE: H.B. Fuller GmbH: Guide Formulation

HERBAL CREAM

INGREDIENTS	% By Weight
Part A:	
Stearic Acid	1.50
CUTINA KD-16	4.00
Mineral Oil	5.00
CETIOL G-16S	6.00
Part B:	
AVOCADO OIL CLR	1.00
ARNICA OIL CLR	1.00
WHEAT GERM OIL CLR	1.00
COVI-OX T-50	0.50
Part C:	
Water	79.00
Part D:	
Germaben II-E	1.00
Fragrance	q.s.

Procedure:

1. Mix and melt Part A to 55-60C.
2. Add Part B.
3. Heat Part C and add to Part (A+B) while mixing. Continue stirring while cooling.
4. Cool to 45C and add Part C.
5. Continue stirring until product reaches room temperature.

Comments:

Cream base, Cutina KD-16, is a convenient vehicle for many functional skin care products such as herbal extracts and vitamin complexes.

SOURCE: Henkel: Cream Bases: Formula H-4886

COVER CREAM

RAW MATERIALS	% By Weight
A Candelilla Wax	5,50
Belsil SDM 6022	6,70
B Stearic Acid	3,00
Water	44,80
Propylene Glycol	3,40
Triethanolamine	1,30
C Titanium Dioxide	14,00
D Belsil CM 040	18,30
Preservatives, perfume, pigments	q.s.

Heat A and B each to 70C. Mix B into A. Work in C homogeneously. Leave to cool somewhat, stir in at 30C.

Temperature stability: at 45C over 10 weeks.

Firm cream with a good covering effect.

SOURCE: Wacker Silicone: Formulation 308 AH

HERBAL DAY CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	3.0
Stearin	9.0
Calendula Oil CLR	3.0
St. John's Wort Oil CLR	3.0
Arnica Oil CLR	3.0
Preseervative	q.s.
b) Water, distilled, preserved	74.5
Karion F liquid	4.0
Triethanolamine	0.5

Manufacture:

- a) Melt and bring to about 80C;
 - b) Heat to about 80C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume, homogenize

HERBAL CREAM MASK TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgade F	4.0
Spermaceti	5.0
Stearin	5.0
Arnica Oil CLR	3.0
St. John's Wort Oil CLR	3.0
Calendula Oil CLR	3.0
Vegetable oil	3.0
Preservative	q.s.
b) Texamid 578L (2% aqueous solution)	69.0
Karion F liquid	5.0

Manufacture:

- a) Melt and bring to about 70C;
 - b) Heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C.
Perfume, homogenize.

Preparation of the 2% aqueous Texamid 578L solution:

Introduce 20g Texamid 578L into 980g distilled, preserved water at room temperature, with rapid stirring. Continue stirring until the solution is free from lumps.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 2

HYDROQUINONE CREAM

RAW MATERIALS	Sequence	% By Weight
Hydroquinone	1	2.00
Deionized Water	1	43.13
Propylene Glycol	1	3.50
Veegum K (4% Sol'n)	1	20.00
Natrosol 250 HR (2% Sol'n)	1	10.00
Disodium EDTA	1	0.05
Unicide U-13	1	0.25
Methylparaben	1	0.25
Sodium Sulfite	1	0.02
Sodium Metabisulfite	1	0.05
Britol 7	2	8.50
Lipocol C	2	5.25
Lipocol C-2	2	3.00
Stearic Acid #132	2	2.25
Liposorb S-20	2	0.50
BHA	2	0.05
Vitamin A Palmitate	2	0.05
Vitamin E Acetate	2	0.05
Crotein HKP Powder	3	0.10
Deionized Water	3	1.00
Citric Acid 25% Sol'n	4	qs

Procedure:

1. In main kettle, combine Sequence 1 ingredients under Lightnin' mixing and heat to 78C.
2. In side kettle, combine Sequence 2 ingredients under Lightnin' mixing and heat to 80C.
3. At proper temperature add Sequence 2 to Sequence 1 and begin cooling, switching to sweep mixing when batch thickens.
4. At 30C, add premixed Sequence 3 ingredients to batch. Continue cooling to 25C.
5. Adjust pH to 4.0 with Citric Acid Solution (Sequence 4).

SOURCE: Lipo Chemicals Inc.: Formula No. 451

JELLY CREAM

RAW MATERIALS	% By Weight
Carbopol Gel 4%	38.9
Tylose CB 30 000-Gel 4%	35.0
MIGLYOL 840	10.0
DYNACERIN 660	9.0
Hostaphat KL 340 N	7.0
Preservative	q.s.
Iron Oxide Sienna CS-10051	0.1
Fragrance 74706	0.3
Carbopol Gel: Carbopol 940	4.0
Triethanolamine	2.4
Water	up to 100.0

The Carbopol is mixed homogeneously in water. Triethanolamine is stirred in and the gel must swell for some time.

Tylose Gel:	
Tylose CB 30 000	4.0
Water	up to 100.0

The Tylose is dissolved in water while stirring as ca. 40C.

Preparation of the Jelly Cream:

At ca. 50C., the components are mixed one after the other with a homogenizer until homogeneous.

Formula 1.5A

TOPICAL ANHYDROUS CREAM

RAW MATERIALS	% By Weight
SOFTISAN 378	50.0
Petrolatum	20.0
MIGLYOL 812	20.0
Mineral Oil	10.0

Preparation:

All ingredients are mixed at about 45C.

Formula 1.5.15A

SOURCE: Huls America Inc.: Formulas

LIGHT CREAM

RAW MATERIALS	% By Weight
Emulgade SE	4.0
Paraffin oil, liquid	4.0
IPM	2.0
Henkel Glycerin	3.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100
Viscosity in mPas: 87500	
Formula No. 89/290/1	

LIGHT CREAM

RAW MATERIALS	% By Weight
Emulgade SE	3.5
Paraffin oil, liquid	2.0
IPM	1.0
Lanette O	1.0
Henkel Glycerin	3.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100
Viscosity in mPas: 150000	
Formula No. 89/290/2	

LIGHT CREAM

RAW MATERIALS	% By Weight
Emulgade SE	4.0
Paraffin oil, liquid	4.0
Henkel Glycerin	2.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100
Viscosity in mPas: 87500	
Formula No. 89/290/4	

Shining, soft, quickly absorbing creams

SOURCE: Henkel: Cosmetics No. XII/90: Formula

LIGHT CREAM

RAW MATERIALS	% By Weight
Cutina LS 18	4.0
Paraffin oil, liquid	4.0
Henkel Glycerin	2.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100

Viscosity in mPas: 175000
Formula No. 89/290/5

LIGHT CREAM

RAW MATERIAL	% By Weight
Cutina KS 18	4.0
Paraffin oil, liquid	4.0
Henkel Glycerin	2.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100

Viscosity in mPas: 150000
Formula No. 89/290/6

LIGHT CREAM

RAW MATERIALS	% By Weight
Cutina KS 18	3.0
Paraffin oil, liquid	4.0
Henkel Glycerin	2.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100

Viscosity in mPas: 125000
Formula No. 89/290/7

LIGHT CREAM

RAW MATERIALS	% By Weight
Cutina LS 18	3.0
Paraffin oil, liquid	4.0
Henkel Glycerin	2.0
Carbopol 954	0.4
Sodium hydroxide	0.16
Water and preservative	ad 100

Viscosity in mPas: 125000
Formula No. 89/290/8

Emulsions with the typical matt structure associated with anionic systems. Low fattening, easily absorbed.

SOURCE: Henkel: Cosmetics No. XII/90: Formulas

LIQUID NIGHT CREAM

RAW MATERIALS	% By Weight
POLYSYNLANE	15.0
Glyceryl Mono-Stearate	1.5
Lantrol	3.5
Stearic Acid	2.5
Centanol	0.5
Tegin P	2.5
PEG-200 Mono Stearate	1.0
Solulan C-24	0.7
Triethanolamine	0.3
Veegum R	0.5
Perfume & Preservatives	q.s.
Water	ad. 100.0

NIGHT CREAM

RAW MATERIALS	% By Weight
POLYSYNLANE	15.0
Paraffin Wax	2.0
Lanolin Oil	4.0
Hydrogenated Lanolin	6.0
Bee's Wax	3.0
Stearic Acid	1.5
Glyceryl Mono Stearate	2.5
I.P.M.	6.0
PEG-200 Mono Stearate	2.0
Potassium Hydroxide	0.2
Preservatives & Perfume	q.s.
Water	ad 100.0

OINTMENT CREAM

RAW MATERIALS	% By Weight
Cetyl Alcohol	3.5
Stearyl Alcohol	7.0
Sodium Lauryl Sulfate	2.0
POLYSYNLANE	8.5
Sesame Oil	5.0
Glycerine	5.0
Preservative	0.2
Water & Perfume	ad. 100.0

SOURCE: Polyester Corp.: Formulas

MESSAGE CREAM

RAW MATERIALS	% By Weight
A Glycol Stearate	12.0
Esters of Oily Acids	2.0
Vaseline Oil	5.0
Isopropyl Myristate	1.0
Hydrogenated Coconut Oil	2.0
Sorbitol 70	2.0
B Propylene Glycol	2.0
Preservative	0.3
Deionized Water	65.4
C Sodium Alginate Type H (25% solution)	3.0
D Alagcol Concentrate D-1	5.0
E Fragrance	0.3

Procedure:

1. Heat Phase A to 78 degrees C
2. Heat Phase B to 85 degrees C
3. Pour B at 85 degrees C into A with agitation
4. Add C at approximately 60 degrees C with agitation
5. Add D at approximately 40 degrees C with agitation
6. Add E with agitation
7. Continue agitation until cool at 25 degrees. The final product will have a pH of 7.05.

SOURCE: Meer Corp.: Formula PC-Mascream

MESSAGE CREAM

RAW MATERIALS	% By Weight
A Lanette 16	2.0
Cutina MD	12.0
Emulgin B1	1.5
Emulgin B2	1.5
Miglyol 812	15.0
Paraffin oil thick liquid	30.0
B Water	37.7
C Perfume	0.3
Preservative	

SOURCE: Schulke & Mayr GmbH: EUXYL K 400: Formulation Nr. 5 O/W

MASSAGE CREAM ANHYDROUS

RAW MATERIALS	% By Weight
A. SOFTISAN 378	50.0
Petrolatum	20.0
MIGLYOL 812	20.0
Mineral Oil	10.0
B. Perfume	q.s.

Preparation:

(A) is melted completely and stirred until cold. (B) is stirred in at 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.5.15

MASSAGE CREAM TYPE O/W

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
Cetyl Alcohol	3.0
SOFTISAN 378	5.0
Mineral Oil	20.0
Hostaphat KL 340 N	3.0
B. Water	up to 100.0
Preservative	q.s.
Glycerin	20.0
C. Perfume Oil	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and brought to the same temperature, and emulsified into (A). Below 40C. the perfume is added.

Formula 1.1.20

SOURCE: Huls America Inc.: Formulas

MIGLYOL GEL CREAM
(W/O CREAM/SLIGHTLY OILY)

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL Type B	10.0
IMWITOR 780K	3.0
Mineral oil	17.0
B. Paraffin	3.0
C. Water	up to 100.0
Preservative	q.s.

Preparation:

(A) and (B) are mixed and heated to 75-80C. (C) is heated to the same temperature and added to (A+B).

Formula 1.2.2

W/O CREAM, PARAFFIN-FREE

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL Type B	10.0
DYNACERIN 660	10.0
IMWITOR 780K	6.0
B. Mowiol 10-98	2.0
Magnesium Sulphate	2.0
Preservative	q.s.
Water	ad 100.0
C. Perfume oil	q.s.

Preparation:

(A) is mixed and heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C, the perfume is added.

Formula 1.2.1

SOURCE: Huls America Inc.: Formula

MINERAL OIL FREE MOISTURIZING NIGHT CREAM

RAW MATERIALS	Sequence	% By Weight
Lipocol L-23	1	0.25
Lipovol MOS-350*	1	15.00
Liponate PC	1	4.00
Lipovol ALM	1	6.25
Stearic Acid	1	3.00
Lipo SS	1	5.00
Lipocol S	1	1.25
Lipo GMS-450	1	3.00
Liponate SPS	1	2.50
Silicone 200 Fluid (200 cts.)	1	0.50
Vitamin E	1	0.10
Propylparaben	1	0.05
Butylparaben	1	0.05
Water	2	37.50
Carbopol 934 (2% aq. sol'n)	2	12.00
Liponic EG-1	2	2.00
Sorbitol 70% USP	2	4.00
Unicide U-13	2	0.30
Sodium Dehydroacetate	2	0.10
Methylparaben	2	0.20
Propylparaben	2	0.05
Sequestrene Na3T	2	0.05
Lecithin (Alcolec 4135)	3	0.10
Miranol C2M-SF Conc.	3	0.50
Triethanolamine, 99%	4	1.00
Water	4	1.00
Fragrance	5	0.25

* U.S. Patent No. 4,659,573

Procedure:

1. Heat Sequence 1 materials to 80C under Lightnin' mixing in side kettle.
2. Heat Sequence 2 materials to 78C in main kettle (equipped with variable speed Lightnin' mixing and planetary side wiping mixing) under Lightnin' mixing. Be sure Carbopol solution is thoroughly dispersed.
3. At 78C add Sequence 3 materials and disperse thoroughly. Add premixed Sequence 4 and thoroughly disperse (approx. 10 min.)
4. Add Sequence 1 to combined Sequence 2, 3 and 4 at 78C under Lightnin' mixing. Maintain temperature at 75C for 15 minutes or emulsification is complete.
5. Remove Lightnin' mixer, insert planetary side wiping mixer and slowly cool to 45C. Add Sequence 5. Disperse thoroughly and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 220

MOISTURE REPLENISHING CREME

RAW MATERIALS % By Weight

Part I:

Water	81.6
MONAQUAT P-TS	3.0

Part II:

Cetyl Alcohol (95%)	5.0
Myristyl Myristate	5.0
Isopropyl Myristate	4.0
Lanolin Alcohol	0.4
Dimethicone (350 C.S.)	1.0

Procedure:

Heat Part I to 65C. Mix until uniform. Heat Part II to 65C. Mix until uniform. Add Part II to Part I with stirring. Cool slowly to 40C and add fragrance, coloring, or preservative as required. Cool with stirring to 35C, fill.

This formulation is recommended as a moisturizing replenishing creme. Its skin penetrating performance coupled with its high moisturizing effect and low pH (6) are ideally suited for everyday skin care.

THERAPEUTIC HUMECTANT CREME

RAW MATERIALS % By Weight

Part I:

Deionized Water	66.8
MONAQUAT P-TS	3.0
Glycerin (99%)	15.0

Part II:

Cetyl Alcohol (95%)	5.0
Myristyl Myristate	5.0
C12-C15 Alcohols Benzoate	3.0
Propylene Glycol Monostearate (Pure)	2.2

Procedure:

Heat Part I to 65C, with mixing, until clear. Heat Part II to 65C, with mixing. Slowly add Part II to Part I with efficient mixing. Remove heat after 5 minutes. Cool slowly. Product will start to thicken at about 50C. If propeller slows down, increase speed to ensure efficient mixing. Add fragrance, coloring or preservative as required. Cool to 40C, fill.

This high-powered moisturizer is designed to help heal chapped or cracked skin rapidly. It contains a high concentration of glycerin and it is easily prepared at the skin compatible pH of 6. Monaquat P-TS helps create the smoothing properties which are readily perceived when this creme is applied and also eliminates the tackiness normally associated with high levels of glycerin.

SOURCE: Mona Industries, Inc.: MONAQUAT P-TS: Formulas

MOISTURIZING CREAM

INGREDIENT	% By Weight
Part A:	
GENEROL 122	1.00
CUTINA GMS	1.75
EUTANOL G-16	7.00
MYRITOL 318	4.00
LANETTE 18	1.00
White Protopet	6.00
Stearic Acid	4.00
D.C. Silicon Fluid 200 (350 CS)	0.50
Propylparaben	0.10
Butylparaben	0.05
Part B:	
Propylene Glycol	4.00
Triethanolamine	1.80
Methylparaben	0.25
Deionized Water	q.s. to 100
Part C:	
SEDAPLANT RICHTER	3.00
Fragrance	0.10

Procedure:

- 1) Melt Part A, stir until uniform, while heating to 75-80C.
- 2) Mix and stir Part B to 75-80C.
- 3) Add Part A to Part B at 75-80C, using moderate agitation.
- 4) Stir down to 40-45C and add Part C.
- 5) Cool with stirring to 25-30C and package.

Comments:

This moisturizing cream contains Sedaplant Richter, a combination of herb extracts which are soothing to the skin. In addition, the presence of Urea and a Urea derivative in the Sedaplant provide an anti-inflammatory property to this cream.

SOURCE: Henkel: CLR Herbal Extracts: Formulation HOB-286-17

MOISTURISING CREAM

RAW MATERIALS	% By Weight
A Emulgator E 2155	8,00
Cetiol SN	6,00
Isopropyl Myristate	6,00
Tegosoft 189	6,00
Stearyl Alcohol	2,00
Belsil SDM 6022	5,00
B Water	62,00
Belsil DMC 6032	2,00
Glycerine	3,00
Preservatives, fragrances, pigments	q.s.
Heat A and B each to 75C. Stir B into A, stir cold.	
Temperature stability: at 45C over 10 weeks.	
White firm cream. Produces a pleasant soft feeling on the skin.	

SOURCE: Wacker Silicone: Formulation 418 AH

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
A. Schercemol DID	6.00
Schercemol 318	3.00
Mineral Oil	5.00
Stearic Acid	6.00
Schercemol PGMS	8.00
Cetyl Alcohol	1.00
Propyl Paraben	0.20
B. Water, Deionized	64.35
Methyl Paraben	0.20
Triethanolamine	1.00
Propylene Glycol	5.00
C. Fragrance	0.25

Procedure:

1. Heat Part A to 70-75C.
2. Heat Part B to 70-75C.
3. With slow agitation, add Part B to Part A.
4. Allow batch to cool to 40C with constant agitation.
5. Add fragrance.

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
A. Schercemol PGMS	2.00
Schercemol TIST	2.00
Cetyl Alcohol	3.00
Arlacel 165	2.50
Schercemol DID	8.00
B. Water, Deionized	75.75
Carbopol 934	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide	0.50
E. Fragrance	0.25

Procedure:

1. Prepare Part A by beating the ingredients to 75C to dissolve the solids.
2. Part B. Prepare Carbopol solution by dispersing Carbopol into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion to about 80C until a smooth, viscous solution is formed.
3. Combine Part C at 55C and add to Part B.
4. Add Part B & C to Part A with continual mixing. Allow the batch to cool.
5. At 55C, add Part D. Then add fragrance at room temperature.

SOURCE: Scher Chemicals, Inc.: Formulas

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
Stearic acid	15.0
Lanolin	5.0
Beeswax	2.0
Robane	20.0
d-Sorbitol 70%	13.0
Sorbitan trioleate	1.0
POE Sorbitan trioleate	1.0
Water, perfume, preservative	q.s. to 100.0

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
Hexadecyl alcohol	35.0
Robane	10.0
Cetina	2.0
Paraffin 130	2.0
Beeswax	14.0
Lanolin, anhydrous	1.0
Borax	1.0
Water, perfume, preservative	q.s. to 100.0

MOISTURIZING FACE CREAM

RAW MATERIALS	% By Weight
Spermwax	5.0
Cetina	5.0
Robane	5.0
Isopropyl myristate	3.0
Glycerin	5.0
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robeco Chemicals, Inc.: ROBANE/SUPRAENE: Formulas

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
Phase A:	
POLAWAX	10.00
INCROQUAT BEHENYL TMS	3.00
Mineral Oil	5.00
Phase B:	
Deionized Water	80.00
Germaben II	1.00
Phase C:	
HYDROLACTIN 2500	1.00

Procedure:

Heat phase A and B to 70C and combine with good agitation. Continue mixing and cool to 45C. Add phase C. Continue mixing and cooling to room temperature.

A blend of POLAWAX and INCROQUAT BEHENYL TMS provide this cream with excellent stability and mildness. The incorporation of HYDROLACTIN 2500 helps the skin to retain moisture, and become soft and supple.

SOURCE: Croda Inc.: HYDROLACTIN 2500: Formula SC-227

MOISTURIZING CREAM O/W

RAW MATERIALS	% By Weight
I. CUTINA GMS	6,0
CETIOL V	2,0
EUTANOL G	7,0
EUMULGIN B 2	1,5
FORLANIT E	0,5
II. Carbopol 954 (2%)	20,0
KOH (50%)	0,5
Glycerol 86%	3,0
NUTRILAN ELASTIN E 20	3,0
Water, demin.	56.5
Preservatives	

Viscosity in mPas: 100000

SOURCE: Henkel: Cosmetics No. III/91: Formula no. 90/227/9.1

MOISTURIZING CREAM

RAW MATERIALS	% By Weight
A. DYNASAN 114	6.0
IMWITOR 370	5.0
IMWITOR 900	6.0
MIGLYOL 812	10.0
Isopropyl Myristate	5.0
Sesame Oil	0.7
Wheat Germ Oil	0.5
Oxyhex 2004 (BHT)	0.02
B. Hygroplex HHG	3.0
Preservative	0.3
Water	up to 100.0
C. Fragrance	0.2

Preparation:

(A) and (B) are heated separately to 75-80C. and (B) is emulsified into (A). The perfume is added below 40C.

Formula 1.1.A

MOISTURIZING CREAM, SLIGHTLY OILY TYPE O/W

RAW MATERIALS	% By Weight
A. DYNASAN 114	5.0
DYNACERIN 660	5.0
IMWITOR 900	5.0
IMWITOR 370	5.0
MIGLYOL 818	3.0
MIGLYOL 840	5.0
B. Preservative	q.s.
Water	up to 100.0
C. Collagen	5.0
Hygroplex HHG	3.0
Perfume oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). (C) is added at about 30C.

Formula 1.1.5A

SOURCE: Huls America Inc.: Formulas

MOISTURIZING CREAM

RAW MATERIALS	Sequence	% By Weight
Water	1	37.35
Propylene Glycol	1	5.00
Carbopol 934 (2% Disp'n)	1	35.00
Methylparaben	1	0.25
Trisodium EDTA	1	0.05
Stearic Acid #132	2	1.10
Lipomulse 165	2	1.00
Lipocol C	2	2.50
Lipopeg 39-S	2	0.25
Lipovol MOS-70	2	12.00
Silicone 200 Fluid (200 cts)	2	0.50
Vitamin E Acetate	2	0.05
Propylparaben	2	0.10
Butylparaben	2	0.05
Triethanolamine	3	0.80
Water	3	1.00
Phenoxyethanol	4	0.50
Hylucare (1% Solution)	5	2.50

Procedure:

1. In a main kettle combine Sequence 1 ingredients and heat to 78C under Lightnin' mixing until preservatives are dissolved and Carbopol is completely dispersed.
2. Combine Sequence 2 ingredients under Lightnin' mixing and heat to 80C.
3. At proper temperatures, add Sequence 2 to Sequence 1 and begin cooling; switch to sweep when batch thickens.
4. Add premixed Sequence 3 to batch.
5. At 35C add Sequence 4.
6. At 30C add Sequence 5. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 446

EMOLLIENT CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Paraffin oil, subl.	8.0
Myritol 318	8.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0
III. Collapur	4.0
Viscosity: 125000 mPas	

SOURCE: Henkel: Cosmetics No. XIV/90: Formula No. 89/213/78

MOISTURIZING CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
Lanette N	5.0
MIGLYOL 812	5.0
MIGLYOL 840	3.0
B. Sorbitol	3.0
Hygroplex HHG	5.0
Propylene glycol	3.0
Preservative	q.s.
Distilled Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 80-85C. (B) is mixed and brought to the same temperature, and slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.1.9

MOISTURIZING CREAM, OILY

RAW MATERIALS	% By Weight
A. SOFTISAN 601	12.0
SOFTISAN 649	3.0
MIGLYOL 812	4.0
MIGLYOL 840	4.0
Almond Oil	5.0
Paraffin	2.5
Cetyl Alcohol	2.0
B. Hygroplex HHG	5.0
Preservative	q.s.
Water	100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C, the perfume is added.

Formula 1.1.10

SOURCE: Huls America Inc.: Formulas

MOISTURIZING FACIAL CREAM

INGREDIENT	% By Weight
A. Triple Pressed Stearic Acid	4.5
Hexadecanol	1.0
Sunflower Seed Oil	5.0
Squalane	1.0
B. Ethoxylated Lanolin Oil	1.0
Glycerol	1.0
Triethanolamine (85%)	0.15
Sodium Hydroxide (50%)	0.75
BHT	0.0375
Methylparahydroxybenzoate	0.0375
Imidazolidinyl Urea	0.0375
Distilled Water	80.3875
C. GlycoCer.HA or GlycoCer.HALA	5.0
D. Perfume, qs	0.1

Procedure:

1. Gently heat A and B separately to 80 degrees C.
2. Add A to B under agitation avoiding incorporation of air.
3. Cool to 40 degrees C. under agitation and ambient conditions.
4. Add C and D and continue agitation to about 35 degrees C.
5. Homogenize and fill into containers.

Facial cream capable in leaving skin soft and refreshed.

SOURCE: TRI-K Industries, Inc.: Formula GDS-MFC-903

MOISTURE CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Amerchol L101	5.00
Modulan	5.00
Solulan 16	1.00
Vaseline	5.00
Vitamin F Glyceryl Ester CLR	3.00
Preservative	q.s.
b) Water, distilled, preserved	74.50
Carbopol 934	0.75
Hygroplex HHG	5.00
c) Triethanolamine	0.75

Manufacture:

- a) melt and bring to about 75C;
 - c) heat to about 75C and stir into a).
- Continue stirring until the emulsion has cooled to about 50C;
- c) stir in.
- Perfume

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 18

MOISTURIZING HAND AND BODY CREAM

INGREDIENT	% By Weight
A. Triple Pressed Stearic Acid	4.5
Mineral Oil	2.5
Hexadecanol	1.5
Squalane	1.0
B. Ethoxylated Lanolin	1.5
Triethanolamine (85%)	0.85
Sodium Hydroxide (50%)	0.075
Methylparaben	0.0375
Imidazolidinyl Urea	0.0375
Glycerol	1.0
Distilled Water	81.9
C. GlycoCer.HA or Glyco.Cer HALA	5.0
D. Perfume, qs	0.1

Procedure:

1. Gently heat A and B separately to 80 degrees C.
2. Add A to B under agitation avoiding incorporation of air.
3. Cool to 40 degrees C. under agitation and ambient conditions.
4. Add C and D and continue agitation to about 35 degrees C.
5. Homogenize and fill into containers.

A hand and body cream capable in leaving skin soft and refreshed.

SOURCE: TRI-K Industries, Inc.: Formula GDS-MHBC-903

MOISTURIZING CREAM O/W

RAW MATERIALS	% By Weight
I. EMULGADE SE	8,0
LANETTE O	2,0
CETIOL V	4,0
EUTANOL G	3,0
Baysilon M350	0,5
II. Glycerol 86%	3,0
Water, demin. preservatives	78,0
III. COLLAPUR	1,5

Viscosity in mPas: 150000

SOURCE: Henkel: Cosmetics No. III/91: Formula no. 90/227/1

NAIL TREATMENT CREAM

RAW MATERIALS	Sequence	% By Weight
Lipo GMS-450	1	1.75
Lipomulse 165	1	9.00
Lipowax P	1	2.50
Stearic Acid #132	1	3.00
Lipopeg 6000-DS	1	0.50
Squalene	1	5.00
Lipovol ALM	1	0.75
Lipobee 102	1	0.25
Ceresin Wax	1	0.25
Liponate NPGC-2	1	2.25
Stearyl Alcohol	1	1.25
Polytex 10	1	0.10
Lipo SS	1	3.00
Propylparaben	1	0.05
Butylparaben	1	0.05
Ascorbyl Palmitate NF	1	0.01
Deionized Water	2	57.44
1,3 Butylene Glycol	2	6.00
Methylparaben	2	0.25
Propylparaben	2	0.05
Sodium Dehydroacetate	2	0.30
Trisodium EDTA	2	0.05
Phosphoric Acid (10% Sol'n)	2	0.55
Hydrocoll EN-55	2	5.00
Sodium Phosphate Dibasic (Anhydrous)	2	0.05
Lipoquat R	2	0.50
Fragrance V-8409 SM&CO	3	0.10

Procedure:

1. Combine all Sequence 1 materials into a suitable stainless steel steam jacketed kettle and heat to 80C with slow Lightnin' mixing application.
2. Combine all Sequence 2 materials into a suitable stainless steel steam jacketed kettle with a variable speed side wiping agitator. Attach a variable Lightnin' mixer and begin heating to 78C with moderate Lightnin' agitation.
3. When Sequence 1 reaches 80C, slowly add to Sequence 2 at 78C with moderate speed Lightnin' agitation.
4. When the addition of Sequence 1 is completed, turn off heat and drain steam from the jacket. Continue mixing for 30 minutes, then begin very slow cooling of the batch to 58C.
5. At 65C, begin to cool rapidly to 58C.
6. At 58C, stop cooling. Remove Lightnin' mixer and insert side-wiper. Begin slow mixing with slow cooling.
7. At 45-48C, stop cooling and add Sequence 3.
8. Continue cooling to packaging viscosity and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 450

NATURAL PROTECTIVE CREAM

INGREDIENT	% By Weight
Cirami No. 1	10.0000
Sunflower Oil	15.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Demineralized Water	72.4790
Tensami 3/06	1.8000
S.O.D. AMI	0.0020

Lactoperoxidase AMI	0.0020
Lactoferrin AMI	0.0020
Tri-Sept M	0.2000
Tristat IU	0.2000
Perfume	0.2000

Procedure:

1. Combine oil phase ingredients in main tank and heat to 75C. to dissolve.
2. Heat water to 75C. and add methylparaben and Tensami 3/06, mix to dissolve.
3. Pump water phase into main tank with prop agitation and mix until uniform.
4. Switch to sweep agitation and begin cooling to 50C.
5. At 50C. add Tristat, S.O.D., Lactoferrin & Lactoperoxidase; continue cooling.
6. At RT, add fragrance and mix thoroughly until uniform.

Code AMI.008.

NIGHT CREAM FOR OILY SKINS

RAW MATERIALS	% By Weight
A. Oily Phase:	
Cirami (A.M.I.)	100
Jojoba oil	10
Petrolatum	20
Tocopherol 50%	0.2
B. Water Phase:	
Deionized water	736.8
C. Isopropyl myristate	20
Carbopol 940	3
D. Tensami 3/06 (A.M.I.)	6
E. Comfrey extract	20
Thyme extract	30
Ivy extract	20
Allantoin	20
2-Bromo-2 Nitropropane 1,3-Diol	10
Dichlorobenzyl alcohol	10
F. Perfume	2
G. Triethanolamine	4

SOURCE: TRI-K Industries, Inc.: Formulas

NIGHT CREAM

INGREDIENTS	% By Weight
Oil Phase:	
Ritachol 2000	8.00
Stearyl alcohol	2.50
Mineral Oil (65-75 Saybolt)	12.00
Lanolin, anhydrous	1.00
Ritaderm	10.00
Propyl paraben	0.10
Butylated hydroxyanisole	0.10
Water Phase:	
Deionized water	q.s. to 100.00
Carbopol 941 resin	0.10
Propylene glycol	5.00
Methyl paraben	0.10
Triethanolamine, 99%	0.10
Bronopol	0.04
Perfume	q.s.

SOURCE: Angus Chemical Co.: Formula PF-0123 suggested by
B.F. Goodrich Chemical

NATURAL NIGHT CREAM

INGREDIENT	% By Weight
Cirami No. 1 AMI	10.5000
Jojoba Oil	1.0000
Sweet Almond Oil	4.0000
Myritol 318	6.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Demineralized Water	69.2850
Tensami 3/06	2.0000
Carrot AMI Oilsoluble	1.5000
Peach AMI Watersoluble	5.0000
Tri-Sept M	0.2000
Tristat IU	0.2000
Perfume	0.2000

Procedure:

1. Combine waxes, oils and Propyl Paraben in main tank and heat to 75C.
2. Combine water and Tensami 3/06 in alt. tank and heat to 75C. to dissolve.
3. Add water phase to oil phase and mix with prop agitation until uniform.
4. Switch to sweep agitation and begin cooling to 50C.
5. At 50C add Carrot AMI, Peach AMI, and Tristat. Mix well and continue cooling.
6. At RT add fragrance and mix until uniform.

SOURCE: TRI-K Industries, Inc.: Code AMI.007

NIGHT CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL GEL Type B	20.0
Mineral Oil	8.0
IMWITOR 780K	5.0
B. Paraffin	3.0
Almond Oil	5.0
Cetyl Alcohol*	2.0
C. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
D. Perfume	q.s.

* Cetyl Alcohol can be replaced by Purcellin Solid (Dragoco).

Preparation:

- (A) is stirred until homogeneous and heated to 75-80C.
 (B) is heated to the same temperature and then added to (A).
 (C) is also heated to 75-80C. and gradually stirred into (A + B).
 (D) is stirred in after the mixture has cooled to 40C.

Formula 1.2.7

NIGHT CREAM

RAW MATERIALS	% By Weight
A. Protegin X	22.0
SOFTISAN 100	5.0
SOFTISAN 649	3.0
MIGLYOL 812	8.0
Paraffin	3.0
Olive Oil	10.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume A 103.751	0.3

Preparation:

- (A) is heated up to 75-80C. (B) is brought up to the same temperature and emulsified into (A). (C) is added at about 30C.

Formula 1.2.8

SOURCE: Huls America Inc.: Formulas

NIGHT CREAM, FOR APPLICATION TO AGING SKIN TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	25.0
Spermaceti	7.0
Bees-wax	4.0
Adeps lanae	5.0
Myritol 318	13.0
Peroestron in Oil	0.5
Isopropyl palmitate	9.0
Vitamin F Glyceryl Ester CLR	2.0
Epidermin in Oil	0.5
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	34.0

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, roll.

Model formulations 12

NIGHT CREAM, FOR APPLICATION TO AGING SKIN TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Spermaceti	7.0
Bees-wax	4.0
Adeps lanae	5.0
Isopropyl palmitate	13.0
Vegetable oil	13.0
Wheat Germ Oil CLR	3.0
Peroestron in Oil	1.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	34.0

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, roll.

Model formulations 20

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

NIGHT CREAM, NOT OILY

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
IMWITOR 900	7.0
MIGLYOL 812	15.0
MIGLYOL 818	8.0
MIGLYOL 840	4.0
Epigran	5.0
B. Hygroplex HHG	5.0
Preservative	q.s.
Water	ad 100.0
C. Perfume oil	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is brought to the same temperature and is emulsified into (A). The perfume is added at 30C.

Formula 1.1.7

NIGHT CREAM, NOT OILY

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
MIGLYOL 829	6.0
Avocado Oil	5.0
Mink Oil	1.0
Purcellin Oil	3.0
Cetyl Alcohol	2.0
Stearic Acid	5.0
Antioxidants	q.s.
B. Preservative	q.s.
Water	ad 100.0
C. Triethanolamine	0.7
D. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B), and (B + C) is emulsified into (A). At about 30C, the perfume is added.

Formula 1.1.8

SOURCE: Huls America Inc.: Formulas

NIGHT CREAM, NOT OILY

RAW MATERIALS	% By Weight
A. Imwitor 370	6.0
Imwitor 900	6.0
Miglyol 812	18.0
Miglyol 840	5.0
Imwitor 375	1.0
Cetyl Alcohol	1.0
Ewalan ODE 50	1.5
Fluilan	1.0
B. Glycerin	6.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil ES 15843	0.3

Preparation:

(A) is heated up to 75-80C. (B) is brought to the same temperature and emulsified into (A). The perfume oil is added at 30C.

Formula 1.1.7B

NIGHT CREAM, NOT OILY, WITH TRIISOSTEARIN

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
IMWITOR 900	7.0
SPECIAL OIL 619	15.0
MIGLYOL 818	7.0
MIGLYOL 840	5.0
Epigran	5.0
B. Hygroplex HHG	5.0
Preservative	q.s.
Water	ad 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is brought to the same temperature and is emulsified into (A). The perfume is added at 30C.

Formula 1.1.7A

SOURCE: Huls America Inc.: Formulas

NIGHT CREAM WITH VEGETABLE OILS
(Slightly Oily)

RAW MATERIALS	% By Weight
A. MIGLYOL GEL Type B	15.0
IMWITOR 780K	5.0
DYNACERIN 660	2.0
Olive Oil	1.0
Almond Oil	2.0
Lunacera PE-P	5.0
Antioxidants	q.s.
B. Magnesium Sulphate	2.0
Preservative	q.s.
Water	ad. 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is mixed and heated to 75-80C. (B) is brought to the same temperature and emulsified into (A). At about 30C., the perfume is added.

Formula 1.2.5

NIGHT CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL Type B	20.0
IMWITOR 780K	5.0
Mineral Oil	8.0
B. Paraffin	3.0
Wheat Germ Oil	5.0
Antioxidants	q.s.
C. Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
D. Perfume 10 776	0.2

Preparation:

Take MIGLYOL-GEL and gradually add the other components of Phase (A). Phase (A) is stirred until smooth and then heated to 75-80C. (B) is also heated to this temperature and is then added to (A). (C) is brought to the same temperature and emulsified into (A and B) gradually. D is added below 40C.

Formula 1.2.6

SOURCE: Huls America Inc.: Formulas

NIGHT CREAM

RAW MATERIALS	% By Weight
A Fatty Acid Polyglycol Ester	22.0
Cetiol A	3.0
Isopropylmyristate	3.0
Phytoconcentrol Arnica	0.2
B 1,2-Propylene Glycol	3.0
Magnesium sulphate-7H ₂ O	0.5
Hydroviton	3.0
Water	61.8
C Perfume	0.4
Preservative	
Formulation Nr. 8 w/o	

SOFT CREAM

RAW MATERIALS	% By Weight
A Fatty Acid Polyglycol Ester	23.0
Elfacos ST 37	1.0
Beeswax	0.5
Miglyol 812	8.0
Phytoconcentrol Kamille	1.0
B 1,2-Propylene Glycol	3.0
Karion F	3.0
Magnesium Sulphate-7H ₂ O	0.5
Water	59.3
C Perfume	0.4
Preservative	
Formulation Nr. 7 w/o	

SOURCE: Schulke & Mayr GmbH: Euxyl K 400: Formulas

NOURISHING NAIL CREAM

RAW MATERIALS	% By Weight
I. Cutina FS 25	2,0
Cutina CBS	8,0
Cetiol V	11,0
Paraffin oil, pearlescent	5,0
II. Glycerol 86%	5,0
KOH (20%)	2,0
Water, demin.	ad 100
III. Nutrilan Keratin W	5,0
Viscosity in mPas: 190.000	
pH: 7	
Formulation no. 90/230/18	

NOURISHING NAIL CREAM

RAW MATERIALS	% By Weight
I. Cutina FS 25	2,0
Cutina CBS	8,0
Eutanol G	11,0
Paraffin oil, pearlescent	5,0
II. Glycerol 86%	5,0
KOH (20%)	2,0
Water, demin.	ad 100
III. Nutrilan Keratin W	10,0
Viscosity in mPas: 240.000	
pH: 7	
Formulation no. 90/230/27	

Preparation:

Add phase II (approx. 80C) to phase I (approx. 80C) while stirring. Cool to <40C, then stir in Nutrilan Keratin W.

The stability of the formulations was tested at room temperature, +40C, +45C and -5C over a period of 8 weeks.

SOURCE: Henkel: Cosmetic No. XIX/90: Formulas

O/W CREAM

RECIPE	% By Weight
A HOSTACERIN CG	5.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	5.00
B HOSTACERIN PN 73*	0.20
C Water	79.40
Preservative	q.s.
D Perfume	0.40

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenize if necessary.

Formula A VI/1601

O/W-CREAM

RECIPE	% By Weight
A HOSTAPHAT KW 340 N	5.00
Stearic acid	9.00
Cetyl alcohol	3.00
Mineral oil, high viscosity	4.00
Isopropyl palmitate	8.00
B Sorbitol 70%ig	3.00
Water	67.60
Preservative	q.s.
C. Perfume	0.40

Procedure:

- I Melt A at 80C.
- II Heat C to 80C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.

Formula A VI/1700

SOURCE: Hoechst: Guide Formulations for Cosmetics and Toiletries:
Formulas

O/W-CREAM

RECIPE	% By Weight
A HOSTAPHAT KW 340N	3.00
HOSTACERIN DGS	8.00
Mineral oil, high viscosity	12.00
Isopropyl palmitate	8.00
PCL-solid	2.00
B Water	66.60
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 70C.
- II Heat B to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formula A VI/1706

O/W-CREAM

RECIPE	% By Weight
A HOSTACERIN CG	15.00
Sun flower oil	8.00
Sesame oil	8.00
Olive oil	8.00
Tocopherol	0.50
B Water	60.10
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 70C.
- II Heat B to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formula A VI/1501

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formulas

O/W-CREAM

RECIPE	% By Weight
A HOSTACERIN DGS	2.00
HOE S 3495	1.00
Mineral oil, high viscosity	4.00
Isopropyl palmitate	8.00
Soya oil	4.00
Tocopherol	0.50
B HOSTACERIN PN 73*	0.40
C Glycerol	3.00
Water	76.70
Preservative	q.s.
D Perfume	0.40

* Alternative thickeners could also be used.

Formula A VI/1950

O/W-CREAM

RECIPE	% By Weight
A GENAMIN DSAC	2.00
HOSTACERIN DGS	6.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	10.00
B Water	71.60
Preservative	q.s.
C. Perfume	0.40

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formulas

O/W-CREAM
With Vitamin, Without Perfume

RECIPE	% By Weight
A HOSTAPHAT KW 340N	4.00
HOSTACERIN DGS	8.00
PCL-liquid	1.50
PCL-solid	1.50
Tocopherol acetat	0.50
Petrolatum	10.00
Mineral oil, low viscosity	5.00
Isopropyl palmitate	8.00
Jojoba oil	3.00
B Extrapon 3-special	1.00
Neo-Extrapon chamomile liquid	0.20
Extrapon sage special	1.00
Extrapon altheae special	1.00
Neo-Extrapon linden blossom liquid	1.00
Extrapon marigold special	2.00
Phytoconcentrol aloe water soluble	1.00
D-Panthenol	1.00
Glycerol	3.00
Water	47.10
Preservative	q.s.
Dyestuff blue (0.5% in water)	0.10
Dyestuff yellow (1% in water)	0.10

Procedure:

- I Melt A at 70C.
- II Heat B to 70C.
- III Stir II into I.
- IV Stir until cool.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula A VI/3606

COLD CREAM (O/W)

RAW MATERIALS	% By Weight
POLYSYNLANE	32.0
Mineral Oil	4.0
Paraffin Wax	4.0
I.P.M.	8.0
Bee's Wax	3.0
Lanolin	8.0
Propylene Glycol	4.0
Potassium Hydroxide	0.3
Arlacel 40	2.5
P.O.E. Sorbitol Bee's Wax	1.0
Stearic Acid	1.5
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyesther Corp.: Formulas

O/W-CREAM

RECIPE	% By Weight
A HOSTACERIN DGS	5.00
Isopropyl palmitate	8.00
Almond oil	4.00
Jojoba oil	2.00
Wheat germ oil	5.00
Sun flower oil	4.00
Tocopherol	0.50
B HOSTACERIN PN 73*	0.30
C Water	70.80
Preservative	q.s.
D Perfume	0.40
* Alternative thickeners could also be used.	

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D to IV at 40C.
- VI Homogenize if necessary

Formula A VI/1850

O/W-HAND-CREAM

RECIPE	% By Weight
A HOSTACERIN CG	10.00
Mineral oil, high viscosity	10.00
Cetiol SN	5.00
B Extrapon chamomile special	0.50
Glycerol	15.00
Water	59.10
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 70C.
- II Heat B to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formula A VI/6505

SOURCE: Hoechst: Guide Formulations For Cosmetics & Toiletries

O/W SKIN CREAM

RAW MATERIALS	% By Weight
I. Cutina MD	6.0
Eumulgin B 1	1.0
Eumulgin B 2	1.0
Lanette O	2.0
Cetiol V	4.0
Cetiol SN	4.0
Copherol 1250	5.0
II. Glycerol 86%	5.0
Water, preservatives	ad 100

Viscosity in mPas: 300,000
Formulation no. 89/318/8

O/W SKIN CREAM

RAW MATERIALS	% By Weight
I. Cutina MD	6.0
Eumulgin B 1	1.0
Eumulgin B 2	1.0
Lanette O	2.0
Cetiol V	4.0
Cetiol SN	4.0
Copherol F 1300	5.0
II. Glycerol 86%	5.0
Water, preservatives	ad 100

Viscosity in mPas: 312,000
Formulation no. 89/318/9

O/W SKIN CREAM

RAW MATERIALS	% By Weight
I. General 122 E 10	10.0
Lamecos P 60	5.0
Cetiol SB 45	5.0
Almond oil	5.0
Myritol 318	10.0
Controx VP	0.05
Copherol 1250	5.0
II. Carbopol 950	0.2
NaOH (10%)	0.7
Glycerol (86%)	5.0
Water, preservatives	ad 100

Viscosity in mPas: 87,500
Formulation no. 89/318/59

SOURCE: Henkel: Cosmetics No. XXI/90: Formulations

O/W SOFT CREAM

RAW MATERIALS	% By Weight
I. Emulgade SE	6.0
Lanette O	1.5
Cetiol V	5.0
IPP	3.0
Paraffin oil, subl.	4.0
II. Glycerine 86%	3.0
Water, deionized, preservative	ad 100.0
III. Collapuron DAK	5.0
Hydagen B	0.2
Perfume Cremoderm 78080	0.3

Viscosity: 130,000 mPa.s

Formula no. 89/169/3

O/W SOFT CREAM: UNIVERSAL CREAM

RAW MATERIALS	% By Weight
EMULGADE SE	6.0
Paraffin oil, viscous	6.5
IPP	3.5
Lanette O	1.0
Glycerin 86%	3.0
Water, demineralized	80.0

Viscosity in mPa.s: approx. 100,000

Formulation No. 88/051/E

O/W SOFT CREAM: CARE CREAM

RAW MATERIALS	% By Weight
EMULGADE SE	8.0
Cetiol SN	8.0
Cetiol J 600	3.0
Cetiol SB 45	4.0
Lanette O	0.5
Glycerin 86%	3.0
Water, demineralized	73.5

Viscosity in mPa.s: 100,000

Formulation No. 88/051/W.1

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz & Nr. II/89

O/W TOPICAL CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL 812	5.0
IMWITOR 900	10.0
SOFTISAN 601	15.0
B. Cosmetic Grade Sorbitol	5.0
Preservative	q.s.
Water	up to 100.0

Preparation:

(A) is heated to ca. 75C., and (B) is mixed and heated up to the same temperature and emulsified into (A).

Formula 1.1B

LIGHT W/O CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN GEL	20.0
MIGLYOL 812	20.0
IMWITOR 780K	5.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume Oil 69 920	0.3

Preparation:

(A) is mixed and heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C (C) is added.

Formula 1.2F

W/O TOPICAL CREAM

RAW MATERIALS	% By Weight
A. DYNACERIN 660	2.0
MIGLYOL 840	3.0
IMWITOR 780K	5.0
Petrolatum	17.0
Paraffin	5.0
B. Magnesium Stearate	2.0
Preservative	q.s.
Water	up to 100.0

Preparation:

(A) is heated to ca. 75C., and (B) is mixed and heated to the same temperature and emulsified into (A).

Formula 1.2.3B

SOURCE: Huls America Inc.: Formulas

PETROLEUM SKIN PROTECTANT CREAM

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	53.00
Triethanolamine 99%	1	0.50
Uniphen P-23	1	0.50
Hypan SA100H	2	0.25
Perlatum 410 CG	3	30.00
Britol 7	3	15.00
Liposorb SQO	3	0.50
Amphisol K	3	0.25

Procedure:

1. Combine Sequence 1 ingredients and heat to 75C under vigorous Lightnin' mixing.
2. Add Sequence 2 ingredient to Sequence 1 slowly under Lightnin' Mixing.
3. In a side kettle, combine Sequence 3 ingredients and heat to 78C under Lightnin' Mixing.
4. Add Sequence 3 to combined Sequences 1 and 2 at temperature under Lightnin' Mixing, and begin cooling to 60C.
5. At 60C colloid mill with recirculation for at least 5 minutes.

SOURCE: Lipo Chemicals Inc.: Formula No. 444

VITAMIN CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Paraffin oil, subl.	8.0
Myritol 318	8.0
Copherol 1250	3.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0

Viscosity: 120000 mPas

SOURCE: Henkel: Cosmetics No. XIV/90: Formula no. 89/213/76

PIGMENTED COVER CREME

RAW MATERIALS	% By Weight
Oil Phase:	
CRODAMOL PMP	3.00
CRILL 6	2.00
COSMOWAX J	3.50
SUPER REFINED Babassu Oil	3.00
CRODAMOL PTIS	1.00
SUPER HARTOLAN	1.50
SYNCROWAX BB4	2.00
PROVOL 50	1.00
Silicone Fluid SF96-50	.50
Water Phase:	
CRODALAN AWS	2.00
Veegum HV	0.75
Ganex V216	3.00
Methyl Paraben	.20
Propyl Paraben	.10
Germall 115	.30
Water deionized	62.45
Protein Phase:	
COLLASOL	.50
CROMOIST HYA	.50
Pigment Phase:	
Talc	5.00
Titanium Dioxide	4.00
Lo Micron Pink Extender	1.20
Lo Micron Brown	2.50

Procedure:

Charge a vessel with water and disperse the Veegum. Continue mixing until smooth. Heat to 75C while adding in the rest of the water phase. Combine and heat oil phase to 75C. Blend the pigment phase together until no pigment streaks appear on drawdown. Add the pigments to the water until well blended. Then add the water to the oil phase under good agitation. At 40C add in the protein phase. Continue mixing to room temperature. pH 6.7. (Pigment level can be adjusted for desired coverage).

MU-53 is a light nonionic cover cream designed to even out skin tone. A combination of SUPER REFINED Babassu Oil, CRODAMOL PMP and CRODAMOL PTIS moisturizes without a greasy afterfeel, and allows the skin to breathe. PROVOL 50 is an excellent pigment dispersant. COLLASOL and CROMOIST HYA put a moisture film on the skin to help maintain a smooth surface.

SOURCE: Croda Inc.: CRILLS and CRILLETS: Formula MU-53

PIGMENTED COVER CREAM I

RAW MATERIALS	% By Weight
A. SOFTISAN 649	23.0
MIGLYOL 829	20.0
IMWITOR 780	6.0
DYNASAN 118	5.0
Beeswax	3.0
Syloid 244	8.0
B. Preservative	q.s.
Water	up to 100.0
C. Titanium Dioxide	2.0
Talcum	2.0
Zinc Oxide	2.5
Sicomet Brown 70	0.8
Sicomet Brown 75	0.2
D. Rivalia Perfume	0.3

Preparation:

(A) is heated up to 75-80C. (B) is brought to the same temperature and emulsified into (A). It is then cooled while stirring. (C) is ground and the finished emulsion is stirred into (C) little by little. (D) is then added.

Formula 2.1C

PIGMENTED CREAM 2

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
DYNASAN 110	3.0
MIGLYOL 812	5.0
MIGLYOL 840	10.0
DYNACERIN 660	5.0
Stearic Acid	5.0
Cetyl Alcohol	1.0
Hostaphat KL 340 N	3.0
B. Preservative	q.s.
Water	up to 100.0
C. Triethanolamine	0.9
D. Titanium Dioxide	2.0
Talcum	2.0
Zinc Oxide	2.5
Sicomet Brown 70	0.4
Sicomet Brown 75	0.1
E. Perfume 15 834	0.3

Preparation:

(A) is mixed together and heated up to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and both are emulsified into (A). It is then cooled while stirring. (D) is ground and the finished emulsion is added to (D), a little at a time. (E) is then added.

Formula 2.1D

SOURCE: Huls America Inc.: Formulas

PLACENTA CREAM, FOR APPLICATION TO AGING SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	10.0
Softisan 100	2.0
Lanolin liquid	3.0
Cetiol V	10.0
Isopropyl palmitate	10.0
Preservative	q.s.
b) Water, distilled, preserved	55.0
Karion F liquid	5.0
c) Placentalliquid water-soluble	5.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

Model formulations 21

PLACENTA NIGHT CREAM, FOR APPLICATION TO AGING SKIN TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Adeps lanae	3.0
Bees-wax	3.0
Isopropyl palmitate	18.0
Placentalliquid oil-soluble	5.0
Peroestron in Oil	1.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	45.8
Karion F liquid	4.0
Magnesium sulphate	0.2

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume, roll.

Model formulations 22

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

PROTECTIVE HAND CREAM

INGREDIENTS	% By Weight
Part A:	
ULTRA ANHYDROUS LANOLIN HP-2060	3.0
EMERSOL 132	5.0
LANETTE 16	3.0
CUTINA GMS	2.0
CETIOL SN	2.0
White Perfecta	2.0
SF-1202 Silicone Fluid	1.0
Propylparaben	0.1
Part B:	
Deionized Water	76.2
Propylene Glycol	5.0
Sodium Hydroxide	0.5
Methylparaben	0.2

Procedure:

- 1) Blend Part A and heat to 70-75C.
- 2) Blend Part B and heat to 70-75C.
- 3) Add Part B to Part A and agitate.
4. Cool to 30C and package.

Comments:

This protective hand cream is a light cream which provides a high degree of emolliency and imparts a greaseless moisture barrier.

SOURCE: Henkel: High Purity Lanolins: Formula H-4988

HAND CREAM

RAW MATERIALS	% By Weight
A Hostacerin CG	15,00
Mineral oil	15,00
Belsil DM 350	1,00
B Glycerine	3,00
Water	66,00
Preservatives, perfume	q.s.

Melt A at approx. 70C, heat B to 75C. Add B to A whilst stirring (do not allow a foam to form). Stir cold slowly.

Temperature stability: at 45C over 10 weeks.

White, creamy. Easily spread, quickly absorbed.

SOURCE: Wacker Silicone: Formulation 148 AH

PROTECTIVE HAND CREAM

FORMULA	% By Weight
Oil Phase:	
AMERCHOL CAB	5.0
AMERLATE LFA	3.5
PROMULGEN D	2.0
Glyceryl Stearate	5.0
Dimethicone	20.0
Water Phase:	
Water	64.0
Triethanolamine	0.5
Perfume and Preservative	q.s.

Procedure:

Heat both phases to 75C. Add water phase to oil phase at 75C and mix while cooling. Pour at 35C.

Description:

Protective hand cream containing AMERCHOL CAB, a multisterol extract of lanolin alcohols in petrolatum. AMERCHOL CAB is effective in moisturizing dry skin and works very well in conjunction with the dimethicone in protecting the skin from environmental insult. AMERCHOL CAB and PROMULGEN D help stabilize the emulsion formed by the triethanolamine lanolate soap system.

SOURCE: Amerchol Corp.: AMERCHOL Series: Formula T50-40-1

DAILY SKIN CARE CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCAM E-20 Distearate	2.5
GLUCATE DO	2.0
GLUCATE SS	2.5
Isopropyl Palmitate (PROPAL)	3.0
Water Phase:	
Deionized Water	77.0
Carbomer 934 (3% aqueous sol'n)	10.0
Triethanolamine (10% aqueous sol'n)	3.0
Prefume and Preservative	q.s.

Description:

Mineral oil-free, soft, white, glossy cream for daily use. Glucam E-20 Distearate provides a smooth, silky afterfeel while also contributing o/w emulsification. Glucate DO and Glucate SS combine to serve as w/o emulsifiers giving excellent temperature stability.

SOURCE: Amerchol Corp.: GLUCAM E-20 Distearate: Formula T51-93-1

PROTECTIVE SKIN CREAM

INGREDIENTS	% By Weight
Part A:	
ANHYDROUS LANOLIN HP-2050	3.0
EMERSOL 132	7.5
LANETTE 16	3.5
CETIOL SN	3.0
White Perfecta	2.0
Dow Corning 200 Fluid (100cs)	2.0
CUTINA GMS	1.5
Propylparaben	0.1
Part B:	
Deionized Water	73.7
Glycerine	3.0
Sodium Hydroxide	0.5
Methylparaben	0.2

Procedure:

- 1) Blend Part A and heat to 70-75C.
- 2) Blend Part B and heat to 70-75C.
- 3) Add Part B to Part A and agitate.
- 4) Cool to 30C and package.

Comments:

This formulation is a heavy cream which provides re-fattening action for skin and imparts a greaseless moisture barrier.

SOURCE: Henkel: High Purity Lanolins: Formula H-4987

SKIN CREAM

RAW MATERIALS	% By Weight
A Belsil PDM 20	3,60
Stearic Acid	4,20
Cetyl Alcohol	1,00
B Glycerine	2,00
Triethanolamine	0,80
Water	88,40
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 80C, stir A into B.

Temperature stability: at 45C over 10 weeks.

White, creamy, silky shine.

SOURCE: Wacker Silicone: Formulation 187/3 AH

REGENERATIVE CREAM FOR FACE AND NECK TYPE O/W

RAW MATERIALS	% By Weight
a) Amphisol	3.0
Stearin	5.0
Miglyol 812	15.3
Isopropyl palmitate	10.0
Lanolin liquid	5.0
Preservative	q.s.
b) Water, distilled, preserved	51.7
Karion F liquid	5.0
c) Collagen CLR	5.0

Manufacture:

- a) melt and bring to about 85C;
 b) heat to about 85C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

REGENERATIVE CREAM FOR THE BACKS OF HANDS TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	8.0
Stearin	3.0
Isopropyl palmitate	5.0
Silicone oil AK500	5.0
Preservative	q.s.
b) Water, distilled, preserved	69.0
Karion F liquid	5.0
c) Collagen CLR	5.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 8

REGENERATIVE FACE CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Cutina GMS	10.0
Eumulgin B1	4.0
Lanette 16	4.0
Eutanol G	6.0
Vegetable oil	4.0
Adeps lanae	2.0
Vitaplant CLR oil-soluble	2.0
Preservative	q.s.
b) Water, distilled, preserved	61.0
Glycerin	5.0
c) Vitaplant CLR water-soluble	2.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, homogenize.

REGENERATIVE EYE CREAM TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	25.0
Adeps lanae	3.0
Bees-wax	3.0
Vegetable oil	22.0
Vitaplant CLR oil-soluble	2.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	38.8
Karion F liquid	4.0
Magnesium sulphate	0.2
c) Vitaplant CLR water-soluble	2.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.
 Perfume, roll

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 34

REJUVENATING AND VITALIZING CREAM FOR THE FACIAL MASK

RAW MATERIALS	% By Weight
A. IMWITOR 960	5.0
DYNASAN 110	3.0
MIGLYOL 812	5.0
MIGLYOL 840	5.0
Stearic Acid	5.0
Wheat germ oil	5.0
Cetyl alcohol	1.0
Antioxidants	q.s.
B. Preservative	q.s.
Water	50.3
C. Triethanolamine	0.9
D. Hydrolized elastin	7.0
Extrapon Phytozell-Special	5.0
Extrapon Phytostimulin Special	8.0
Perfume	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature. (C) is added to (B) and (B + C) are emulsified into (A). (D) is added at 30C.

Formula 1.1.4

REGENERATING CREAM, SLIGHTLY OILY

RAW MATERIALS	% By Weight
A. DYNASAN 114	5.0
DYNACERIN 660	5.0
IMWITOR 900	5.0
IMWITOR 370	5.0
MIGLYOL 818	3.0
MIGLYOL 840	5.0
B. Preservative	q.s.
Water	ad 100.0
C. Collagen CLR	5.0
Perostron in oil	1.0
Perfume oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). (C) is added at about 30C.

Formula 1.1.5

SOURCE: Huls America Inc.: Formulas

SILK PROTEIN SKIN CREAM

RAW MATERIALS	% By Weight
1. Mineral Oil (Spec. Gravity 0.850)	10.0
2. Cocoa Butter	2.0
3. Cetearyl Alcohol & Ceteareth 20	4.0
4. Emulsifying wax N.F.	6.0
5. Stearic Acid	1.0
6. Glyceryl Monostearate	2.8
7. Glycerin	2.0
8. Propylene Glycol	2.0
9. Acetamide MEA 100%	0.5
10. Triethanolamine	0.2
11. MACKPRO NSP	1.5
12. MACKSTAT DM	qs
13. Fragrance	qs
14. Deionized Water	qs

Procedure:

1. Melt 1, 2, 3, 4, 5, 6, 7, 8, 9, in a separate container to 75 degrees C.
2. In the mixing tank heat the water to 78 degrees C. add 10, 11.
3. Start mixing and add hot mixture of 1 thru 9 slowly with good agitation, mix for 20 minutes then start cooling.
4. While mixing add at 50 degrees C. items 12 thru 13 and mix until everything is homogeneous.
5. Check pH and adjust if needed with triethanolamine or acid solution to 5.4 - 6.5.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula No. 107-1A

MULTIVITAMIN SKIN CREAM TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Spermaceti	7.0
Bees-wax	5.0
Adeps lanae	5.0
Vegetable oil	10.0
Cetiol V	13.0
Cutavit Richter	2.0
Antioxidant	q.s.
b) Water, distilled, preserved	33.8
Karion F liquid	4.0
Magnesium sulphate	0.2

Manufacture:

- a) melt and bring to about 70C;
 - b) heat to about 70C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C. Perfume, roll.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH: Model formulations 9

SKIN CARE CREAM

INGREDIENTS	% By Weight
Part A:	
EMULGADE 1000NI	7.00
MYRITOL 318	5.00
CETIOL LC	5.00
Part B:	
Water	79.70
COSMEDIA POLYMER HSP-1180	3.00
Part C:	
Triethanolamine (99%)	0.30
Part D:	
Dyes, preservatives & fragrance	q.s.

Procedure:

Heat Part A to 70-75C. Heat Part B to 70-75C. Add Part B to Part A under agitation. Add Part C. Continue stirring until product reaches 40-45C. At this temperature add individual components of Part D. Continue stirring until product reaches room temperature. Fill off.

This is a good example of the "extra" good feeling the COSMEDIA POLYMER HSP-1180 provides on the skin.

Suggested Formula H-4815

SKIN CARE CREAM W/O

RAW MATERIALS	% By Weight
I. LAMEFORM TGI	4,0
MONOMULS 90-0 18	2,0
LANETTE O	1,0
Permulgin 4200	7,0
Paraffin oil, perl.	20,0
II. Glycerol 86%	5,0
MgSO4-7H2O	0,9
NUTRILAN ELASTIN E 20	1,0
Water, demin.	58,6
preservatives	
III. COLLAPUR	0,5

Viscosity in mPas: 300000

Formula no. 90/229/23

SOURCE: Henkel: Cosmetics No. III/91

SKIN CARE CREAM

RAW MATERIALS	% By Weight
I. APIFIL	8,00
Cetyl Alcohol	1,00
M.O.D. WL 2949	10,00
ISOSTEARATE D'ISOSTEARYLE	7,00
Wheat Germs Oil	3,00
Silicone 200 (100 cs)	1,00
VEGETOL HUILEUX CALENDULA WL 1072	5,00
Antixoygen	Q.S.
II. Demineralized Water	57,75
Carbopol 934	0,30
E.D.T.A. Tetrasodic Salt	0,05
Triethanolamine 99% (50% solution)	0,60
CEVENYL	1,00
NUCLEODERM (2% aqueous solution)	5,00
Preservative	Q.S.
Perfume	0,30

Preparation:

Disperse the Carbopol. Let stand.

Using moderate stirring, pour II heated up to 75C into I heated up to 75C.

Then add the T.E.A. solution and the CEVENYL, cool down to 30C while stirring.

Add the other components.

SOURCE: Gattefosse: Formula MM 2892/A

HERBAL SKIN CREAM TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Adeps lanae	3.0
Bees-wax	3.0
St. John's Wort Oil CLR	3.0
Calendula Oil CLR	3.0
Isopropyl palmitate	14.6
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	48.2
Karion F liquid	5.0
Magnesium sulphate	0.2

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C. Perfume, roll.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 25

SKIN CONDITIONING CREAM

FORMULA	% By Weight
Water Phase:	
KYTAMER PC	0.5
GLUCAM E-10	5.0
GLUCAMATE SSE-20	1.0
Deionized Water	65.5
Oil Phase:	
PROMULGEN G	5.0
AMERCHOL L-101	4.0
AMERLATE P	3.0
GLUCATE SS	1.0
Mineral Oil	15.0
Perfume and Preservative	q.s.
Procedure:	

Disperse KYTAMER PC in water with high speed agitation. When completely dispersed heat to 75C with continuous mixing until clear and uniform. Add GLUTAMATE SSE-20 while maintaining temperature of water phase at 75C. Heat oil phase to 75C. Add water phase at 75C to oil phase at 75C with good agitation. Continue mixing while slowly cooling to room temperature. Add perfume below 50C.

Description:

White, glossy, heavy viscosity cream. Humectancy and smooth, silky, afterfeel attributed to KYTAMER PC and GLUCAM E-10. AMERLATE P helps rub-in of cream onto skin by providing lubricity properties. Primary emulsification of system due to highly efficient, mild, nonionic emulsifier pair of GLUCAMATE SSE-20 (o/w) and GLUCATE SS (w/o). Auxiliary emulsification achieved with use of PROMULGEN G and AMERCHOL L-101.

SOURCE: Amerchol Corp.: KYTAMER PC: Formula T60-28-1

FACIAL CLEANSING CREAM

INGREDIENTS	% By Weight
Part A:	
LANETTE SX	10.0
EUTANOL G	12.0
Mineral Oil, NF	15.0
Part B:	
Water	62.0
Part C:	
Germaben II	1.0
Fragrance	q.s.
Procedure:	

Mix and heat Part A to 70C. Heat Part B to 70C and add to Part A. Mix until cooled to 40C and add Part C.

Comments:

This cream spreads easily and is an efficient cleanser. The branched chain alcohol leaves the skin feeling non-greasy and non-tacky.

SOURCE: Henkel: Formula H-4876

SKIN CREAM

FORMULA	% By Weight
Oil Phase:	
AMERSIL ME-358	10.0
Cyclomethicone Pentamer	3.0
AMERCHOL CAB	3.5
AMERLATE P	1.0
Water Phase:	
Glycerin	5.0
Carbomer 934	0.3
NaCl	0.8
Deionized water	76.1
Triethanolamine (99%)	0.3
Preservative and perfume	q.s.

Description:

In this glossy, white cream, AMERSIL ME-358 provides a rich, elegant, nongreasy feel while also contributing to the emulsification of the cyclomethicone pentamer. AMERCHOL CAB and AMERLATE P provide additional emollience, especially for very dry skin. In addition, AMERCHOL CAB serves as an auxiliary emulsifier, contributing to overall product stability.

SOURCE: Amerchol Corp.: AMERSIL ME-358: Formula T59-196-1

NONIONIC O/W SKIN CREAM

FORMULA	% By Weight
Oil Phase:	
AMERSIL DMC-287	2.0
AMERCHOL L-101	5.0
SOLULAN 16	3.0
CETAL	10.0
Myristyl Myristate	5.0
Water Phase:	
Glycerin	2.5
Deionized water	72.5
Preservative	q.s.

Description:

AMERCHOL DMC-287 imparts emollient properties to this cream formulation. Product rub-in is improved through its lubricity while also imparting excellent afterfeel properties to the skin. Emulsion stability.

SOURCE: Amerchol Corp.: AMERSIL: Formula T63-54-2

SKIN CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
TEGO Care 150	8.0
Stearyl Alcohol	1.0
ABIL Wax 2434	1.0
Isopropyl Stearate or Isopropyl Myristate	8.0
Water Phase:	
Glycerine	3.0
Water	79.0
Preservatives	Q.S.
Perfume	Q.S.
Procedure:	
1) Heat oil phase to 60-70C. Mix until uniform.	
2) Heat water and glycerine to 60C. Add to oil phase. Mix. Homogenize.	
3) Cool slowly to 35-40C with sweep agitation. Add fragrance.	

SOURCE: Goldschmidt Chemical Corp.: Formula

OILY SKIN CREAM

INGREDIENT	% By Weight
Demineralized Water	75.1850
Tensami 3/06	0.4000
Antiacne #315 HS	3.0000
Yeast Extract AMI	2.0000
Tri-Sept M	0.2000
Cirami No. 1 AMI	3.0000
Arlacel 165	5.0000
Brookswax D	1.5000
Cetyl Alcohol	2.0000
Carnation Oil	4.0000
Antiacne #650 LS	3.0000
Vitamin E Acetate	0.0150
Tri-Sept P	0.1000
Tristat IU	0.2000
Perfume	0.2000
Tea Tree Oil	0.2000

Procedure:

Charge Cirami, Arlacel, Brookswax, Cetyl, Mineral Oil, #650 LS, Vitamin E and Propyl Paraben to main tank and heat to 75C.

Heat water to 75C. and add to main tank with prop agitation. Switch to sweep agitation and begin cooling to 50C.

Add Tensami 3/06 while cooling.

At 50C., add the Tristat IU, Yeast Extract and #315 HS and mix well.

Continue cooling and mixing to RT, then add the fragrance and Tea Tree Oil.

Blend until uniform

SOURCE: TRI-K Industries, Inc.: Code AMI.003.

SKIN PROTECTION CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
MIGYLOL 812	5.0
Stearic Acid	7.0
Cetyl Alcohol	2.0
Softigen 701	9.0
B. Preservative	q.s.
Glycerin	4.0
Water	up to 100.0
C. Triethanolamine	1.0
D. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and brought to the same temperature. (C) is added to (B), and (B + C) is emulsified into (A). (D) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Source: Huls America, Inc.: Formula 1.1.17

SKIN CREAM, VITAMIN/HERB CONTENT TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Adeps lanae	3.0
Bees-wax	3.0
Avocado Oil CLR	5.0
St. John's Wort Oil CLR	3.0
Calendula Oil CLR	3.0
Wheat Germ Oil CLR	3.0
Isopropyl palmitate	6.4
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	48.4
Karion F liquid	5.0
Magnesium sulphate	0.2

Manufacture:

a) Melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 30C.

Perfume, roll.

SOURCE: CLR/Chemisches Laboratium Dr. Kurt Richter GmbH:
Model formulations 35

SKIN PROTEIN SKIN CREAM

RAW MATERIALS	% By Weight
1. Mineral Oil	10.0
2. Coco Butter	2.0
3. Cetearyl Alcohol & Ceteareth 20	4.0
4. Emulsifying wax N.F.	6.0
5. Stearic Acid	1.0
6. Glyceryl Monostearate	2.8
7. Glycerin	2.0
8. Propylene Glycol	2.0
9. Acetamide MEA 100%	0.5
10. Triethanolamine	0.2
11. MACKPRO NSP	1.5
12. MACKSTAT DM	qs
13. Fragrance	qs
14. Deionized Water	qs

Procedure:

- Melt 1, 2, 3, 4, 5, 6, 7, 8, 9, in a separate container to 75 degrees C.
- In the mixing tank heat the water to 78 degrees C. add 10, 11.
- Start mixing and add hot mixture of 1 thru 9 slowly with good agitation, mix for 20 minutes then start cooling.
- While mixing add at 50 degrees C. items 12 then 13 and mix until everything is homogeneous.
- Check pH and adjust if needed with triethanolamine or acid solution to 5.4 - 6.5.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CARROT SKIN CREAM TYPE W/O

RAW MATERIALS	% By Weight
a) Amerchol H-9	10.0
Lanolin	20.0
Lanette 16	3.0
Myritol 318	10.0
Wheat Germ Oil CLR	3.0
Carrot Oil CLR	2.5
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	46.5
Polyglycol 400 DAB 7	5.0

Manufacture:

- melt and bring to about 85C;
 - heat to about 85C and stir into a).
- Continue stirring until the emulsion has cooled to about 35C. Perfume, roll.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 7

SLENDERIZING CREAM

INGREDIENT	% By Weight
Demineralized Water	65.7350
DC 193 Surfactant	0.5000
Carbopol 940	0.2500
Arlacel 165	5.5000
Cetyl Alcohol	1.0000
Stearic Acid XXX	1.5000
Carnation Oil	3.0000
Isopropyl Myristate	4.0000
Slenderizing #616 LS	5.0000
Vitamin E Acetate	0.0150
Tensami 3/06	0.2000
Phyt'iod	2.0000
Iodobio 45 AMI	3.0000
Slenderizing #316 HS	5.0000
Organic Silicone AMI	2.0000
Tri-Sept M	0.2000
Tristat IU	0.2000
Color	QS
TEA 99%	0.6000
Perfume	0.2000
Tri-Sept P	0.1000

Procedure:

1. Disperse the Carbopol in water and begin heating to 75C.
2. Add DC 193 and Methylparaben and hold batch at 75C.
3. Combine oil phase and heat to 75C.
4. Combine Tensami, Phyt'iod, Iodobio, Herbal Blends, and Organic Silicone.
5. Add oil phase to water phase with prop agitation at 75C., mix until uniform.
6. Switch to sweep agitation and begin cooling to 50C.
7. Add TEA and mix until uniform and creamy in consistency... continue cooling.
8. Add mixture from step 4 and mix until uniform...continue cooling.
9. Add fragrance and Tristat IU at RT and mix until uniform.

SOURCE: TRI-K Industries, Inc.: Code AMI.013.

O/W SKIN CARE CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Eumulgin B 2	1.5
Paraffin oil, subl.	8.0
Myritol 318	8.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0
Viscosity: 70000 mPas	

SOURCE: Henkel: Cosmetics No. XIV/90: Formula no. 89/213/22

SOFT CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 601	10.0
MIGLYOL 812	4.0
MIGLYOL 840	4.0
Paraffin	3.0
Cetyl Alcohol	3.5
B. Preservative	q.s.
Water	ad 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). The perfume is added at about 30C.

Formula 1.1.12

SOFT CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 601	12.0
SPECIAL OIL 619	10.0
Paraffin	3.0
Cetyl Alcohol	3.5
Silicone 344 Fluid	0.3
B. Preservative	q.s.
Water	ad 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). The perfume is added at about 30C.

Formula 1.1.12A

SOURCE: Huls America Inc.: Formulas

SOFT CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Eumulgin B 1	1.5
Paraffin oil, subl.	8.0
Myritol 318	8.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0

Viscosity: approx. 85000 mPas

Formula no. 89/213/17

SOFT CREAM, W/O

RAW MATERIALS	% By Weight
I. Lameform TGI	4.0
Monomuls 90-018	2.0
Paraffin oil, perl.	10.0
Cetiol S	11.0
Lanette O	1.0
Beeswax 8100	7.0
II. Glycerine 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Water, deionized, preservative	ad 100.0
III. Collapuron DAK	6.0
Perfume Cremoderm 78080	0.3

Viscosity: 180,000 mPas

Formula no. 89/169/5

SOFT CREAM, O/W

RAW MATERIALS	% By Weight
I. Cutina CBS	10.0
Cutina E 24	2.0
Eumulgin B 2	0.5
Cetiol V	6.0
Paraffin oil, viscous	4.0
II. Glycerine 86%	5.0
Glucadin AGP	1.0
Water, deionized, preservative	ad 100.0

Viscosity: 100,000 mPas

Formula no. 89/118/4

SOURCE: Henkel: Cosmetics No. XIV/90 & Nr. XXI/89/Lz

SUPERMOISTURIZING CREME WITH VITAMINS

INGREDIENT	% By Weight
DeminerIALIZED Water	59.5000
Propylene Glycol	4.5000
Methylparaben	0.2000
Tristat IU	0.2000
Tritein CAA	1.2500
Tri-K HMP	0.5000
Trilastin 10F	1.0000
Trilane	20.0000
Supraene	1.2500
Vitamin A Palmitate	0.2500
Vitamin D	0.2500
Vitamin E Acetate	0.5000
Super Sterol Ester	2.5000
'T' Wax	8.0000
Propyl Paraben	0.1000
Fragrance	0.2000

Procedure:

1. Heat water in main tank to 75C. with prop agitation.
2. Add Glycol, Parabens, and CAA...Mix to dissolve.
3. Combine oil phase and heat to 75C. to dissolve.
4. Add oil phase to water phase and mix until uniform.
5. Switch to sweep agitation and begin cooling to 50C.
6. Add Tristat IU, HMP, Trilastin and CAA and continue cooling to room temp.
7. Add fragrance at room temp and mix until uniform.
8. Adjust pH to 6.5-7.0.

SOURCE: TRI-K Industries, Inc.: Formula

MOISTURIZING CREAM O/W

RAW MATERIALS	% By Weight
I. CUTINA GMS	6,0
LANETTE O	2,0
CETIOL V	5,0
EUTANOL G	2,0
Baysilon M 350	0,5
EUMULGIN B 2	0,5
CUTINA E 24	2,0
II. Glycerol 86%	3,0
Water, demin.	76,5
Preservatives	
III. COLLAPURON DAK	2,5

Viscosity in mPas: 300000

SOURCE: Henkel: Cosmetics No. III/91: Formula 90/227/2

VANISHING CREAM

RAW MATERIALS	Parts By Weight
Phase 1:	
Rosswax 63-0412	8.0
Rosswax 573	12.0
Amerlate P	1.0
Emerest 2314	1.0
Emerest 2316	1.0
Glyceryl Monostearate SE	0.5
Phase 2:	
Water	99.0
Emery 916 Pure Glycerine	8.0
Triethanolamine	1.2
Fragrance	q.s.
Preservative	q.s.

Procedure:

In separate steam jacketed kettles heat both phase 1 and 2 to temperature of 170F with agitation. When the temperature is reached add phase 1 to 2 with continued agitation cooling to 120F to package. Fragrance may be added to the product as it is cooling.

SOFT & SILKY VANISHING CREAM

RAW MATERIALS	Parts by Weight
Part (A):	
Rosswax 63-0412	8.0
Rosswax 573	10.0
Ross Lotion Oil 2745	8.0
G M S-SE	0.5
Part (B):	
Water	97.0
Propylene Glycol	8.0
Triethanolamine	2.0
Germaben II	1.2
Part (C):	
Fragrance	q.s.

Procedure:

Heat Part (A) and Part (B) to 170F in separate steam jacketed kettles under agitation. When fully heated add Part (A) to Part (B) under agitation. Cool to 130F., Fragrance, and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

VITAMIN F NIGHT CREAM TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Spermaceti	7.0
Bees-wax	5.0
Adeps lanae	5.0
Vegetable oil	14.0
Cetiol V	9.0
Vitamin F forte CLR	2.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	33.8
Karion F liquid	4.0
Magnesium sulphate	0.2

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, roll.

Model formulations 29

VITAMIN F DAY CREAM TYPE O/W

RAW MATERIALS	% By Weight
a) Stearin	10.0
Spermaceti	1.5
Lanette 16	0.5
Isopropyl palmitate	3.0
Vitamin F Ethyl Ester CLR	2.0
Preservative	q.s.
b) Water, distilled, preserved	76.8
Glycerin	5.0
Borax	0.2
Triethanolamine	0.6
c) Cremophor A6	0.2
Cremophor A25	0.2

Manufacture:

a) melt and bring to about 80C;

b) heat to about 80C and stir into a);

c) heat to about 80C and stir into the emulsion.

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

Model formulations 30

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

VITAMIN FOOT CREAM, DEODORIZING TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	30.0
Paraffin oil	4.0
Isopropyl palmitate	5.0
Vitamin F forte CLR	1.0
Steinazid U185	5.0
Deodorant Richter/K	1.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	31.0
Glycerin	5.0
c) Water, distilled, preserved	5.0
Aluminum acetotartrate	5.0
d) Zinc oxide	5.0
e) Titanium dioxide	3.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) boil until a clear solution is obtained, allow to cool to about 35C, and stir into the emulsion;
 d) and e) stir in.
 Perfume, roll.

Model formulations 29

SPORT CREAM, VITAMIN CONTENT TYPE W/O

RAW MATERIALS	% By Weight
a) Dehymuls K	20.0
Paraffin oil	2.0
Vitamin F Glyceryl Ester CLR	3.0
Cetiol V	3.0
Vaseline	5.0
Wool Wax Alcohols BP	3.0
Antioxidant	q.s.
Preservative	q.s.
b) Water, distilled, preserved	59.0
Karion F liquid	5.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume, roll.

Model formulations 31

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

WASH CREAM

RAW MATERIALS	% By Weight
A Teginacid	10,00
Adol 66	5,00
Isopropyl Myristate	6,00
Eutanol G	4,00
Texapon N 40	5,00
Mineral Oil, High Viscosity	5,00
B Belsil DMC 6031	1,00
Propylene Glycol	11,00
Water	53,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65C. Mix B well into A.

Temperature stability: at 45C 8 weeks.

White thick lotion. Pleasant, soft feeling on the skin.

Formulation 362 AH

WASHING CREAM

RAW MATERIALS	% By Weight
A Lamecreme KSM	10,00
Lanette O	5,00
Isopropyl Myristate	6,00
Belsil DM 350	2,00
Eutanol G	4,00
Texapon N 40	5,00
Mineral oil, low viscosity	5,00
B Propylene Glycol	12,00
Water	46,50
Belsil DMC 6032	4,50
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65C, mix B into A, stir cold.

Temperature stability: at 45C over 10 weeks.

White firm cream. Good cleansing effect and soft feeling on the skin.

Formulation 397 AH

SOURCE: Wacker Silicone: Standard Formulations

W/O CLEANSING CREAM

RAW MATERIALS	% By Weight
A ABIL B 8839	4.0
ABIL 350	1.0
Synthetic Beeswax	2.0
Ozokerite	2.0
Glyceryl Oleate (and) Propylene Glycol	2.0
Light Mineral Oil	15.0
B Water	55.8
Glycerine	18.0
Methylparaben	0.2
Perfume	QS

Procedure:

Mix together the ingredients for Phase A and Phase B in separate containers. Heat each phase to approximately 70C, and be certain all the solids have melted and dispersed in the oil phase. Slowly add B to A while mixing on a high-shear mixer. Continue mixing for 5-10 min. Cool, with occasional stirring, to approximately 40C and mix in the perfume.

Comments:

This formulation is designed to remove makeup as well as to soften and moisturize the skin. For a less oily formulation, the proportions of Mineral Oil and Cyclomethicone can be reversed. If Paraffin is substituted for Ozokerite, a much stiffer cream will result.

SOURCE: Goldschmidt Chemical Corp.: Formula

CREAM O/W

SUBSTANCE	% By Weight
A. Neo-PCL, self-emulsifying O/W 2/066280	22.0
Isopropyl myristate 2/044111	3.0
Calendula oil 2/383530	1.0
Nipasteril 30 K	0.2
Lanette C	0.5
B. Distilled water	69.9
Propylene glycol	3.0
Borax	0.2
C. Perfume oil	0.2

SOURCE: Dragoco, Inc.: Suggested Formulation No. VKC 663/60

W/O COLD MIX CREAM

INGREDIENTS	% By Weight
A. ABIL WE-09	5.0
Isopropyl Stearate	5.0
Decyl Oleate	5.0
ABIL Wax 2434	3.0
Aerosil R 812	0.5
B. Water	80.0
Tylose H2O	0.8
Sodium Chloride	0.5
C. Fragrance	0.2

Procedure:

1. Blend the liquids of phase A at ambient temperature. Disperse the Aerosil into the vortex. Mix until dispersed.
2. In a separate vessel, add the Tylose to the water. When dispersed, add the sodium chloride.
3. Stream phase B into phase A using a speed mixer with sweep agitation.
4. When the emulsion is complete, add the fragrance using slow sweep agitation.
5. Dispense.

W/O EMULSION EMOLLIENT CREAM

RAW MATERIALS	% By Weight
Oil Phase:	
ABIL WE-09	5.0
Castorwax	0.5
FT-200 Wax	0.5
Mineral Oil (70 SUS)	8.0
ABIL Wax 9801	2.0
Isopropyl Myristate	4.0
Water Phase:	
Water	79.2
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, maintain temperature of 50-60C.
2. Mix the water and sodium chloride. Heat to 50-60C.
3. With lightning mixing, stream the water phase into the oil phase.
4. With sweep agitation, cool to 35C.
5. Add color, fragrance and preservatives.
6. Homogenize with a rotor-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.: Formulas

W/O CREAM

RAW MATERIALS	% By Weight
A. DYNACERIN 660	2.0
MIGLYOL 840	3.0
IMWITOR 780K	5.0
Petrolatum	17.0
Paraffin	5.0
B. Magnesium sulphate	2.0
Preservative	q.s.
Water	ad 100.0
C. Perfume oil	q.s.

Preparation:

(A) is heated to 75-80C.

(B) is brought to the same temperature and is emulsified into (A).

At about 30C., the perfume is added.

Formula 1.2.3

W/O CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL 840 GEL Type B	20.0
Paraffin Oil	8.0
IMWITOR 780K	5.0
B. SOFTISAN 649	5.0
Paraffin	3.0
C. Magnesium Sulfate	2.0
Preservative	q.s.
Water	up to 100.0
D. Perfume 74804	0.3

Preparation:

Gradually add the other components of (A) to MIGLYOL 840 Gel. (A) is stirred until smooth and then heated to 75-80C. (B) is heated to the same temperature and emulsified into (A). (C) is brought to the same temperature and emulsified into (A + B) a little at a time. (D) is added below 40C.

Formula 1.2.4

SOURCE: Huls America Inc.: Formulas

W/O CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN 649	2.0
MIGLYOL 840	3.0
IMWITOR 780K	5.0
Petrolatum	17.0
Paraffin	5.0
B. Magnesium Sulfate	2.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil 74 804	0.3

Preparation:

(A) is heated to ca. 75-80C. (B) is heated to the same temperature and emulsified into (A). At ca. 30C., (C) is added.

Formula 1.2.3A

W/O CREAM

RAW MATERIALS	% By Weight
A. MIGLYOL 840-Gel "B"	20.0
IMWITOR 780	5.0
SOFTISAN 645	5.0
Paraffin oil	8.0
vB. Hard paraffin	3.0
C. Magnesium sulphate	2.0
Preservative	q.s.
Water	up to 100
D. Perfume oil	q.s.

Preparation:

Add the components of (A) to MIGLYOL 840 Gel B gradually. (A) is stirred until smooth and then heated to 75-80C. (B) is also heated to this temperature and is emulsified into (A). (C) is brought to the same temperature and emulsified into (A + B) in small amounts at a time. (D) is added below 40C.

Formula 1.2.4A

SOURCE: Huls America Inc.: Formulas

W/O-CREAM

RECIPE	% By Weight
A HOSTACERIN WO	8.00
Microwax (= Permulgin 3220)	4.00
Petrolatum	4.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	8.00
B Glycerol	4.00
Water	61.60
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir B into I.
- IV Stir until cool.
- V At 40C add C to III.

Formula A VI/2707

W/O-CREAM

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Beeswax (= Lunacera alba)	1.00
Microwax (= Lunacera M)	1.00
Mineral oil, high viscosity	3.00
Isopropyl palmitate	10.00
Cetiol SN	8.00
B Glycerol	4.00
Water	62.60
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir B into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formula A VI/2702

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O-CREAM

RAW MATERIALS	% By Weight
Monomuls 90-018	2.5
Cetiol V	8.0
Isopropyl palmitate	2.0
Paraffin oil, thin-bodied	10.0
Zinc stearate	2.0
Beeswax 8100	2.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Collapurone DAK	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 437500	
after 12 weeks: 462500	
Formula 89/181/14	

W/O-CREAM

RAW MATERIALS	% By Weight
Monomuls 90-018	2.5
Cetiol V	8.0
Isopropyl palmitate	2.0
Paraffin oil, thin-bodied	10.0
Zinc stearate	2.0
Beeswax 8100	2.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Collapur	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 375000	
after 12 weeks: 400000	
Formula 89/181/15	
SOURCE: Henkel: Kosmetik Nr. I/90/Lz: Formulas	

W/O-CREAM

RAW MATERIALS	% By Weight
Monomuls 90-018	2.5
Cetiol V	8.0
Isopropyl palmitate	2.0
Paraffin oil, thin-bodied	10.0
Zinc stearate	2.0
Beeswax 8100	2.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Nutrilan Elastin P	1.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 387500	
after 12 weeks: 362500	
Formula no.: 89/181/17	

W/O-CREAM

RAW MATERIALS	% By Weight
Monomuls 90-018	2.5
Cetiol V	8.0
Isopropyl palmitate	2.0
Paraffin oil, thin-bodied	10.0
Zinc stearate	2.0
Beeswax 8100	2.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Nutrilan Elastin E 20	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 375000	
after 12 weeks: 300000	
Formula no.: 89/181/18	
SOURCE: Henkel: KOSMETIK Nr. I/90/Lz	

W/O-CREAM

RAW MATERIALS	% By Weight
Lanette O	1.0
Cetiol S	11.0
Monomuls 90-018	2.0
Lameform TGI	4.0
Paraffin oil, liquid	10.0
Mikrowax 7694	7.0
Glycerin 86%	3.0
MgSO4-7H2O	0.9
Nutrilan Elastin E 20	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 250000	
after 12 weeks: 300000	
Formula 89/181/32	

W/O CREAM

RAW MATERIALS	% By Weight
Lanette O	1.0
Cetiol S	11.0
Monomuls 90-018	2.0
Lameform TGI	4.0
Paraffin oil, liquid	10.0
Beeswax 8100	7.0
Glycerin 86%	3.0
MgSO4-7H2O	0.9
Collapur	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 337500	
after 12 weeks: 437500	
Formulation: 89/181/50	
SOURCE: Henkel: Kosmetik Nr. I/90/Lz: Formulas	

W/O-CREAM

RAW MATERIALS	% By Weight
Lanette O	1.0
Cetiol S	11.0
Monomuls 90-018	2.0
Lameform TGI	4.0
Paraffin oil, liquid	10.0
Beeswax 8100	7.0
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Nutrilan Elastin E 20	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 400000	
after 12 weeks: 337500	
Formula 89/181/53	

W/O CREAM

RAW MATERIALS	% By Weight
Dehymuls F	8.0
Cetiol V	10.0
Paraffin oil, liquid	15.0
Elfacos ST 37	1.0
Zinc stearate	2.0
Glycerin, 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Collapurion DAK	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 125000	
after 12 weeks: 187500	
Formula: 89/181/56	
SOURCE: Henkel: Kosmetik Nr. I/90/Lz: Formulas	

W/O CREAM

RAW MATERIALS	% By Weight
Dehymuls F	8.0
Cetiol V	10.0
Paraffin oil, liquid	15.0
Elfacos ST 37	1.0
Zinc stearate	2.0
Glycerin, 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Collapur	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 137500	
after 12 weeks: 200000	
Formula 89/181/57	

W/O CREAM

RAW MATERIALS	% By Weight
Dehymuls F	8.0
Cetiol V	10.0
Paraffin oil, liquid	15.0
Elfacos ST 37	1.0
Zinc stearate	2.0
Glycerin, 86%	3.0
MgSO ₄ -7H ₂ O	0.9
Nutrilan Elastin E 20	5.0
Water, preservative	ad 100
Viscosity in mPas: after 1 week: 162500	
after 12 weeks: 250000	
Formula 89/181/60	
SOURCE: Henkel: Kosmetik Nr. I/90/Lz: Formulas	

W/O-CREAM

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Permulin 3510	4.00
Mineral oil, low viscosity	7.00
Isopropyl palmitate	7.00
Sun flower oil	5.00
Almond oil	3.00
Wheat germ oil	2.00
Tocopherol	0.50
B Glycerol	4.00
Water	57.10
Preservative	q.s.
C Perfume	0.40
Procedure:	
I Melt A at 80C.	
II Heat B to 80C.	
III Stir B into I.	
IV Stir until cool.	
V Add C to IV at 40C.	
Formula A VI/2713	

W/O-HANDCREAM

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Microwax (= Permulin 3220)	1.00
Silicone oil AK 500	2.00
Petrolatum	5.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	7.00
B Glycerol	3.00
Water	61.60
Preservative	q.s.
C Perfume	0.40
Procedure:	
I Melt A at 80C.	
II Heat B to 80C.	
III Stir B into I.	
IV Stir until cool.	
V At 40C add C to III.	
Formula A VI/6801	

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O-CREAM
WITH VITAMIN, WITHOUT PERFUME

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Beeswax (= Permulgin 1550)	2.00
PCL-liquid	1.00
PCL-solid	1.00
Tocopherol acetat	0.50
Petrolatum	10.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	8.00
B Extrapon 3-special	1.00
Neo-Extrapon camomile liquid	0.20
Extrapon sage special	1.00
Extrapon altheae special	1.00
Neo-Extrapon linden blossom liquid	1.00
Extrapon marigold special	2.00
Phytoconcentrol aloe water soluble	1.00
D-Panthenol	1.00
Glycerol	3.00
Water	44.30
Preservative	q.s.
Dyestuff blue (0.5% in water)	0.10
Dyestuff yellow (1% in water)	0.10

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir II into I.
- IV Stir until cool.

Formula A VI/3803

W/O-CREAM

RECIPE	% By Weight
A HOSTACERIN WO	10.00
Amerchol CAB	3.00
Petrolatum	10.00
Mineral oil, high viscosity	5.00
Isopropyl palmitate	5.00
B Glycerol	2.00
Water	64.60
Preservative	q.s.
C Perfume	0.40

Procedure:

- I Melt A at 80C.
- II Heat B to 80C.
- III Stir B into I.
- IV Stir until cool.
- V Add C to IV at 40C.

Formula A VI/3800

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O MESSAGE CREAM: HOT PROCESS

RAW MATERIALS	% By Weight
Oil Phase:	
ABIL WE-09	5.00
Castorwax	0.50
F/T 200 Wax	0.50
Mineral Oil	8.00
Avocado Oil	1.00
ABIL Wax 9801	1.00
Isopropyl Myristate	4.00
Silica	----
Water Phase:	
Water	78.70
Sodium Chloride	0.80
Seaweed Extract	0.50
Color, Perfume	Q.S.
Preservatives	Q.S.

W/O MESSAGE CREAM: COLD PROCESS

RAW MATERIALS	% By Weight
Oil Phase:	
ABIL WE-09	5.00
Castorwax	----
F/T 200 Wax	----
Mineral Oil	8.00
Avocado Oil	1.00
ABIL Wax 9801	1.00
Isopropyl Myristate	4.00
Silica	0.50
Water Phase:	
Water	79.20
Sodium Chloride	0.80
Seaweed Extract	0.50
Color, Perfume	Q.S.
Preservatives	Q.S.

SOURCE: Goldschmidt Chemical Corp.: Formulas

90% WATER CREAM

RAW MATERIALS	Parts by Weight
Water	450.0
Carbomer 934	2.0
Protax T-25	1.0
Rosswax 63-0412	4.0
Rosswax 1824	16.0
GMS SE	4.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
Triethanolamine	4.0
Germaben IIE	6.0
Fragrance GK-21	q.s.

Procedure:

Disperse the Carbomer 934 in the water, in a stainless steel vessel. In a separate vessel melt the Oil Phase. When the Oil Phase is melted add it to the Water Phase with agitation. Next add the fragrance, the Preservative and last add the Triethanolamine with increased agitation.

SOURCE: Frank B. Ross Co., Inc.: Formula

GLYCERIN HAND CREAM, HERB/VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Cremophor S9	1.0
Cremophor A25	1.0
Lanette 16	8.5
Isopropyl palmitate	5.0
Vitamin F Glyceryl Ester CLR	2.0
Calendula Oil CLR	3.0
Silicone oil AK 500	5.0
Preservative	qs
b) Water, distilled, preserved	44.5
Glycerin	30.0

Manufacture:

a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 6

Section VI

Fragrances and Perfumes

AEROSOL FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Phase 1:	
Sandoxylate SX424	0.60
Perfume	0.20
Phase 2:	
Water	85.00
Velsan P8-3	0.60
SDA-40	11.20
Silicone 193	0.20
Phase 3:	
Cartaretin F-4	2.20
Typical Ratio: Propellant A-46: 4%	
Concentrate: 96%	

Formula CL9-201

AEROSOL FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Phase 1:	
Sandoxylate SX424	0.60
Perfume	0.20
Phase 2:	
Water	85.30
Velsan P8-3	2.50
SDA-40	11.20
Silicone 193	0.20
Typical Ratio: Propellant A-46: 10%	
Concentrate: 90%	

Formula CL9-267

Procedure:

In a separate vessel, premix phase 1. In primary container add ingredients of phase 2, mixing well after each addition. Add phase 1 next, then phase 3. Adjust pH to 7 with citric acid. Fill cans and charge with propellant.

A quick breaking foam which elegantly delivers fragrance with a nice after feel due to the emolliency of Velsan P8-3 and in 901A, the comfortable substantive film of Cartaretin F-4. Sandoxylate SX 424 is an excellent fragrance solubilizer.

SOURCE: Sandoz Chemicals Corp.: Ethnic Hair Care: Formulation No. CMP-04

AEROSOL FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Phase 1:	
Sandoxylate SX424	1.00
Perfume 573075	.50
Phase 2:	
Water	81.80
Velsan P8-3	5.00
SDA-40	11.20
Phase 3:	
Cartaretin F-4	.50

Procedure:

In a separate vessel, premix phase 1. In primary container add ingredients of phase 2, mixing well after each addition. Add phase 1 next, then phase 3. Fill cans and charge with propellant.

Appearance: Clear liquid

pH: 6-8

Typical Ratio: Propellant A-46: 4%
Concentrate: 96%

A quick breaking foam which elegantly delivers fragrance with a smooth after feel due to the emolliency of Velsan P8-3 and the comfortable substantive film of Cartaretin F-4. Sandoxylate SX 424 is an excellent fragrance solubilizer and foam stabilizer that is non irriatant.

SOURCE: Sandoz Chemicals Corp.: Formulation CMP-07

MEN'S FINISHING FRAGRANCE MOUSSE

INGREDIENTS	% By Weight
Phase 1:	
Sandoxylate SX424	1.00
Perfume 573075	1.00
Phase 2:	
Water	81.10
Velsan P8-3	5.00
SDA-40 Alcohol	11.20
Phase 3:	
Cartaretin F-4	.50
Silicone Surfactant 193	.20

Procedure:

In a separate vessel, premix phase 1. In primary container add ingredients of phase 2, mixing well after each addition. Add phase 1 next, then phase 3. Fill cans and charge with propellant.

Appearance: Clear Liquid

pH: 6-8

Typical Charge Ratio: Propellant A-46: 4%
Concentrate: 96%

A quick breaking foam which elegantly delivers fragrance with a dry talc-like after feel due to the emolliency of Velsan P8-3 and the comfortable substantive film of Cartaretin F-4. Sandoxylate SX 424 is an excellent fragrance solubilizer and foam stabilizer that is non irritant.

SOURCE: Sandoz Chemicals Corp.: Formulation CMP-08

PERFUME GEL

RAW MATERIALS	% By Weight
PCL-liquid 2/066210	64.4
Beeswax	18.4
Antisettle CVP	9.2
Perfume oil	8.0

Suggested Method of Preparation:

Dissolve beeswax in PCL-liquid. Incorporate Antisettle CVP at about 45C with stirring at about 1500 rpm and stir until cold. Add perfume just before gelling.

Suggested Formulation No. VKP 571/60

PARFUM COMPACT

RAW MATERIALS	% By Weight
PCL-liquid 2/066210	50.0
PCL-solid 2/066220	10.0
Bleached beeswax DAB VII	32.0
Perfume oil	8.0

Perfume oil dosage can be increased to 15% without impairing consistency.

Suggested Formulation No. VKP 85/40

PERFUME STICK

RAW MATERIALS	% By Weight
PCL-liquid 2/066210	50.00
PCL-solid 2/066220	10.00
Lunacera C44	31.97
Perfume oil	8.00
Colorant, powdered, fat-soluble	0.03

Suggested Formulation No. VKP 594/60

SOURCE: Dragoco Inc.: Formulations

Section VII
Hair Care Products

ACID PERMANENT WAVE

INGREDIENTS	% By Weight
Part A:	
Glyceryl Thioglycolate	80.00
Part B:	
Hamp-ex 80	0.25
Emulsifier K-700	2.00
Brij-35	0.60
Fragrance	0.20
Aqueous Ammonia, 28%	*
Water	q.s.

* The pH of Part B should be adjusted so that the mixture of Part A with Part B has a final pH in the range of 6.8-7.2

Since glycerol monothioglycolate is not hydrolytically stable, it must be packed separately. Part A and Part B are mixed just prior to application. The ratio of Part A to Part B is as follows:

Part A:	20-25 grams
Part B:	60-80 ml
Resultant pH:	6.8-7.2

To increase the strength of the formula, use a larger amount of Part A and/or a smaller amount of Part B.

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formula

ACID-WAVE-SOLUTION

RAW MATERIALS	% By Weight
A Glycerolmonothioglycollate (75%)	24,75
Glycerine	7,25
B Urea	4,10
Potassium sorbate	0,35
Olamín K	1,35
Antara 430	0,20
Ammonium carbonate	0,20
Triethanolamine	0,80
Water, demineralized	61,00

Procedure:

Blend phase A (waving-solution) and phase B (pH-balancing-solution) separately. Mix phases A and B shortly before application.

Formula 34-1/90

COLD-WAVE-EMULSION
(7% Thioglycollic Acid)

RAW MATERIALS	% By Weight
A Thioglycollic acid (99%)	7,00
Ammonia solution (25%)	7,80
Water, demineralized	55,20
B Emulgade 1000 Ni	5,00
Turpinal SL	0,20
Water, demineralized	24,80

Procedure:

Dilute Thioglycollic acid with the water of phase A. Add alkalizing agent while cooling (the temperature of the solution should not exceed 30C) and stirring. Adjust pH to 8,8. Heat phase B to 70C, stir to cool. At 25C add phase A to phase B while stirring, homogenize. Add perfume as required.

pH 22C = 8,8

SOURCE: E. Merck, Darmstadt: Formulas

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
Luviflex VBM 35	5.00
AMP	0.23
Ethanol abs.	44.77
Propane/Butane 25:75	50.00
Perfume	q.s.

Properties: normal hold
dry spray

Preparation:

Luviflex VBM 35 is added to a mixture of ethanol, AMP and perfume; the solution is mixed and filled.

Formula No. 01/222

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
Luviflex VBM 35	6.00
AMP	0.27
Ethanol abs.	23.73
Propane/Butane 25:75	50.00
DME	20.00
Perfume	q.s.

Properties: normal hold
very dry spray

Preparation:

Luviflex VBM 35 is added to a mixture of ethanol, AMP and perfume; the solution is mixed and filled.

Formula No. 01/305

AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
Luviflex VBM 35	6.00
AMP	0.27
Perfume PC 912.202	0.10
Ethanol abs.	23.63
Pentane	30.00
DME	40.00

Properties: normal hold
dry spray

Preparation:

Luviflex VBM 35 is added to a mixture of ethanol, pentane, AMP and perfume; the solution is mixed and filled.

SOURCE: BASF Corp.: LUVIFLEX VBM 35: Formulas

AEROSOL SHAPING HAIRSPRAY

RAW MATERIALS	% By Weight
VERSATYL-42	3.75
AMP-95	0.96
DC-193 Silicone	0.10
DC-556 Silicone	0.10
Glycerine	0.10
Citroflex-2	0.10
Monamid 716	0.20
Sunarome OMC	0.05
Fragrance	Q.S.
Ethanol, Anhydrous	64.64
Propellant A-46	30.00

Valve: Precision: .018" stem
 .018" x .013" body
 .018" FT Actuator

Spray Rate: 0.56 g/sec

Preparation:

Add alcohol to the tank. While maintaining good agitation, slowly add VERSATYL-42 to the vortex. Add AMP-95 and continue mixing until solution is complete. Add remaining ingredients of the concentrate. When completely dissolved and homogenous, filter and fill concentrate to the can. Charge propellant.

Formula 6258-07

MODIFIED F&S TYPE PUMP HAIRSPRAY

INGREDIENTS	% By Weight
AMPHOMER	4.00
RESYN 28-2930	2.00
AMP-95	0.87
DC-190 Silicone	0.10
LEXEIN A-210 Protein	0.10
Panthenol	0.10
Monamid 716	0.10
Uvinyl MS-40	0.05
Fragrance	Q.S.
Anhydrous Ethanol, SDA-40	92.68

Preparation:

Dissolve AMP-95 in ethanol. Slowly sift AMPHOMER and RESYN 28-2930 into the vortex while maintaining good agitation. When the solution is complete, add remaining ingredients, mix until homogeneous. Filter and fill.

Formula 6472:134-B

SOURCE: National Starch and Chemical Co.: Formulas

ALCOHOL-FREE AEROSOL HAIRSPRAY

RAW MATERIALS	% By Weight
(1) Amphomer LV-71	5.00
(2) AMP	0.96
(3) Burst RSD-10	0.50
Deionized Water	60.54
(4) DME	33.00
Preservative	QS

Valve: Seaquist Valve: NS-34
 Stem: 0.013"
 Stem Gasket: Butyl, 0.042" THK. Code: 500
 Spring: SS 0.020"
 Body: Capillary
 Mounting Cup: Alum. C.C. AN. RG., Epoxy Top, Epoxy Bottom,
 Buna
 Dip Tube: 0.030"
 Vapor Tap: 0.013"

Preparation:

Disperse Burst in water. Dissolve AMP in solution. When complete slowly sift in Amphomer LV-71 to the solution while maintaining good agitation. Filter and fill concentrate. Charge cans with propellant.

Formula 6471-115F

80% VOC AEROSOL HAIRSPRAY

INGREDIENTS	% By Weight
Amphomer LV-71	2.75
AMP	0.56
Citroflex 2	0.10
D.C. 190	0.10
Tween 80	0.05
Panthenol	0.05
Uvinol M-40	0.05
Deionized Water	16.34
Anhydrous, SDA-40	50.00
N-butane	10.00
DME	20.00

Formula 6469-131-1

SOURCE: National Starch and Chemical Corp.: Formulas

ALCOHOL-FREE NON-AEROSOL STYLING SPRAY

INGREDIENTS	% By Weight
Amphomer	7.00
AMP	1.23
Dow Corning-190	0.20
Glycerine	0.20
Monamid 716	0.30
Uvinul MS-40	0.10
Fragrance	Q.S.
Preservative (Germaben II)	1.00
Deionized Water	89.97
Formula 6469:66B	

HIGH PERFORMANCE STYLING SPRAY

INGREDIENTS	% By Weight
Resyn 28-2930	6.75
AMP	0.63
Dow Corning 556 fluid	0.15
Crostein AD Anh.	0.20
Citroflex 2	0.15
Fragrance	0.10
190 Proof Ethanol, SDA-40	92.02

Preparation:

Dissolve AMP in the 190 proof SDA-40. While maintaining good agitation, slowly add RESYN 28-2930 to the vortex. Continue mixing until solution is complete. Add balance of ingredients. When homogeneous, filter and fill.

Formula 6472:95

STYLING SPRITZ

INGREDIENTS	% By Weight
VERSATYL-42	6.00
Aminomethyl Propanol	1.44
Monamid 716	0.20
Ivarlan AWS	0.20
Dow Corning 190 Surfactant	0.10
Fragrance Q-4701	0.20
190 Proof Ethanol, SDA-40	91.86

Preparation:

Charge mixing vessel with 190 proof SDA-40. While mixing, add aminomethyl propanol. Sift VERSATYL-42 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill.

Description:

This styling spritz gives a very firm hold and excellent humidity resistance. The spritz dries quickly and is not sticky.

Formula 6238-25

SOURCE: National Starch and Chemical Co.: Formulas

ALCOHOL FREE STYLING GEL

RAW MATERIALS	% By Weight
Water	83.2
Propylene Glycol	12.0
Acrysol ICS-I	2.0
Germaben II	1.0
Dimethicone Copolyol 193	0.5
Fragrance	0.5
Triethanolamine	0.7
Jojoba Oil	0.1

pH: 7.2

Procedure:

To the water add ingredients 2 thru 5 plus 7 with very slow agitation. Next add item 6, agitate til clear and package.

GEL CURL ACTIVATOR

RAW MATERIALS	% By Weight
Water	57.7
Acrysol ICS-I	2.0
Hystar CG	10.3
Glycerine 99%	23.9
Propylene Glycol	2.0
Dimethicone Copolyol 193	2.3
Germaben II	1.0
Triethanolamine	0.7
Fragrance	q.s.
Jojoba Oil	0.1

Procedure:

Add ingredients in descending order in a stainless steel tank, with slow agitation and mix til clear. Pack in a plastic tube or a plastic bottle.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

ALCOHOL-FREE STYLING GEL

INGREDIENTS	% By Weight
1) AMPHOMER	4.00
2) AMP	0.69
3) Propylene Glycol	1.00
4) DC-190 Surfactant	0.60
5) Monamid 716	0.60
6) Tween 20	0.40
7) Univul MS-40	0.10
8) Dowicil 200	0.10
Deionized Water	91.01
9) Natrosol HHX-250	1.50
Fragrance	Q.S.

Clarity: clear
 Viscosity: 16,000 cps
 pH: 7.71

Preparation:

Combine all ingredients except AMPHOMER and Natrosol. Slowly sift in AMPHOMER. When AMPHOMER has dissolved, slowly sift in Natrosol. Mix until Natrosol has been fully dispersed. Fill containers.

Formula 6471-68A

SCULPTING CONDITIONING RECONSTRUCTION SPRAY

INGREDIENTS	% By Weight
CELQUAT L-200	1.00
DC-190 Silicone	0.10
LEXQUAT AMG-M	0.10
Sodium Benzoate	0.10
Methyl Paraben	0.10
Fragrance	Q.S.
Anhydrous Ethanol, SDA-40	22.20
Deionized Water	76.40

Preparation:

Slowly sift CELQUAT L-200 into the water while maintaining good agitation. When solution is complete, add remaining ingredients, mix until homogeneous. Filter and fill.

Formula 6472:135

SOURCE: National Starch and Chemical Co.: Formulas

ANIONIC CREME RINSE

RAW MATERIALS	% By Weight
Part A:	
Cetyl Alcohol	3.00
Lanolin	0.50
Glycerin	1.00
Petrolatum	0.50
MACKESTER IDO	0.50
Sorbitan Palmitate	0.15
Polysorbate 80	0.15
Part B:	
Sodium Sulfate	0.50
Sodium Lauryl Ether Sulfate	1.00
Animal Hydrolyzed Protein 55%	1.00
MACKAMIDE AME-75	
Hydroxy Ethyl Cellulose Solution--0.25% in water	qs
Butyl Cellosolve	1.00
MACKANATE DC-30	1.50
Part C:	
MACKSTAT DM	qs
Fragrance & Color	qs

Procedure:

1. Melt Part A in a separate container to 75 degrees C.
2. Into the mixing tank, add the water and add the Part B ingredients, while starting the heating and mixing. Heat the contents to 75 degrees C.
3. Then start adding the contents of container Part A slowly to the solution of Part B and using strong agitation, keep mixing for 10-20 minutes at 75 degrees C, then start cooling with agitation to 45 degrees C. Slow down agitation and add ingredients of Part C, mix very slowly, and cool to room temperature.
4. The product will develop the viscosity of standing overnight without agitation.

pH: 4.8-5.4

Viscosity overnight: 2500-3200

SOURCE: McIntyre Group Ltd.: Personal Care Formulary:
Experimental Formulation #CR-5-322

ANIONIC CREME RINSE

RAW MATERIALS	% By Weight
Part A:	
Cetyl Alcohol	2.20
Lanolin Anhydrous	0.25
Glycerin	1.00
Petrplatum	0.25
Part B:	
Sodium Sulfate Anhydrous	0.50
MACKAMIDE AME-75	0.66
Sodium Lauryl Ether Sulfate 60%	1.00
Animal Hydrolyzed Protein 55%	1.00
MACKANATE DC-30	1.50
Part C:	
MACKSTAT DM	qs
Fragrance & Color & Deionized Water	qs

Procedure:

1. Heat Part A in a separate container to 75 degrees C.
2. Into the mixing tank put the water and then dissolve the other Part B ingredients while slowly mixing and heating the contents to 75 degrees C.
3. Start adding the contents of container of Part A slowly to the solution of Part B, using strong agitation and keep mixing at the 75 degrees C. temperature for 10-20 minutes then start cooling with good agitation to 45 degrees C then slow agitation down and add the ingredients from Part C, mix slowly and cool to room temperature using only very slow agitation.
4. The product will develop the viscosity overnight on standing without agitation.

pH: 4.8-5.4

Viscosity Overnight: 1300-1600 cps

Experimental Formulation #CR4-1-124

PUMP TYPE HAIR SPRAY

RAW MATERIALS	% By Weight
Resyn 26-1314	6.0
MACKPRO NLP	1.0
Deionized Water	7.6
Ethanol, Fragrance qs to	100.0

Procedure:

1. Dissolve Resyn 26-1314 in alcohol.
2. Add remaining components and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

BALSAM CONDITIONER

RAW MATERIALS	% By Weight
MACKINE 301	1.6
MACKOL 16	1.8
Phosphoric Acid (85%)	0.9
Sodium Chloride	0.3
MACKSTAT DM	qs
Balsam of Peru	qs
Water, Dye qs to	100.0

Procedure:

1. Add the first four components to water and heat to 70 degrees C.
2. Blend until homogenous.
3. Cool to 45 degrees C. and add MACKSTAT DM and Balsam of Peru.
4. Cool to room temperature and fill.

COMB OUT AND CONDITIONER SPRAY

RAW MATERIALS	% By Weight
Glycerin	18.0
Propylene Glycol	18.0
PEG 75 Lanolin	0.7
MACKAM CAP	0.3
MACKANATE DC-30	0.2
Disodium EDTA	0.1
MACKSTAT DM	qs
Deionized Water, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust pH to 4.5-5.5 with citric acid.

CONDITIONER AND SETTING LOTION

RAW MATERIALS	% By Weight
MACKALENE 316	4.0
Gafquat 755	8.0
MACKOL 16	0.5
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely disperse Gafquat 755 in water.
2. Add MACKALENE 316 and MACKOL 16 and heat to 70 degrees C.
3. Blend until completely homogenous.
4. Cool to 45 degrees C. and add remaining components.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

BODIFYING HAIR DRESSING

INGREDIENTS	% By Weight
Mineral Oil	40.0
Petrolatum	20.0
Sandopan KST	5.0
Velsan D8P-3	10.0
Ozokerite 170	17.0
Lanolin AC	8.0
Dye, Fragrance	Q.S.

Procedure:

Heat Mineral Oil and Petrolatum. Add remaining ingredients, stirring each until completely in solution. Cool with stirring.

Soft anhydrous pomade, excellent for dry hair. Retains moisture, conditions and imparts sheen. SANDOPAN KST helps in removal of product at future shampooing.

Formulation CHC-27A

HIGH GLOSS BRILLIANTINE

INGREDIENTS	% By Weight
Amererlate P	30.0
Velsan D8P-3	17.5
Petrolatum	47.0
Sandopan KST	5.0
Dye, Fragrance	Q.S.

Procedure:

Combine and heat to 80C with agitation. Cool with stirring to 65C, then package.

Excellent soft paste preparation for making hair glossy. This formulation also treats dry scalp, controls and moisturizes hair. Sandopan KST provides easier removal at future shampooing.

Formulation CHC-28A

SOURCE: Sandoz Chemicals Corp.: Ethnic Hair Care: Formulas

CHOLESTEROL TYPE HAIR TREATMENT

RAW MATERIALS	% By Weight
1. MACKADET CBC	7.0
2. Paraffin Wax	3.0
3. MACKAMIDE PKM	1.0
4. MACKERNIUM 007	1.5
5. MACKSTAT-DM	qs
6. Cholesterol Powder	0.01
7. Mineral Oil	1.0
8. Fragrance, Color	qs
9. Deionized Water qs to	100.0

Procedure:

- Heat #1, #2, #3, #6 and #7 in the mixing kettle to 170 degrees C.
- Separately heat #9 to 170 degrees F (77 degrees C.)
- Start the agitation at slow, then high speed and slowly add the #9 water, keep mixing at medium speed for 15 minutes then very slowly start the cooling while mixing.
- At 125 degrees F (45 degrees C.) add #4 rinsing out the container with a little water and slow down the mixing and add #4, then #8 and mix till everything is completely uniform.
- At approximately 105 degrees F (41 degrees C) slow mixing to the lowest possible speed and when product thickens stop mixing. Check pH and apparent viscosity adjust with either a few drops of Citric acid solution or with a few drops of Triethanolamine: mix in slowly. Recheck pH.
pH: 5.5-6.3
Appearance: White creamy smooth paste
Viscosity: After 24 hours 16,000-26,000 cps
Formula No. BP-1-6

HAIR TONIC

RAW MATERIALS	% By Weight
1. MACKPRO NLP	20.00
2. AY-166 (10 component concentrate)	10.70
3. Peg-8	4.00
4. Isopropyl or Ethyl Alcohol	14.00
5. Menthol Crystals	0.20
6. Fragrance	Q.S.
7. MACKSTAT DM	Q.S.
8. D.I. Water Q.S. to	100.0

Procedure:

- Dissolve #1 in #8. Add #2 and mix to dissolve.
- Add #3 and mix in.
- Dissolve #5 in #4 and add very slowly with mixing to the batch.
- Add fragrance #6 and blend in. Add #7.
pH: 5.5-6.0 Clear Solution
Formula AY-187

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAR CLEAN CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 426	6.0
MACKPRO KLP	0.5
Natrosol 250 HHR	1.2
MACKSTAT DM	q.s.
Water, Fragrance q.s. to	100.0

Procedure:

1. Completely disperse Natrosol in cold water.
2. Heat to 40 degrees C. and add remaining components.
3. Blend until clear.
4. Cool and fill.

SPRAY-ON CONDITIONER FOR EXTRA CURLY HAIR

RAW MATERIALS	% By Weight
MACKINE 301	1.00
MACKESTER EGMS	1.50
Cetearyl Alcohol	1.50
C12-16 Alcohols (Alfol 1216)	1.50
Lactic Acid Natural	QS to pH approx 0.40
Fragrance, Color	Q.S.
MACKSTAT DM	Q.S.
MACKERNIUM 007 <u>Optional</u>	0.50
Deionized Water	Q.S. to 100.0

pH: 3.6-4.00

Procedure:

Into the manufacturing stainless steel tank meter water, #9 and start heating.

Add #2, #3, #4 and heat to 160F (71C) add #1, and start mixing well to dissolve all ingredients completely.

Once the emulsion forms add #5 at about 140F (60C) and mix strongly and take a sample. Cool it and check pH and add #5 in small amounts till proper pH level is obtained.

Then add Item #6, #7 and if desired #8, dissolved in a small amount of #9. Mix to room temperature.

A sprayable lotion will form upon overnight standing.

Formula #BP-30-301-L

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAR COLORLESS VISCOUS CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 426	6.0
MACKPRO NSP	0.5
Natrosol 250 HHR	1.2
MACKSTAT DM	Q.S.
Deionized Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely dispense Natrosol in water.
2. Add MACKALENE 426, MACKPRO NSP and blend until clear.
3. Heat to 40 degrees C. and add remaining components.

EXTRA MILD CONDITIONER TYPE

RAW MATERIALS	% By Weight
1. MACKERNIUM SDC-85	2.0
2. Cetyl Alcohol	1.5
3. PEG-75	0.5
4. DL Panthenol	0.05-0.1
5. Botanical Extracts	Q.S.
6. Methyl Paraben	Q.S.
7. Propyl Paraben	Q.S.
8. Citric Acid	Q.S.
9. Fragrance	Q.S.
10. Deionized Water	Q.S.

Procedure:

1. Melt ingredients #1 thru #3 together at 170 degrees F.
2. Separately heat #10 (water) to 175 degrees F.
3. Dissolve in the hot water #6 and #7, and slowly add to batch while mixing well.
4. Continue mixing and cool slowly.
5. At 98 degrees F. add items #4, #5.
6. Check the pH and adjust with #8 (dissolved in a little water and very slowly mix to room temperature).
7. The product will thicken over night upon standing.

Properties:

pH: 3.6
 Solids, %: 6.0
 Viscosity: 10.000 cps

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CLEAR CONDITIONER WITH NATURAL LIPID PROTEIN

RAW MATERIALS	% By Weight
MACKPRO NLP	3.0
Natrosol 250 HHR	1.0
MACKSTAT DM	qs
Water, Fragrance, Dye, qs to	100.0

Procedure:

1. Completely disperse Natrosol in water.
2. Heat to 45 degrees C. and add MACKPRO NLP.
3. Blend until completely dispersed and adjust pH to 5.0 with lactic acid.
4. Add remaining components.
5. Cool and fill.

CLEAR CONDITIONER WITH WHEAT GERM CATIONIC

RAW MATERIALS	% By Weight
MACKALENE 716	1.0
Natrosol 250 HHR	1.0
MACKSTAT DM	qs
Water, Fragrance, Dye, qs to	100.0

Procedure:

1. Completely disperse Natrosol in water.
2. Heat to 45 degrees C. and add MACKALENE 716.
3. Adjust pH to 5.0 with lactic acid.
4. When product is clear, add remaining components.
5. Cool and fill.

CLEAR LEAVE-ON CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 426	6.0
Natrosol 250 HHR	1.0
MACKSTAT DM	qs
Deionized Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely disperse Natrosol in water.
2. Add MACKALENE 426 and blend until clear.
3. Heat to 40 degrees C. and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAR CONDITIONING GEL

INGREDIENTS	% By Weight
Carbopol 941, 2% aq. soln. (pH adjusted to 5.0)	75.20
Schercoquat IAS-LC, 1% aq. soln.	22.55
Schercotaine CAB-G (35%)	2.25

Procedure:

1. Prepare 1% aq. solution of Schercoquat IAS-LC by dissolving it in hot water, approx. 80C.
2. Mix IAS-LC solution and CAB-G into Beaker A.
3. In a separate Beaker B, heat Carbopol 941 solution, to 70-75C, while mixing.
4. Slowly add A to B while mixing. Mix until solution is homogeneous, maintaining temperature of 70-75C.
5. Cool to room temperature with stirring.

Formulary 213-25

WHEAT GERM HAIR CONDITIONER

INGREDIENTS	% By Weight
Schercoquat WOAS (90%)	1.0
Schercemol PEG 400 D.S.	4.0
Cetyl Alcohol	2.0
Schercomid AME (70%)	6.0
Glycerol Monostearate	4.0
Herbasol Extract Wheat Germ	0.5
Preservative	0.2
Color, Fragrance	q.s.
Water	82.3

Procedure:

1. Blend and heat to 70C Schercoquat WOAS, PEG 400 D.S., Cetyl Alcohol, Schercomid AME and Glycerol Monostearate.
2. Slowly add water at 70C to the blend and mix until uniform.
3. Add extract, preservative & fragrance & mix until uniform.

Formula 222-67

SOURCE: Scher Chemicals, Inc.: Formulas

CLEAR CONDITIONING RINSE

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	90.5
Germaben II	1.0
Methocel F4M	1.5
Part B:	
CRODAFOS SG	1.0
INCROMECTANT LAMEA	3.0
INCROQUAT BA-85	1.0
Part C:	
CROSILKQUAT	2.0

Procedure:

Add Germaben II to 1/3 of the water and heat to 85C. Disperse Methocel F4M in the hot water. Add the remaining cold water. Mix until hydrated. Add ingredients from Part B, mixing each addition until clear. Cool batch to 40C and add Crosilkquat. Mix until clear.

This conditioning rinse takes advantage of CROSILKQUAT's moisturizing and substantivity for hair. Due to its small size, it can penetrate the hair cuticle far more effectively than high molecular weight proteins.

SOURCE: Croda Inc.: CROSILKQUAT: Formula HP-153

DETANGLING CREAM RINSE

RAW MATERIALS	% By Weight
I. SUPERPOLYSTATE	
Cetyl Alcohol	4,00
Ammonyx 4002	4,00
ANTISTATIQUE WL 879	2,00
	2,00
II. Demineralized Water	
Citric Acid	87,65
	0,05
Perfume	0,30

Preparation:

Heat I and II up to 80C.
While stirring, pour II into I.
Cool down to 30C and add perfume.

SOURCE: Gattefosse: Formula PL 18/4

CLEAR CONDITIONING RINSE

RAW MATERIALS	% By Weight
KYTAMER PC	1.00
Olealkonium Chloride (55% Aqueous)	3.64
Water	95.36
Perfume and Preservative	q.s.

Procedure:

Disperse KYTAMER PC in water with high speed agitation. When completely dispersed, heat to 75C with continued mixing until solution is clear and uniform. Add Olealkonium Chloride and mix until uniform. Dissolve preservative into batch. Cool to room temperature.

Description:

Clear, conditioning hair rinse which can be used after shampooing. KYTAMER PC is a substantive humectant which helps retain moisture in hair leaving it soft and full in appearance. KYTAMER PC's film forming properties give the hair shine.

SOURCE: Amerchol Corp.: KYTAMER PC: Formula T54-272-1

HAIR CONDITIONER

RAW MATERIALS	% By Weight
Water Phase:	
QUATRISOFT POLYMER LM-200	1.0
Water	94.0
Oil Phase:	
PROMULGEN D	4.5
Glyceryl Monostearate, Neutral	0.5
Perfume and Preservative	q.s.

Procedure:

Add QUATRISOFT POLYMER LM-200 to water at room temperature with good mixing. When thoroughly dispersed, heat to 75C. Add oil phase at 75C to water phase at 75C with mixing. Cool while mixing to room temperature.

Description:

White, glossy, medium viscosity cream rinse hair conditioner. QUATRISOFT POLYMER LM-200 uniformly adheres to each hair shaft by virtue of its cationic nature, thus imparting superb wet and dry combing, shine and conditioning properties. PROMULGEN D functions as the primary o/w emulsifier in this stable system.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-164-1

CLEAR HAIR RINSE

INGREDIENTS	% By Weight
Natrosol 250HHR	1.0
Water	73.5
Ninol CA	5.1
Ninol L	10.2
Variquat E228	10.2
Perfume, preservative	q.s.

Procedure:

1. Disperse Natrosol in water. Mix until fully dissolved.
2. Add the remaining ingredients in the order listed, mixing well between additions.

Brookfield viscosity, cps: 3,360

Natrosol viscosifies this crystal-clear hair rinse, which promotes manageability. Control formulas made without a water-soluble polymer have viscosities less than 100 cps.

PEARLESCENT CREAM RINSE

INGREDIENTS	% By Weight
A. Natrosol 250HHR	1.3
Water	82.3
B. Varisoft SDC	10.1
Propylene glycol	1.5
Glycol stearate	1.5
Emulphor ON-870	1.5
Mirapol AD-1	1.8
Perfume, preservative	q.s.

Procedure:

1. Disperse Natrosol in water. Mix until fully dissolved.
2. In a separate vessel, mix the Varisoft SDC and propylene glycol. Heat to 80C.
3. Add the other ingredients listed in Section B, in the order listed, to the mixture of Varisoft and propylene glycol. Mix well between each addition.
4. Add the surfactant mixture to the water-soluble polymer solution. Mix well, Cool to 35C.
5. Add perfume and preservative.

Brookfield viscosity, cps = 8,600

Natrosol viscosifies this product and prevents phase separation.

SOURCE: Aqualon Co.: Bulletin VC-525: Formulas

COLD PERMANENT WAVE LOTION: NORMAL HAIR FORMULA

INGREDIENTS	% By Weight
Water	69.06
Ammonium Thioglycolate, 60%	11.35
Hamp-ol 120	0.20
Aqueous Ammonia, 28%	4.14
Fragrance	0.15
Water	8.00
Emulsifier K-700	1.00
Sulfuric Acid	*
Aqueous Ammonia, 28%	*
Water	*
* As needed	

Finished Formula Properties:

pH: 9.2-9.4

Free Ammonia: 1.06-1.26 gms NH₃ per 100 mlCOLD PERMANENT WAVE LOTION: TINTED HAIR FORMULA

INGREDIENTS	% By Weight
Water	72.55
Ammonium Thioglycolate, 60%	9.00
Hamp-ol 120	0.20
Aqueous Ammonia, 28%	3.00
Fragrance	0.15
Water	8.00
Emulsifier K-700	1.00
Sulfuric Acid	*
Aqueous Ammonia, 28%	*
Water	*
* As needed	

Finished Formula Properties:

pH: 9.2-9.4

Free Ammonia: 0.74-0.94 gms NH₃ per 100 ml

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formulas

COLD WAVE EMULSION

RAW MATERIALS	% By Weight
Luviquat Mono CP	1.50
Thioglycolic Acid 80%	12.50
Ammonia 25%	18.80
Water	67.20

Preparation:

Weigh out and mix.

Properties:

Clear solution. In combination with oxidizing solution No. 09/12, it causes a permanent wave in the hair.

Application:

Apply to curled, wet hair, rinse out. Then treat with oxidizing solution No. 09/12.

OXIDIZING SOLUTION

RAW MATERIALS	% By Weight
Luviquat Mono CP	3.00
Hydrogen Peroxide 30%	10.00
Water	87.00
Perfume	q.s.

Preparation:

Weigh out and mix.

Properties:

Clear solution. When used in combination with cold wave emulsion No. 09/011, causes permanent wave in hair.

Application:

After cold wave emulsion No. 09/011 has been rinsed off, apply and leave for 10 minutes. Wash out thoroughly. Continue treatment as normal.

SOURCE: BASF Corp.: Luviquat Mono CP: Formulas

COLD-WAVE-SOLUTION
(10% Thioglycollic acid)

RAW MATERIALS	% By Weight
A Thioglycollic acid (99%ig)	10,00
Ammonia solution (25%)	18,00
Water, demineralized	ad 100,00
B Dehyton AB 30	5,00
Turpinal SL	0,20
Water, demineralized	12,80
C Perfume	q.s.
Cremophor NP 14	1,60

Procedure:

Dilute Thioglycollic acid with the water of phase A. Add alkalinizing agent while cooling (the temperature of the solution should not exceed 30C) and stirring. Adjust pH to 9,5. Blend phase B and C separately. Add phase B to A while stirring then add phase C. Stir until clear.

Note: pH 22C: 9.3

Formula 78-3/89

COLD-WAVE-SOLUTION
(8% Thioglycollic acid)

RAW MATERIALS	% By Weight
A Thioglycollic acid (99%ig)	8,00
Ammonia solution (25%)	8,60
Water, demineralized	ad 100,00
B Rewolan E 50	2,00
Turpinal SL	0,20
Water, demineralized	12,80
C Perfume	q.s.
Cremophor NP 14	1,60

Procedure:

Dilute Thioglycollic acid with the water of phase A. Add alkalinizing agent while cooling (the temperature of the solution should not exceed 30C) and stirring. Adjust pH to 8,8. Blend phase B and C separately. Add phase B to A while stirring then add phase C. Stir until clear.

Note: pH 22C: 8.8

Formula 78-7/89

SOURCE: E. Merck, Darmstadt: Formulas

COLD-WAVE-SOLUTION
(10% Thioglycollic acid)

RAW MATERIALS	% By Weight
A Thioglycollic acid (99%)	10,00
Ammonia solution (25%)	9,10
Water, demineralized	ad 100,00
 B Perfume	 q.s.
Cremophor NP 14	1,60

Procedure:

Dilute thioglycollic acid with water. Add alkalizing agent while cooling (the temperature of the solution should not exceed 30C). Blend phase B. Add phase B to phase A. Stir until clear.

Note: pH 22C: 8,8

Formula 79-3/89

NEUTRALIZER FOR ACID WAVES

RAW MATERIALS	% By Weight
Phosphoric acid	0,40
Perhydrol (30% H2O2)	6,60
Tego-Betain L 7	2,60
Water, demineralized	90,40

Procedure:

Stir until clear. Add perfume as required.

Note: pH 22C: 2,1

Formula 36-1/90

PERMANENT-WAVE-NEUTRALIZER

RAW MATERIALS	% By Weight
Citric acid	0,50
Sodium dihydrogene phosphate dihydrate	0,35
Perhydrol (30% H2O2)	5,00
Texapon N 40	15,00
Water, demineralized	79,15

Procedure:

Combine ingredients and stir until clear. Add perfume as required.

Note: pH 22C = 3,0

Formula 80-1/89

SOURCE: E. Merck, Darmstadt: Formulas

COLOR SPRAYS

1. Composition of the Basic Solution:

RAW MATERIALS	% By Weight
Ethanol/isopropanol mixture	40.0
Pentane	31.6
Paraffin liquid	10.0
Pearl pigments from Rona/Merck (see below)	12.0
Luviskol VA 37	6.0
Dow Corning 200 fluid/350 cs.	0.2
Eutanol G	0.2

2. Proportion basic solution to propellant gas about 20:80. As propellant EM Pigments recommends a Propane/Butane 25/75 or such one of Dimethylether or Butane.
3. Using pigments of small or medium particle size standard valves are recommendable (about 0.5 mm). In case of sparkle pigments EM Pigments recommends the same valves as used for dry shampoo aerosols (about 0.7 mm).
4. Basically all Rona pigments are suitable. Particularly attractive lustre effects can be obtained by the following pigments:
Soloron Silver, Colorona Red Gold, - Sienna, - Bronze, - Light Blue, - Majestic Green and - Imperial Red and the Timiron Super interference types.

SOURCE: EM Pigments Division: Formula

ANTIDANDRUFF-HAIRTONIC

RECIPE	% By Weight
A OCTOPIROX	0.10
B Water	5.00
C Ethyl alcohol	35.00
D Perfume	0.30
GENAPOL C-100	0.60
E Water	58.70
GENAMIN KSL	0.30
F Citric acid----> pH 5-6	q.s.

Procedure:

- I Mix A and B.
- II Add C to I.
- III The mixture of D stir into II.
- IV Stir one after another the components of E into III.
- V Adjust the pH with F.

SOURCE: Hoechst: Guide Formulations: Formula B III/3006

CONDITIONER #3
(Light duty, suitable for every day use)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	89.70
ARQUAD 16-29	5.20
Part B:	
Cetyl Alcohol	3.00
Stearyl Alcohol	1.50
Glyceryl Stearate	0.50
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 80C and add ARQUAD 16-29. Separately melt first three components of Part B together at 80C. Add Part B to Part A and agitate well. Adjust pH. Cool to 45C and add preservative.

pH: 3.0-3.5

Viscosity: 4,600 cps

Appearance: Emulsion

CONDITIONER #4
(Intensive, excellent for detangling wet hair)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	89.40
Glycerine	4.00
Propylene Glycol	1.00
Part B:	
ARQUAD 218-100	3.00
Cetyl Alcohol	2.00
Glyceryl Stearate	0.50
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 80C and add remaining ingredients of Part A. Separately melt components of Part B together. Add Part B to Part A and shake vigorously. Cool and adjust pH with citric acid.

pH: 3.0-3.5

Viscosity: 9,000 cps

Appearance: Emulsion

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formulas

CONDITIONER #5(Intensive, good for ethnic hair; leaves hair shiny and manageable)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	84.40
Propylene Glycol	5.00
Part B:	
ARQUAD 2HT-75	3.00
ETHOQUAD 18/25	0.50
Oleth 20	1.00
Cetyl Alcohol	3.00
Mineral Oil	3.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat contents of Part A to 80C. Separately melt components of Part B together. Add Part B to Part A and shake well. Cool to 45C and adjust pH. Add preservative and fill.

pH: 3.0-3.5

Viscosity: 6,500 cps

Appearance: Emulsion

Conditioner #6(Thick, for ethnic or damaged hair)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	83.40
Propylene Glycol	5.00
Part B:	
ARQUAD 2HT-75	3.00
Cetyl Alcohol	3.00
Stearyl Alcohol	1.50
Mineral Oil	3.00
ELFACOS O/W 100	1.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 80C and add propylene glycol. Separately melt components of Part B together. Add Part B to Part A and shake well. Cool to 45C, adjust pH and add preservative.

pH: 3.0-3.5

Viscosity: 6,600 cps

Appearance: Emulsion

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formulas

Conditioner #7
(Moderate, for hard-to-manage hair)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	89.30
Hydroxypropyl Methylcellulose	1.00
Sodium Hydroxide (50%)	qs
Part B:	
ARQUAD 2C-75	2.70
ARQUAD 2HT-75	1.40
Laureth 23	0.50
Cetyl Alcohol	5.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose and mix well. Add sodium hydroxide until system clears. Separately melt components of Part B together at 70C. Add Part B to Part A with good agitation. Cool and adjust pH, then add preservative.

pH: 3.0-3.5

Viscosity: 6,500 cps

Appearance: Emulsion

CONDITONER #8
(Thick, alcohol-free, suitable for every day use)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	86.00
Hydroxypropyl Methylcellulose	1.00
Sodium Hydroxide (50%)	qs
Part B:	
ARQUAD T-27W	7.40
Oleth 20	0.50
Cetyl Alcohol	3.00
Stearyl Alcohol	2.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose and agitate. Add sodium hydroxide until system clears. Separately melt components of Part B together at 70C. Add Part B to Part A and shake well. Cool and adjust pH, then add preservative.

pH: 3.0-3.5

Viscosity: 9,000 cps

Appearance: Emulsion, thixotropic rheology

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formulas

CONDITIONER #9
(Moderate, suitable for every day use)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	88.90
Hydroxypropyl Methylcellulose	1.00
Sodium Hydroxide (50%)	qs
Part B:	
ARQUAD 18-50	5.00
Laureth 23	1.00
Stearyl Alcohol	4.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose with good agitation. Add sodium hydroxide until system clears. Separately melt components of Part B together at 70C. Add to Part A and shake. Cool, adjust pH and add preservative.

pH: 3.0-3.5

Viscosity: 5,000 cps

Appearance: Emulsion

CONDITIONER #10
(Moderate, will not build up on hair)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	88.90
Hydroxypropyl Methylcellulose	1.00
Sodium Hydroxide (50%)	qs
Part B:	
ARQUAD 2C-75	4.00
Laureth 23	1.00
Cetyl Alcohol	5.00
Part C:	
Citric Acid (50%)	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose and mix well. Add sodium hydroxide until system clears. Separately melt components of Part B together at 70C. Add Part B to Part A with good agitation. Cool, adjust pH and add preservative.

pH: 3.0-3.5

Viscosity: 6,000 cps

Appearance: Emulsion

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
 Formulas

CONDITIONER

RAW MATERIALS	% By Weight
A Water	94,50
Tylose H 4000 P	1,00
B Belsil DMC 6035	2,00
Belsil ADM 6042 E	2,50
Preservatives, fragrances, pigments	q.s.
Mix A well, mix in B.	
Slightly cloudy, high viscosity.	
Formulation 550 AH	

CONDITIONER

RAW MATERIALS	% By Weight
Water	90,30
Ethylenglykol	3,20
Lanette N	3,50
Belsil ADM 6056 E	2,50
Belsil DM 100000	0,50
Preservatives, Fragrances	q.s.
Heat the glycol to 70C, dissolve Lanette N in it. Stir in 70C hot water, mix in Belsil ADM 6056 E and Belsil DM 100 000.	
Creamy soft. Produces a good shine and makes hair easy to comb.	
Formulation 577 AH	

HAIR GEL

RAW MATERIALS	% By Weight
Water	59,50
Carbopol 934	0,50
Triethanolamine	1,20
Glycerine	34,20
Propylene Glycol	2,00
Belsil DMC 6035	2,30
Preservatives, fragrances	q.s.

Mix the carbomer 934 well into the water. Mix in the others homogeneously.
 Temperature stability: at 45C over 10 weeks.
 Translucent gel. Good hold, wet look.
 Formulation 353 AH

SOURCE: Wacker Silicone: Standard Formulations

CONDITIONER

RAW MATERIALS	% By Weight
A Cremophor A 25	1.0
Luvitol EHO	2.0
Cetylstearyl alcohol	4.0
Water	88.0
B Luviquat Mono CP	5.0
Preservative	q.s.
C Perfume	q.s.

Properties: Soft, white cream. Improves wet-combability, imparts body to the hair and prevents dried hair from charging electrostatically.

Application: Rub well into damp hair, leave for a short while, rinse out.

Preparation: Heat phases A and B separately to ca. 80C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in Phase C.

MOUSSE CONDITIONER

RAW MATERIALS	% By Weight
Luviquat Mono CP	5.0
Cremophor A 25	0.2
Comperlan KD	0.1
Water	84.7
Perfume	q.s.
n-Butane	10.0

Properties: Dry, stiff mousse. Improves wet-combability and prevents dry hair from charging electrostatically.

Application: Shake can before use. Invert aerosol before actuating valve.

Preparation: Weigh out and dissolve by stirring. Dispense and add propellant.

SOURCE: BASF Corp.: LUVIQUAT Mono CP: Formulas

CONDITIONING CREME HAIRDRESS

INGREDIENTS	% By Weight
Phase A:	
Water	30.0
Cartaretin F-23	4.0
Velsan P8-3	3.0
Phase B:	
Carnation	41.4
Polyethylene 617A	4.6
Phase C:	
Petrolatum, White USP	10.0
Arlacel 186	3.0
Tween 80	1.0
Promulgen D	3.0

Procedure:

Mix Part B together and heat to 70C with stirring until clear. Place in cooling bath (10-15C) and apply agitation. Scrape off thick gel as it forms on beaker wall, cool to approximately 45C. Separately mix and heat Part C to 65C. Add Part B. When homogenous, add pre-mixed Part A and stir in completely. Package.

Properties:

Appearance: Soft glossy white cream
 pH: 7.2
 Viscosity: <20,000 cps

Applied as a hairdressing, this w/o cream conditioner provides sheen, manageability and conditioning simultaneously. Cartaretin F-23, a cationic copolymer gives conditioning and light hold. Velsan P8-3 adds to the gloss, lessens the oily heavy feel of the petroleum base, and also improves the stability of the system.

SOURCE: Sandoz Chemicals Corp.: Formula CHC-41

SPECIAL EFFECT HAIR GEL

COMPOSITION	% By Weight
Carbopol 940 or 934	1.0
Triethanolamine, 99%	1.3
Isopropyl alcohol	20.0
Pearl pigments e.g. Colorona Bronze or Colorona Red Gold or Colorona Sienna	0.2-5.0
Fragrance	as you like
Water	ad 100.0

SOURCE: EM Pigments Division: Formula

CONDITIONING CREME RINSE

RAW MATERIALS	% By Weight
Water	94.2
MONATERIC 1202	2.8
Stearalkonium Chloride (85%)	1.0
Cetyl Alcohol	2.0

Procedure:

Mix water and MONATERIC 1202 until homogeneous. Add remaining ingredients with agitation and heat to approximately 60C. until homogeneous. Continue stirring while cooling to 25C. Adjust pH to 4.5-5.5.

Formulation Properties:

Appearance: Opaque Lotion
Nominal Activity: 4.0%

This creme rinse removes tangles for excellent wet combing and additionally provides a substantive, non-oily, non-greasy conditioning effect which leaves hair soft, shiny and vibrant,

SOURCE: Mona Industries, Inc.: MONATERIC 1202: Formula

NATURAL CONDITIONING CREME RINSE
(For Extra Conditioning and Wet Combability)

INGREDIENTS	% By Weight
Water	95.0
Glyceryl Stearate	1.5
Stearalkonium Chloride	1.0
AVAMID 150	1.5
Hydroxyethylcellulose	1.0

This Conditioning Creme Rinse imparts the detangling and wet combability that longer hair usually requires and at the same time provides the natural avocado oil "instant" conditioning to the hair.

Procedure:

Mix all ingredients. Heat to melt while mixing until uniform. (60C). Cool with stirring. Adjust pH to 5.5-6.0. Add preservative, color and perfume as required.

Formulation Properties:

Physical Appearance: Creamy lotion
Activity: 4.5%
Viscosity: Thixotropic pourable liquid

SOURCE: Mona Industries, Inc.: AVAMID 150: Formula

CONDITIONING HAIR SETTING GEL

RAW MATERIALS	% By Weight
Water	85.45
Tetrasodium EDTA	0.10
ABIL B 8851	0.35
ABIL B 88183	0.45
Carbomer 940	1.10
Sodium Hydroxide, 20% solution	1.55
Vinylcaprolactam/PVP/Dimethylaminoethyl-methacrylate Copolymer	10.00
Oleth-20	1.00
Preservative, Color, Fragrance	0.50

Add the Tetrasodium EDTA and Dimethicone Copolyols to the water. Mix until fully dispersed. Create a vortex in the water and sift in the Carbomer. Mix until the Carbomer is completely dissolved. Add the Sodium Hydroxide, Vinylcaprolactam/PVP/Dimethylaminoethyl-methacrylate Copolymer. Warm the Oleth-20 and add as a liquid. (Cool slightly before adding.) Add color, fragrance and preservative.

SOURCE: Goldschmidt Chemical Corp.: Formula

CREME RINSE
(Moderate Conditioner)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	91.90
Hydroxypropyl Methylcellulose	0.50
Glycerine	2.50
Part B:	
ARMO CARE E/C 151	0.50
ARQUAD 2HT-75	2.00
Cetyl Alcohol	2.00
ETHOMEEN 18/25	0.50
Part C:	
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose. Add glycerine. Separately melt components of Part B together. Add Part B to Part A and agitate well. Cool and add preservative.

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formula

CONDITIONING RINSE

RAW MATERIALS	% By Weight
EMPIGEN CM	3.0
LAUREX CS	4.0
Citric acid (to pH 2.5-3.0)	1.0
Perfume, dye, preservative	qs
Water	Balance

High-quality product.

Formula CR1

CONDITIONING RINSE

RAW MATERIALS	% By Weight
EMPIGEN BCM75	1.5
LAUREX CS	4.0
Citric acid (to pH 2.5-3.0)	1.0
Perfume, dye, preservative	qs
Water	Balance

High-quality product

Formula CR2

The EMPIGEN CM or EMPIGEN BCM75 and the LAUREX CS should be stirred with the water at 70C until a uniform mixture is obtained. The product is then cooled with continuous stirring, before incorporation of the citric acid, perfume, dye and preservative. Incorporation of 1.0-2.0% EMPILAN CME gives an attractive pearl effect.

CLEAR CONDITIONING RINSE

RAW MATERIALS	% By Weight
EMPIGEN CSC	6.0
METHOCEL E4M Premium	1.5
Citric acid	qs to adjust pH to 3.0-4.0
Perfume, dye, preservative	qs
Water	Balance

The METHOCEL E4M Premium is dispersed in warm water, and, when homogeneous, the EMPIGEN CSC is incorporated. The formulation is completed by adding the required dye, perfume and preservative and adjusting the pH as stipulated.

Formula CR3

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING AND STYLING MOUSSE

RAW MATERIALS	% By Weight
Phase A:	
PROMULGEN D	0.5
Water	77.0
AMEROXOL OE-20	0.5
GLUCAM P-10	1.0
SOLULAN 98	2.0
Phase B:	
Alcohol-SDA 40	15.0
AMERSETTE	4.0
Perfume and Preservative	q.s.

Procedure:

Combine phase A and heat to 75C until uniform. Cool to 45C and add premixed phase B. Phase B can be premixed at room temperature to avoid solvent loss. Add perfume below 40C. Cool to room temperature and fill.

Fill: 95% Concentrate; 5% Propellant A-46

A quick-breaking conditioning and styling mousse. A balance of PROMULGEN D and AMEROXOL OE-20 insures a good dispersion of propellant in the concentrate with good foam formation and stability with valve actuation while still allowing for a "quick-break" upon massaging into the hair. SOLULAN 98 and GLUCAM P-10 contribute to wet and dry comb, lustre, feel, and also reduce flyaway. GLUCAM P-10 enhances foam stability, moisture retention and foam wetting. AMERSETTE provides anti-static, conditioning and styling properties.

SOURCE: Amerchol Corp.: PROMULGEN D: Formula T51-51-6A

CONDITIONING HAIR SPRAY

RAW MATERIALS	% By Weight
GLUCQUAT 100	0.25
AMERSETTE	5.00
SD Alcohol 40	74.75
A-46 Hydrocarbon Propellant	20.00

Procedure:

Dissolve AMERSETTE and GLUCQUAT 100 in SD Alcohol 40. Fill into aerosol hair spray cans and charge with propellant.

Description:

Besides the styling properties of this product, the hair is also left conditioned by the addition of GLUCQUAT 100. The cationic functionality makes GLUCQUAT 100 substantive to hair, where it adds shine and moisturization. It also helps plasticize the fixative resin, AMERSETTE.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T62-69-2M

CONVENTIONAL PACKAGE HAIR GROOM

COMPONENT	% By Weight
Polymer JR-400	1.00
TERGITOL Nonionic Surfactant 15-S-12	0.05
Triethylene Glycol	0.05
Methyl p-Hydroxybenzoate	0.05
SD-40 Alcohol, anhydrous	25.00
Deionized water, perfume	73.85

Preparation:

Dissolve the TERGITOL Surfactant 15-S-12 and preservative in the water. Add the Polymer JR while stirring, and continue mixing until the resin is dissolved. Introduce the alcohol into the formula. Finally, add perfume as desired. The use of hot water (60C) will increase the rate of solution for Polymer JR.

Polymer JR makes a "different" type of hair groom, being non-oily and non-sticky. It can be applied to wet or dry hair, it provides good combing and holds the hair in place, and has the advantage of renewed grooming action simply by combing with a wet comb. It is excellent as an after shampoo-hair groom.

AEROSOL HAIR GROOM

COMPONENT	% By Weight
Polymer JR	0.4
Water	22.2
UCON Propellant 12	22.5
SDA-40	54.9

Valve Orifices = 0.062" x 0.013"

Container = Organosol-lined

Preparation:

Dissolve Polymer JR in the usual manner, and add the SDA-40. Package with UCON Propellant 12.

Since Polymer JR is insoluble in ethanol, hydroalcoholic systems have to be used to package it in aerosol form. Based on solubility studies, basic formulation around which to develop Polymer JR aerosol products.

SOURCE: Amerchol Corp.: Polymer JR: Formulas

CREAM HAIR CONDITIONER

RAW MATERIALS	% By Weight
A. Oleyl Alcohol	10.0
MACKOL 16	2.5
MACKESTER SP	3.0
BHA	0.1
Propyl Paraben	0.1
B. MACKALENE 316	25.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat part A to 70 degrees C.
2. Add MACKALENE 316 to water and heat to 70 degrees C.
3. Add A to B and with continuous blending cool to 45 degrees C.
4. Add remaining components and cool.

CURL CONDITIONER AND OIL SHEEN

RAW MATERIALS	% By Weight
Glycerine	47.0
Propylene Glycol	3.0
MACKPRO NLP	4.0
MACKANATE DC-30	3.0
MACKSTAT DM	qs
Deionized Water qs to	100.0

Procedure:

Add components in order and blend until clear.

HAIR CONDITIONER

RAW MATERIALS	% By Weight
MACKADET CBC	5.0
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add MACKADET CBC to water and heat to 70 degrees C.
2. With continuous mixing cool to 50 degrees C.
3. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CREAM-RINSE

RECIPE	% By Weight
A GENAMIN KDM-F	3.75
Cetylalcohol	3.00
B Water	92.75
Preservative	q.s.
C. Perfume	0.30
Dyestuff solution	q.s.

Procedure:

- I Heat A and B together to 75C, then stir until cool.
 II Add C to I at 40C.

Formula B II/1023

CREAM-RINSE

RECIPE	% By Weight
A HOSTAPHAT KL 340 N	1.50
GENAMIN KSL	6.00
Cetyl-stearylalcohol	3.80
Mineral oil, high viscosity	2.00
B Water	86.40
Preservative	q.s.
C Perfume	0.30
Dyestuff solution	q.s.
D. Citric acid---->pH 4.0	q.s.

Procedure:

- I Melt A at 75C.
 II Heat B to 75C.
 III Stir II into I.
 IV Stir until cool.
 V Add C to IV at 40C.
 VI Adjust the pH with D.

Formula B II/1049

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
 Formulas

CREAM-RINSE

RECIPE	% By Weight
A GENAMIN DSAC	1.50
HOSTACERIN T-3	1.50
Cetylalcohol	2.50
Mineral oil, high viscosity	1.00
B GENAMIN KSL	2.00
Water	91.20
Preservative	q.s.
C Perfume	0.30
Dyestuff solution	q.s.
D Citric acid----> pH 4.0	q.s.

Procedure:

- I Melt A at 75C.
 II Heat B to 75C.
 III Stir II into I.
 IV Stir until cool.
 V Add C to IV at 40C.
 VI Adjust the pH with D.
 Formula B II/1051

CREAM-RINSE

RECIPE	% By Weight
A GENAMIN DSAC	1.50
HOSTACERIN DGS	1.50
Cetylalcohol	2.00
Mineral oil, high viscosity	1.00
B GENAMIN CTAC	2.00
Water	91.70
Preservative	q.s.
C Perfume	0.30
Dyestuff solution	q.s.
D Citric acid----> pH 4.0	q.s.

Procedure:

- I Melt A at 75C.
 II Heat B to 75C.
 III Stir II into I.
 IV Stir until cool.
 V Add C to IV at 40C.
 VI Adjust the pH with D.
 Formula B II/1052

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

CREAM RINSE

RAW MATERIALS	% By Weight
A Glycerol monostearate	2.0
Cetylstearyl alcohol	2.0
Cremophor A6	1.0
Cremophor A25	1.0
Liquid paraffin	3.0
Luvitol EHO	2.0
B Luviquat FC 550	4.0
Karion F	3.0
Water	82.0
Preservatives	q.s.
C Perfume	q.s.

Properties: Soft, white cream

Preparation:

Heat phases A and B separately to ca. 70C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in phase C.

Formula No. 05/014

CREAM RINSE, ACIDIC

RAW MATERIALS	% By Weight
A Cremophor A25	1.5
Cremophor A6	1.5
Luvitol EHO	6.0
Cetylstearyl alcohol	3.0
B 1,2-Propylene glycol USP	2.0
Luviquat FC 905	3.0
Citric acid	0.5
Water	82.5
Preservatives	q.s.
C Perfume	q.s.

Properties: Viscous, white emulsion

Preparation:

Heat phases A and B separately to ca. 70C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in phase C.

Formula No. 05/016

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552: Formulas

CREAM RINSE

RAW MATERIAL	Sequence	% By Weight
Water	1	85.90
Propylene Glycol	1	2.00
Unicide U-13	1	0.10
Methylparaben	1	0.25
Propylparaben	1	0.10
Carsquat CT-429	1	3.00
Lipamine SPA	2	0.75
Standamul 1002	2	5.50
Lipovol J	3	2.00
Fragrance V-5706	4	0.40
Citric Acid (50% Sol'n)	5	qs

Procedure:

1. Heat Sequence 1 ingredients to 70C under sweep.
2. Add Sequence 2 ingredients to Sequence 1 ingredients at 70C.
3. Heat Sequence 3 to approximately 72C and add combined Sequences 1 and 2.
4. Begin cooling to 40C, add Sequence 4 to batch.
5. At 25C adjust the pH to 5.5-6.0 using a 50% Citric Acid Solution.

SOURCE: Lipo Chemicals Inc.: Formula No. 440

HAIR CONDITIONING RINSE

RAW MATERIALS	% By Weight
Emulgade 1000 Ni	5.0
Eutanol G	2.0
Dehyquart A	4.0
Cutina EGMS	4.0
Nutrilan Keratin W	5.0
Glycerin 86%	3.0
Colour: Sicomet Blue S 42090 0.10%	0.2
Water, preservative, perfume	ad 100

pH-adjustment: 4-4.5

Viscosity in mPas: 4000 after production
5600 after 12 weeks

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formula no. 89-103-5

CREME HAIR TREATMENT

RAW MATERIALS	% By Weight
1. Paraffin Wax (MP 128F.) 53C.	3.00
2. MACKADET CBC	6.00
3. MACKESTER EGMS	2.00
4. MACKAMIDE PKM	0.75
5. PEG-150 Distearate	1.00
6. MACKPRO WWP	1.00
7. MACKERNIUM 007	1.00
8. MACKSTAT DM	q.s.
9. Fragrance	q.s.
10. Deionized Water q.s. to	100.00
pH: 4.00-6.00	

Procedure:

1. Into a stainless creme kettle put in #1, #2, #3, #4, #5 and start heating to 75 degrees C. (167 degrees C.).
 2. Separately heat #10 to the same temperature, add it slowly with good mixing to the hot waxes in the creme kettle and increase mixing speed.
 3. Keep mixing for 15 minutes at the same temperature and speed.
 4. Then start cooling process slowly and reduce mixing speed.
 5. At 50 degrees C. (120 degrees F.) add #6, #7, #9 and finally #8.
 6. Take a sample, cool and check pH value and adjust batch if necessary, upward with a few drops of diluted Sodium Hydroxide solution or downward with Citric Acid solution.
 7. Cool batch slowly with very low speed mixing until product turns to cream.
- Formula AY-184-3

CBC CREME HAIR TREATMENT

RAW MATERIALS	% By Weight
1. MACKADET CBC	7.00
2. Paraffin Wax	2.00
3. MACKERNIUM 007	1.00
4. MACKSTAT DM	Q.S.
5. Fragrance	Q.S.
6. Color	Q.S.
7. Deionized Water Q.S. to	100.00

Procedure:

1. Fill the stainless steel mixing tank with the proper quantity of #7 and start heating to 160F. Start addition of #1 and then #2 and start slow mixing. Cover the tank to avoid excess evaporation.
 2. When everything is completely uniform and well dissolved so that there are no particles left stop heating.
 3. With good agitation add #3 and start cooling.
 4. Mix firmly but avoid aeration.
 5. At 120F. start addition of #4 and when mass starts to harden add #6, if required, and finally #5 mix slowly until creme can be filled. Check pH.
- pH: 3.5-5.4

Formula AY-176-3

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CREME RINSE

RAW MATERIALS	% By Weight
Stearalkonium Chloride	1.5
CETAL	3.0
Glyceryl Monostearate	0.5
Polysorbate 80	0.5
CELLOSIZ E QP-52,000H	1.0
Preservative, Perfume	q.s.
Water	q.s.

Procedure:

Add the CELLOSIZ E QP-5200H to the available water at room temperature while stirring. When hydration is complete, heat to 70-75C. Add the Stearalkonium Chloride and the Polysorbate 80. Heat the Glycerol Monostearate and the CETAL to 70-75C. Add this mixture to the solution while stirring vigorously. Remove the heat, and continue stirring until temperature reaches 35-40C. Add Preservative and Perfume.

Description:

A basic formula with excellent body and conditioning properties. Easy to pour because of the pseudoplastic property of CELLOSIZ E HEC, yet thick and concentrated in appearance. Opalescent.

Formula T55-45-1

CURLING GEL WITH CONDITIONER

RAW MATERIALS	% By Weight
Ammonium Thioglycolate (60%)	15.0
Ammonium Hydroxide (28%)	2.0
Triethanolamine (99%)	12.0
Pentasodium Pentetate	0.1
CELLOSIZ E Polymer PCG-10	1.0
UCARE Polymer JR-30M	0.5
Propylene Glycol	4.0
Preservative, Fragrance, Color	q.s.
Water	q.s.

Procedure:

Add Ammonium Thioglycolate, Ammonium Hydroxide, Triethanolamine, Pentasodium Pentetate and Preservative to rapidly stirring water in sequence so that the preceding ingredient is dissolved before adding the next. In a separate container, add CELLOSIZ E Polymer PCG-10 and UCARE Polymer to Propylene Glycol and mix to form a slurry. Add slurry to batch and mix until a uniform clear gel forms.

This formula provides conditioning to the hair during the permanent wave process. Clear and stable gel in the chemically active system. Substantive to hair providing conditioning properties.

Formula T55-93-1

SOURCE: Amerchol Corp.: CELLOSIZ E HEC: Formulas

CREME RINSE

RAW MATERIALS	% By Weight
Stearalkonium Chloride	1.5
CETAL	3.0
Glyceryl Monostearate	0.5
Polysorbate 80	0.5
CELLOSIZE QP-52,000H	1.0
Preservative, Perfume	q.s.
Water	q.s.

Procedure:

Add the CELLOSIZE QP-5200H to the available water at room temperature while stirring. When hydration is complete, heat to 70-75C. Add the Stearalkonium Chloride and the Polysorbate 80. Heat the Glycerol Monostearate and the CETAL to 70-75C. Add this mixture to the solution while stirring vigorously. Remove the heat, and continue stirring until temperature reaches 35-40C. Add Preservative and Perfume.

Description:

A basic formula with excellent body and conditioning properties. Easy to pour because of the pseudoplastic property of CELLOSIZE HEC, yet thick and concentrated in appearance. Opalescent.

SOURCE: Amerchol Corp.: CELLOSIZE Hydroxyethylcellulose:
Formula T55-45-1

FINISHING RINSE

RAW MATERIALS	% By Weight
1. Propylene Glycol	10.00
2. Glycerin	8.00
3. MACKERNIUM SDC-25	8.00
4. Cetyl Alcohol	2.00
5. MACKAMIDE AME-100	0.50
6. Masil S F V	0.50
7. MACKSTAT DM	qs
8. Fragrance	qs
9. Deionized Water	qs
pH specs.: 5.00-7.2	

Procedure:

1. Into the manufacturing tank add #9, 1, 2, 3, 4, 5 and start heating.
2. Once the temperature is warm enough to dissolve the wax start mixing and keep heating to 75 degrees C (170F.).
3. Mix well for 10 minutes, then start slow cooling and reduce mixing speed to avoid aeration.
4. At 40 degrees C. (105F.) add #6, then #7 and use very slow mixing.
5. Let product cool slowly and add #8 and mix in.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula
No. AY-147

CREAMY HYDROGEN PEROXIDE PERM NEUTRALIZER

Each 1000 ml of finished product contains:

INGREDIENTS	Grams/Liters
Deionized Water	800.00
Methylparaben	1.00
Disodium Phosphate	1.00
Sodium Lauryl Sulfate	28.00
Mineral Oil	10.00
Cetyl Alcohol	5.00
Ceteth-2	5.00
Hydrogen Peroxide, 35%	68.00
Phosphoric Acid, 85% (to pH 4.0)	0.80
Deionized Water	9.5 to 1 liter

Heat first part of water to 75C, add methylparaben, phosphoric acid and sodium lauryl sulfate with moderate mixing after each addition. Hold at 75C for five minutes.

Heat mineral oil, cetyl alcohol and ceteth-2 in separate kettle to 70C with stirring. Add this mixture in small increments to the aqueous phase with moderate stirring. Hold temperature at 70C for 15 minutes during agitation.

Carefully cool to 25C or room temperature. This cooling step is crucial and the optimum rate of temperature drop is 1C per 90 seconds.

When mixture is cool, add the hydrogen peroxide and stir for 5 minutes. Adjust pH to 4.0 with phosphoric acid and make up to final volume with deionized water.

Finished Formula Properties:

Appearance: White creamy emulsion
 pH at 25C: 3.9-4.1
 Specific Gravity at 25/25C: 0.995-1.05
 Hydrogen Peroxide: 2.38+-0.2%
 Max. loss after 20 hr. boil: 7%

HYDROGEN PEROXIDE PERM NEUTRALIZER

INGREDIENTS	% By Weight
Deionized Water	80.00
Disodium Phosphate	0.10
Hamp-ex 80	0.03
Brij-35	0.70
Fragrance	q.s.
Deionized Water	7.00
Hydrogen Peroxide, 35%	6.00
Phosphoric Acid, 85% to pH 4.0	approx. 0.08
Deionized Water	q.s.

Mix water, disodium phosphate and Hamp-ex 80. In separate kettle, melt Brij-35 and mix in fragrance. Add this mixture to the 7 parts of water while mixing and pump this into water, phosphate, Hamp-ex 80 solution. Add peroxide, adjust pH and add final water charge as needed.

Finished Formula Properties:

pH @ 25C: 3.9-4.1 Hydrogen Peroxide Content: 2.1%+-0.1
 Maximum Peroxide Loss: 7% after 20-hour boil

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formulas

CURL ACTIVATOR

RAW MATERIALS	Sequence	% By Weight
Carnation Mineral Oil	1	8.7
Liponate MM	1	4.0
Super Hartolan	1	0.3
Lipowax D	1	2.8
Crodalan LA	1	1.0
Lipo GMS 470	1	3.0
Squalane	1	0.6
Lipoquat R	2	1.0
Lipocol S-20	2	1.0
Glycerine	2	2.0
Lipamide MEAA	2	1.5
Panthenol	2	0.4
Crostein HKP	2	0.5
Water	2	73.2
Preservatives	2	q.s.
Perfume	3	q.s.
Color	3	q.s.

Procedure:

1. Heat Sequence 1 to 80C.
2. Heat Sequence 2 to 85C, add to Sequence 1 slowly with good agitation.
3. Stir down to 45C and add Sequence 3.
4. Cool to 30C and fill off.

SOURCE: Lipo Chemicals Inc.: No. 176

CURL ACTIVATOR

RAW MATERIALS	% By Weight
GLUCQUAT 100	3.00
Deionized Water	32.00
UCON LB-1715	15.00
SD Alcohol 40	50.00

Procedure:

Dissolve GLUCQUAT 100 into water. Separately dissolve UCON LB-1715 into SD Alcohol 40. Combine phases and mix until uniform. Package in a pump sprayer.

Description:

Clear product applied via pump spray. GLUCQUAT 100 helps in curl activation by maintaining moisture while it conditions the hair, leaving it more manageable. In addition, it contributes to sheen along with the UCON LB-1715.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formulation T62-76-3

DEEP SOFTENING CONDITIONER

RAW MATERIALS	% By Weight
Emulsifying Wax N.F.	6.0
Propylene Glycol	3.0
MACKERNIUM SDC-85	3.0
MACKESTER IDO	3.0
Glyceryl Monostearate	2.0
MACKALENE 426	2.0
MACKPRO NLP	1.0
MACKAMIDE AME-100	1.0
MACKSTAT DM	qs
Deionized Water, Fragrance qs to	100.0

Procedure:

1. Melt first five components and heat to 150 deg. F.
2. Heat water, MACKPRO NLP and MACKAM AME-100 to 150 deg. F.
3. Slowly add water to the oil phase and blend for 30 minutes.
4. Add preservative and MACKSTAT DM at 110 degrees F.
5. Cool and fill.

FOAMING CONDITIONER

RAW MATERIALS	% By Weight
MACKAM 35	10.0
MACKALENE 116	15.0
MACKPRO NLP	4.0
Natrosol 250 HHR	0.7
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Thoroughly disperse the Natrosol in water and heat to 45 degrees C.
2. Add MACKAM 35, MACKALENE 116 and MAKPRO NLP.
3. Blend until clear.
4. Add MACKSTAT DM, fragrance and dye.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

DESENSITIZING SPRAY

RAW MATERIALS	% By Weight
Mineral oil light grade	47.6
Benzyl Alcohol	2.3
MACKOL 1618	2.3
Panalane L 14	47.6
Fragrance	qs

Procedure:

1. Heat the Mackol 1618 in the mineral oil to completely dissolve it at (130F).
2. Add this solution to the remaining ingredients.
3. Warm to 110 degrees F. and mix until everything is clearly mixed.

Note: At cool temperatures the Mackol will become visible in the solution but will redissolve at appr. 55 degrees F.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary:
Experimental Formulation AY 110-AY112

HAIR RELAXER CREAM

INGREDIENTS	% By Weight
Evanol	6.50
Sodium Lauryl Sulfate	0.02
Ammonium Thioglycolate, 60%	11.68
Aqueous Ammonia, 28%	3.87
Perfume--Rose	0.30
Water	q.s.

If you wish to use Thioglycolic Acid, 80% in place of Ammonium Thioglycolate, 60% use:

Thioglycolic Acid, 80%	8.75
Aqueous Ammonia, 28%	8.40

JERRY CURL LOTION

RAW MATERIALS	% By Weight
Ammonium Thioglycolate, 60%	11.67
Hamp-ex 80	.20
Ammonia to pH 9.0, 28%	4.20
Brij 35	0.10
Fragrance (if desired)	0.10
Water	q.s.

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formulas

EASY TO RINSE POMADE

RAW MATERIALS	% By Weight
Petrolatum	72.7
Light Mineral Oil	20.0
PHOSPHOLIPID PTS	3.3
PPG-20 Lanolin Ether	4.0

Procedure:

Add mineral oil to petrolatum. Heat to 65C with agitation. Add PHOSPHOLIPID PTS and PPG-20 Lanolin Ether, agitate until uniform.

Formula F-565

EXTRA HOLD CONDITIONING MOUSSE

RAW MATERIALS	% By Weight
I. Amphomer	3.75
Aminomethyl Propanol	0.60
Dow Corning 929 Emulsion	0.40
PHOSPHOLIPID EFA	0.60
SD3A Alcohol	10.00
Water	37.35
II. Hydroxyethyl Cellulose	0.30
Water	37.00
III. Propellant	10.00

Procedure:

Prepare Part I and II separately. To prepare Part II, carefully sprinkle hydroxyethyl cellulose into water with good agitation. Heat may be applied to help solubilization. Blend Part II to I and then aerosolize.

Formula F-554

FINISHING SPRAY

RAW MATERIALS	% By Weight
SD Alcohol 40	94.10
Resyn 28-1310	3.75
Water	1.20
Aminomethyl Propanol	0.35
PHOSPHOLIPID EFA	0.60

Procedure:

Add Resyn 28-1310 to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients, color, fragrance and package.

Formula F-526

SOURCE: Mona Industries, Inc.: Formulas

EMOLLIENT HAIR DRESSING

INGREDIENTS	% By Weight
Lanolin	25.0
Microcrystalline Wax	3.0
Mineral Oil	33.0
Petrolatum (Ultra White)	28.0
Sandopan KST	4.0
Velsan D8P-3	7.0
Dye, Fragrance	Q.S.

Procedure:

Heat with mild agitation to 80C. Cool to 40C. Add color and perfume.

Soft yellow wax hair dressing that imparts sheen and combability. SANDOPAN KST helps remove product from hair at future shampooing.

SOURCE: Sandoz Chemicals Corp.: Ethnic Hair Care: Formulation CHC-30A

SCALP TREATMENT

INGREDIENTS	% By Weight
Deionized Water	92.98
Propylene Glycol	2.0
HEXAPLANT RICHTER	3.0
COSMEDIA GUAR C-261	1.0
Kathon CG	.02
NUTRILAN I	1.0

Procedure:

- 1) After dissolving propylene glycol and HEXAPLANT in the water, use vigorous agitation to disperse and dissolve the Guar in system.
- 2) Using vigorous agitation, slowly sprinkle in NUTRILAN I and stir until dispersed uniformly.

Comments:

In herbal medicine, HEXAPLANT RICHTER has application of sensitive and easily irritated scalps and the maintenance for healthy hair.

SOURCE: Henkel: CLR Herbal Extracts: Formula H-4962

EXOTHERMIC PERMANENT WAVE LOTION
NORMAL HAIR FORMULA

INGREDIENTS	% By Weight
Water	60.00
Ammonium Thioglycolate, 60%	27.60
Hamp-ol 120	0.28
Aqueous Ammonia, 28%	3.43
Brij 35	0.78
Fragrance	0.18
Water	10.00
Emulsifier K-700	1.10
Sulfuric Acid	*
Aqueous Ammonia	*
Water	q.s.
* As needed to adjust pH	

Finished Formula Properties:

pH: 8.8-9.2

Free Ammonia: 0.86-1.06 gms NH₃ per 100 ml

Fill Weight: 95.0-98.1 gms

Thioglycolic Acid Content: 16.56+/-0.1%

HEAT ACTIVATOR

INGREDIENT	% By Weight
Deionized Water	87.19
Hydrogen Peroxide, 35%	12.63
Disodium Phosphate	0.10
Phosphoric Acid	0.80

Finished Formula Properties:

pH: 3.9-4.1

Hydrogen Peroxide Content: 4.42+/-0.10%

Maximum Peroxide Loss: 7% loss after 20 hour boil

Fill Weight: 19.8-20.8 gms

After mixing 91.0 ml of the Exothermic Wave Lotion with 20.0 ml of the Heat Activator, the following should be observed:

Regular Formula:

pH: 8.8-9.2

Free Ammonia: 0.70-0.90 gms NH₃ per 100 ml

Thioglycolic Acid Content: 9.2%

Temperature Rise: 18-20C

Unlike normal permanent waves, the fill weights and the strengths of the lotions and the peroxide heat activator require very close tolerances. Too little or too much, either as fill weight or concentration of active, for either component, will cause variations in final activity or temperature.

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formula

EXOTHERMIC PERMANENT WAVE LOTION
TINTED HAIR FORMULA

INGREDIENTS	% By Weight
Water	60.00
Ammonium Thioglycolate, 60%	21.97
Hamp-ol 120	0.28
Aqueous Ammonia, 28%	2.97
Brij 35	0.78
Fragrance	0.18
Water	10.00
Emulsifier K-700	1.10
Sulfuric Acid	*
Aqueous Ammonia, 28%	*
Water	q.s.

* As needed to adjust pH

Finished Formula Properties:

pH: 8.8-9.2

Free Ammonia: 0.68-0.88 gms NH₃ per 100 ml

Fill Weight: 94.0-97.1 gms

Thioglycolic Acid Content: 13.18+/-0.1%

HEAT ACTIVATOR

INGREDIENT	% By Weight
Deionized Water	87.19
Hydrogen Peroxide, 35%	12.63
Disodium Phosphate	0.10
Phosphoric Acid	0.80

Finished Formula Properties:

pH: 3.9-4.1

Hydrogen Peroxide Content: 4.42+/-0.10%

Maximum Peroxide Loss: 7% loss after 20 hour boil

Fill Weight: 19.8-20.8 gms

After mixing 91.0 ml of the Exothermic Wave Lotion with 20.0 ml of the Heat Activator, the following should be observed:

Tinted Formula:

pH: 8.8-9.2

Free Ammonia: 0.50-0.70 gms NH₃ per 100 ml

Thioglycolic Acid Content: 6.44%

Temperature Rise: 18-20C

Unlike normal permanent waves, the fill weights and the strengths of the lotions and the peroxide heat activator require very close tolerances. Too little or too much, either as fill weight or concentration of active, for either component, will cause variations in final activity or temperature.

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formula

FINE, MISTY HAIRSPRAY: PUMP

RAW MATERIALS	% By Weight
AMPHOMER LV-71	5.00
AMP-95	1.03
Monamid 716	0.20
DC 190 Silicone	0.05
Glycerine	0.05
Citroflex-2	0.10
Fragrance	Q.S.
190 Proof Ethanol	93.57
Hydrocaron Propellant	X

FINE, MISTY HAIRSPRAY: AEROSOL

RAW MATERIALS	% By Weight
AMPHOMER LV-71	3.50
AMP-95	0.72
Monamid 716	0.15
DC 190 Silicone	0.05
Glycerine	0.05
Citroflex-2	0.05
Fragrance	Q.S.
190 Proof Ethanol	65.48
Hydrocarbon Propellant	30.00

Preparation:

While maintaining good agitation on the alcohol, slowly add AMPHOMER LV-71 to the vortex. Avoid lump formation. Add AMP-95 and mix until solution is complete. Add the remaining ingredients except propellant. When solution is complete, filter and fill concentrate. For aerosol, crimp valve and charge propellant.

HIGH GLOSS HAIRSPRAY

RAW MATERIALS	% By Weight
AMPHOMER LV-71	4.00
AMP-95	0.83
DC-193 Silicone	0.30
DC-556 Silicone	0.30
Fragrance	Q.S.
190 Proof Ethanol	94.57

Preparation:

While maintaining good agitation on the alcohol, slowly add AMPHOMER LV-71 to the vortex. Avoid lump formation. Add AMP-95 and mix until solution is complete. Add remaining ingredients. When uniform and completely dissolved, filter and fill.

SOURCE: National Starch and Chemical Co.: AMPHOMER LV-71:
Formulas

FINISHING RINSE

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	95.35
Liponic EG-1	1	0.10
Panthenol	1	0.05
Kathon CG	1	0.05
Methylparaben	1	0.15
10% Phosphoric Acid Solution	1	0.05
Propylparaben	1	0.05
Lipocol C	2	2.70
Stearyl Alcohol	2	0.25
Lipowax D	2	0.50
Lipamine SPA	2	0.25
Lipoquat R	2	0.50

Procedure:

1. Combine Sequence 1 ingredients in main kettle and heat to 80C under Lightnin' mixing.
2. In a side kettle, combine Sequence 2 ingredients and heat to 78C under Lightnin' mixing.
3. Add Sequence 2 to Sequence 1 and mix for 15 minutes at 80C.
4. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: No. 502

HAIR MASK AND INTENSIVE HAIR CONDITIONING TREATMENT

RAW MATERIALS	% By Weight
I. Lanette O	4.0
Eumulgin B 2	1.0
Eutanol G	1.0
Lanolin	2.0
Comperlan KM	2.0
II. Dehyquart A	8.0
Glycerin 86%	4.0
Nutrilan I-50	8.0
Water	ad 100
III. Perfume oil	0.4

pH-value: ca. 4

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formula no. 90/159/21

FIRM HOLDING/HIGH HUMIDITY HAIR SPRAY

INGREDIENTS	% By Weight
STEPANHOLD EXTRA	15.00
Aminomethyl Propanol	0.38
Dimethicone Copolyol Surfactant	0.20
SDA-40A Alcohol	84.42
Fragrance	q.s.

Mixing Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add STEPANHOLD EXTRA and mix until completely dissolved. Add Dimethicone copolyol and mix thoroughly. Add desired fragrance and mix well.

Formula PF-0158 suggested by Stepan Co.

FIRM HOLDING LUSTER SPRITZ

INGREDIENTS	% By Weight
STAPANHOLD EXTRA	15.00
Aminomethyl Propanol	0.38
Cyclomethicone	0.30
Panthenol	0.45
SDA-40A Alcohol	83.84
Fragrance	q.s.

Mixing Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add STEPANHOLD EXTRA and mix until thoroughly dissolved. Add Cyclomethicone mixing thoroughly. Add panthenol and mix until dissolved. Add desired fragrance and mix well.

Formula PF-0159 suggested by Stepan Co.

CONDITIONING FIRM HOLD HAIR SPRAY

INGREDIENTS	% By Weight
STEPANHOLD EXTRA	13.75
Aminomethyl Propanol	0.35
AMMONYX KP A	0.50
Methyl Gluceth-20	0.25
SDA-40A Alcohol	85.15
Fragrance	q.s.

Mixing Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add STEPANHOLD EXTRA and mix until completely dissolved. Add AMMONYX KP and mix thoroughly. Add methyl gluceth-20 and mix until completely dissolved. Add desired fragrance and mix well.

Formula PF-0160 suggested by Stepan Co.

SOURCE: Angus Chemical Co.: ANGUS Product Formulary

FOAM CONDITIONER

RAW MATERIALS	% By Weight
Luviquat HM 552	10.0
Luviquat Mono CP	0.5
Water	79.5
Propane/butane 25:75	10.0
Perfume	q.s.
Preservatives	q.s.

Properties: Dry, stiff foam for normal setting action

Applications: Shake before use. Turn upside down before actuating valve.

Preparation: Weigh out all ingredients and mix. Fill with propellant.

Formula No. 02/044

FOAM CONDITIONER

RAW MATERIALS	% By Weight
Luviquat FC 550	5.0
Cremophor A 25	0.2
Luviquat Mono CP	1.0
Comperlan KD	0.1
Ethanol	10.0
Distilled water	73.7
Perfume	q.s.
Preservatives	q.s.
Propane/butane 25:75	10.0

Properties: Dry, very stiff foam for light setting action

Applications: Shake before use. Turn upside down before actuating valve.

Preparation: Weigh out all ingredients and stir together to dissolve. Fill with propellant.

Formula No. 02/071

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552: Formulas

FOAM RINSE

RAW MATERIALS	% By Weight
A Cremophor A 25	1.0
Luvitol EHO	1.0
Cetylstearyl alcohol	4.0
B Water	80.0
Preservatives	q.s.
Luviquat FC 905	4.0
C Perfume	q.s.
D Propane/butane 40/60	10.0

Properties: Soft, white foam

Application: Shake before use. Turn upside down before actuating valve.

Preparation: Heat phases A and B separately to ca. 70C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in phase C. Fill up with propane/butane.

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552:
Formula No. 03/013

HAIR RINSE FOR STRESSED AND DAMAGED HAIR

RAW MATERIALS	% By Weight
EMULGADE 1000 NI	4.0
Eutanol G	2.0
Copherol F 1300	2.0
DEHYQUART A	4.0
Perfume, preservative	q.s.
Water	ad 100.0

SOURCE: Henkel: R-CC Cospha: Formulation no. 89/322/8

HAIR SETTING LOTION

RAW MATERIALS	% By Weight
LUVISKOL VA 64	7.0
Luviquat Mono CP	1.0
Ethanol	10.0
Water	82.0
Perfume	q.s.

Properties: Clear solution. Improves wet-combability and sets dried hair.

Preparation: Weigh out and dissolve by stirring.

SOURCE: BASF Corp.: LUVIQUAT Mono CP: Formula

GLOSSING HAIR CONDITIONER

RAW MATERIALS	% By Weight
A. Water	91.25
Citric Acid	0.50
B. TEGAMINE 18	1.25
TEGIN	3.00
Ceteth-2	1.50
ABIL Wax 2440	0.35
C. Propylene Glycol	0.90
ABIL Quat 3272	0.40
D. ABIL B 8851	0.25
Sodium Chloride - 25% aqueous solution	0.60
E. Color, Fragrance, Preservatives	QS

Procedure:

1. Heat the water to 70C. Add and disperse the Citric Acid.
2. Add the ingredients of phase B to phase A. One at a time, mixing between additions. After all additions are made mix until homogeneous.
3. Cool batch to 40C. Mix phase C and add to A/B. Use sweep mixer.
4. Add remaining ingredients. Mix until uniform using sweep mixer.

This conditioner provides exceptional hair control, wet and dry combability, and gives a soft gloss to the hair.

PUMP SPRAY CONDITIONER

RAW MATERIALS	% By Weight
TEGAMINE 18	1.00
Glycerin	10.00
Propylene Glycol	10.00
Preservatives	
Phosphoric Acid	to pH 5.0
Water	77.60
ABIL B 88183	1.00
Sodium Chloride	0.50

Heat the water to 65C. Add the Glycerin, Propylene Glycol, Dimethicone Copolyol, Sodium Chloride and preservatives. Mix until clear. Add the Stearamidopropyl Dimethylamine and adjust the pH. Cool and fill into pump spray units.

A combable pump spray conditioner that provides gloss and sheen to the hair.

SOURCE: Goldschmidt Chemical Corp.: Formulas

HAIR CARE LOTION

RAW MATERIALS	% By Weight
I. Demineralized Water	63,75
Carbopol 941	0,20
PHYLDERM FILATOV AQUEUX	12,50
LIQUIDE AMNIOTIQUE BOVIN	12,50
Triethanolamine 99% (50% sol.) (Q.S. pH 6,8-7,0)	0,75
II. ATELOGLYCANE	5,00
Demineralized Water	5,00
Preservative	Q.S.
Water Soluble Perfume	0,30

Preparation:

Part I:

Disperse the Carbopol in water. Let stand and add the other components of Part I.

Then add the T.E.A. solution in order to obtain a pH around 6,8-7,0.

Then add II and other components.

SOURCE: Gattefosse: Formula PL 262

HAIR LOTION, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	417.0 ml
Vitamin H	1.0 g
b) Water, distilled	583.0 ml
Inositol	1.0 g
Calcium D-pantothenate	1.0 g
Dehyquart A	20.0 g
c) Biosulphur Fluid	5.0 g

Manufacture:

a) dissolve;

b) dissolve and stir into a);

c) stir in.

Perfume.

Aqueous-alcoholic preparation

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 5

HAIR CARE RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Emulgade 1000 Ni	4,0
Eutanol G	2,0
Copherol 1250	2,0
II. Dehyquart A	4,0
Water, demin. preservative	88,0
pH-value: 4	
Viscosity in mPas: 10000	
Formula no. 89/322/7	

HAIR CARE RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Emulgade 1000 Ni	4,0
Eutanol G	2,0
Copherol F 1300	2,0
II. Dehyquart A	4,0
Water, demin. preservative	88,0
pH-value: 4	
Viscosity in mPas: 10000	
Formula no. 89/322/8	

HAIR CARE RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Emulgade SE	6,0
Lanette O	1,0
Cetiol V	2,0
Copherol 1250	2,0
II. Dehyquart A	4,0
Water, demin. preservative	86,0
pH-value: 4	
Viscosity in mPas: 4000	
Formula no. 89/322/12	

SOURCE: Henkel: Cosmetics No. XXIII/90: Formulas

HAIR COLORANT SHAMPOO BASE-DOMESTIC VERSION

INGREDIENT	% By Weight
Demineralized Water	44.3500
Methyl Paraben	0.2000
Propyl Paraben	0.1000
Jaguar C-14-S	1.0000
Miranol C2MSF Conc	8.0000
Ammonyx CDO	14.0000
Ammonyx CTAC	4.0000
Standamid SD	3.0000
Abiol	0.2000
Citric Acid	0.1500
Demineralized Water	24.0000
Arianor Dye	>1.0000

Procedure:

1. Disperse the Parabens and Jaguar in cold water.
2. Begin heating to 75C. with agitation adjusted to avoid aeration.
3. Mix at 75C. until all Jaguar has dissolved and batch is lump free.
4. Remove heat.
5. Add Miranol, Ammonyx CDO, Ammonyx CTAC, and Standamid in order, mixing well between each addition.
6. Force cool to room temperature.
7. Add Abiol and adjust pH to 8.5 if necessary with citric acid.

SOURCE: TRI-K Industries, Inc.: Code: USHL1

HAIR RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Lanette O	8,0
Eumulgin B2	2,0
Eutanol G	4,0
Copherol 1250	2,0
II. Dehyquart A	2,0
Glycerol 86%	4,0
Water, demin.	78,0

pH-value: 4

Viscosity in mPas: 150000

SOURCE: Henkel: Cosmetics No. XXIII/90: Formula no. 89/322/2

HAIR COLORANT SHAMPOO BASE..PROFESSIONAL FORM

INGREDIENT	% By Weight
Demineralized Water	9.3500
Methyl Paraben	0.2000
Propyl Paraben	0.1000
Jaguar C-14-S	0.5000
Miranol C2MSF Conc	4.0000
Ammonyx CDO	7.0000
Ammonyx CTAC	2.0000
Standamid SD	1.5000
Abiol	0.2000
Citric Acid	0.1500
Demineralized Water	24.0000
Arianor Dye	>1.0000
Demineralized Water	47.0000
Standamid SM	3.0000

Procedure:

1. Disperse the Parabens and Jaguar in cold water.
2. Begin heating to 75C. with agitation adjusted to avoid aeration.
3. Mix at 75C. until all Jaguar has dissolved and batch is lump free.
4. Remove heat.
5. Add Miranol, Ammonyx CDO, Ammonyx CTAC, and Standamid in order, mixing well between each addition.
6. Force cool to room temperature.
7. Add Abiol and adjust pH to 8.5 if necessary with citric acid.

Prepare Color Solution by dissolving appropriate dye composition in formula amount of water.

Prepare Cocamide MEA Solution by dissolving amide in water (heating if necessary).

Combine Shampoo Base, Color Solution and Amide Solution together and mix until uniform.

SOURCE: TRI-K Industries, Inc.: Code PSHL1

HAIR CONDITIONER, FOR APPLICATION TO STRESSED HAIR TYPE O/W

RAW MATERIALS	% By Weight
a) Elacid Richter	10.00
b) Water, distilled, preserved	89.65
Citric or lactic acid	0.30
Aminodermin CLR	0.05

Manufacture:

- a) melt and bring to about 65C;
 b) heat to about 65C, dissolve and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume.
 It is not imperative to homogenize.

Viscous preparation

HAIR CONDITIONER FOAM, FOR APPLICATION TO STRESSED HAIR TYPE O/W

RAW MATERIALS	% By Weight
a) Elacid Richter	8.00
b) Water, distilled, preserved	90.00
Tween 20	1.00
Citric or lactic acid	0.30
Aminodermin CLR	0.05
c) Perfume oil	0.65

Manufacture:

- a) melt and bring to about 65C;
 b) heat to about 65C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.

Concentrate:

Product	80.0%
Propellant 12/114 4060	20.0%

Valve:

04-1220
 05-0310
 06-6010
 07-1901
 12-1361

Foam actuator:

02-1324

Note: Shake before use.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 11

HAIR CONDITIONER (RINSE OUT)

RAW MATERIALS	% By Weight
Cremophor A6	1.5
Cremophor A25	1.5
Luvitol EHO	3.0
Cetyl/stearyl alcohol	4.0
Luviquat FC 905	2.0
D-Panthenol USP	3.0
Citric Acid	0.3
Preservative	0.5
Perfume	0.2
Water	84.0

HAIR CONDITIONING GEL

RAW MATERIALS	% By Weight
Carbopol 940 (1% in water)	70.0
Triethanolamine (10% in water)	10.0
Luviquat FC 370	1.0
Cremophor NP 10	0.5
Cremophor NP 14	0.5
Perfume	0.1
D-Panthenol USP	1.0
Preservative	0.5
Uvinul M 40	0.1
Water	16.3

HAIRSPRAY

RAW MATERIALS	% By Weight
Luviset CAP	2.0
AMP	0.16
D-Panthenol 50P	0.3
Ethanol	57.84
Propane/Butane (40/60)	30.0

SOURCE: BASF Corp.: D-Panthenol: Formulas

HAIR CONDITIONER-WAVE SET

COMPONENT	% By Weight
Polymer JR-400	1.0
TERGITOL Nonionic Surfactant 15-S-12	0.1
"Hyamine" 1622	0.006
Deionized water, perfume	98.894

Preparation:

Dissolve the TERGITOL Nonionic Surfactant 15-S-12 and "Hyamine" 1622 in the water. Add the Polymer JR while stirring, and continue mixing until the resin is dissolved (approximately 40 minutes to 1 hour). The rate of hydration of the resin can be increased by heating (60C). Finally, add the perfume as desired.

HAIR CONDITIONER-WAVE SET WITH ALCOHOL

COMPONENT	% By Weight
Polymer JR-400	1.0
TERGITOL Nonionic Surfactant 15-S-12	0.05
Triethylene Glycol	0.05
Methyl p-Hydroxybenzoate	0.05
SDA-40	25.0
Deionized water, perfume	73.85

Preparation:

Dissolve the TERGITOL Surfactant 15-S-12 and preservative in the water. Add the Polymer JR while stirring, and continue mixing until the resin is dissolved. Introduce the alcohol into the formula. Finally, add perfume as desired. The use of hot water (60C) will increase the rate of solution for Polymer JR.

HAIR SETTING LOTION

COMPONENT	% By Weight
Polymer JR-30M	2.0
TERGITOL Nonionic Surfactant 15-S-12	0.1
Wilson's Protein WSP X-250	0.1
"Hyamine" 1622	0.006
Water	97.694

Preparation:

Dissolve TERGITOL Surfactant 15-S-12 and "Hyamine" 1622 in the available water. Add the Polymer JR-30M while stirring, and continue mixing until the polymer is dissolved. Stir in the protein WSP X-250, and continue agitation until solution is complete.

SOURCE: Amerchol Corp.: Polymer JR: Formulas

HAIR CONDITIONER WITH MOISTURIZERS

RAW MATERIALS	% By Weight
MACKOL 1618	3.0
MACKERNIUM SDC-85	3.0
Propylene Glycol	1.0
Glycerin	1.0
MACKAMIDE AME-100	1.0
Mineral Oil	1.0
MACKPRO NLP	2.0
MACKSTAT DM	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 3.5-4.5

Viscosity: 1500-3000

Procedure:

1. Melt waxes and oils to 70 degrees C.
2. Separately heat water plus MACKPRO NLP to 70 degrees C. and add hot water solution to hot oils and waxes.
3. Start stirring vigorously for 10 minutes and then start slow cooling while mixing and at 40 degrees C. add MACKSTAT DM, then fragrance and dye and slow mixing down close to room temperature.
4. Stop mixing at 30 degrees C.
5. Adjust pH with citric acid.

HAIR CONDITIONER CONCENTRATE

RAW MATERIALS	% By Weight
MACKERNIUM SDC-85	3.0
Brij 58	3.2
MACKOL 16	8.8
Peg 600 Distearate	3.0
MACKPRO NLP	2.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Melt first four components to 70 degrees C. and blend until clear.
2. Add MACKPRO NLP to water and heat to 70 degrees C.
3. Add oil phase to water and blend until homogenous.
4. Adjust pH to 5.0 with lactic acid.
5. Cool to 45 degrees C. and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HAIR CONDITIONING CREME RINSE

RAW MATERIALS	% By Weight
GLUCQUAT 100	3.0
CELLOSIZÉ Polymer PCG-10	0.6
PROMULGEN D	4.5
CETAL	1.2
Hydolyzed Animal Protein	0.3
Deionized Water	90.4
Perfume and preservative	q.s.

Procedure:

Add CELLOSIZÉ Polymer PCG-10 to room temperature water with propeller agitation. Heat to 75C. When polymer is fully hydrated, dissolve GLUCQUAT 100, hydrolyzed animal protein and preservative, in that order, waiting for each ingredient to dissolve before adding the next. In a separate container, heat PROMULGEN D and CETAL to 75C, mix, and add to batch. Mix until uniform, and cool to room temperature with adequate mixing.

Description:

GLUCQUAT 100, the cationic substantive conditioning agent in this formula, provides good wet combing, manageability, shine and feel properties. PROMULGEN D acts as an o/w emulsifier. CELLOSIZÉ Polymer PCG-10 helps build viscosity.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T60-150-1M

STYLING AND CONDITIONING MOUSSE

CONCENTRATE FORMULA	% By Weight
AMERSIL DMC-357	2.0
AMERSETTE	2.0
SD Alcohol 40	15.0
Deionized Water	81.0
Preservative	qs

Concentrate Procedure:

Dissolve AMERSETTE in SD Alcohol 40. Once clear and uniform, add AMERSIL DMC-357, deionized water, and preservative in the order listed while waiting for each ingredient to dissolve before adding the next.

Aerosol Fill Procedure:

Fill aluminum mousse can and charge with A-46 propellant using a 90% concentrate to 10% propellant ratio.

Description:

AMERSIL DMC-357 is the sole ingredient in the formation of the mousse "foam" in the aerosol system. In addition, it contributes to the plasticization of the AMERSETTE styling resin while conditioning and adding shine to the hair.

SOURCE: Amerchol Corp.: AMERSIL Surfactants: Formula T65-15-2

HAIR CONDITIONING RINSE

RAW MATERIALS	% By Weight
Emulgade 1000 Ni	5.0
Eutanol G	2.0
Dehyquart A	4.0
Comperlan 100	1.5
Nutrilan Keratin W	5.0
Glycerin 86%	3.0
Colour: Sicomet Blue S 42090	0.10%
Water, preservative, perfume	ad 100
pH-adjustment: 4-4.5	
Viscosity in mPas: 10000 after production	
12000 after 12 weeks	
Formula no. 89-103-6	

HAIR CONDITIONING RINSE

RAW MATERIALS	% By Weight
Emulgade 1000 Ni	4.0
Cetiol V	2.0
Dehyquart A	4.0
Comperlan 100	1.5
Nutrilan Keratin W	5.0
Glycerin 86%	3.0
Colour: Sicomet Blue S 42090	0.10%
Water, preservative, perfume	ad 100
pH-adjustment: 4-4.5	
Viscosity in mPas: 9200 after production	
7200 after 12 weeks	
Formula no. 89-103-3	

HAIR CONDITIONING RINSE

RAW MATERIALS	% By Weight
Emulgade 1000 Ni	4.0
Cetiol V	2.0
Dehyquart A	4.0
Cutina EGMS	2.0
Nutrilan Keratin W	5.0
Glycerin 86%	3.0
Colour: Sicomet Blue S 42090	0.10%
Water, preservative, perfume	ad 100
pH-adjustment: 4-4.5	
Viscosity in mPas: 8800 after production	
8400 after 12 weeks	
Formula no. 89-103-4	

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

HAIRDRESSING CREAM, VITAMIN CONTENT TYPE W/O

RAW MATERIALS	% By Weight
a) Protegin II	14.0
Vaseline	2.5
Vaseline oil	19.7
Vitamin F Ethyl Ester CLR	2.0
b) Water, distilled, preserved	60.9
Luviskol K30, powder	0.6
Magnesium sulphate	0.2
Borax	0.1

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume, roll.

Model formulations 30

HAIR DRESSING GEL, VITAMIN CONTENT

RAW MATERIALS	% By Weight
a) Ethyl alcohol 96 vol. %	35.0
Water, distilled	40.0
Carbopol 934	1.0
b) Water, distilled	14.2
Triethanolamine	0.8
Glycerin	5.0
c) Vitamin F alcohol-soluble CLR	2.0
d) Nutrilan L	2.0

Manufacture:

- a) disperse at room temperature with rapid stirring;
 b) slowly stir into a);
 c) and d) stir in slowly.
 Perfume.

Model formulations 32

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

HAIRDRESSING & HIGHLIGHTER

RAW MATERIALS	% By Weight
MACKESTER TD-88	25.0
Lanolin Anhydrous	17.0
Paraffin Wax	10.0
MACKESTER IDO	10.0
Polybutene	33.3
MACKANATE DOS-70PG	4.0
BHT	0.2
Fragrance	0.5

Procedure:

Melt all ingredients at 70 degrees C. Mix slowly while cooling and add fragrance at 38 degrees C. Mix in and fill into jars.

HAIR DRESSING AND SCALP CONDITIONER

RAW MATERIALS	% By Weight
Paraffin Wax	10.2
Mineral Oil (S.G. 0.860)	35.5
Anhydrous Lanolin	12.0
MACKESTER IDO	10.0
Petrolatum	30.0
Nonoxynol-9	2.0
BHT	0.1
Fragrance	0.2

Procedure:

1. Melt all components except fragrance.
2. Hold at 165 degrees F.
3. Blend for one-half hour and cool to 115 degrees F.
4. Add fragrance.
5. Fill into containers at 110 degrees F. and allow product to set up.

HAIR GLOSSER

RAW MATERIALS	% By Weight
Petrolatum	27.0
Anhydrous Lanolin	19.0
MACKESTER TDO	18.0
Mineral Oil (S.G. 0.850)	17.0
MACKESTER IDO	9.0
Paraffin Wax	7.0
MACKANATE DOS-70PG	2.6
Fragrance	0.3
BHT	0.1

Procedure:

1. Melt components together (165 deg. F.), except for fragrance, and blend until clear.
2. Blend for one-half hour and cool to 115 deg. F.
3. Add fragrance and cool to 108 deg. F.
4. Allow to set up at about 95 deg. F.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HAIR GEL (WET GEL, DRESSING GEL)

RAW MATERIALS	% By Weight
I. Solubilisant S 12	2.0
Nutrilan Keratin W	5.0
II. Carbopol 940, 1.5% dispersion	60.0
III. Water (preservative, color, perfume)	ad 100
Nasuna B	0.3
Glycerin, 86%	3.0
Extrapon birch special	1.0
NaOH, 10% solution	3.5

pH set to 6.0

Viscosity in mPas: 32000

The stability the of formulation was tested at -5C, +8C, at ambient temperature and at +40C.

Formula no. 89/141/2

HAIR GEL (WET GEL, DRESSING GEL)

RAW MATERIALS	% By Weight
I. Eumulgin L	0.3
Nutrilan Keratin W	5.0
II. Carbopol 940, 1.5% dispersion	60.0
III. Water (preservative, color, perfume)	ad 100
Nasuna B	0.3
Glycerin, 86%	3.0
Extrapon birch special	1.0
NaOH, 10% solution	3.5

pH set to: 6.0

Viscosity in mPas: 36000

The stability of the formulation was tested at -5C, +8C, at ambient temperature and at +40C.

Formula no. 89/141/3

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

HAIR GEL (WET GEL, DRESSING GEL)

RAW MATERIALS	% By Weight
Carbopol 940, dispersion 1.5% sol.	60.0
Solubilisant S 12	2.0
Water (preservative, color, perfume)	to 100
Gludain AGP	1.0
Nasuna B	0.5
Extrapon bouleau special	1.0
NaOH, 10% sol.	2.7

pH set to 6.0

Viscosity: 80,000 mPas

The stability of the formulation was tested at -5C, +8C, at room temperature and at +40C.

Formula no. 89/149/3

HAIR GEL (WET GEL, DRESSING GEL)

RAW MATERIALS	% By Weight
Carbopol 940, dispersion 1.5% sol.	60.0
Eumulgin L	3.0
Water (preservative, colorant, perfume)	to 100
Gludain AGP	1.0
Nasuna B	0.5
Extrapon bouleau special	1.0
NaOH, 10% sol.	5.2

pH set to: 6.0

Viscosity: 84,000 mPas

The stability of the formulation was tested at -5C, +8C, at room temperature and at +40C.

Formula no. 89/149/4

SOURCE: Henkel: Cosmetics No. XIII/Lz: Formulas

NONAEROSOL HAIRSPRAY

INGREDIENT	% By Weight
Amphomer resin	2.81
Klucel EF	0.56
AMP	0.74
Ethanol (SD40-2)	95.89

Recommended formulation that increases hold and decreases formulation cost.

SOURCE: Aqualon Co.: KLUCEL EF: Formula

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Siltech HGC-5000	18.0
B) Siltech PF	4.0
SDA 40 Anhydrous*	19.0
Siltech FVC	58.8
Natural Citrus Bouquet #901219	0.1
Spectrasorb UV-9	0.1
Formula #MS-2S-45-10	

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Tri Sil HGC-5000	18.0
B) Tri Sil PF	4.0
SDA 40 Anhydrous*	19.0
Tri Sil FVC	58.8
Natural Citrus Bouquet #901219	0.1
Spectrasorb UV-9	0.1
Formula #MS-2S-45-10	

* Note: If an alcohol-free product is desired, the alcohol can be replaced by Siltech FVC.

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Siltech PF	4.0
B) Siltech HGC-5000	18.0
Siltech FVC	78.0
Formula #MS-2S-45-11	

Procedure:

Weigh A into a beaker. Prepare Phase B and mix with a propeller until clear and uniform. Add A to B while mixing. Mix until clear and uniform. Product can be dispensed through a Calmar Mark II High Viscosity spray dispenser.

Directions for Use:

Spray a small amount onto freshly shampooed hair. Massage or comb through hair for even distribution of product. Blow dry or allow hair to dry naturally. Seals and smooths the hair cuticle to provide increased shine to the hair.

SOURCE: TRI-K Industries, Inc.: Formulas

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Tri Sil PF	4.0
B) Tri Sil HGC-5000	18.0
Tri Sil FVC	78.0

Formula #MS-2S-45-11

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Siltech PF	4.0
B) Siltech HGC-5000	18.0
Siltech FVC	59.0
SD Alcohol 40	19.0

Formula #MS-2S-45-12

HAIR GLOSS SPRAY
(A Spray On Hair Laminator)

INGREDIENT	% By Weight
A) Siltech PF	4.0
B) Siltech HGC-5000	18.0
Siltech FVC	77.0
Fragrance #HJ-172	1.0

Formula #MS-2S-45-13

Procedure:

Weight A into a beaker. Prepare Phase B and mix with a propeller until clear and uniform. Add A to B while mixing. Mix until clear and uniform. Product can be dispensed through a Calmar Mark II High Viscosity spray dispenser.

Directions for Use:

Spray a small amount onto freshly shampooed hair. Massage or comb through hair for even distribution of product. Blow dry or allow hair to dry naturally. Seals and smooths the hair cuticle to provide increased shine to the hair.

SOURCE: TRI-K Industries, Inc.: Formulas

HAIR GROOM TO GRADUALLY DARKEN GREY

RAW MATERIALS	Sequence	% By Weight
Liposorb S	1	2.8
Liposorb O	1	1.0
Liposorb S-20	1	2.8
Mineral Oil (80/90 vis)	1	19.0
Butylparaben	1	0.2
Water	2	67.8
Lead Acetate	2	4.1
Precipitated Sulfur	3	1.9
Fragrance	4	0.4

Manufacturing Procedure:

1. In main kettle heat Sequence 1 to 75C with Lightnin' mixing.
2. In a separate kettle, heat Sequence 2 to 78C. Mix until lead acetate is dissolved.
3. With good Lightnin' mixing, add Sequence 2 to Sequence 1. Mix for 15 minutes.
4. Cool to 40C and add Sequence 3 slowly. Mix until sulfur is completely wetted out.
5. Add Sequence 4. Cool to 25C. Package.

Formula No. 265

IMPROVED ETHNIC HAIR SPRAY

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	59.20
Silicone 193 Surfactant	1	3.40
Glycerine 96%	1	12.00
Lipo Polyol NC	1	12.00
Liponic EG-1	1	10.40
Methylparaben	1	0.25
Unicide U-13	1	0.20
Sequestrene Na3T	1	0.05
PVP K-30	2	2.50

Procedure:

1. Combine Sequence 1 ingredients using Lightnin' mixer agitation. Heat to 60C. Be sure that methylparaben, Unicide U-13 and Sequestrene Na3T are completely dissolved.
2. At 60C, slowly sprinkle in the PVP K-30. Continue Lightnin' mixer agitation until PVP K-30 is dissolved.
3. Cool batch to 25C and package.

Formula No. 243

SOURCE: Lipo Chemicals Inc.: Formulas

HAIR LAMINATOR LIQUID

INGREDIENT	% By Weight
A) Siltech FVC	25.0
SDA 40 (Anhydrous)	5.0
B) Siltech F-10,000	6.0
Siltech F-60,000	52.5
Siltech F-1000	4.5
Siltech F-5	7.0

Procedure:

Weigh Phase A and mix. Add Phase B ingredients to Phase A while mixing. Mix until clear and uniform.

Formula #MS-2-91-1

LEAVE-ON HAIR CONDITIONER

INGREDIENT	% By Weight
A) Deionized Water	40.00
Siltech E-2145CG	2.00
B) Deionized Water	53.30
Pecogel GC-310	1.50
Tri-K "HMF" Complex	1.50
C) Propylene Glycol	1.25
Trisept M	0.15
D) Tristat IU	0.30

Procedure:

Predisperse the Siltech E-2145CG emulsion in water in side tank. Dissolve the Phase "B" ingredients one a time into remainder of water and mix until clear. Mix Phase "C" ingredients until clear and uniform. Add Phase "A" to Phase "B" while agitating. Then add Phases "C" and "D" and mix batch until uniform. Product has an off-white, translucent appearance. Product can be sprayed using a Calmar Mark II High Viscosity Head Yellow Orifice spray dispenser.

Formula #MS-2-66-2

SOURCE: TRI-K Industries, Inc.: Formulas

HAIR MASK AND INTENSIVE HAIR CONDITIONING TREATMENT

RAW MATERIALS	% By Weight
I. Lanette O	8.0
II. Dehyquart A	2.0
Glycerin 86%	10.0
Nutrilan I-50	3.0
Water	ad 100
III. Cremogen Birch leaves	4.0
Silk protein	1.0
Perfume oil	0.3
pH-value: 4.5	
Formula no.: 90/159/18	

HAIR MASK AND INTENSIVE HAIR CONDITIONING TREATMENT

RAW MATERIALS	% By Weight
I Lanette O	8,0
Eumulgin B 2	1,0
II Dehyquart A	2,0
Glycerin 86%	8,0
Nutrilan I-50	3,0
Water	ad 100
III Silk protein	1,0
Perfume oil	0,3
pH-value	
Formula no. 90/159/19	

HAIR MASK AND INTENSIVE HAIR CONDITIONING TREATMENT

RAW MATERIALS	% By Weight
I. Lanette O	8,0
II. Dehyquart A	8,0
Glycerin 86%	4,0
Nutrilan I-50	3,0
Water	ad 100
III. Cremogen Birch leaves	4,0
Silk protein	1,0
Perfume oil	0,3
pH-value: 4.5	
Formula no. 90/159/20	

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

HAIR MOISTURIZER

INGREDIENTS	% By Weight
A. Deionized Water	78.8
Hydroxyethylcellulose	0.5
Sorbitol	1.0
B. Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.0
Acetamide MEA	2.0
C12-15 Alcohols Benzoate	1.0
Dimethicone	0.5
C. LIPITEIN P	1.0
D. PEPTTEIN CAA	3.0
SOLLAGEN	5.0
E. Dimethicone	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.2

Procedure:

Begin heating water to 80C; sift Hydroxyethylcellulose into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Cool to room temperature. Slowly add LIPTEIN P, mix well. Add PEPTTEIN CAA and SOLLAGEN; mix until smooth. Add Part D ingredients. Mix until uniform.

Description:

This product is designed to moisturize and soften the hair, to increase manageability, and to reduce static fly-away. Apply to wet hair after shampooing; comb through hair and style as normal.

Formula: 614-09

HOT OIL TREATMENT

INGREDIENTS	% By Weight
A. Cottonseed Oil	86.9
Jojoba Oil	1.0
C12-15 Alcohols Benzoate	2.0
B. LIPITEIN P	10.0
C. Fragrance	0.1

Procedure:

In a suitable vessel, combine Part A ingredients. Mix until clear. Add Part B slowly. Add fragrance; mix until uniform.

Description:

This golden, liquid hair treatment should be warmed under hot, running water before using to activate the lipid. After shampooing, apply to wet hair; massage or comb through; let stand for 5 minutes; rinse. Hair will have more shine, softness, better combability and manageability as a result of LIPITEIN P.

Formula: 614-07

SOURCE: Geo. A. Hormel & Co.: Formulas

HAIR MOISTURIZING SPRAY

RAW MATERIALS	% By Weight
Deionized Water	94.5
INCROMECTANT LAMAE	3.0
CROSILKQUAT	1.0
INCROQUAT MINK-85	0.5
Germaben II	1.0

Procedure:

Warm water to 45C. Add the ingredients, mixing after each addition until clear.

CROSILKQUAT and INCROQUAT MINK-85 are an elegant way to moisturize the hair and give good static control. This spray is recommended for permed hair and relaxed hair where extra moisture may be needed.

Formula HP-151

HAIR SPRITZING SPRAY

RAW MATERIALS	% By Weight
CROVOL A-70	0.50
Aminomethyl propanol	0.45
Gantrez ES-225	9.00
Deionized Water	11.36
Ethanol SDA-40	78.19
CROSILKQUAT	0.50

Procedure:

Dissolve the neutralizer (AMP) in the alcohol. Add the Gantrez ES resin with mixing. Mix in Crovol A-70, followed by the water. When clear, add CROSILKQUAT and mix well.

The combination of CROVOL A-70 and CROSILKQUAT give good curl retention even under humid conditions. CROSILKQUAT helps prevent flaking of the resin.

Formula HP-152

SOURCE: Croda Inc.: CROSILKQUAT: Formulas

HAIR REPAIR AND CONDITIONER

RAW MATERIALS	% By Weight
A. Water	88.10
TEGIN	4.00
Mineral Oil	1.00
Cetyl Alcohol	2.00
ABIL AV-20	0.50
Ceteth-2	1.00
B. Glycerin	1.00
ABIL S 201	1.00
Sodium Poly PG-Propyl Dimethicone Thiosulfate	1.00
ABIL Quat 3272	0.40
C. Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
Citric Acid (25% Solution)	to pH 6.5

Procedure:

1. Heat the ingredients of A together with mixing to 70C.
2. Cool to 45-50C. Switch to sweep mixer.
3. Blend B. Add to A. Sweep mix. Cool to 35-40C.
4. Adjust pH. Add Color, Fragrance and Preservatives

CREAM HAIR CONDITIONER

RAW MATERIALS	% By Weight
Water	90.8
TEGIN	3.0
ABIL Wax 2440	0.3
Cetyl Alcohol	2.0
Propylene Glycol	3.0
ABIL Quat 3272	0.5
ABIL B 8851	0.4
Color, Preservatives, Fragrance	QS

Procedure:

1. Heat the water to 70-75C. Disperse the TEGIN, ABIL Wax 2440 and Cetyl Alcohol. Mix well.
2. Begin cooling. Cool to 45-50C while mixing. Mix the Propylene Glycol and the ABIL Quat 3272 together and add to the batch. Mix.
3. Switch to sweep mixer. Cool to 35-40C. Add the ABIL B 8851, Color, Preservatives and Fragrance. Mix.
4. Continue cooling. Fill.

Formula GCC 16-29

SOURCE: Goldschmidt Chemical Corp.: Formulas

HAIR RINSE, CLEAR

RAW MATERIALS	% By Weight
A Luviquat FC 905	4.0
Citric acid	0.5
Lantrol AWS	0.5
Water	94.0
Preservatives	q.s.
B Cremophor RH 40	1.0
Perfume	q.s.

Properties: Clear solution

Preparation:

Heat phases A and B separately. Slowly stir phase B into phase A.

Formula No. 05/019

HAIR RINSE WITH MOTHER OF PEARL EFFECT

RAW MATERIALS	% By Weight
A Kessco PEG 6000	2.0
Water	70.0
B Water	23.7
Citric acid	0.5
Cremophor RH 40	0.8
Luviquat FC 905	3.0
Preservatives	q.s.
C Perfume	q.s.

Properties: Liquid emulsion with mother of pearl effect

Preparation:

Heat phases A and B separately to ca. 70C. Slowly stir phase B into phase A and continue stirring until cold. At 35C, stir in phase C.

Formula No. (05/020)

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552: Formulas

HAIR RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Lanette O	8,0
Eumulgin B2	2,0
Eutanol G	4,0
Copherol F 1300	2,0
II. Dehyquart A	2,0
Glycerol 86%	4,0
Water, demin.	78,0
pH-value: 4	
Viscosity in mPas: 150000	
Formula no. 89/322/3	

HAIR RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Lanette O	6,0
Eumulgin B1	1,0
Cetiol S	3,0
Copherol 1250	2,0
II. Dehyquart E	4,0
Glycerol 86%	3,0
Water, demin.	81,0
pH-value: 4	
Viscosity in mPas: 80000	
Formula no. 89/322/17	

HAIR RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I Lanette O	6,0
Eumulgin B1	1,0
Cetiol S	3,0
Copherol F 1300	2,0
II Dehyquart E	4,0
Glycerol 86%	3,0
Water, demin.	81,0
pH-value: 4	
Viscosity in mPas: 80000	
Formula no. 89/322/18	

SOURCE: Henkel: Cosmetics No. XXIII/90: Formulas

HAIR/SCALP STIMULANT

RAW MATERIALS	Sequence	% By Weight
Water	1	q.s.
Liponic EG-1	1	5.00
Methylparaben	1	0.20
Propylparaben	1	0.05
Vivaderm	2	5.00
Hair mucopolysaccharides	2	2.00
Crotein CAA-SF	2	0.50
Panthenol	2	0.05
Kathon CG or	2	0.05*
Phenoxyethanol		0.10*

*Note: Either Kathon CG or Phenoxyethanol may be used as part of the preservative system.

Manufacturing Procedure:

1. Combine Sequence 1 ingredients in kettle equipped with Lightnin' mixer. Warm to 60C and mix until the parabens are dissolved.
2. Cool to room temperature and add Sequence 2 ingredients under Lightnin' mixer.
3. Package.
Formula No. 318

HAIR STYLING GEL

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	66.08
PVP/VA W-735	1	7.00
Kathon CG	1	0.02
Tetrasodium EDTA	1	0.05
Triethanolamine 99%	1	0.75
Hypan SA100H	2	0.10
Carbopol 940 (2% Disp'n)	3	25.00
Liponic EG-1	3	1.00

Procedure:

1. Combine Sequence 1 ingredints under Lightnin' mixing at room temperature.
2. Sprinkle Sequence 2 ingredient into Sequence 1 slowly, and continue mixing until combined Sequences 1 and 2 are uniform.
3. Add premixed Sequence 3 ingredients to batch slowly. Switch to slow sweep agitation as batch thickens to prevent aeration of powder.
4. Continue to mix until batch is uniform.
Formula No. 469

SOURCE: Lipo Chemicals Inc.: Formulas

HAIR SOFTENING GEL

RAW MATERIALS	% By Weight
1. Glucamate DOE-120	3.30
2. DEA Oleth-3 Phosphate	3.30
3. Isopar L	3.30
4. Masil S F V	3.30
5. Oleth-5 Special	1.66
6. Triethanolamine	1.22
7. MACKESTER IDO	1.66
8. PEG-8	2.23
9. Glycereth 26	1.66
10. Glyceryl Isostearate (Emery-Quantum #2410)	0.56
11. Mineral Oil	1.11
12. MACKERNIUM 007	3.30
13. Aloe Vera Solution	37.12
14. Deionized Water	35.00
15. Carbomer 940	0.56
16. Fragrance	Q.S.
17. MACKSTAT DM	Q.S.

Procedure:

1. Into a separate stainless steel vessel put #1-#11 and start very slowly heating to 40-45C. (104-113F) and mix gently to obtain a clear uniform mixture.
2. Into the main stainless steel mixing tank meter the water #14 add #13 and slowly add #15 mix thoroughly but avoid aeration.
3. Warm the solution gently to 40-45C. (104-113F.) with good mixing.
4. When all the #15 is completely dissolved add the blend #1-#11 very slowly to the main tank and mix until the product is uniform without lumps.
5. Blend in fragrance and MACKSTAT DM at about 35C. (95F.).
6. Check the pH and adjust either with #6 if too low or with a small amount of Oleic Acid.

pH: 5.8-7.2

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula AY-169-15

PRE SOFTENER GEL

INGREDIENTS	% By Weight
Glycerin	5.0
Carbopol 941	2.0-3.0
Ammonium Thioglycolate, 60%	16.7
Hamp-ex 80	0.2
Tween 20	0.5
Ammonia to pH 9.0, 28%	q.s.
Water	q.s.

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formula

HAIRSPRAY WITH NORMAL HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	2.00
AMP	0.16
Ethanol, anhydrous*	37.84
Propellant 11/12 50:50	60.00
Essential oil	q.s.

Formulation No. 1

HAIRSPRAY WITH NORMAL HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	2.00
AMP	0.16
Ethanol, anhydrous	37.84
Dimethyl ether	60.00
Essential oil	q.s.

Formulation No. 2

HAIRSPRAY WITH NORMAL HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	2.00
AMP	0.16
Methylene chloride	35.00
Ethanol, anhydrous	12.84
Propellant 11	20.00
Propane/butane (1:3) or isobutane	30.00
Essential oil	q.s.

HAIRSPRAY WITH NORMAL HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	2.00
AMP	0.16
Methylene chloride	35.00
Ethanol, anhydrous or isopropyl alcohol	32.84
Propane/butane (1:3) or isobutane	30.00
Essential oil	q.s.

* If isopropyl alcohol is used instead of ethanol, at least 10% of methylene chloride must be added.

SOURCE: BASF Corp.: LUVISET CA 66: Formulas

HAIRSPRAY WITH STRONG HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	4.00
AMP	0.32
Methylene chloride	35.00
Ethanol, anhydrous	35.68
Propane/butane (1:3) or isobutane	25.00
Essential oil	q.s.

Formulation No. 1

HAIRSPRAY WITH STRONG HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	4.00
AMP	0.32
Ethanol, anhydrous	35.68
Propellant 11/12 50:50	60.00
Essential oil	q.s.

Formulation No. 2

HAIRSPRAY WITH STRONG HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	4.00
AMP	0.32
Ethanol, anhydrous	35.68
Dimethyl ether	60.00
Essential oil	q.s.

Formulation No. 3

SOURCE: BASF Corp.: LUVISET CA 66

HAIRSPRAY

RAW MATERIALS	% By Weight
Luviskol K 30 Powder	3.0
Hairspray Additive S	0.5
Ethanol or 2-Propanol	36.5
Propellant 11/12 5050	60.0
Perfume oil	q.s.

Hairspray with a particularly good stiffening action.

SOURCE: BASF Corp.: LUVISKOL K grades: Formula

HAIR TREATMENT CREAM, FOR APPLICATION TO AFFECTED HAIR TYPE O/W

RAW MATERIALS	% By Weight
a) Cutina MD-A	10.0
Eumulgin B1	3.0
Paraffin	2.0
Lanolin DAB 7	3.0
Cholesterol USP XVI	0.3
Soya lecithin	0.5
Isopropyl palmitate	9.0
Preservative	q.s.
b) Water, distilled, preserved	68.0
Dehyquart A	4.0
Aminodermin CLR	0.2

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

Model formulations 1

HAIR TREATMENT CREAM WITH MULTIVITAMINS TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	12.0
Spermaceti	2.0
Lanolin DAB 7	2.0
Soya lecithin	0.2
Castor oil	3.0
Vegetable oil	7.0
Isopropyl palmitate	6.0
Cutavit Richter	2.0
Preservative	q.s.
b) Water, distilled, preserved	60.8
Karion F liquid	5.0

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

Model formulations 9

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

HAIR TREATMENT CREAM, FOR PROPHYLAXIS OF HAIR LOSS AND APPLICATION TO DRY HAIR TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	12.0
Spermaceti	2.0
Cholesterol USP XVI	0.5
Lanolin DAB 7	3.0
Peroestron in Oil	0.5
Vitamin F Glyceryl Ester CLR	4.0
Wheat Germ Oil CLR	3.0
Carrot Oil CLR	2.0
Isopropyl palmitate	8.0
Preservative	q.s.
b) Water, distilled, preserved	60.0
Karion F liquid	5.0

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C.
 Perfume, homogenize
 Model formulations 20

HAIR TREATMENT FOAM, VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgade F	4.0
Eumulgin B1	0.5
Cholesterol USP XVI	0.5
Lanolin DAB7	3.0
Isopropyl palmitate	11.5
Wheat Germ Oil CLR	3.0
Vitamin F forte CLR	3.0
Preservative	q.s.
b) Water, distilled, preserved	69.0
Karion F liquid	5.0
c) Perfume oil	0.5

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) stir in.

Concentrate:

Product: 88.0%
 Propellant 12: 12.0%

Valve: R-70 micoflex

Actuator: 350-025

Note: Shake before use

Model formulations 29

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

HARD HOLDING MIST

INGREDIENTS	% By Weight
Amphomer LV-71	7.00
AMP	1.45
D.C. 190 Silicone	0.20
Monamid 716	0.10
Panthenol	0.05
Uvinol M-40	0.05
Fragrance	0.10
Ethanol, Anhydrous SDA-40	91.05

Preparation:

Charge mixing vessel with Anhydrous SDA-40. While mixing, add Aminomethyl Propanol. Sift Amphomer LV-71 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill.

Description:

This hard holding mist gives excellent hold and high humidity resistance. The low viscosity polymer allows high solid formulations with excellent atomization.

SOURCE: National Starch and Chemical Co.: Formula 6740-4

HAIR TREATMENT FIXATIVE, FOR APPLICATION TO GREASY HAIR
AND DANDRUFF

RAW MATERIALS	% By Weight
a) Ethyl alcohol 96 vol. %	25.0
Gafquat 734	1.0
Luviskol VA 64, powder	1.0
b) Water, distilled	72.4
Aminodermin CLR	0.1
c) Vitamin B Complex CLR	0.5

Manufacture:

- a) dissolve at room temperature;
 - b) heat to about 50C, dissolve, allow to cool, and stir into a);
 - c) stir in.
- Perfume

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 28

"HERBAL" HAIR CONDITIONER

RAW MATERIALS	% By Weight
Phase A:	
Schercemol CS	2.0
Schercemol DICA	2.0
Glycerol Monostearate	4.0
Promulgen D	3.5
Phase B:	
Schercoquat IIS	1.5
Water	86.3
Triethanol Amine (10%), aq.	q.s.
Preservative	q.s.
Fragrance	q.s.
Herbasol Extracte (Burdock, Marigold, Birch, Wheat Germ)	q.s.

Procedure:

1. Weigh the ingredients of Phase A (Oil Phase) into a beaker. Heat to 60C to melt.
 2. In a separate beaker weigh the water portion & heat to 60C.
 3. Add the Shercoquat IIS & mix until all is dissolved.
 4. Add Phase B to Phase A & mix until uniform & smooth. Cool to 25C.
 5. Adjust pH to 5.0-7.0 with TEA sol'n. Add preservative & fragrance.
- Formula SO-017

STYLING MOUSSE

RAW MATERIALS	% By Weight
Part I:	
Celquat L-200 (2% in Water)	50.00
Schercoquat IEP	2.50
Glycerine	7.00
Deionized Water	q.s. to 100
Part II:	
Alcohol SDA 40 Reg.	20.00
PVP/VA E-735	2.00
Lanexol AWS	0.50
Perfume Oil	q.s.

Procedure:

Mix all ingredients in Part I in the order listed. Mix all ingredients in Part II in the order listed. Add Part I to Part II and mix thoroughly. Check pH. It should be between 6.5 and 7.0.

Aerosol Fill:	% by Weight
Concentrate	94.00
A-46	6.00

SOURCE: Scher Chemicals, Inc.: Formulas

HERBAL HAIR LOTION

RAW MATERIALS	Parts
Ethyl alcohol 96 vol. % or Isopropyl alcohol	417.0 ml
Water, distilled	583.0 ml
Hair Complex Aquosum	30.0 g

Manufacture:

Mix at room temperature in the order given.

Perfume.

Model formulations 16

HAIR LOTION, VITAMIN CONTENT

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	468.0 ml
Vitamin H	1.0 g
b) Water, distilled	532.0 ml
Inositol	1.0 g
Calcium D-pantothenate	1.0 g
c) Silicone oil VP 1661	20.0 g
d) Vitamin F alcohol-soluble CLR	20.0 g

Manufacture:

a) dissolve;

b) dissolve and stir into a);

c) and d) dissolve to form a clear solution, and stir in.

Perfume.

aqueous-alcoholic preparation

Model formulations 32

VITAMIN HAIR LOTION

RAW MATERIALS	Parts
A) Ethyl alcohol 96 vol. % or Isopropyl alcohol	468.0 ml
Vitamin H	1.0 g
b) Water, distilled	532.0 ml
Inositol	1.0 g
Calcium D-pantothenate	1.0 g
c) Vitamin B Complex CLR	5.0 g

Manufacture:

a) dissolve;

b) dissolve and stir into a);

c) stir in.

Perfume.

aqueous-alcoholic preparation

Model formulations 28

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

HIGH QUALITY CONDITIONER

RAW MATERIALS	% By Weight
MACKERNIUM SDC-25	10.0
MACKOL 1618	2.0
Brij 72	2.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 70 degrees C.
2. With mild agitation blend until homogenous.
3. Cool to 50 degrees C. and add dye and fragrance.
4. Cool and fill.

MILD OPAQUE CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 326	8.0
Cetyl Alcohol	1.8
Phosphoric Acid	0.6
Sodium Chloride	0.3
MACKSTAT DM	qs
Water, Dye, Fragrance, qs to	100.0

Procedure:

1. Add first four components to water and heat to 70 degrees C.
2. With stirring, cool and add dye, preservative and perfume at 40 degrees C.

MILD PEARL CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 326	7.0
PEG 400 Distearate	0.5
Sodium Chloride	0.5
MACKSTAT DM	qs
Water, dye, fragrance, qs to	100.0

Procedure:

1. Add the first three components to water and heat to 65 degrees C.
2. With continuous stirring, cool to 40 degrees C. and add dye, preservatives and fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HIGH VISCOSITY SELECTIVE CREME RINSE CONDITIONER

INGREDIENTS	% By Weight
A Carsquat SDQ-85	1.900
Ethospense CA-2	2.500
Barlene 18S	1.500
Aldo MSA	0.500
Stearyl Alcohol	0.100
Phenoxyethanol	0.300
B Citric Acid	1.750
Sodium Chloride	0.200
Water, deionized	91.215
Sodium Hydroxide (10% solution)	.035
pH: 3.2+-0.1	
Viscosity: approx. 10,500 cps	

Procedure:

Heat all components in Phase A to approximately 60-65C with mixing. With continuous agitation, heat Phase B to approximately 65-70C. Add Phase A slowly to Phase B. When blend is uniform, discontinue heating and add sodium hydroxide. Continue mixing the batch until temperature has cooled below approximately 35C.

Make up any water, dye and fragrance lost in processing; note the choice and amount of fragrance may alter the viscosity.

Formulation U-15-8

CREME RINSE CONDITIONER

INGREDIENTS	% By Weight
Carsquat SDQ-85	1.3
HYSTAR CG	3.0
Glycomul O	1.9
Aldo USA	2.4
Cetyl Alcohol	1.8
Water, deionized	89.6
pH: 3.5-4.0	
Viscosity: approximately 2500-4000 cps	

Procedure:

Add the HYSTAR CG to the water and heat to 80C. In a separate container, combine the Carsquat SDQ-85, Lonzest SMO, Aldo USA and cetyl alcohol and heat to 75C. With stirring, pour the oil phase into the polyol/water solution. Stir at slow to moderate for about 30 minutes. Then cool to approximately 45C and package.

Formula E-127-1

SOURCE: Lonza Inc.: CARSOQUAT SDQ-85: Formulas

HKP CHEMICAL SCAVENGER & CONDITIONER FOR STRAIGHTENED & RELAXED HAIR

INGREDIENT	% By Weight
Deionized Water	91.00(+)
Acrysin 400 *	0.10
Acetamide MEA	5.00
Finsolv TN	0.20
dl-Panthenol	1.00
Tri-K HKP	1.00
Citric Acid	0.25
Methyl Paraben	0.20
Tri-Stat I.U.	0.20
Sorbic Acid	0.20
D.C. 193 Surfactant	0.50
New Sulfur W	0.20
Fragrance	0.25

Rationale:

1. Acid conditioning pH-Neutralizes alkalinity & conditions.
2. Panthenol oxidizes in presence of Bromate.
3. Newsulfur counteracts irritation.
4. Finsolv adds shine & comb-ability.
5. DC 193 adds shine & comb-ability.

* Vary gel/viscosity here

SOURCE: TRI-K Industries, Inc.: TRI-K HKP Formulary: Formula

HAIR CREAM

RAW MATERIALS	% By Weight
A. Cetyl Alcohol	6.0
Luvitol EHO	10.0
Mineral Oil	5.0
B. Luviquat Mono CP	10.0
1,2-Propylene glycol	2.0
Water	67.0
Preservative	q.s.
C. Perfume	q.s.

Preparation:

Heat phases A and B separately to ca. 75C. Stir phase B into phase A and continue stirring until cold. At ca. 35 add phase C.

Properties:

White, softish cream that can be worked well into the hair. Improves wet-combability, imparts sheen to hair and prevents dry hair from charging electrostatically.

Application:

Work uniformly into the damp hair, leave and then wash out with water.

SOURCE: BASF Corp.: LUVIQUAT Mono CP: Formula 7

HKP CREME RINSE

INGREDIENT	% By Weight
Deionized Water	92.00(+/-)
Lexate CRC	4.000
BTC 2125M	0.500
Tri-K HKP	1.000
Acetamide MEA	0.500
dl-Panthenol	0.500
Methyl Paraben	0.200
Propyl Paraben	0.100
Tri-Stat I.U.	0.200
Lactic Acid	QS-pH 3.5-4.5
Fragrance	0.200

HKP FINISHING RINSE

INGREDIENT	% By Weight
Deionized Water	89.000(+/-)
Jaguar C14	0.500
Tri-K HKP	1.000
Acetamide MEA	1.000
dl-Panthenol	0.200
Quaternium-18	1.500
Lexamul AR	4.000
Cetyl Alcohol	0.900
Stearyl Alcohol	0.400
Methyl Paraben	0.200
Propyl Paraben	0.100
Tri-Stat I.U.	0.200
Lactic Acid	QS-pH 4.5-5.0
Fragrance	0.100

HKP INTENSIVE CONDITIONING PAC

INGREDIENT	% By Weight
Deionized Water	86.000(+/-)
Tri-K HKP	5.000
Jaguar C14	0.500
Acetamide MEA	2.000
dl-Panthenol	0.500
Lexate CRC	5.000
Methyl Paraben	0.200
Propyl Paraben	0.100
Tri-Stat I.U.	0.300
Fragrance	0.500
Lactic Acid	QS-pH 4.0-5.0
Color	Optional

SOURCE: TRI-K Industries, Inc.: TRI-K HKP Formulary

HKP LOW pH REBONDING LOTION

INGREDIENT	% By Weight
Deionized Water	98.00(+)
Delsette-101	0.500
Tri-K HKP	0.500
dl-Panthenol	0.100
Gafquat 755N	0.250
Methyl Paraben	0.100
Fragrance	0.050
Hydrochloric Acid	QS-pH 2.0-2.5

Use: As a "refresher" for limping perms, as a post-perm normalizing treatment, or as a styling/controlling pump spray for blow drying.

HKP SCULPTING LOTION

INGREDIENT	% By Weight
Deionized Water	91.00(+)
Flexan 130	7.000
Tri-K HKP	0.500
Acetamide MEA	0.200
dl-Panthenol	0.100
Tween 20	0.250
Fragrance	0.050
Methyl Paraben	0.100
Tri-Stat I.U.	0.100
Cellosize QP4400 H	0.050(+)
Lactic Acid	QS-pH 5.0-7.0

* Vary amount to adjust viscosity

HKP PUMP HAIRSPRAY

INGREDIENT	% By Weight
Demineralized Water	20.000(+)
SD Alcohol 40	70.000
Gantrez ES 425	7.000
AMP	0.350
Tri-K HKP	0.100
dl-Panthenol	0.100
Fragrance	0.050

SOURCE: TRI-K Industries, Inc.: TRI-K HKP Formulary

HKP SUPERMOISTURIZING HAIR GEL/ACTIVATOR

INGREDIENT	% By Weight
Deionized Water	80.00
Acrysint 400	1.00
Acetamide MEA	6.00
Glycerin	10.00*
Tri-K HKP	1.00
dl-Panthenol	1.00
Methyl Paraben	0.20
Tri-Stat I.U.	0.30
Fragrance	0.50
Ammonium Hydroxide	QS-pH Desired

pH: 5.0 approx. unneutralized

* Vary glycerin to achieve desired activation

HKP CONDITIONING SPRAY MOISTURIZER

INGREDIENT	% By Weight
Deionized Water	89.00(+)
Tri-K HKP	1.000
Acetamide MEA	2.500
dl-Panthenol	1.000
Propylene Glycol	5.000
Methyl Paraben	0.200
Tri-Stat I.U.	0.250
Fragrance	0.100
Lactic Acid	QS to pH
DC 193 Surfactant	1.000

HKP PERMANENT WAVE-IN PROCESS CONDITIONING TREATMENT

INGREDIENT	% By Weight
Deionized Water	94.00(+)
Tri-K HKP	1.000
Acetamide MEA	2.000
dl-Panthenol	0.500
Delsette 101	1.500
Methyl Paraben	0.200
Tri-Stat I.U.	0.250
Fragrance	0.250
Kelate 220	0.200

Use: After waving and before neutralization, the hair is very receptive to conditioning treatments, therefore just before neutralization, run treatment over rods, but do not oversaturate. Allow to stand on hair one minute and blot. Neutralize.

SOURCE: TRI-K Industries, Inc.: TRI-K HKP Formulary

HOT OIL CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 426	5.00
MACKAMIDE AME-75	7.00
Polyglycol 600	5.00
Polysorbate 80	2.00
Benzyl Alcohol	0.30
DC 193	0.25
Natrosol 250 HHR	0.50
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.00

Procedures:

1. Disperse Natrosol 250 HHR in water.
2. Heat to 50 degrees C. and add remaining components.
3. Blend until clear and cool.

Appearance: Clear Liquid

pH: 4.4-4.8

Viscosity: 50-200 cps

This type of product is frequently used prior the application of a shampoo so the final cleansing removes the excess materials and leave the hair clean feeling and conditioned.

Formula AY-143-3R

WHEAT GERM FOAMING CONDITIONER

RAW MATERIALS	% By Weight
MACKAM 35	10.0
MACKALENE 116	8.0
MACKALENE 716	1.0
Natrosol 250 HHR	0.7
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely hydrate Natrosol.
2. Add first three components and heat to 40 degrees C.
3. Blend until clear.
4. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

INSTANT CONDITIONER

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	81.0
INCROQUAT SDQ-25	6.0
INCROMECTANT AQ	1.0
Part B:	
CROVOL A-40	0.5
VOLPO S-2	0.5
CRODACOL C-95	2.0
Mineral Oil	3.0
COSMOWAX K	2.0
CRODAMOL PTIS	1.0
Part C:	
HYDROTRITICUM 2000	2.0
Germaben II	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 70-75C.
 Combine ingredients of Part B with mixing and heat to 70-75C.
 Add Part B to Part A with good mixing and cool to 45C. Add part C
 with mixing and cool to desired fill temperature.

pH=4.5 Viscosity=5,400 cps

Gentle conditioning. Aids with moisturization.

Counteracts damage from chemical treatment and styling
 appliances.

Formula HP-147

DEEP CONDITIONER

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	80.94
INCROQUAT BEHENYL TMS	6.00
INCROMECTANT LAMEA	1.00
Part B:	
CROVOL A-40	0.50
VOLPO S-2	0.50
CRODACOL C-95	2.00
Mineral Oil	3.00
COSMOWAX K	2.00
CRODAMOL PTIS	1.00
Part C:	
TEA 99% (10% Soln)	0.06
Part D:	
HYDROTRITICUM 2000	2.0
Germaben II	1.0

Procedure:
 Combine ingredients of Part A with mixing and heat to 80-85C.
 Combine ingredients of Part B with mixing and heat to 80-85C.
 Add Part B to Part A with good mixing and cool to 45C. Continue
 mixing and add Part C. Add Part D with mixing and cool to desired
 fill temperature.

Beauty pack to be used whenever hair needs extra conditioning.

Formula HP-148

SOURCE: Croda Inc.: HYDROTRITICUM 2000: Formulas

LEAVE IN HAIR CONDITIONER GEL TYPE WITH PEARL ESSENCE

RAW MATERIALS	% By Weight
1. Hi-Tek Polymer H 79	1.5
2. Butyl Cellosolve	3.0
3. Propylene Glycol	2.0
4. MACKALENE 426	3.0
5. MACKANATE DC-30	0.2
6. Mearlmaid AA	0.1
7. MACKSTAT DM	Q.S.
8. Fragrance and Color	Q.S.
9. Deionized Water qs to	100.0

pH: 4.2-4.8

Viscosity: 20,000-50,000 cps

Procedure:

1. Heat #1, #2 and #3 slowly together with #9 to 60 degrees C.
2. Mix slowly until solution is almost clear.
3. Then blend in #4 slowly.
4. Mix and start cooling.
5. When cool add the remaining ingredients.

Formula AY-83-617

RINSE-OUT HAIR CONDITIONER GEL TYPE WITH PEARL ESSENCE

RAW MATERIALS	% By Weight
1. Hi-Tek Polymer H 79	1.5
2. Butyl Cellosolve	3.0
3. Propylene Glycol	2.0
4. MACKALENE 426	3.0
5. MACKANATE DC-30	0.2
6. Mearlmaid AA	0.1
7. MACKSTAT DM	Q.S.
8. Fragrance and Color	Q.S.
9. Deionized Water qs to	100.0

pH: 4.2-4.8

Viscosity: 20,000-50,000 cps

Procedure:

1. Heat #1, #2 and #3 slowly together with #9 to 60 degrees C.
2. Mix slowly until solution is almost clear.
3. Then blend in #4 slowly.
4. Mix and start cooling.
5. When cool, add the remainder.

Formula AY-83-617

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

LIGHT MOISTURIZING 525 HAIR CREME

RAW MATERIALS	% By Weight
1. Mineral Oil (SG .850)	15.00
2. Castor Oil	3.00
3. Lanolin Anhydrous	3.50
4. Petrolatum White	3.50
5. Cetearyl Alcohol	2.00
6. Polysorbate 20	2.00
7. Triethanolamine	0.60
8. Carbomer 940	0.60
9. Disodium EDTA	0.10
10. MACKSTAT DM	QS
11. Deionized Water qs to	100.00
12. Fragrance	QS
pH: 5.3-6.0	

Procedure:

1. Melt together #1, #2, #3, #4, #5, #6, #7 and heat to 170 degrees F. (77 degrees C).
2. Separately prepare a solution of #8 and #9 in the water by dispersing the carbomer with good agitation by slowly adding to the water and mixing until all lumps have dissolved. Some heating will help accelerating the process. Then heat the water phase also to 170 degrees F (77 degrees C).
3. Slowly pour the oil phase into the water phase with thorough agitation to avoid formation of lumps. Mix thoroughly until everything is uniform. Add #10 and finally the fragrance #12. Check pH value, adjust upwards with #7.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula AY-90

HAIR CARE RINSE FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Emulgade SE	6,0
Lanette O	1,0
Cetiol V	2,0
Copherol F 1300	2,0
II. Dehyquart A	4,0
Water, demin.	86,0
Preservative	

pH-value: approx. 4
Viscosity in mPas: 4000

SOURCE: Henkel: Cosmetics No. XXIII/90: Formula No. 89/322/13

LITE CREME CONDITIONING HAIR TREATMENT

RAW MATERIALS	% By Weight
1. Mineral Oil (SG 0.850)	1.50
2. Paraffin Wax (MP 128F)	2.50
3. MACKADET CBC	7.00
4. MACKESTER EGMS	2.00
5. MACKPRO WWP	1.00
6. MACKERNIUM 007	2.00
7. MACKSTAT DM	q.s.
8. Fragrance	q.s.
9. Deionized Water q.s. to	100.00

pH: 4.4-5.5

Procedure:

1. Into stainless steel creme kettle put #1, #2, #3, #4 and start heating to 75 degrees C. (167 degrees F.).
2. Separately heat #9 to the same temperature, add it slowly with good mixing to the hot waxes in the creme kettle and increase mixing speed.
3. Keep mixing for 15 minutes at the same temperature and speed.
4. Start the cooling process slowly and begin to slow down mixing speed.
5. At 45 degrees C. (113 degrees F.) add #5 then #6, #7, #8.
6. Check pH and adjust downward with Citric Acid solution or upwards with a few drops of diluted Sodium Hydroxide solution.
7. Continue mixing very slowly until cool.
8. The product will set up on standing to a soft creme.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary:
Formula AY-184-2

HAIR FIXATIVE

RAW MATERIALS	% By Weight
Luviskol VA64	2.0
Isopropanol	38.0
Water	up to 100.0
SOFTIGEN 767	1.5
Lactic Acid	1.5
Perfume	1.0

Preparation:

All the materials are stirred together cool until homogeneous.

SOURCE: Huls America Inc.: Formula 6.3.4

LOW PH, PROTEIN GEL SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (30%)	35.0
MACKAM 35HP	12.0
MACKPRO NLP	2.0
MACKAMIDE LLM	2.0
MACKSTAT DM	qs
Lactic Acid	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 60 degrees C.
2. Adjust pH to 5.0 with lactic acid.
3. Cool and add remaining components at 40 degrees C.

MILD CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE EL	10.0
MACKAM 35	25.0
Sodium Laureth Sulfate (60%)	10.0
MACKANATE DC-30	1.0
MACKAMIDE C	2.0
Polysorbate 20	1.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

pH: 5.5-6.7

Viscosity (cps): 600-1200

Procedure:

1. Add surfactants to water.
2. Start mixing at room temperature until all components are clearly dissolved.
3. Blend fragrance with Polysorbate and add to batch.
4. Adjust pH if necessary with citric acid.
5. Adjust viscosity with Sodium Chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

MEDIUM HOLD SHEEN SPRAY

INGREDIENTS	% By Weight
STAPANHOLD EXTRA	11.25
Aminomethyl Propanol	0.29
Dimethicone Copolyol Surfactant	0.25
PEG-75 Lanolin	0.15
SDA-40A Alcohol	88.04
Fragrance	q.s.

Mixing Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add STEPANHOLD EXTRA and mix until completely dissolved. Add dimethicone copolyol and mix thoroughly. Add PEG-75 lanolin and mix until dissolved. Add desired fragrance and mix well.

Formula PF-0161 suggested by Stepan Co.

LIGHT HOLDING/BODY BUILDING HAIR SPRAY

INGREDIENTS	% By Weight
STEPANHOLD EXTRA	11.88
Aminomethyl Propanol	0.30
Dimethicone Copolyol Resin Modifier	0.15
Panthenol	0.20
PPG-10 Methyl Glucose Ether	0.10
SDA-40A Alcohol	87.37
Fragrance	q.s.

Mixing Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add STEPANHOLD EXTRA and mix until completely dissolved. Add dimethicone copolyol, panthenol, and PPG-10 methyl glucose ether, mixing well after each addition. Add desired fragrance and mix thoroughly.

Formula PF-0162 suggested by Stepan Co.

SOURCE: Angus Chemical Co.: ANGUS Product Formulary: Formulas

NATURAL CONDITIONING MOUSSE

INGREDIENTS	% By Weight
Water	91.0
AVAMID 150	2.0
GAFFIX VC-713	3.0
MONAQUAT ISIES	2.0
Dimethicone Copolyol	2.0

Procedure:

Mix MONAQUAT ISIES and water until uniform. Add Gaffix VC-713 and mix until dissolved. Add AVAMID 150 and stir until completely blended. Add Dimethicone Copolyol and stir until homogeneous. No heat is required. Add preservative, color and perfume as required.

(For natural conditioning as well as setting properties after or between shampoos)

This Mousse imparts cationic and natural avocado oil conditioning, while providing a moderate, non-tacky hold.

To Aerosolize Charge:

81.0%	Mousse
19.0%	Isobutane

Formulation Properties:

Physical Appearance: Stable foam
Activity: 7%

SOURCE: Mona Industries Inc.: AVAMID 150: Formula

SOFT HOLD CONDITIONING MOUSSE

RAW MATERIALS	% By Weight
Part I. Water	82.85
MONAQUAT P-TS	3.00
Part II. Isopropyl Alcohol	10.00
AMP 95%	0.15
Gantrez ES-435	1.00
Part III. Dow Corning Surfactant 193	3.00

Procedure:

Add MONAQUAT P-TS to water. Heat to 65C with agitation until P-TS dissolves. Cool to 40C. Separately mix Part II. Heat to 65C to melt. Cool Part II to 40C, then add to Part I with continued agitation. Add Part III. Add perfume and cool as desired.

To Aerosolize:

Mousse F-229A	83.00
Isobutane (A-31 Aeropress)	17.00

Provides a soft, long lasting hold and minimizes the tackiness on both hands and hair.

SOURCE: Mona Industries Inc.: Formula F-229A

NATURAL LIPID CONDITIONER FOR PROFESSIONAL SALON

RAW MATERIALS	% By Weight
MACKERNIUM SDC-85	1.5
MACKALENE NLC	1.0
MACKPRO NLP	2.0
MACKOL 1618	1.8
Steareth-2	1.8
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add first five components to water and heat to 70 degrees C.
2. Cool to 45 degrees C. and add remaining components.
3. Cool and fill.

PEARL CONDITIONER

RAW MATERIALS	% By Weight
MACKADET LCB	10.0
Triethanol Amine	1.0
Sodium Chloride	0.5
MACKSTAT DM	qs
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Warm water to 40 degrees C.
2. Add sodium chloride and TEA.
3. Add MACKADET LCB and blend slowly.
4. When completely dispersed add dye, preservative and fragrance.
5. Cool and fill.

SPRAY LEAVE-ON CONDITIONER

RAW MATERIALS	% By Weight
MACKPRO NLP	1.0
MACKALENE 426	3.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedures:

1. Add components to water.
2. Heat to 40 degrees C. and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

NATURAL LIPID HAIR TREATMENT AND RESTRUCTURANT

RAW MATERIALS	% By Weight
MACKOL 1618	11.0
Anhydrous Lanolin	7.0
MACKANATE EL	5.0
MACKPRO NLP	2.0
MACKESTER IDO	1.0
Polysorbate 80	1.0
MACKANATE DC-30	0.6
MACKSTAT DM	qs
Deionized Water, Fragrance qs to	100.0

Procedure:

1. Heat oil soluble and water soluble components separately to 160 degrees F.
2. Add oil to water with continuous mixing.
3. Cool to 120 degrees F.
4. Add MACKSTAT DM and fragrance.
5. Cool and fill.

NATURAL LIPID STYLING MOUSSE

RAW MATERIALS	% By Weight
PVP/VA E335	4.5
SDA 40 Alcohol	21.5
MACKPRO NLP	4.0
Deionized Water, Fragrance, Dye qs to	100.0

Procedure:

1. Combine components and blend until clear.
2. Pressurize with suitable propellant.

LIGHT MOISTURIZING HAIR CREME

RAW MATERIALS	% By Weight
MACKESTER TDO	15.0
Anhydrous Lanolin	3.5
White Petroleum	3.5
Castor Oil	3.0
MACKOL 1618	2.0
Polysorbate 20	2.0
Triethanolamine	0.6
Carbopol 940	0.6
Disodium EDTA	0.1
MACKSTAT DM	qs
Deionized Water, Fragrance qs to	100.0

Procedure:

1. Melt first seven components and heat to 170 degrees F.
2. Add Disodium EDTA to water and completely disperse Carbopol 940.
3. Slowly add oil to water phase and blend until homogenous.
4. Add fragrance, preservative, and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

NO BASE HAIR RELAXER

INGREDIENTS	% By Weight
A) T-Wax	10.00
Brox OL10	1.50
Carnation	15.00
ProtoPET	10.00
B) Ivarlan 3401	2.00
Propylene Glycol USP	7.00
Foam-Coll C	0.30
Water	36.20
C) Sodium Hydroxide (100%)	2.00
Water	6.00

Procedure:

Heat Phase A (Emulsifying Wax, Oleth 10, Mineral Oil and Petrolatum) to 70 Deg. C. A clear solution should result. Heat Phase B (Water, Ivarlan, Propylene Glycol and Foam-Coll 4C) to 50 deg. C. Carefully prepare Phase C. Mix Phase C until clear and uniform and set aside. Add Phase B to Phase A - a thin milky emulsion forms. Cool to around 45 deg. C - the emulsion will now start to thicken - it is important not to add the sodium hydroxide solution until this happens. After the thickening starts add Phase C (the Sodium Hydroxide solution) slowly. The emulsion will thicken drastically. Improved agitation is necessary. After all the sodium hydroxide solution has been added, agitation should be stopped as soon as the cream is homogeneous. Overstirring at this stage will result in a cream with poor stability.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-109-1

NON-AEROSOL FINISHING SPRAY

RAW MATERIALS	% By Weight
PHOSPHOLIPID EFA	0.60
SD Alcohol 40	94.10
Resyn 28-1310	3.75
Water	1.20
Aminomethyl Propanol	0.35

Add Resyn 28-1310 to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients, color, fragrance and package.

A light, holding spray that provides a conditioning sheen through the use of PHOSPHOLIPID EFA.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID EFA: Formula

OPACIFIED CREME RINSE

INGREDIENTS	% By Weight
Carsquat CT-429	3.50
Cetyl alcohol	3.20
Citric acid, anhydrous	0.01
Water	93.29

Formula D-35-18

CLEAR CREME RINSE

INGREDIENTS	% By Weight
Carsquat CT-429	5.0
Natrosol 250 HHR	0.4
Ucare Polymer JR-400	0.1
Hystar 7000	5.0
Tetrasodium EDTA (38%)	0.3
Citric acid	0.03
Water	89.17

Formula W-52-1

SOURCE: Lonza Inc.: CARSOQUAT CT-429

CREME RINSE/CONDITIONER

INGREDIENTS	% By Weight
Carsquat SDQ-25	8.0
Aldo MSD	1.0
Glycosperse TS-20	0.5
Potassium chloride	0.4
Water	90.1

pH: approx. 4.5 (make adjustment if required)

Viscosity: approx. 2000-3000 cps

Formula M-43-4

OIL FREE CREME RINSE/CONDITIONER

INGREDIENTS	% By Weight
Carsquat SDQ-25	3.5
Cetyl alcohol	0.9
Cellosize QP-5200	0.5
Deionized water	95.1

pH: approx. 4.5 (make adjustment if required)

Viscosity: approx. 2500 cps

Formula Q-48-7

SOURCE: Lonza Inc.: CARSOQUAT SDQ-25: Formulas

PEARLESCENT CREAM RINSE-I

COMPONENT	% By Weight
"Barquat" AB-25 (25% actives)	5.0
Cetyl Alcohol	0.3
Glycerol Monostearate	0.5
Polymer JR-30M	1.0
Preservative	0.1
Water	93.1

PEARLESCENT CREME RINSE-II

COMPONENT	% By Weight
"Barquat" AB-25 (25% actives)	7.5
Cetyl Alcohol	0.3
Glycerol Monostearate	0.5
Polymer JR-30M	0.7
Preservative	0.1
Water	90.9

Preparation:

Dissolve Polymer JR in water with stirring and heating. Combine the remaining ingredients, heat until melted, and then add to the Polymer JR solution. Apply moderate stirring until mixing is complete.

CLEAR CREME RINSE

COMPONENT	% By Weight
"Barquat" CT 429 (29% actives)	17.00
SDA-40	9.00
Polymer JR-30M	0.75
Preservative	0.10
Water	73.15

Preparation:

Dissolve Polymer JR in water with stirring and heating. After solubilization is complete, add the remaining ingredients with stirring and heating (65C.).

SOURCE: Amerchol Corp.: Polymer JR: Formulas

PROTEIN PAK FOR HAIR

INGREDIENTS	% By Weight
A. Deionized Water	80.8
Hydroxyethylcellulose	1.0
Propylene Glycol	1.0
B. Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.0
C. PROTECTEIN	10.0
D. Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Dimethicone	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

Procedure:

Begin heating water to 80C; sift Hydroxyethylcellulose into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Add PROTECTEIN slowly. Cool to room temperature. Add Part D ingredients. Mix until uniform.

Description:

This lotion, after-shampoo treatment is designed to provide highly substantive, durable protein treatment to the hair. It will improve the tensile strength and integrity of the hair for high fashion styling. After shampooing, smooth through wet hair; let stand 1-2 minutes; rinse with warm water as this will enhance the protein substantivity.

Formula: 614-11

ROOT STIMULATOR

INGREDIENTS	% By Weight
A. Deionized Water	78.8
Hydroxyethylcellulose	1.0
Propylene Glycol	3.0
B. Sulfated Castor Oil	10.0
C. PEPTEIN AH	5.0
ELASTEIN 5000	1.0
D. Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Fragrance	0.1
F, D & C Yellow No. 5 (0.01%)	0.1

Procedure:

Begin heating water to 80C; sift Hydroxyethylcellulose into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B. Mix until homogeneous. Add PEPTEIN AH and ELASTEIN 5000 slowly. Cool to room temperature. Add Part D ingredients. Mix until uniform.

This lotion is designed to deep cleanse the hair follicle and strengthen the hair shaft.

Formula: 614-12

SOURCE: Geo. A. Hormel & Co.: Formulas

PROTOTYPE AEROSOL HAIR SPRAY (FIRM HOLD)

RAW MATERIALS	% By Weight
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Phase I:

Demineralized water	84.59
Eastman AQ 38S polymer	15.00

Phase II:

Fragrance (Novarome KE-99)	0.40
Dow Corning 190 silicon	0.01

Procedure:

1. Heat Phase I to 80-85C and hold until the polymer is well dispersed.
2. Cool to 50C after dispersion is complete; add Phase II and mix until well dispersed.
3. Continue mixing to 25C; weigh and compensate for water loss.
4. Filter product to remove any solids before weighing material into aerosol container.
5. At 25C charge Dymel A (dimethyl ether) at 30 weight percent.
6. Agitate aerosol container to insure solution of propellant. Concentration of Eastman AQ 38S polymer = 10.5%.

PROTOTYPE PUMP HAIR SPRAY (REGULAR HOLD)

RAW MATERIALS	% By Weight
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Phase I:

Demineralized water	92.99
Eastman AQ 55S polymer	6.00

Phase II:

Germall II preservative	0.30
Methyl paraben USP	0.30

Phase III:

Fragrance (Novarome KE-99)	0.40
Dow Corning 190 silicon	0.01

Procedure:

1. Heat Phase I to 80-85C and hold at that temperature for 15 minutes or until the polymer is well dispersed.
2. Remove the heat and continue mixing after the Eastman AQ polymer is dispersed until the product temperature reaches 60C.
3. Add Phase II and continue mixing until dissolved.
4. Cool to 40C and add Phase III.
5. Cool to room temperature, weigh, and compensate for any water loss.
6. Filter and package.

SOURCE: Eastman Chemical Products, Inc.: EASTMAN AQ Polymers: Formulas

PUMP SPRAY (WITHOUT PROPELLANT)
NORMAL HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	5.00
AMP	0.40
Lutrol E 400	0.20
Ethanol	94.40
Essential oil	q.s.

PUMP SPRAY (WITHOUT PROPELLANT)
STRONG HOLD

RAW MATERIALS	% By Weight
Luviset CA 66	7.00
AMP	0.56
Ethanol	92.44
Essential oil	q.s.

SOURCE: BASF Corp.: LUVISET CA 66: Formulas

PUMPSPRAY

RAW MATERIALS	% By Weight
LUVIFLEX VBM 35	10.00
AMP	0.45
Lutrol E 400	0.10
Ethanol abs.	89.45
Perfume	q.s.

Properties: normal hold
 very wet spray
 for wet and dry hair

Preparation:

Luviflex VBM 35 is added to a mixture of ethanol, AMP, Lutrol E 400 and perfume, and the solution is mixed.
Formula No. 01/307

PUMPSPRAY

RAW MATERIALS	% By Weight
Luviflex VBM 35	16.00
AMP	0.8
Lutrol E 400	0.2
Ethanol abs.	83.0
Perfume	q.s.

Properties: strong hold
 very wet spray
 for wet and dry hair

Preparation:

Luviflex VBM 35 is added to a mixture of ethanol, AMP, Lutrol E 400 and perfume, and the solution is mixed.
Formula No. 01/308

SOURCE: BASF Corp.: LUVIFLEX VBM 35: Formulas

PUMP SPRAY CONDITIONER #1
(Non-alcohol, light duty, clear)

INGREDIENTS	% By Weight
Water, Deionized	87.90
Propylene Glycol	3.00
Glycerine	5.00
ARQUAD 16-29	4.00
Preservative	0.10
Citric Acid	qs to pH 3.0-3.5

Procedure:

Add ingredients in order shown and agitate. Adjust pH.

pH: 3.0-3.5

Viscosity: 30 cps

Appearance: Clear

PUMP SPRAY CONDITONER #2
(Thick, clear, light duty)

INGREDIENTS	% By Weight
Water, Deionized	91.90
Hydroxyethyl Cellulose	1.00
Sodium Hydroxide (50%)	qs
Glycerine	2.00
ARQUAD 16-29	5.00
Citric Acid	qs to pH 3.0-3.5
Preservative	0.10

Procedure:

Heat water to 60C, sprinkle in hydroxyethyl cellulose with agitation, and add sodium hydroxide (50%) until system clears. Agitate until no lumps are present and system is clear. Add Glycerine and ARQUAD 16-29. Adjust pH and then add preservative.

pH: 3.0-3.5

Viscosity: 2,800 cps

Appearance: Clear

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formulas

SELECTIVE CREME RINSE CONDITIONER

INGREDIENTS	% By Weight
A Carsoquat SDQ-25	6.40
Brij 52	2.50
Barlene 18S	1.50
Aldo MS	0.50
Stearyl alcohol	0.10
Phenoxyethanol	0.30
B Citric acid	1.75
Sodium chloride	0.20
Deionized Water	86.40
Sodium hydroxide (10% solution)	0.35

pH: approx. 3.1

Viscosity: approx. 8500 cps

SOURCE: Lonza Inc.: CARSOQUAT SDQ-25: Formula S-50-3

CONDITIONER

RAW MATERIALS	% By Weight
Tylose H 4000 P	1,80
Water	91,20
Cetyl Alcohol	2,00
Belsil ADM 6057 E	5,00
Preservatives, fragrances	q.s.

Mix Tylose H 4000 P into the water and whilst stirring bring to a temperature of 70C. Melt the cetyl alcohol and stir into the clear Tylose slime. Cool and add Belsil ADM 6057 E.

Temperature stability: at 45C over 10 weeks.

White, high viscosity

Formulation 231 AH

CONDITIONER

RAW MATERIALS	% By Weight
Belsil CM 040	5,00
Lamecreme KSM	3,00
Cetyl Alcohol	1,00
Water	91,00
Preservatives, fragrances	q.s.

Heat Lamecreme KSM and the cetyl alcohol to 70C, work in the water stirring well. Leave to cool somewhat, mix in Belsil CM 040.

Temperature stability: at 45C over 10 weeks.

Creamy, easy to comb, reduces drying time.

Formulation 311 AH

SOURCE: Wacker Silicone: Standard Formulations

SELF-TIMING PERMANENT WAVE LOTION: NORMAL HAIR FORMULA

INGREDIENTS	% By Weight
Water	55.00
Ammonium Thioglycolate, 60%	15.33
Diammonium Dithioglycolate, 40%	12.01
Hamp-ol 120	0.25
Aqueous Ammonia, 28%	2.86
Brij 35	0.70
Fragrance	0.15
Water	10.00
Emulsifier K-700	1.00
Sulfuric Acid	*
Aqueous Ammonia, 28%	*
Water	q.s.

Finished Formula Properties:

pH: 8.8-9.2

Free Ammonia: 0.70-0.90 gms NH₃ per 100 ml

Thioglycolic Acid Content: 9.2+-0.1%

SELF-TIMING PERMANENT WAVE LOTION: TINTED HAIR FORMULA

INGREDIENTS	% By Weight
Water	55.00
Ammonium Thioglycolate, 60%	10.73
Diammonium Dithioglycolate, 40%	12.01
Hamp-ol 120	0.25
Aqueous Ammonia, 28%	2.14
Brij 35	0.70
Fragrance	0.15
Water	10.00
Emulsifier K-700	1.00
Sulfuric Acid	*
Aqueous Ammonia, 28%	*
Water	q.s.

Finished Formula Properties:

pH: 8.8-9.2

Free Ammonia: 0.50-0.70 gms NH₃ per 100 ml

Thioglycolic Acid Content: 6.44+-0.1%

SOURCE: W.R. Grace & Co.-Conn.: Evans Chemetics: Formulas

SETTING FOAM

RAW MATERIALS	% By Weight
Luviquat FC 550	5.0
Luviskol VA 64	1.0
Luviquat Mono CP	0.5
Water	83.5
Preservatives	q.s.
Perfume	q.s.
Propane/butane 25:75	10.0

Properties: Dry, stiff foam for strong setting action

Application: Shake before use. Turn upside down before actuating valve.

Preparation:

Weigh out all ingredients and stir together to dissolve. Fill with propellant.

Formula No. 02/072

SETTING FOAM

RAW MATERIALS	% By Weight
Luviquat FC 550	5.0
Luviskol VA 64	1.0
Luviquat Mono CP	0.05
Ethanol	12.0
Water	71.95
Perfume	q.s.
Propane/butane 25:75	10.0

Properties: Dry, quick-breaking foam for strong setting action.

Applications: Shake before use. Turn upside down before actuating valve.

Preparation: Weigh out all ingredients and stir together to dissolve. Fill with propellant.

Formula No. 02/070

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552:
Formulas

SETTING GEL

RAW MATERIALS	% By Weight
A Carbopol 940, 1% in water	70.0
B Cremophor RH 40	0.7
Perfume	q.s.
C Luviskol VA 64	2.0
Luviquat FC 370	1.0
Neutrol TE 10% in water	11.0
Water	15.3
Preservatives	q.s.

Properties: Clear gel for normal setting action

Preparation: Prepare phases A, B and C separately. Place phase C in stirring vessel and stir-in phase B. Then slowly add phase A.

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552:
Formula No. 02/558

HAIR SETTING GEL

RAW MATERIALS	% By Weight
Cremophor NP 14	0.5
Luviskol K30	3.0
Carbopol 940 (1% in water)	70.0
Triethanolamine (10% in water)	10.0
Perfume	0.1
D-Panthenol USP	1.0
Preservative	0.5
Uvinul M40	0.05
Water	14.85

SOURCE: BASF Corp.: D-Panthenol: Formula

HAIR GEL

RAW MATERIALS	% By Weight
Carbopol 940 (1% aqueous solution)	50.0
Neutrol TE (10% aqueous solution)	10.7
Cremophor RH 40	0.6
Luviskol K 30	2.5
Preservative	q.s.
Perfume	q.s.
Water	36.2
pH: 7	

SOURCE: BASF Corp.: Neutrol TE: Formula

SETTING LOTION

RAW MATERIALS	% By Weight
I. Solubilisant S 12	2.0
Takasago	0.5
Nutrilan Keratin W	5.0
Cetiol HE	0.2
Water	ad 100
Color: Sicomet Cochenille red, 70 E 124 0.1% sol.	0.1
II. Isopropanol	30.0
Nasuna B	3.0
Formula no. 89/138/8	

SETTING LOTION

RAW MATERIALS	% By Weight
I. Eumulgin L	1.0
Takasago	0.3
Nutrilan Keratin W	5.0
Cetiol HE	0.2
Water	ad 100
Color: Sicomet Cochenille red, 70 E 124 0.1% sol.	0.1
II. Isopropanol	30.0
Nasuna B	3.0
Formula no. 89/138/9	

SETTING LOTION

RAW MATERIALS	% By Weight
I. Eumulgin RO 40	2.0
Takasago	0.3
Nutrilan Keratin W	5.0
Cetiol HE	0.2
Water	ad 100
Color: Sicomet Cochenille red, 70 E 124 0.1% sol.	0.1
II. Isopropanol	30.0
Nasuna B	3.0
Formula no. 89/138/10	

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

SETTING LOTION

RAW MATERIALS	% By Weight
Luviskol VA 64 W	4.0-6.0
Luviquat FC 905	0.2-0.5
Ethanol or 2-propanol	0- 10.0
Water	ad 100
Preservatives	q.s.
Perfume	q.s.

Properties: Clear solution for normal to strong setting action

Preparation: Weigh out and mix all ingredients together.

Formula No. 02/065

SETTING LOTION

RAW MATERIALS	% By Weight
Luviquat HM 552	5.0-10.0
Ethanol or 2-propanol	0-30.0
Water	ad 100
Preservatives	q.s.
Perfume	q.s.

Properties: Clear solution for light setting action.

Preparation: Weigh out and mix all ingredients together.

Formula No. 02/066

SETTING LOTION

RAW MATERIALS	% By Weight
Luviquat FC 370	5.0-6.0
Luviquat FC 905	0.2-0.5
Ethanol or 2-propanol	0- 30.0
Water	ad 100
Preservatives	q.s.
Perfume	q.s.

Properties: Clear solution for light setting action

Preparation: Weigh out and mix all ingredients together.

Formula No. 02/067

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552: Formulas

SETTING LOTION

RAW MATERIALS	% By Weight
Luviset CA 66	2.50
AMP (degree of neutralization 80%)	0.21
Ethanol or isopropyl alcohol	50.00
Water, dist.	47.29
Essential oil	q.s.

Formulation No. 1

SETTING LOTION

RAW MATERIALS	% By Weight
Luviset CA 66	2.50
AMP (degree of neutralization 80%)	0.21
Ethanol or isopropyl alcohol	30.00
Water, dist.	67.29
Essential oil	q.s.

Formulation No. 2

BLOW-WAVE SETTING LOTION

RAW MATERIALS	% By Weight
Luviset CA 66	0.70
AMP (degree of neutralization 75%)	0.056
Ethanol or isopropyl alcohol	30.00
Water, dist.	69.20
Essential oil	q.s.

Plasticizers and conditioners may be added; allowance must be made for them in the solvent system.

SOURCE: BASF Corp.: LUVISET CA 66: Formulas

SETTING LOTION

RAW MATERIALS	% By Weight
Luviflex VBM 35	6.00
AMP	0.33
Ethanol abs.	30.00
Water dest.	63.67
Perfume	q.s.

Properties: normal hold
apply on wet hair

Preparation:

Water is added to a mixture of ethanol, AMP, perfume and Luviflex VBM 35 and the solution is mixed.
Formula No. 02/129

SETTING LOTION

RAW MATERIALS	% By Weight
Luviflex VBM 35	12.00
AMP	0.60
Ethanol abs.	35.00
Water dest.	52.40
Perfume	q.s.

Properties: strong hold
apply on wet hair

Preparation:

Water is added to a mixture of ethanol, AMP, perfume and Luviflex VBM 35 and the solution is mixed.
Formula No. 02/124

SETTING MOUSSE

RAW MATERIALS	% By Weight
Luviflex VBM 35	6.00
AMP	0.3
Perfume PC 910.781 + Cremophor RH 40	0.4
Cremophor A 25	0.2
Ethanol abs.	5.0
Water dest.	78.1
Propane/Butane 25:75	10.00

Properties: normal hold
dry foam, quick breaking
for applying to wet hair

Application: shake can and invert before use
Formula Nr. 02/130

SOURCE: BASF Corp.: LUVIFLEX VBM 35: Formulas

SETTING-LOTION FOR HAIR-BLOWER

RECIPE	% By Weight
A ARISTOFLEX A 60%	1.50
GENAMIN KSL	1.00
PEG 400	0.20
Iso-Adipat	0.20
Perfume	0.20
B Isopropyl alcohol	45.00
Water	51.90
Preservative	q.s.

Procedure:

One after another the components of A are dissolved in B.
Formula B V/1020

SETTING-LOTION

RECIPE	% By Weight
A Luviskol VA64I	2.50
GENAMIN KSL	0.50
Iso-Adipat	0.30
PEG 400	0.30
Perfume	0.30
B Isopropyl alcohol	20.00
Water	76.10
Preservative	q.s.

Procedure:

Dissolve one after another, the components of A to B.
Formula B V/1023

CREAM-RINSE

Manufacturing at room temperature

RECIPE	% By Weight
A GENAMIN KSL	5.00
B Water	93.70
Preservative	q.s.
C TYLOSE H 10000	1.00
D Perfume	0.30
Dyestuff solution	q.s.
E Citric acid---->pH 4.0	q.s.

Procedure:

I Dissolve A in B.
II Stir C and D into I.
III Adjust the pH with E.
Formula B II/1053

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formulas

SHAMPOO CONDITIONER

RAW MATERIALS	% By Weight
A Texapon NSO	50.0
Comperlan KD	1.0
Perfume	q.s.
B Luviquat Mono CP	5.0
Water	42.5
Sodium chloride	1.5
Preservative	q.s.

Preparation:

Dissolve and mix phases A and B separately. Slowly stir phase B into phase A.

Properties:

Clear, almost colourless, viscous solution. Has a mild cleansing action, improves wet-combability, imparts body to hair and prevents dry hair from charging electrostatically.

Application:

Rub well into hair, make a lather with some water and rinse out with plenty of water.

SOURCE: BASF Corp.: Luviquat Mono CP: Formula

APRICOT HAIR CONDITIONER

INGREDIENTS	% By Weight
Schercoquat APAS (90%)	1
Schercemol Peg 400 D.S.	4
Cetyl Alcohol	2
Schercomid AME (70%)	6
Glycerol Monostearate	4
Herbasol Extract Apricot	0.5
Preservative	0.2
Color, Fragrance	q.s.
Water	82.3

Procedure:

Blend and heat to 70C Schercoquat APAS, Peg 400 D.S., Cetyl Alcohol, Schercomid AME and Glycerol Monostearate.

Slowly add water at 70C to the blend and mix until uniform.

Add extract, preservative & fragrance & mix until uniform.

SOURCE: Scher Chemicals, Inc.: Formula 221-129

Section VIII

Lipsticks

FLUID LIPSTICK

COMPONENTS	% By Weight
Polyisobutilen	24
Gelled Bentonite	1
Methyl Abietate	30
W Amerlate	6,7
Hydrogenated Lanoline	13
Anhydrous Lanoline	13
Microcrystalline Wax	7,1
P Amerlate	4
Acetulan	0,3
Antioxidants - Perfume	Sufficient quantity
Pigments Ground in Oil	From 0,5 to 2

LIPSTICK

COMPONENTS	% By Weight
Waxy Base N3	43
Castor Oil	23,5
Colophony Esters (Glyceric and Methylic Esters)	10
Lanoline Esters	7
2 Octyl-Dodecanol	8
Synthesis Ester (Fluid)	8
Antioxidants and Conservative Agents	0,5

LIPS OINTMENT

COMPONENTS	% By Weight
Paraffin	10
Ozokerite	10
Carnauba	5
Oleylic Alcohol	3
Free-Running Vaseline	7
Lanolate Isopropyl	10
Vaseline Oil	28
IPM	13,2
Microcrystalline Wax	7
BHT	0,03
Fragrance	0,5
Castor Oil	6,27

SOURCE: La Ceresine: Formulas

GLOSSY LIPSTICK

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	14.0
MIGLYOL 829	7.0
IMWITOR 780K	6.0
SOFTIGEN 767	7.0
SOFTISAN 649	5.0
Lanolin Oil	10.0
Rewopal PIB	19.0
Na-Stearate	1.0
Lanfrax	10.0
Candelilla Wax	8.0
Beeswax	7.0
Oxynex 2004	0.02
B. Iriodin TI 100	3.0
Sicometro Red	3.0
C. Perfume Tandise 75.418B	1.0

Preparation:

- (A) is melted and mixed. (B) is added and mixed into (A)
 (C) is added, then it is poured into molds.
 Formula 2.2D

LIP-GLOSS STICK

RAW MATERIALS	% By Weight
A. MIGLYLOL GEL B	14.0
Lanolin Oil	10.0
MIGLYOL 829	7.0
IMWITOR 780	6.0
SOFTIGEN 767	6.0
Sodium Stearate	1.0
Rewopal P1B 100	19.0
Lanfrax	15.0
Candelilla Wax	8.0
Beeswax	7.0
Antioxidant	q.s.
B. Iriodin TI 100	3.0
Brilliantlack B	3.0
C. Fragrance	1.0

Preparation:

The liquid components in (A) are worked into the Miglyol Gel at room temperature. The solid components are then added, the mass is heated to 75-80C., and the mixture stirred until homogeneous. (A) is then cooled, under constant stirring, to 40C., and stirred gradually into (B) mixture. Thereafter, fragrance is added and the mass is poured into forms.

Formula 2.2C

SOURCE: Huls America Inc.: Formulas

LIP BALM I

RAW MATERIALS	% By Weight
Castor Oil Crystal O	46.0
Emery IPP	17.0
Emery 1723	10.4
Rosswax 2640	19.6
Acetulan	2.5
SDA Alcohol #40	2.0
Solar Chem O	1.5
Propylene Glycol	1.0
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F in a stainless steel vessel. Mix thoroughly with agitation. Cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

LIP BALM II

RAW MATERIALS	% By Weight
Ross Base Oil 2539	55.4
Emery 1723	10.8
Rosswax 2641	29.3
SDA Alcohol #40	2.0
Solar Chem O	1.5
Propylene Glycol	1.0
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F. in a stainless steel vessel. Mix thoroughly with agitation, cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

LIP BALM WHITE

RAW MATERIALS	% By Weight
Rosswax 2639	85.0
Mineral Oil #7	13.5
Solar Chem O	1.5
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F in a stainless steel vessel. Mix thoroughly with agitation, cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

LIP BALM

INGREDIENTS	% By Weight
A. Cocoa Butter	45.0
Glyceryl Monostearate	10.0
Petrolatum	40.0
B. DERMATEIN GSL	4.0
C. Dimethicone	0.9
Menthol	0.1

Procedure:

Combine Part A ingredients in a suitable vessel and heat to 70C; mix until clear. Slowly add DERMATEIN GSL; mix until smooth. Add Part C ingredients in order; mix until uniform. Cool to 50C; pour into appropriate container; cool to room temperature.

Description:

This soothing, rich pomade demonstrates how DERMATEIN GSL helps restore chapped and weather-beaten lips. DERMATEIN GSL works to replace the lipid lost from dry skin. DERMATEIN GSL rejuvenates and protects lips by increasing the skin's ability to bind moisture.

SOURCE: Geo. A. Hormel & Co.: Formula 621-28

LIP BALM

RAW MATERIALS	% By Weight
Uvinul M40	1.0
(-)-alpha-Bisabolol	0.1
D-Panthenol USP	0.5
Cutina LM	85.0
Luvitol EHO	14.3

SOURCE: BASF Corp.: D-Panthenol: Formula

LIP CARE STICK WITH SUN SCREEN

RAW MATERIALS	% By Weight
A. SOFTISAN 649	6.0
SOFTISAN 100	35.0
MIGLYOL 812	13.5
DYNACERIN 660	3.0
Beeswax	12.0
Paraffin	15.5
Petrolatum	10.0
Neo-Heliopan E 1000	5.0
Antioxidants	q.s.
Perfume Oil	q.s.

All ingredients are mixed, heated until dissolved, and then stirred until cold to a creamy consistency. Then, the perfume is added and the mixture is poured into molds.

SOURCE: Huls America Inc.: Formula 4.4.1

LIP BALM STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	75.0
Cegesoft C 17	5.0
Cetiol MM	5.0
Ascorbyl palmitate	0.5
Copherol F 1300	5.0
Formulation no. 89/320/1	

LIP BALM STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	72.0
Copherol F 1300	5.0
Myritol 318	15.0
Formulation no. 89/320/27	

LIP BALM STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	75.0
Cegesoft C 17	5.0
Cetiol MM	5.0
Copherol 1250	5.0
Formulation no. 89/320/9	

LIP BALM STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	83.5
Cegesoft C 17	5.5
Cetiol MM	5.5
Copherol 1250	5.5
Formulation no. 89/320/11	

LIP BALM STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	72.0
Myritol 318	13.0
Copherol 1250	5.0
Formulation 89/320/28	

SOURCE: Henkel: Cosmetics No. XXI/90: Formulas

LIP CARE STICK

RAW MATERIALS	% By Weight
A. SOFTISAN 100	20.0
DYNACERIN 660	8.0
MIGLYOL 812	6.0
SOFTISAN 649	5.0
Paraffin	5.0
Cetyl Alcohol	5.0
Carnauba Wax	1.0
Beeswax	20.0
Petrolatum	29.78
Oxynex 2004	0.02
B. Fragrance 78 162	0.2

Preparation:

(A) is melted and cooled while stirring to a creamy consistency. Fragrance is added and mixture is then poured into molds.

Formula 1.5.1

LIP-GLOSS

RAW MATERIALS	% By Weight
A. Bentone 38-Gel (10% Bentone 38 in lanolin oil)	20.0
Lanolin Oil	12.0
SOFTIGEN 767	5.0
IMWITOR 780K	3.0
Rewopol PIB	30.0
Dye Solution (1% in SOFTIGEN 767)	4.0
B. Carnauba Wax	13.0
Beeswax	7.0
C. Coloring	3.0
Pearling Pigment/Iriodin Ti 100	2.0
D. Perfume Oil, Tandresse 75418B	1.0

Preparation:

(A) is slowly stirred, (B) is added and the mixture is heated to 75-80C for a few minutes. The mixture is stirred until cold. (C) is very finely milled and (A + B) is incorporated into (C) in small amounts at a time. Finally, the perfume is added. It may be advisable to homogenize the finished Lip-Gloss.

Formula 2.2.1

SOURCE: Huls America Inc.: Formulas

LIP CARE STICK, COLD STABILIZED, WITH SUN SCREEN

RAW MATERIALS	% By Weight
SOFTISAN 649	6.0
SOFTISAN 100	30.0
MIGLYOL 812	12.5
DYNACERIN 660	3.0
MIGLYOL GEL B	5.0
Petrolatum	10.0
Paraffin	15.5
Beeswax	12.0
Neo Heliopan E 1000	5.0
Antioxidant	q.s.
Fragrance Cocos 79 701 D, Vanille 86 481	1.0

Preparation:

The ingredients are melted and stirred until homogeneous. Perfume is added, and then the mass is poured into molds.

Formula 4.4.1B

SUN PROTECTION LIPSTICK

RAW MATERIALS	% By Weight
A. SOFTISAN 649	6.0
SOFTISAN 100	35.0
MIGLYOL 812	10.0
DYNACERIN 660	3.0
Beeswax	11.0
Paraffin	12.0
Olive Oil	5.0
Petrolatum	13.0
Neo-Heliopan E 1000	5.0
Antioxidants	q.s.
B. Fragrance	q.s.

Preparation:

All raw materials in (A) are added together, melted, and then cooled under stirring to a creamy consistency. The fragrance is then added, and the mass poured into molds.

Formula 4.4.1A

SOURCE: Huls America Inc.: Formulas

LIP-GLOSS

RAW MATERIALS	% By Weight
A. Bentone 38-Gel	20.0
Lanolin Oil	12.0
SOFTIGEN 767	5.0
IMWITOR 780K	3.0
Rewopol PIB	30.0
Dye Solution (1% in SOFTIGEN 767)	4.0
B. Carnauba Wax	13.0
Beeswax	7.0
C. Coloring	3.0
Pearling Pigment/Iriodin Ti 100	2.0
D. Perfume Oil, Tandresse 75418B	1.0

Preparation:

(A) is slowly stirred, (B) is added and the mixture is heated to 75-80C. for a few minutes. The mixture is stirred until cold. (C) is very finely milled and (A + B) is incorporated into (C) in small amounts at a time. Finally, the perfume is added. It may be advisable to homogenize the finished Lip-Gloss.

Formula 2.2.1

LIP GLOSS

RAW MATERIALS	% By Weight
A. Rewopal PIB 1000	30.0
Lanfrax	10.0
Softisan 649	10.0
Softisan 645	44.5
Candelilla Wax	2.5
Colorona Red Brown or (Mica (and) Iron Oxides (and) Titanium Dioxide)	3.0 or
Timiron Starluster MP-115 (Mica (and) Titanium Dioxide)	2.9 +
Sicomet Red P 15630CA/Pigment	0.1
B. Perfume Oil Strawberry 10628	q.s.

Preparation:

(A) is melted at 75-80C and stirred. (B) is added at about 60C. At the same temperature the mass is poured into molds in 5-gram portions.

Formula 2.2.1A

SOURCE: Huls America Inc.: Formulas

LIP POWDER
WATER RESISTANT

COMPOSITION	% By Weight
Italian Talc	40
Pearl pigment*	35
Biron Fines (BiOCl)	5
Magnesium stearate	5
Binder	15
Composition of binder:	
Isopropyl myristate	75
Dow Corning Q 2-1401 fluid	25

Manufacturing Process:

Talcum and pigments are mixed and the binder is added under stirring. The material is pressed at 40-50 kg/cm² (560-630 psi).

* suitable pearl pigments

 COLORONA Carmine Red

 COLORONA Imperial Red

 COLORONA Sienna

 TIMIRON Super Colors (and organic dye, e.g. 37.5% pearl pigment + 2.5% dye) and

 TIMIRON Silver pigments (and organic dye)

LIPSTICKS WITH VOLATILE SILICONES

RAW MATERIALS	% By Weight
1. Castor-oil	11.5-23.5
2. Color grind (D&C colors in castor oil)	3.0-15.0
3. Dow Corning 345 fluid	15.0
4. Miglyol 812	17.5
5. Isopropyl myristate	8.0
6. Mineral Oil Light	3.0
7. Aerosil 200	1.0
8. Bees wax	14.0
9. Carnauba wax	8.0
10. Ozokerite 145	2.0
11. Lanolin	5.0
12. Pearl pigments	10.0-15.0

Manufacturing Process:

The ingredients of the color grind are mixed with castor oil, the mixture is heated to 60C and passed twice over a three-roll mill.

Components 1-7 are mixed and homogenized (e.g. with an Ultra Turrax). After items 8-11 are added and the mass is heated to about 80C until melting.

Finally 10-15% pearl pigments (item 12) are added to the melted mixture and stirred until the mass is homogeneous.

When pouring the sticks, the casting machine and the mixture should have a temperature of about 70C and the mold should be preheated to 60C.

SOURCE: EM Pigments Division: Formulas

LIP REPAIR

RAW MATERIALS	Sequence	% By Weight
Water	1	79.20
Keltrol	1	0.90
Methylparaben	1	0.30
Sodium Dehydroacetate	1	0.10
Unicide U-13	1	0.30
Lipo GMS 450	2	5.00
Liponate SPS	2	0.50
Lipocol C	2	0.50
Liponate CRM	2	10.00
Propylparaben	2	0.20
Amphisol	2	2.00
Indopol H-1900	3	1.00

Procedure:

1. In main vessel, heat Sequence 1 materials under slow agitation to 78C.
2. In an auxiliary vessel, heat Sequence 2 materials to 80C under slow agitation.
3. Add Sequence 2 materials at 80C to Sequence 1 at 78C while mixing with a Lightnin' mixer.
4. Cool slowly to 60C while mixing. Add Sequence 3 and disperse thoroughly. Cool and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 212

LIP GLOSS

INGREDIENTS	% By Weight
Castor Oil	55.00
Miglyol 812	20.00
White Beeswax	5.00
Carnauba wax	5.00
Pearlescent pigments:	
Timiron MP-115	5.00
Biron Silver Co	5.00
Fragrance, preservatives	q.s.

Manufacturing Procedure:

Waxes, oils, and preservatives are combined and heated to 85-90C. Pearlescent pigments are stirred in. Temperature adjusted to 65C and fragrance added prior to filling.

SOURCE: EM Pigments Division: Formula

LIPSTICK

RAW MATERIALS	% By Weight
Ross Synthetic Candelilla Wax	11.2
Isopropyl Myristate	9.8
Lanolin N.F.	4.5
Ross White Beeswax N.F.	3.4
Ross Refined Paraffin Wax 130/35	2.1
Ross White Ozokerite Wax 77W	1.0
Castor Oil	55.6
Pigment	12.3
Teg. "P"	0.1

Formulation developed by Precision Cosmetic of Mount Vernon, NY, in conjunction with the Frank B. Ross Co.

HIGH SHINE LIPSTICK

RAW MATERIALS	% By Weight
Castor Oil	59.4
Candelilla Wax	8.0
Acetulan	7.5
Ross Wax 1275W	5.0
Propylene Glycol Monolaureate	5.0
Lanogene	5.0
Carnauba Wax	2.0
Propylparaben	0.1
Timiron MP-10	7.0
D & C Red #7 CA Lake (3107)	0.9
Pur. Navy Blue #7110	0.1
Fragrance	q.s.

Procedures:

Grind the pigments in part of the Castor Oil using either a 3-roll mill or mortar/pestle. Add all other ingredients (except for pearlescent pigment and fragrance) and heat gently on steam bath to 80-85C. Add pearl, mix until homogeneous. Fragrance should be added at lowest possible temperature. Cast into molds.

High gloss, firm lipstick with good moisturizing qualities. Liquifies instantly to an oil, slippery film while depositing very little sheer color and high pearlescence.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

LIPSTICK

RAW MATERIALS	% By Weight
I. APIFIL	2,13
Phenyl Dimethicone	2,13
Mineral Wax	23,15
ISOSTEARATE D'ISOSTEARYLE	31,57
D.P.P.G.	3,20
Hydrophilol Isostearique	2,13
LIPOCIRE A	4,26
Cetyl Lactate	1,78
LAFIL	4,45
Castor Oil	14,25
Antioxygen	Q.S.
II. LABRAFIL ISOSTEARIQUE	6,00
F.D.C. Yellow 5 Al. Lake (CI 19140:1)	2,00
D.C. Red 7 Ca (CI 15850):1)	1,00
Lipophilic Titanium Dioxide	1,65
Perfume	0,30

Preparation:

Mix all the components of II well and pass this mixture through a three rolls mill (three times).

Heat I at 75-80C. Mix well.

With a slow stirring, pour II into I and add the perfume. Mix well until good homogeneity.

Maintain the temperature at 70-75C and pour into moulds.

SOURCE: Gattefosse: Formula PL 2154

LIP CARE POMADE

RAW MATERIALS	% By Weight
A. SOFTISAN 100	20.0
SOFTISAN 649	5.0
MIGLYOL 812	14.0
Beeswax	20.0
Paraffin	5.0
Cetyl Alcohol	5.0
Petrolatum	29.68
Carnauba Wax	1.0
OxyneX 2004	0.02
B. Perfume Kamille	0.3

Preparation:

(A) is heated to 75-80C. It is then stirred cool to a cream melt consistence. (B) is added, and the mass is poured into molds.

SOURCE: Huls America Inc.: Formula 1.5.1A

LIPSTICK

RAW MATERIALS	% By Weight
A. DYNACERIN 660	8.0
SOFTISAN 649	14.0
SOFTISAN 100	6.0
MIGLYOL 812	7.0
Cremophor S 9	5.5
Eutanol G	9.0
Protegin X	4.0
Beeswax	12.0
Purcellin Solid	5.0
Carnauba Wax	9.0
Cosmetic Grade Stearic Acid	2.0
Castor Oil	6.0
Hexylene Glycol	3.0
Antioxidants	q.s.
B. Pigments:	
Talc	2.0
Titanium Dioxide	2.0
Zinc Oxide	2.0
Blue Violet extra C.I. 60725	0.02
Sicomet-Erythrosinlack E 127	0.5
Timiron Starluster MP-115	1.88
C. Perfume Oil Tandresse 75 418B	1.0

Preparation:

(A) is melted at 75-80C. (B) is finely ground. (A) is added to (B) little by little. The mass is stirred until cooled to a creamy consistency, fragrance is added, and then it is poured.

Formula 2.2AA

LIP OINTMENT

RAW MATERIALS	% By Weight
SOFTISAN 100	20.0
MIGLYOL 812	14.0
Beeswax, white	20.0
Ceresin	5.0
Cetyl Alcohol	5.0
Carnauba wax	1.0
Lanolin	5.0
Petrolatum	30.0

Preparation:

All the materials are melted together and stirred until cold to a cream consistency and then poured out into a mold.

Formula 2.2E

SOURCE: Huls America Inc.: Formulas

LIPSTICK

RAW MATERIALS	% By Weight
A. DYNACERIN 660	8.0
SOFTISAN 649	12.0
SOFTISAN 100	5.0
MIGLYOL 812	7.0
Cremophor S 9	5.5
Eutanol G	9.0
Protegin X	4.0
Beeswax	12.0
Purcellin Solid	5.0
Carnauba Wax	9.0
Stearic Acid	2.0
Castor Oil	5.0
Hexylene Glycol	3.0
Antioxidants	q.s.
B. Pigments	3.5
Talc	3.0
Titanium Dioxide	3.0
Zinc Oxide	3.0
C. Perfume Oil Tandresse 418B	1.0

Preparation:

(A) is melted at 75-80C. (B) is finely ground. (A) is added to (B) little by little. The mass is stirred until cooled to a creamy consistency, fragrance is added, and then it is poured.

Formula 2.2A

LIPSTICK

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	14.0
DYNACERIN 660	5.0
MIGLYOL 829	4.0
IMWITOR 780K	6.0
SOFTIGEN 767	4.5
SOFTISAN 649	9.0
Lanolin Oil	10.0
Beeswax	7.0
Candelilla Wax	8.0
Rewopal PIB 1000	16.0
Lanfrax	10.0
Sodium Stearate	1.0
Antioxidants	q.s.
B. Pigments:	
Colorona Red Brown	0.5
Sicometro P 12085 (Red)	1.0
Iriodin Ti 100	3.0
C. Fragrance	1.0

Preparation:

(A) is melted and stirred until homogeneous. (B) is added to (A). Shortly before pouring, add (C).

Formula 2.2B

SOURCE: Huls America Inc.: Formulas

LIPSTICK BASE

RAW MATERIALS	% By Weight
1. A-C 540A	15.0
2. Span 60	12.0
3. Castor Oil	36.0
4. Mineral Oil, 350 s.s.	14.0
5. Nodorlan	18.0
6. Cetyl Alcohol	4.0
7. Perfume	0.8
8. Butyl Paraben	0.2

Procedure:

Weigh all ingredients and heat to 110C, with agitation. When well mixed, cool to 85C; add perfume and pour into molds.

LIP GLOSS

RAW MATERIALS	% By Weight
1. 2-ethyl hexyl stearate	51.175
2. Castor Oil	15.0
3. A-C 400	20.0
4. Lanolin Alcohol	5.0
5. Oleyl Alcohol	8.0
6. Perfume	0.75
7. Brown Umber Shade 1985	0.025
8. Brown Red Shade 1654	0.05

Procedure:

Disperse pigment in 0.225% castor oil. Mix the remaining 1, 2, 3, 4, and 5 and heat to 85-90C with stirring until the polyethylene has completely dissolved. Add pigment mixture to it. Mix slowly, add perfume at 50-55C and de-aerate. Pour into molds or containers and allow to cool to room temperature.

SSOURCE: Allied-Signal Inc.: Prototype Formulations: Formulas

LIP CARE STICK

RAW MATERIALS	% By Weight
LUNACERA LB	50
Estol GTCC 1527	50

LIP CARE STICK

RAW MATERIALS	% By Weight
LUNACERA LB	70
Migliol 812	30

SOURCE: H.B. Fuller GmbH: Formulas

LIPSTICK-BASE-1

RAW MATERIALS	% By Weight
LUNACERA LB	60
Castor oil	40
Pigments and perfume oil	
Simple conception/solid consistency	

LIPSTICK-BASE-2

RAW MATERIALS	% By Weight
LUNACERA LB	59
Castor oil	39
Cremophor WO 7	2
Pigments and perfume oil	
Smooth, solid consistency/well-adherent	

LIPSTICK-BASE-3

RAW MATERIALS	% By Weight
LUNACERA LB	50
Estol GTCC 1527	10
Castor oil	40
Pigments and perfume oil	
Smooth, soft consistency/well-adherent	

LIPSTICK-BASE-4

RAW MATERIALS	% By Weight
LUNACERA LB	55
Mygliol 812	33
Eutanol HD	12
Pigments and perfume oil	
Smooth, soft consistency/good abrasion properties	

LIP CARE STICK

RAW MATERIALS	% By Weight
LUNACERA LB	40
Vaseline	20
Migliol 812	30
Pearl gloss	10
Active agents	

SOURCE: H.B. Fuller GmbH: Guide Formulations

PROTECTIVE LIP BALM

INGREDIENT	% By Weight
Cirami	56.00
Petrolatum	33.00
Ceresin	5.00
Pot Marigold LS	2.00
Candelilla Wax	0.50
Vitamin E Acetate	2.00
Oxybenzone	1.00
Tri-Allantoin	0.50

Procedure:

Weigh all ingredients (except Calendula Extract) and heat with mixing until melted; cool to 50C and add Calendula. Mix and then pour into containers.

A conditioning blend that contains Vitamin E Acetate, a natural source of Vitamin A and Beta-Carotene (Calendula), Allantoin, and a sunscreen for a daily lip treatment.

SOURCE: TRI-K Industries, Inc.: Formula MS-2-50-2

LIP POMADE

RAW MATERIALS	% By Weight
A. SOFTISAN 100	20.0
DYNACERIN 660	8.0
MIGLYOL 812	6.0
SOFTISAN 649	5.0
Paraffin	5.0
Cetyl Alcohol	5.0
Carnauba Wax	1.0
Beeswax	20.0
Petrolatum	29.8
B. Perfume Oil Vanille 86 481	1.0

Preparation:

Phase (A) is melted and cooled down to a creamy consistency. (B) is added, and the mass is poured into molds.

SOURCE: Huls America Inc.: Formula 2.2F

Section IX

Lotions

ACNE TREATMENT LOTION

INGREDIENT	% By Weight
A VEEGUM	0.90
RHODIGEL	0.40
Deionized Water	80.70
B Propylene Glycol	6.00
C LIPACIDE CCO	2.00
Laureth-4	5.00
Acetylated Lanolin Alcohol	5.00
D Preservative	q.s.
Citric Acid to pH 5.0	q.s.

Preparation:

Dry blend VEEGUM and RHODIGEL and add to water, mixing with maximum available shear until smooth and uniform. Add B to A and mix until uniform. Blend C ingredients and heat to 50C with mixing. Add C to (A+B) with high speed mixing until a uniform emulsion is formed. Cool to 30C and add D.

Consistency: Low Viscosity Lotion (Viscosity 700-900 cps)
Suggested Packaging: Plastic or Glass Bottles.

Features:

This lotion contains LIPACIDE CCO, Capryloyl Collagenic Acid, which has been shown to be an effective bactericide against propionibacterium acnes, staphylococcus aureus and staphylococcus epidermis, strains normally associated with the skin disease acne. This emulsion has been stabilized and thickened by the synergistic combination of VEEGUM and RHODIGEL and contains no occlusive oils or benzoyl peroxide.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 436

HAND AND BODY LOTION

INGREDIENT	% By Weight
Deionized water	88.25
Glycerin, USP	2.00
Natrosol Plus, CS grade	0.50
Triethanolamine	0.50
Glycol stearate	2.75
Stearic acid	2.50
Mineral oil	2.00
Propylene glycol and diazolidinyl urea and methylparaben and propylparaben	0.75
Acetylated lanolin	0.50
Cetyl alcohol	0.25

SOURCE: Aqualon Co.: Bulletin VC-562: Formula

ALL-PURPOSE SKIN CONDITIONING LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
PROMULGEN G	5.0
GLUCATE SS	2.0
GLUCAMATE SSE-20	2.0
SOLULAN 5	0.5
Mineral Oil, 70 vis.	
Water Phase:	
BIOCARE Polymer HA-24	3.8
GLUCAM E-10	3.5
Water	80.2
Germaben IIE	1.0

Procedure:

Add the water phase (minus the BIOCARE Polymer HA-24 and Germaben IIE) at 85C to the oil phase at 85C with mixing. Add the Germaben IIE at 75C. Continue to mix to 40C. Add the BIOCARE Polymer HA-24 with mixing while cooling to 30C.

Description:

White, glossy, medium viscosity, nonionic o/w lotion. BIOCARE Polymer HA-24 is substantive to the skin and forms a uniform viscoelastic matrix which moisturizes the skin. The combination of o/w GLUCAMATE SSE-20 and w/o GLUCATE SS nonionic emulsifiers gives a stable and mild system. PROMULGEN G and SOLULAN 5 give body to the system while also acting as auxiliary emulsifiers. GLUCAM E-10 serves as a humectant and emollient contributing to the positive afterfeel.

SOURCE: Amerchol Corp.: BIOCARE Polymer HA-24: Formula T51-155-1

BODY LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSIL ME-358	6.0
Cyclomethicone Pentamer	3.0
AMERCHOL L-101	3.0
Polyglycerol Methacrylate	10.0
Water Phase:	
Glycerin	5.0
Deionized water	73.0
Preservative and perfume	q.s.

Description:

Fluffy, white, glossy cream. AMERSIL ME-358 allows emulsification of the cyclomethicone pentamer, and together they provide an elegant, velvety feel on the skin. AMERCHOL L-101 adds to the emolliency and smooth appearance while providing good stability to the overall product, especially in freeze-thaw evaluations.

SOURCE: Amerchol Corp.: AMERSIL ME-358: Formula T59-196-2

BANANA HAND LOTION

RAW MATERIALS	Parts By Weight
Water	568.0
Carbomer 934	2.0
GMS-SE	4.0
Avocado Oil	16.0
Lipovol A	
Rosswax 573	4.0
Coconut Oil #76	16.0
Ross Jojoba Oil	4.0
TEA	4.0
Germaben II	4.0
Fragrance GK-17	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Avocado Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in separate kettle. As soon as the Oil Phase has been mixed well, add the Germaben II and then the TEA under high agitation, then the fragrance. Cool to 55C for filling.

PEACH HAND LOTION

RAW MATERIALS	Parts by Weight
Water	568.0
Carbomer 934	2.0
Rosswax 573	4.0
GMS-SE	4.0
Almond Oil	16.0
Lipoval ALM	
Coconut Oil #76	16.0
Ross Jojoba Oil	4.0
TEA	4.0
Germaben II	6.0
Fragrance GK-16	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Almond Oil, Coconut Oil, and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the Oil Phase has been mixed well, add the Germaben II, the Fragrance, and then the TEA under high agitation. Cool to 55C for filling.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

BASIC BODY LOTION WITH COCOA BUTTER

INGREDIENT	% By Weight
Demineralized Water	74.7000
1,3 Butylene Glycol	2.0000
Amigel	0.1000
Tri-Sept M	0.2000
Tri-Sept P	0.0500
Cocoa Butter	5.0000
Isopropyl Myristate	2.0000
Lexemul EGDS	3.5000
Emulgin B-1	3.0000
Stearalkonium CL 25%	3.0000
White Petrolatum	2.0000
Carnation 70	2.5000
Stearic Acid XXX	1.0000
TEA 99%	0.8000
Floral Fragrance T8201	0.1500
Abiol	0.2000

Procedure:

Pre-blend the Parabens with the Butylene Glycol heat if necessary to dissolve.

Cool to near room temp, disperse the Amigel completely and set aside.

Heat water to 75C., and add the glycol blend w/prop agitation.

Mix until fully dissolved and lump-free.

Combine the oils and waxes and heat to 75C. to dissolve.

Add the oil phase to the water phase with prop agitation and mix thoroughly.

Add the TEA and mix until creamy. Switch to sweep agitation and begin cooling.

Add the Abiol at 50C. Continue cooling to room temp.

Add fragrance at 45C. Continue mixing until uniform and R.T.

Adjust pH to 7.5 approx. with TEA.

SOURCE: TRI-K Industries, Inc.: Code 021

EMOLLIENT BODY LOTION

RAW MATERIALS	% By Weight
Isopropyl myristate	4.0
Glyceryl monostearate	2.0
Stearic acid TP	2.6
Cetina	1.0
Robane	4.0
Veegum	1.0
Propylene glycol	4.0
Triethanolamine	1.5
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robeco Chemicals, Inc.: ROBANE/SUPRAENE: Formula

BENZOYL PEROXIDE LOTION

INGREDIENTS	% By Weight
Part A:	
Water, deionized	79.30
KELTROL T xanthan gum	0.50
Methyl Parasept methylparaben	0.20
Part B:	
SOLULAN 98 laneth-10 acetate	7.00
Benzoyl peroxide 70%, wet	6.50
Promulgen G stearyl alcohol and ceteareth 20	3.00
Dehydag Wax 16 cetyl alcohol	2.00
Emerest 2314 isopropyl myristate	1.50

Part A:

1. With good agitation, hydrate the KELTROL T in the deionized water (10-15 minutes using a high-shear mixer).
2. When fully hydrated, add the methyl paraben.
3. Heat to 77C (170F).

Part B:

1. Melt the Promulgen G and Dehydag Wax 16 by heating to about 77C (170F).
2. Add to Part A at 77C (170F) and mix until homogeneous.
3. Remove from heat and start cooling.
4. Blend the rest of the ingredients.
5. Add to the liquid mix cooled to about 38C (100F) and mix again.
6. Homogenize or pass through a colloid mill.

SOURCE: Kelco Division: Product Formulation SS-4914

LOW COST LOW SOLIDS LOTION

RAW MATERIALS	Parts by Weight
Water	500.0
Carbomer 934	4.0
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	3.0
Dow Corning Silicone 344	6.0
Triethanolamine	4.0
Perfume	q.s.
Preservative Germaben II	q.s.

Procedure:

Heat the water under agitation and slowly add the Carbomer 934. When fully mixed add the 573, GMS, Jojoba Oil and Silicone that have been blended in a separate kettle maintaining a temperature of 140F. As soon as all the ingredients have been mixed well add the Preservatives, the Perfume, and add the TEA, under high agitation, cool to 120F. and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

BODY LOTION

RAW MATERIALS	% By Weight
A. MIGLYOL 812	5.0
SOFTISAN 378	3.0
DYNACERIN 660	5.0
Mineral Oil	3.0
Emulgade F	3.0
Isopropyl Myristate	4.0
Hostaphat KL 340N	3.0
B. *Carbopol Gel 1%	3.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	0.3
*Carbopol Gel: Carbopol 940	1.0
Triethanolamine	0.6
Water	up to 100.0

Preparation:

(A) is heated up to ca. 75C. (B) is stirred and heated up to the same temperature, and emulsified into (A). The fragrance is stirred in at ca. 30C.

SOURCE: Huls America Inc.: Formula 1.3C

BODY LOTION

RAW MATERIALS	% By Weight
A Emulgator E 2155	5.56
Tagat S 2	2.22
Lantrol	5.56
Cetiol	3.33
Miglyol 812	5.56
PCL-Liquid	3.33
Isopropyl myristate	3.33
Abil 100	0.56
B 1,2-propylene glycol	2.22
Karlon F	5.56
Water	62.77
C Perfume	0.3
Preservative	

SOURCE: Schulke & Mayr GmbH: EUXYL K 400: Formulation Nr. 3 O/W

BODY LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	4.0
MIGLYOL 840	7.0
Hostaphat KL 340 N	5.0
Cetyl alcohol	2.0
B. Carbopol-Gel 1%	12.5
Sorbitol	5.0
Preservative	q.s.
Water	ad 100.0
C. Perfume Fragrance A 10 010 B	0.2
Preparation of Carbopol-Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Preparation of the Lotion:

(A) is melted and heated up to 75-80C. (B) is mixed and heated to the same temperature and gradually stirred into (A). (C) is added at about 40C.

Formula 1.3.1

BODY LOTION WITH AVOCADO OIL
(Oily)

RAW MATERIALS	% By Weight
A. SOFTISAN 378	3.0
MIGLYOL 829	5.0
IMWITOR 375	3.0
Emulgade F	3.0
Avocado Oil	5.0
Antioxidants	q.s.
B. Carbopol Gel 1%	10.0
Glycerin	10.0
Preservative	q.s.
Water	ad 100.0
C. Isopropyl Alcohol	1.0
Perfume Oil	q.s.

Preparation of Carbopol Gel:

Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Carbopol is homogeneously mixed with water, then triethanolamine is added. It has to be stirred until the gel is smooth.

Preparation of the Lotion:

(A) is heated to 75-80C. (B) is mixed and brought to the same temperature. (B) is emulsified into (A) at 30C. (C) is added
Formula 1.3.2

SOURCE: Huls America Inc.: Formulas

BODY LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	4.0
SPECIAL OIL 619	7.0
Hostaphat KL 340 N	5.0
Cetyl Alcohol	2.0
B. Carbopol-Gel 1%	12.5
Sorbitol	5.0
Preservative	q.s.
Water	ad 100.0
C. Perfume Fragrance A 10 010 B	0.2

Preparation of Carbopol-Gel:

Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Preparation of the Lotion:

(A) is melted and heated up to 75-80C. (B) is mixed and heated to the same temperature and gradually stirred into (A). (C) is added at about 40C.

BODY LOTION WITH AVOCADO OIL, OILY
(For Dry Skin)

RAW MATERIALS	% By Weight
A. SOFTISAN 378	3.0
MIGLYOL 829	5.0
IMWITOR 375	3.0
Emulgade F	3.0
Avocado oil	5.0
Antioxidants	q.s.
Silicone Fluid AR 200	1.0
B. Carbopol-Gel 1%	10.0
Glycerin	10.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil Concentrate 38 800	0.2

Preparation of Carbopol-Gel:

Carbopol 940	1.0%
Triethanolamine	0.6%
Water	up to 100.0%

Carbopol is homogeneously mixed with water, then triethanolamine is added. It has to be stirred until the gel is smooth.

Preparation of the lotion:

(A) is heated to 75-80C. (B) is mixed and brought to the same temperature. (B) is emulsified into (A). At 30C., (C) is added.

SOURCE: Huls America Inc.: Formula 1.3.2A

BODY LOTION

RAW MATERIALS	% By Weight
A Arlancel 989	3.30
Arlancel 481	2.70
Miglyol 812	7.00
Paraffin oil	17.00
B 1,2-propylene glycol	3.80
Magnesium sulphate-7H ₂ O	0.70
Water	64.90
C Perfume	0.4
Preservative	
Formulation Nr. 10 W/O	

BODY LOTION

RAW MATERIALS	% By Weight
A Hostaphat KL 340	3.00
Hostacerin DGS	6.00
Paraffin oil (light mineral)	10.00
Hostacerin PN 73	0.50
B Water	ad 100.00
Karion F	2.00
Plant extracts	
C Perfume	0.15
Preservative	
Formulation Nr. 16 O/W	

SKIN PROTECTION AND CARE LOTION

RAW MATERIALS	% By Weight
A Edenor C 18/98	4.65
Sebase	2.00
Silicon oil	2.00
Emulgator E 2155	1.50
Dragosantol	0.05
B Akucell AF L505	0.75
Caustic soda solution, 45%	0.66
Triethanol amine	0.20
Karion F	2.00
Water	85.74
C Perfume	0.15
Allantoin	0.10
Formulation Nr. 15 O/W	

SOURCE: Schulke & Mayr GmbH: EUXYL K400: Formulas

BODY LOTION, O/W, CARING

RAW MATERIALS	% By Weight
I. Emulgade CBN	15.0
II. Glycerine 86%	3.0
Water, deionized, preservative	ad 100
III. Collapuron DAK	3.0
Viscosity, mPas: 8.000	
Formula no. 89/139/2	

BODY LOTION, O/W, CARING

RAW MATERIALS	% By Weight
I. Emulgade CBN	15.0
II. Glycerine 86%	3.0
Water, deionized, preservative	ad 100
III. Collapuron DAK	10.0
Viscosity, mPas: 6.000	
Formula no. 89/139/4	

BODY LOTION, O/W, CARING

RAW MATERIALS	% By Weight
I. Emulgade CBN	15.0
II. Nutrilan Elastin E 20	3.0
Glycerine 86%	3.0
Water, deionized, preservative	ad 100
Viscosity, mPas: 15.000	
Formula no. 89/139/8	

BODY LOTION, O/W

RAW MATERIALS	% By Weight
I. Cutina CBS	10.0
Cutina E 24	2.0
Eumulgin B 2	0.5
Cetiol V	6.0
Eutanol G	4.0
II. Glycerine 86%	5.0
Glucadin AGP	1.0
Water, deionized, preservative	ad 100.0
Viscosity: 8,000 mPas	
Formula no. 89/118/5	

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz: Formulas

BODY LOTION O/W FOR NORMAL SKIN

RAW MATERIALS	% By Weight
I. CUTINA GMS	7,0
LANETTE O	1,0
CETIOL S	3,0
CETIOL V	2,0
EUTANOL G	2,0
EUMULGIN B 2	1,0
CUTINA E 24	2,0
II. Glycerol 86%	3,0
Water, demin.	78,0
Preservatives	
III. COLLAPUR	1,0
Viscosity in mPas: 8000	
Formula no. 90/227/4	

BODY LOTION O/W FOR NORMAL SKIN

RAW MATERIALS	% By Weight
I. CUTINA GMS	6,0
CETIOL V	3,0
EUTANOL G	5,0
EUMULGIN B 2	2,5
II. Hostacerin PN 73 (1%)	40,0
Glycerol 86%	3,0
GLUADIN AGP	1,0
Water, demin.	39,2
preservatives	
III. HYDAGEN B	0,3
Viscosity in mPas: 20000	
Formula no. 90/227/8	

SOURCE: Henkel: Cosmetics No. III/91: Formulas

BODY LOTION O/W FOR NORMAL SKIN

RAW MATERIALS	% By Weight
I. CUTINA GMS	8,0
CETIOL V	3,0
EUTANOL G	2,0
EUMULGIN B 2	1,0
FORLANIT E	3,0
Paraffin oil viscous	3.0
II. KOH (50%)	0,2
Glycerol 86%	3,0
GLUADIN AGP	0,5
Water, demin. preservative	78,1
III. HYDAGEN B	0,2

Viscosity in mPas: 5000

Formula no. 90/227/13

BODY LOTION W/O (COLD PROCESS)

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL V	10,0
CETIOL SN	10,0
COPHEROL F 1300	0,5
II. Glycerol 86%	5,0
MgSO4-7H2O	0,5
Water, demin. preservative	66,5
GLUADIN AGP	0,5

Viscosity in mPas: 4000

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

Formula no. 90/229/12

SOURCE: Henkel: Cosmetics No. III/91: Formulas

BODY LOTION W/O

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	3,0
LAMEFORM TGI	4,0
EUTANOL G	10,0
Microwax 7694	1,0
Zincum N 29	1,5
Paraffin oil, thin	10,0
II. Glycerol 86*	5,0
MgSO4-7H2O	0,5
Water, demin. preservatives	63,5
III. HYDAGEN BP 1	1,5
Viscosity in mPas: 20000	
Formula no. 90/229/1	

BODY LOTION W/O

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL V	20,0
Microwax 7694	1,0
Zincum N 29	1,0
II. Glycerol 86*	3,0
MgSO4-7H2O	0,5
Water, demin.	65,5
III. COLLAPURON DAK	2,0
Viscosity in mPas: 11000	
Formula no. 90/229/2	

SOURCE: Henkel: Cosmetics No. III/91: Formulas

BODY LOTION W/O

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL V	8,0
CETIOL SN	8,0
Beeswax 8100	2,0
COPHEROL F 1300	0,5
II. NUTRILAN ELASTIN E 20	2,0
Glycerol 86%	5,0
MgSO4-7H2O	0,5
Water, demin.	67,5
preservatives	

Viscosity in mPas: 12000

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

Formula no. 90/229/13

BODY LOTION W/O

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL V	8,0
CETIOL SN	8,0
Zincum N 29	2,0
COPHEROL F 1300	0,5
II. GLUADIN AGP	0,5
Glycerol 86%	5,0
MgSO4-7H2O	0,5
Water, demin.	68,5
preservatives	

Viscosity in mPas: 9000

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

Formula no. 90/229/14

SOURCE: Henkel: Cosmetics No. III/91: Formulas

BODY LOTION W/O (COLD PROCESS)

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL SN	3,0
IPP	2,0
Paraffin oil, thin	10,0
II. Glycerol 86%	5,0
MgSO ₄ -7H ₂ O	0,5
Water, demin. preservative	70,5
III. COLLAPURON DAK	2,0

Viscosity in mPas: 15000

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

Formula 90/229/3

BODY LOTION W/O (COLD PROCESS)

RAW MATERIALS	% By Weight
I. DEHYMULS HRE 7	7,0
CETIOL V	10,0
CETIOL SN	10,0
COPHEROL F 1300	0,5
II. GLYCEROL 86%	5,0
MgSO ₄ -7H ₂ O	0,5
Water, demin. preservative	65,0
NUTRILAN ELASTIN E 20	2,0

Viscosity in mPas: 5000

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

Formula no. 90/229/11

SOURCE: Henkel : Cosmetics No. III/91: Formulas

BODY AND HAND LOTION

INGREDIENTS	% By Weight
Oil Phase:	
Di(2-Ethylhexyl) Adipate	4.80
Stearic Acid	2.90
"Nimcolan T"	0.50
Cetyl Alcohol	0.40
Glycerol Monostearate	1.00
Propyl p-Hydroxybenzoate	0.05
Water Phase:	
Triethanolamine, 99%	0.95
Propylene Glycol	4.80
Polymer JR-400	0.20
Methyl p-Hydroxybenzoate	0.10
Water	83.90
Fragrance--Alpine Aromatics No. 8-911	0.40

Preparation Procedures:

1. Heat the oil phase to 70C.
2. In a separate container, add the Polymer JR-400 to 10 per cent of the water and stir until hydrated.
3. In a third container, heat the remaining water, triethanolamine, propylene glycol, and methyl p-hydroxybenzoate to 70C.
4. Add the water phase and then the Polymer JR-400 solution to the oil phase while stirring vigorously.
5. Continue the stirring at a moderate rate until the temperature reaches 40C., when the perfume is added.
6. Stirring is ceased when the temperature reaches 35C or lower. Viscosity--1,800 to 2,200 cps. at 25C.

Features:

- * Positive after-feel
- * Smoothness
- * Improvement in ease of rub-in
- * Assistance in retention of emollients
- * Viscosity building effects

SOURCE: Amerchol Corp.: UCARE Polymer for Skin Care:
Formula

CATIONIC HAND LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
AMERCHOL L-101	5.0
SOLULAN 98	2.0
CETAL	1.0
Glyceryl Stearate (and) PEG-100 Stearate	4.0
Water Phase:	
Part A:	
QUATRISOFT POLYMER LM-200	0.5
Water	19.5
Part B:	
Steapyrium Chloride	0.1
Glycerin	2.0
Water	65.9
Preservative and Perfume	q.s.

Description:

A medium viscosity, white, glossy lotion. QUATRISOFT POLYMER LM-200 contributes to the overall emollient afterfeel by virtue of its substantive cationic nature. AMERCHOL L-101 (w/o) and SOLULAN 98 (o/w) act as a nonionic emulsifier pair to ensure emulsion stability.

Procedure:

Add QUATRISOFT POLYMER LM-200 to the water (water phase, part A). Mix until thoroughly dispersed, then heat to 45-50C. Mix until clear and uniform. Add water phase, part A to water phase, part B while mixing while heating to 70C. Heat oil phase to 70C. Add water phase at 70C to oil phase at 70C while mixing. Cool to 35C.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-190-1

PROTEIN HAND LOTION

RAW MATERIALS	% By Weight
Part A:	
Stearic Acid (Triple Pressed)	3.0
Mineral Oil, Light	5.0
MACKESTER TD-88	2.0
Part B:	
MACKPRO NLP	2.0
TEA	0.3
Propylene Glycol	6.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat parts A and B separately to 70 degrees C.
2. Add part A to part B.
3. Cool and fill at 30 degrees C.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CATIONIC LOTION

INGREDIENTS	% By Weight
Part A:	
EMULGADE F Special	8.0
MYRITOL 318	5.0
Silicon 200 Fluid (350 cs)	0.5
Part B:	
Deionized Water	81.4
Glycerin	3.0
Dehyquart SP	1.0
Part C:	
Fragrance	0.1
Germaben II-E	1.0

Procedure:

- 1) Heat Part A and Part B to 70-75C.
- 2) Add Part A to Part B at 70-75C, with moderate agitation and stir at temperature for 15 minutes.
- 3) Let cool, while stirring, to 40-45C and add Part C.
- 4) Stir down to 25-30C and package.

Comments:

Emulgade F Special is a self-emulsifying base used for the preparation of oil-in-water emulsions. Because it is nonionic, cationic substances can be easily formulated into creams and lotions.

This formulation is a light cream and is characterized by a non greasy rubout, quick penetration and a soft, non-drying after-feel.

SOURCE: Henkel: Cream Bases: Formula H-4889

HAND LOTION

RAW MATERIALS	% By Weight
A Mineral Oil	1,00
Cetyl Alcohol	1,00
Stearic Acid	1,50
Belsil CM 030	5,00
Belsil SDM 6022	3,00
B Triethanolamine	0,80
Propylene Glycol	3,00
Water	84,70
Preservatives, perfume	q.s.

Heat A and B each to 85C, stir A into B, cool whilst stirring.

Temperature stability: at 45C over 10 weeks.

Thick white lotion. Absorbs well, is not greasy.

SOURCE: Wacker Silicone: Formulation 132 AH

CATIONIC MOISTURIZING LOTION

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	60.05
Uniphen P-23	1	0.30
Hypan QT100	2	0.40
Liponate NPGC-2	3	35.00
Epikuron 100H	3	1.25
Categel	4	3.00

Procedure:

1. In main kettle combine Sequence 1 ingredients under Lightnin mixing and heat to 78-80C.
2. Slowly sprinkle Sequence 2 into Sequence 1 maintaining temperature.
3. In auxiliary kettle, combine Sequence 3 ingredients under Lightnin' mixing and heat to 80C.
4. At proper temperatures, add Sequence 3 to combined Sequences 1 and 2 and maintain temperature for 5 minutes. Begin to cool to 60-65C.
5. At 60-65C recirculate product through a colloid mill for a minimum of 5 minutes.
6. Continue to cool product under slow sweep mixing to 40C and add Sequence 4 to batch.
7. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 514

UNIVERSAL SKIN LOTION, W/O LIQUID

RAW MATERIALS	% By Weight
Dehymuls HRE 7	3.0
Lameform TGI	4.0
Paraffin oil, thin liquid	10.0
Eutanol G	10.0
Mikrowachs 7694	1.0
Zincum N 29	1.5
Glycerin 86%	5.0
MgSO ₄ -7H ₂ O	0.5
Water, preservative	ad 100.0

Viscosity: 18.000 mPas

SOURCE: Henkel: Cosmetics Nr. VIII/89/Lz: Formula no. 88/080/23

CHAMOMILE LOTION

RAW MATERIALS	% By Weight
A. SOFTISAN 378	3.0
Emulgade F	3.0
MIGLYOL 829	5.0
IMWITOR 375	3.0
Isopropyl Myristate	5.0
B. Carbopol-Gel 1%	10.0
Glycerin	20.0
Isopropyl Alcohol	1.0
Preservative	q.s.
Water	100.0
C. Extrapone Chamomile Special	1.0
Perfume Oil	q.s.

Preparation of Carbopol Gel:

Carbopol 940	1.0
Triethanolamine	0.6
Water	up to 100.0

The water is added in small amounts to the weighed Carbopol 940 and stirring is maintained until all lumps have dissolved. The triethanolamine is added and stirring continued until a clear gel is formed.

Preparation of the lotion:

(A) and (B) are heated separately to 75-80C. and (B) is emulsified into (A). (C) is stirred in below 40C.

Formula 1.3.8

W/O LOTION

RAW MATERIALS	% By Weight
A. MIGLYOL GEL Type B	4.0
MIGLYOL 840	7.5
MIGLYOL 812	5.0
Arlacel 481	3.0
Arlacel 989	5.0
Isopropyl myristate	5.0
Petrolatum	2.0
B. Glycerin	5.0
Carbopol 934	0.2
Preservative	q.s.
Magnesium sulphate	0.7
Water	ad 100.0
C. Perfume oil	q.s.

Preparation:

(A) is mixed and heated to 75-80C. (B) is mixed with a high-speed mixer, heated to 75-80C and is gradually emulsified into (A) with the high-speed mixer. With laboratory mixer, it has to be stirred until cool. At about 30C, (C) is added.

Formula 1.3.10

SOURCE: Huls America Inc.: Formulas

CLEANSING LOTION

RAW MATERIALS	% By Weight
A. SOFTISAN 378	3.0
Emulgade F	3.0
MIGLYOL 812	5.0
Isopropyl myristate	5.0
IMWITOR 375	1.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed, heated to the same temperature, and then slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Formula 1.4.5

CLEANSING LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 900	8.0
MIGLYOL 840	7.0
Cremophor A6	2.0
Cremophor A25	3.0
B. Sorbitol	5.0
Preservative	q.s.
Water	ad 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C, the perfume is added.

Formula 1.4.6

SOURCE: Huls America Inc.: Formula

CLEANSING LOTION #2

RAW MATERIALS	% By Weight
A. Schercemol 318	6.00
Schercemol DID	8.00
Propylene Glycol	5.00
Schercemol PGMS	2.00
Arlacel 165	2.50
Cetyl Alcohol	0.30
B. Water, Deionized	68.75
Carbopol 941	0.75
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
Germall 115	0.20
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.75
E. Fragrance	0.25

Procedure:

1. Prepare Part A. Heat ingredients to 75C with slow agitation.
2. Prepare Part B by dispersing Carbopol 941 in water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion to about 80C until a smooth, viscous solution is formed.
3. Dissolve preservatives in propylene glycol by warming solution to 50C. Add Part C to Part B.
4. Add Part B & C to Part A with good mixing.
5. When batch is cooled to 55C, add Part D. Q.S. with fragrance at room temperature.

SOURCE: Scher Chemicals, Inc.: Formula

ASTRINGENT LOTION

INGREDIENTS	% By Weight
Part A:	
Water	54.50
COSMEDIA POLYMER HSP-1180	5.00
Part B:	
3A Ethyl Alcohol	40.00
Allantoin	0.50
Part C:	
Dyes and Fragrance	q.s.

Procedure:

Pre-mix Part A. Pre-mix Part B. Add Part B to Part A, under agitation. Add individual components of Part C. Continue stirring until product is homogeneous. Fill off.

Comments:

This relatively simple astringent formula provides a nice feeling to the skin due to the presence of COSMEDIA POLYMER HSP-1180. As such, it can even function as an after-bath splash.

SOURCE: Henkel: Formula H-4827

CLEANSING LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	3.0
Lanette N	0.5
MIGLYOL 812	7.0
Almond Oil	5.0
Cremophor RH 40	3.0
B. Glycerin	3.0
Preservative	q.s.
Distilled Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Formula 1.4A

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A. SOFTISAN 645	5.0
DYNASAN 110	2.0
IMWITOR 960	6.0
MIGLYOL 812	5.0
MIGLYOL 840	3.0
Paraffin oil	4.0
IMWITOR 375	5.0
Volatile Silicone Fluid 344	0.2
B. Sorbitol	2.0
Propylene glycol	2.0
Hygroplex HHG	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume oil	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is heated to the same temperature and slowly emulsified into (A). (C) is stirred in at about 40C.

Formula 1.3F

SOURCE: Huls America Inc.: Formulas

CLEAR BODY LOTION

RAW MATERIALS	% By Weight
ABIL B 8863	1.00
Carbomer 940	0.33
SD Alcohol 40	33.00
Water	64.95
Triethanolamine (99%)	0.22
Polysorbate 80	0.50
Perfume	QS

Procedure:

Disperse the carbomer in the alcohol, and mix until it goes into solution. Load the Polysorbate 80 and approximately 3/4 of the water; mix until uniform. Stir the Dimethicone Copolyol and the Triethanolamine into the remaining 1/4 water. Slowly stir the Triethanolamine solution into the carbomer solution. The lotion will gel and turn clear as the triethanolamine is added. The perfume either can be added with the alcohol or stirred into the finished formulation.

Comments:

This product is designed for use after a shower or bath to deliver fragrance and a light emollient effect to the skin. As given, the formulation is a thick gel. Lower viscosity can be achieved if the amount of Carbopol/TEA is cut back or if the final lotion is diluted with water.

COLD MIX - W/O EMULSION: DIHYDROXYACETONE LOTION

RAW MATERIALS	% By Weight
A. ABIL WE-09	5.0
Mineral Oil	6.0
Isopropyl Myristate	6.0
Caprylic/Capric Triglycerides	4.0
Petrolatum	3.0
TEGO SOFT 189	3.0
ABIL WAX 9800	3.0
B. Sorbitol 70%	3.0
Glycerin	2.0
Sodium Chloride	2.0
Water	58.0
Dihydroxyacetone	5.0

Procedure:

1. Blend Phase A
2. Mix Phase B
3. With slow lightening mix - slowly stream B into A. A milky dispersion will form.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formulas

CONDITIONING FACIAL LOTION

INGREDIENTS	% By Weight
Part A:	
LANTROL HP-2073	2.5
ACETOL 1706	5.0
CUTINA GMS	2.0
PEG-100 Stearate	2.0
LANETTE 16	1.0
EUMULGIN B-1	0.5
Propylparaben	0.1
Part B:	
Deionized Water	81.0
Propylene Glycol	5.0
Methylparaben	0.2
Part C:	
Emeressence 1160	0.7

Procedure:

- 1) Heat Part A to 75-80C.
- 2) Heat Part B to 75-80C.
- 3) Add Part A to Part B at 75-80C and stir 15 minutes at temperature.
- 4) While stirring, cool to 40C and add Part C.
- 5) Cool to 30C and package.

Comments:

This facial lotion has very good gloss, is non-greasy on application and leaves the face with an elegant after-feel.

SOURCE: Henkel: High Purity Lanolins: Formula H-4986

BODY LOTION

RAW MATERIALS	% By Weight
A Mineral Oil (high viscosity)	1,00
Cetyl Alcohol	1,00
Stearic Acid	1,50
Belsil CM 030	5,00
Belsil SDM 6022	3,00
Belsil BNP	2,00
B Triethanolamine	0,80
Propylene Glycol	3,00
Water	82,70
Preservatives, fragrances, pigments	q.s.

Heat A and B to 80C, stir A into B, mix well. Cool whilst stirring.

Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 775 AH

DAILY PROTECTIVE LOTION (WITH SUNSCREEN)
Oil Free, Fragrance Free

RAW MATERIALS	% By Weight
A-A1 Amphisol	1.00
Arlacel 165	1.00
Cetyl Alcohol	1.50
Schercemol DISD	1.00
Schercemol CO	8.00
Silicone fl. 350 cps	0.10
A2 Parsol MCX	5.00
Dipsal	0.30
B-B1 Deionized Water	67.40
Carbopol 941 2% Aq. Sln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Rose Extract	0.50

Phase B:

In the main beaker, disperse B1 together at 75-85C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

Phase A:

Blend Phase A1 to at least 85C.

Once completely clear add A2.

Blend Phase A together until a homogeneous oil phase is obtained.

Add Phase A to Phase B with continuous mixing at 80-85C for 15 minutes.

Cool batch to 60C then add C.

Continue to cool batch to 30C then add D.

SOURCE: Scher Chemicals, Inc.: Formula L-213-3

LOTION WITH WHEAT GERM OIL

RAW MATERIALS	% By Weight
A. IMWITOR 370	6.0
MIGLYOL 812	7.0
MIGLYOL 840	3.0
Wheat Germ Oil	5.0
Antioxidants	q.s.
B. Preservative	q.s.
Water	ad 100.0
C. Perfume Oil	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A). At about 30C., the perfume is added.

SOURCE: Huls America Inc.: Formula 1.3.9

DAY LOTION

RAW MATERIALS	% By Weight
Cremophor A6	2.0
Cremophor A25	2.0
Luvitol EHO	12.0
Gyceryl Mono stearate	6.0
Cetyl alcohol	0.5
Tegiloxan 100	0.2
D-Panthenol 50P	4.0
1,2-Propylene Glycol USP	1.0
Perfume	0.2
Preservative	0.5
Water	71.6

W/O BODY LOTION

RAW MATERIALS	% By Weight
Cremophor WO7	6.0
Lunacera MW	2.0
Miglyol 812	5.0
1,2-Propylene Glycol USP	1.0
Magnesium sulfate-7 hydrate	0.7
D-Panthenol 50P	4.0
Perfume	0.3
Preservative	0.5
Water	65.5

SOURCE: BASF Corp.: D-Panthenol: Formulas

DEEP MOISTURIZING LOTION

INGREDIENTS	% By Weight
Part A:	
ULTRA LANTROL HP-2074	10.0
CETIOL S	13.0
LANETTE 16	4.0
EMERSOL 132	3.0
CUTINA GMS	3.0
GENEROL 122 E-10	1.0
Part B:	
Deionized Water	55.0
Propylene Glycol	5.0
Carbopol 940* (3% solution)	5.0
Part C:	
Germaben II	1.0
Procedure:	
1) Heat Part A to 75-80C.	
2) Heat Part B to 75-80C.	
3) Add Part A to Part B at 75-80C and stir 15 minutes at temperature.	
4) At 60C, homogenize for 15 minutes.	
5) While stirring, cool to 40C and add Part C.	
6) Cool to 30C and package.	

Note: *Carbopol 940 is being used here as a slip agent, not as a viscosity agent so no TEA is used.

Comments:

This formulation is a high gloss lotion with good lubricity and rub-in properties. Even with 10% Lanolin Oil, this is a non-greasy product that leaves the skin with a soft protective feeling.

SOURCE: Henkel: High Purity Lanolins: Formula H-4985

BODY LOTION

RAW MATERIALS	% By Weight
A Belsil DM 350	1,00
Cetyl Alcohol	2,00
Stearic Acid	4,00
Belsil CM 1000	10,00
B Glycerine	2,00
Triethanolamine	0,90
Water	79,10
C Belsil BNP	1,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65-70C, stir B into A, stir C into AB.
Temperature stability: 8 weeks at 45C.

SOURCE: Wacker Silicone: Formulation 914 AH

DEEP MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Part A:	
PHOSPHOLIPID EFA	4.00
Steareth-21	0.40
Water	82.00
Part B:	
Steareth-2	1.60
Anhydrous Lanolin	1.50
Petrolatum	3.00
Octyldodecyl Myristate	2.00
Cetearyl Alcohol	4.00
Dimethicone (100 cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 40C, then add fragrance, color and preservative as needed before filling.

This after-bath lotion gives the benefits of potent skin conditioners while eliminating the tackiness associated with lanolin and petrolatum through the unique emolliency provided by PHOSPHOLIPID EFA.

HAND AND BODY LOTION

RAW MATERIALS	% By Weight
Part A:	
PHOSPHOLIPID EFA	4.00
Water	83.00
Part B:	
Steareth-2	2.00
Light Mineral Oil	4.00
Cetearyl Alcohol	3.00
Octyldodecyl Myristate	2.50
Dimethicone (100 cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 40C. Add fragrance, color, and preservative as needed and fill.

A superior product designed for after-bath use on traditionally dry areas such as hands, elbows and heels. PHOSPHOLIPID EFA is strongly substantiative towards skin providing non-greasy moisturizing and a pleasant after feel.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID EFA: Formulas

DRY SKIN LOTION

INGREDIENTS	% By Weight
Part A:	
Water, deionized	72.70
Glycerine	4.00
KELTROL T xanthan gum	0.55
Magnesium aluminum silicate, high viscosity	0.45
Methyl Parasept methylparaben	0.20
SORBISTAT-K potassium sorbate	0.05
Sodium benzoate	0.05
Part B:	
White Protopet #1S petrolatum, USP	6.00
Arlacel 165 glyceryl stearate and PEG 100 stearate	5.00
Finsolv TN C12-C15 alcohol benzoate	4.50
Acetulan acetylated lanolin alcohol	4.00
POLYSYNLANE squalane substitute	2.50
Perfume	to suit
Color	to suit

Procedure:

1. Dry blend KELTROL T and magnesium aluminum silicate together, and add to 82C (180F) water with medium agitation. Mix for 20 minutes using a Lightnin'-type mixer.
2. Add the remainder of Part A ingredients and mix for 5 minutes.
3. Blend Part B ingredients together and heat to 71C (160F) until dissolved.
4. Add Part B to Part A and mix for 5 minutes. Mix slowly to avoid bubble formation.

KELTROL T xanthan gum modifies the rheological properties of this lotion. The shear thinning property conferred by KELTROL T provides ease of application and results in a smooth skin feel when the highly emollient lotion is applied. KELTROL T also provides excellent stability to the lotion.

SOURCE: Kelco Division: Product Formulation SS-4895

FACE LOTION WITH MOISTURIZING FACTOR

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	104.5 ml
Camphor	0.2 g
b) Water, distilled, preserved	895.5 ml
Citric or lactic acid	5.0 g
Cremogen Hamamelis Dest.	30.0 g
c) Hygroplex HHG	50.0 g
Manufacture:	
a) dissolve;	
b) dissolve and stir into a);	
c) stir in.	
Perfume.	

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 18

EMOLLIENT LOTION

RAW MATERIALS	% By Weight
A VEEGUM PRO	1.5
Water	83.8
B Triethanolamine	0.1
Glycerin	3.5
C Marcol 130	3.6
Petrolatum	0.4
Stearic acid XXX	1.6
Cetyl alcohol	1.5
Kessco Glycerol Monostearate SE	1.4
Acetulan	2.0
Dow Corning 200 Fluid	0.6
Preservative	q.s.

Procedure:

Heat the water to 70-75C, then slowly add the VEEGUM PRO while agitating at maximum available shear. Mix until smooth. Add B to A with slow agitation until smooth. Maintain A/B at 70 to 75C, heat C to 75 to 80C. Add C to A/B and mix until cool. Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottle.

Comments:

VEEGUM PRO effectively thickens and stabilizes the lotion, even at elevated temperatures. This lotion is absorbed rapidly, leaving the skin smooth and greaseless.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 417

ALL PURPOSE LOTION (NON-OILY)

INGREDIENTS	% By Weight
Part A:	
CUTINA E-24	4.00
CUTINA GMS	6.00
LANETTE O	1.50
CETIOL LC	8.00
Part B:	
Glycerine	5.00
Deionized Water	74.00
Part C:	
Germaben II	1.00
Fragrance	0.10
Comments:	

The use of CUTINA E-24 allows the formation of nonionic emulsions that are non-whitening when compared to anionic systems, in addition to being very mild to the skin. As a nonionic, it allows the incorporation of a myriad of additives regardless of ionic species. Furthermore, this can be accomplished at virtually all feasible (cosmetically) pHs.

SOURCE: Henkel: Formula H-4880

ENRICHED MOISTURIZING LOTION (BEFORE & AFTER TANNING)

RAW MATERIALS	% By Weight
Sesame Oil U.S.P.	15.0
POLYSYNLANE	20.0
Glyceryl Monostearate	3.0
Isopropyl Myristate	10.0
Carbopol 934	0.2
Propylene Glycol	10.0
Triethanolamine	1.0
Anhydrous Lanolin	5.0
Water	ad 100.0

WATER-IN-OIL MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A VEEGUM	1.3
Water	55.7
Magnesium Sulphate	0.5
B Mineral Oil, Light	9.0
POLYSYNLANE	10.0
Nimlesterol D	7.5
Amerchol L101	9.0
70% Sorbitol Solution	5.0
Witcamide 511	2.0
Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continually until smooth. Add the magnesium sulphate and mix until smooth. Blend B well and add A to B; mix until smooth and uniform.

Packaging:

This formula is a rich, pourable or pumpable lotion and may be dispensed from a suitable glass or plastic bottle.

Comments:

This formula is an elegant, economical, and easily prepared water-in-oil lotion for softening and moisturizing dry skin.

The use of Veegum as an emulsion stabilizer allows a relatively large internal phase without sacrificing product stability. The amount of Veegum used controls the viscosity. In addition, Veegum contributes to the rich, nongreasy feel imparted by the highly emollient oil phase. The high water increased economy over typical water-in-oil products.

This formula would make an elegant addition to a treatment line as a super moisturizer for dry skin.

SOURCE: Polyether Corp.: Formulas

FACE LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
Cremophor RH 40	2.0
MIGLYOL 812	5.0
SOFTIGEN 701	2.0
MIGLYOL 840	2.0
Mineral Oil	4.0
B. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified in (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the lotion.

Note: This lotion is also suitable for babies.

Formula 1.3.4

FACE LOTION, (MATTE) WITH ALMOND OIL

RAW MATERIALS	% By Weight
A. SOFTISAN 601	6.0
SOFTISAN 649	1.0
Almond Oil	8.0
Cetyl Alcohol	1.0
Antioxidants	q.s.
B. Carbopol Gel 1%	10.0
Preservative	q.s.
Water	ad 100.0

Preparation of Carbopol Gel:

Carbopol 940	1.0
Triethanolamine	0.6
Water	ad 100.0

Carbopol is homogeneously mixed with water. Triethanolamine is stirred until the gel is smooth.

Preparation of the lotion:

(A) is heated to 75-80C. (B) is mixed, brought to the same temperature and emulsified into (A). At about 30C, the perfume is added.

Formula 1.3.3

SOURCE: Huls America Inc.: Formulas

FACE LOTION 2

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
MIGLYOL 812	5.0
SOFTIGEN 701	2.0
MIGLYOL 840	2.0
Mineral Oil	4.0
Cremophor RH 40	2.0
B. Glycerin	3.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil Concentrate 38 803	0.2

Preparation:

(A) is melted and brought to 75-80C. (B) is heated to the same temperature and emulsified into (A). (C) is stirred in at about 40C.

Formula 1.3.4A

FACE LOTION, MATT, WITH ALMOND OIL

RAW MATERIALS	% By Weight
A. SOFTISAN 601	6.0
SOFTISAN 649	1.0
Almond oil	8.0
Cetyl alcohol	1.0
Antioxidants	q.s.
B. Carbopol-Gel 1%	10.0
Preservative	q.s.
Water	up to 100.0
C. Perfume Oil Concentrate 38 801	0.2

Preparation of Carbopol-Gel:

Carbopol 940	1.0%
Triethanolamine	0.6%
Water	up to 100.0%

Carbopol is homogeneously mixed with water. Triethanolamine is stirred in until the gel is smooth.

Preparation of the lotion:

(A) is heated to 75-80C. (B) is mixed, brought to the same temperature and emulsified into (A). At about 30C., the perfume is added.

Formula 1.3.3A

SOURCE: Huls America Inc.: Formulas

FACE LOTION

RAW MATERIALS	% By Weight
A (+-)-Alpha Bisabol	0.4
Glycerol	1.0
Luviquat Mono CP	1.0
Cremophor RH 40	2.5
B D-Panthenol USP	0.5
Extrapon Hamamelis dist.	5.0
Water	89.6
Preservative	q.s.

Preparation:

Mix phases A and B separately. Stir phase B into phase A.

Properties:

Clear solution. Cleanses and conditions the skin, leaving it silky to the touch.

Application: Cleanse face with impregnated cotton wool.

SOURCE: BASF Corp.: LUVIQUAT Mono CP: Formula

COLLAGEN LOTION

RAW MATERIALS	% By Weight
A Arlachel 989	3.30
Arlachel 481	2.70
Miglyol 812	7.00
Paraffin oil	17.00
B 1,2-propylene glycol	3.80
Magnesium sulphate-7H ₂ O	0.70
Water	54.90
C Gelitta Sol CC 35% IG	10.00
Perfume	0.4
Preservative	

SOURCE: Schulke & Mayr GmbH: EUXYL K400: Formulation Nr. 9 W/O

FACE LOTION, FOR APPLICATION TO GREASY AND BLEMISHED SKIN

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	417.0 ml
Menthol	0.1 g
Camphor	0.5 g
b) Water, distilled	583.0 ml
Citric or lactic acid	5.0 g
c) Vitamin B Complex CLR	5.0 g
d) Biosulphur Fluid	10.0 g

Manufacture:

- a) dissolve;
- b) dissolve and stir into a);
- c) and d) stir in.

Perfume.

aqueous-alcoholic preparation

Model formulations 5

FACE LOTION, FOR APPLICATION TO AFFECTED SKIN

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	156.0 ml
Camphor	0.5 g
b) Water, distilled	844.0 ml
Citric or lactic acid	3.0 g
Cremogen Hamamelis Dest.	50.0 g
c) Epidermin water-soluble	5.0 g

Manufacture

- a) dissolve;
- b) dissolve and stir into a);
- c) stir in.

Perfume.

aqueous-alcoholic preparation

Model formulations 13

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

FACE LOTION FOR NORMAL SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	5.0
Arlatone 970	5.0
Locron L	1.0
Allantoin	0.2
Water	ad 100.0
Perfume Oil	q.s.

Preparation:

All ingredients are stirred together at room temperature.

Formula 1.5.9

FACE LOTION FOR OILY SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	5.0
Arlatone 970	5.0
Locron L	1.0
Texapon ASV	1.0
Hydrolastan	0.5
Menthol	0.2
Ethanol 96%	5.0
Water	ad 100.0
Perfume Oil	q.s.

Preparation:

All ingredients are stirred together at room temperature.

Formula 1.5.10

FACE LOTION FOR DRY SKIN

RAW MATERIALS	% By Weight
SOFTIGEN 767	30.0
Arlatone 970	1.0
Locron L	1.0
Allantoin	0.2
Water	ad 100.0
Perfume oil	q.s.

Preparation:

All ingredients are stirred together at room temperature.

Formula 1.5.11

SOURCE: Huls America Inc.: Formulas

FACIAL BEAUTY LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
PROMULGEN D	4.5
AMERCHOL L-101	5.0
OHLAN	0.5
ACETULAN	2.0
Cetyl Palmitate	1.0
Water Phase:	
Water	87.0
Perfume and Preservative	q.s.

Procedure:

Heat both phases to 80C. Add water phase to oil phase at 80C and continue to mix until 40C. Add perfume at 40C. Continue to mix until room temperature.

Description:

A heavy viscosity, flowing lotion for daily facial use. The w/o emulsifies AMERCHOL L-101 and OHLAN, in combination with the nonionic o/w emulsifier PROMULGEN D, gives this lotion excellent stability. An elegant, nongreasy, velvety feel is attributable to ACETULAN.

SOURCE: Amerchol Corp.: AMERCHOL: Formula T53-192-1

PROTECTIVE BARRIER LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
GLUCAM E-20 Distearate	1.0
GLUCATE SS	0.5
AMERLATE P	1.5
Stearic Acid, xxx	10.0
Dimethicone	5.0
Water Phase:	
Deionized Water	76.0
Glycerin	5.0
Triethanolamine (99%)	1.0
Perfume and Preservative	q.s.

Procedure:

Heat both phases to 80C. Add water to oil at 80C. Add perfume at 40C. Continue to mix with moderate agitation while cooling to room temperature.

Description:

Light, fluffy, pearlescent lotion. The combination of GLUCAM E-20 Distearate and AMERLATE P provides emolliency and lubricity. GLUCATE SS enhances high temperature stability. This quick-vanishing lotion leaves a nontacky, nongreasy, highly protective barrier. Recommended for use during work, sports and hobby activities.

SOURCE: Amerchol Corp.: GLUCAM E-20: Formula T49-198-2

FACIAL LOTION

INGREDIENTS	% By Weight
Part A:	
Water, deionized	85.20
Mineral oil	6.00
GLUCAM E-20 methyl gluceth 20	1.00
KELTROL T xanthan gum	0.20
Part B:	
EMEREST 2400 glyceryl stearate	2.80
NEO-FAT 18-55 stearic acid	2.00
CETAL cetyl alcohol	1.80
Triethanolamine (TEA)	1.00
Fragrance	to suit

Procedure:

Part A:

1. Slurry KELTROL T in mineral oil.
2. Add slurry to other Part A ingredients using a Lightnin'-type mixer with good agitation. Heat to 82C (180F).

Part B:

1. In another container, combine Part B ingredients (except triethanolamine and fragrance) and heat to 82C (180F).
2. Add Part A to Part B.
3. Allow to cool to 49C (120F), then add triethanolamine.
4. Continue mixing until cooled to 27C (80F).
5. Add fragrance.
6. Package.

The addition of KELTROL T xanthan gum ensures emulsion stability and also provides a rich, smooth skinfeel.

SOURCE: Kelco Division: Product Formulation SS-5265

FACE LOTION

RAW MATERIALS	% By Weight
Allantoin	0.3
Water	88.0
SOFTIGEN 767	3.0
Hydroviton	2.0
Extrapone Hamamelis Extract Colorless Special	2.0
Ethanol 96%	5.0
Perfume	q.s.

Preparation:

Allantoin is dissolved in water, and the other ingredients are added.

SOURCE: Huls America Inc.: Formula 1.5.8

HAIR CONDITIONER LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
PROMULGEN D	3.5
Cyclomethicone	1.0
Stearamidopropyl Dimethylamine	0.8
Dicetyldimonium Chloride (68% active)	2.0
Water Phase:	
Water	91.7
GLUCAM E-10	1.0
Citric Acid	q.s.
Perfume and Preservative	q.s.

Procedure:

Heat both phases to 75C. Add water phase to oil phase at 75C with agitation. Cool while mixing to 45C. Adjust pH to 4-5, add perfume and continue to mix while cooling to 35C.

This opaque conditioner derives its smooth appearance, good consistency and opacity from PROMULGEN D. It also imparts a creamy texture and contributes to the characteristic feel of properly conditioned hair. The GLUCAM E-10 imparts gloss, improves wet and dry combing and enhances conditioning by ensuring a smooth, even spread of the quaternaries.

SOURCE: Amerchol Corp.: PROMULGEN D: Formula T51-79-1

HAIR SETTING LOTION

RAW MATERIALS	% By Weight
Luviskol K-30 Powder	2-3
Lutrol E 400	0.2
Ethanol or 2-propanol	30
Distilled water	on 100
Perfume oil	q.s.

HAIR SETTING LOTION

RAW MATERIALS	% By Weight
Luviskol K 30 Powder	3
Carbopol 940	0.4
Triethanolamine	0.9
Cremophor RH 40	0.5
Water or water/alcohol mixture	95.2
Perfume oil	q.s.

SOURCE: BASF Corp.: LUVISKOL K grades: Formulas

HAND LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
Mineral Oil	2.40
Isopropyl Myristate	2.40
Stearic Acid	2.90
"Nimcolan" T	0.50
Cetyl Alcohol	0.40
Glycerol Monostearate	1.00
Water Phase:	
Triethanolamine, 99%	0.94
Propylene Glycol	4.80
POLYOX WSR-205	0.75
Water, preservatives, fragrance	q.s.

Preparation Procedure:

1. Dissolve the POLYOX WSR-205 using the available water.
2. Then add the triethanolamine and propylene glycol.
3. Heat the water phase to 70C.
4. Heat the oil phase to 70C.
5. Add the water phase to the oil phase while stirring vigorously.
6. Add the preservatives and fragrance when the mix reaches the appropriate temperature.
7. Continue stirring until the temperature reaches 30-35C.

The smooth, silky feel that the POLYOX Resins impart to the skin is evident when the resins are incorporated into creams and lotions. These aesthetic properties provide a formulation with a perceptible difference that improves the appeal of the product.

SOURCE: Amerchol Corp.: POLYOX Water-Soluble Resins: Formula

BODY LOTION

RAW MATERIALS	% By Weight
A Emulgator E2149	7,00
Tegosoft 189	1,00
Belsil SDM 6022	2,50
Isopropyl Myristate	7,00
Belsil DMC 6035	2,00
B Carbopol 934 2%ig	15,00
Water	65,50
Preservatives, pigments, fragrances	q.s.

Heat A and B each to 70C. Stir B well into A.
Temperature stability: at 45C 8 weeks.

SOURCE: Wacker Silicone: Formulation 360 AH

HAND AND BODY LOTION I

RAW MATERIALS	% By Weight
A. SOFTISAN 601	6.0
SOFTISAN 649	1.0
MIGLYOL 829	8.0
Hostaphat KL 340 N	2.5
Cetyl Alcohol	0.5
B. Allantoin	0.2
Lactic Acid	0.25
*Carbopol Gel 1%	12.5
Preservative	q.s.
Water	up to 100.0
C. Fragrance	0.3
*Carbopol Gel: Carbopol 940	1.0
Triethanolamine	0.6
Water	up to 100.0

Preparation:

(A) is heated up to ca. 75C. (B) is heated up to the same temperature and emulsified into (A). At ca. 30C., the fragrance is added.

Formula 1.3A

HAND AND BODY LOTION II

RAW MATERIALS	% By Weight
A. MIGLYOL 812	5.0
SOFTISAN 378	3.0
SOFTISAN 649	2.0
Mineral Oil	3.0
Emulgade F	3.0
Isopropyl Myristate	4.0
Hostaphat KL 340N	3.0
B. *Carbopol Gel 1%	3.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	3.0
* Carbopol Gel: Carbopol 940	1.0
Triethanolamine	0.6
Water	up to 100.0

Preparation:

(A) is heated up to ca. 75C. (B) is heated up to the same temperature and emulsified into (A). At ca. 30C., the fragrance is added.

Formula 1.3B

SOURCE: Huls America Inc.: Formulas

HAND AND BODY LOTION

RAW MATERIALS	% By Weight
Part 1:	
Water	78.6
Carbomer 934	.2
Part 2:	
Modulan	1.6
IPP	3.8
Amerchol L-101	.8
GMS SE	2.1
Rosswax 63-0412	4.0
IPM	4.0
Jojoba Oil	1.6
Part 3:	
Germaben IIE	1.0
Part 4:	
Fragrance	q.s.
Part 5:	
Triethanolamine	2.3

Procedure:

Part A:

Disperse the Carbomer 934 in the water phase in a stainless steel kettle.

Part B:

In a separate heated kettle, heat the oil phase until all ingredients are melted. When everything is melted add the oil phase to the water phase. When everything is blended add the preservative, the fragrance and the Triethanolamine with increased agitation. Cool to room temperature and package.

SOFT & SILKY LOTION

RAW MATERIALS	% By Weight
Part (A):	
Rosswax 63-0412	1.6
Rosswax 1641	1.2
Rosswax 63-0212	1.0
GMS-SE	2.1
Ros Lotion Oil 2745	9.4
Part (B):	
Water	78.0
Propylene Glycol	4.7
Germaben II	1.0
Triethanolamine	1.0
Part (C):	
Fragrance	q.s.

Procedure:

Heat Part (A) and Part (B) to 170F in separate steam jacket kettles under agitation. When fully heated, add Part (A) to Part (B) under agitation. Cool to 130F, fragrance and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

HERBAL ALL PURPOSE LOTION

INGREDIENTS	% By Weight
Part A:	
EMULGADE F	7.00
EUTANOL G	5.00
Part B:	
Water	85.00
Part C:	
SEDAPLANT RICHTER	2.00
Germaben II-E	1.00
Fragrance and Dyes	q.s.

Procedure:

Heat Part A to 70-75C. Heat Part B to 70-75C. While agitating, add Part B to Part A. Remove heat and continue mixing during the cooling step. When the batch temperature has reached 40-45C, add the individual components of Part C. Continue stirring until product cools down. Fill off.

Comments:

Formula H-4887 illustrates the simplicity in using EMULGADE F to formulate an elegant all purpose lotion with excellent aesthetics.

SOURCE: Henkel: Cream Bases: Formula H-4887

BODY LOTION

RAW MATERIALS	% By Weight
A Emulgator E 2155	6,00
Isopropyl Myristate	10,00
Stearyl Alcohol	1,00
Mineral oil	3,00
Belsil DM 100	0,50
B Glycerine	3,00
Water	76,00
Preservatives, fragrances, pigments	q.s.

Heat A and B to 65C, mix and homogenise, cool whilst stirring. Temperature stability: at 45C over 10 weeks. Thick lotion. Easily spread, quickly absorbed and leaves a pleasant soft feeling on the skin.

SOURCE: Wacker Silicone: Formulation 153 AH

HIGH-GRADE HAIR LOTION, FOR PROPHYLAXIS OF HAIR LOSS AND FOR USE IN CASE OF DANDRUFF

RAW MATERIALS	Parts by Weight
Ethyl alcohol 96 vol. % or Isopropyl alcohol	417.0 ml
Water, distilled	583.0 ml
Hair Complex 20/70n	30.0 g

Manufacture:

Mix at room temperature in the order given.

Perfume.

aqueous-alcoholic preparation

Model formulation 14

HIGH-GRADE HAIR LOTION, FOR PROPHYLAXIS OF HAIR LOSS AND APPLICATION TO DRY HAIR

RAW MATERIALS	Parts By Weight
Ethyl alcohol 96 vol. %	730.0 ml
Water, distilled	270.0 ml
Hair Complex FCa	50,0 g

Manufacture:

Mix at room temperature in the order given.

Perfume.

Model formulation 15

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model Formulations

CONDITIONING/STYLING LOTION

RAW MATERIALS	% By Weight
Water	Q.S.
PVP K-90 (20% aqueous solution)	5.0
MONATERIC 1202	4.5
Hydrolyzed Animal Protein (50%)	0.5
SD-3A Alcohol	25.0
Propellant (optional)	5.0-25.0

Appearance: Clear Liquid

Nominal Activity: 3.0%

This formulation imparts both conditioning and controlled setting properties. As an aerosol mousse or a pump-on soft setting lotion the formulation can be spot applied, used as an after shampoo conditioner, or as a between shampoo revitalizing conditioner.

SOURCE: Mona Industries Inc.: MONATERIC 1202: Formulation

HYDROCORTISONE LOTION

INGREDIENTS	% By Weight
Part A:	
Arlacel 165 glyceryl stearate and PEG 100 stearate	4.0
Promulgen G stearyl alcohol and ceteareth-20	3.0
Amerchol CAB petroleum and lanolin alcohol	2.0
Myrj 52 PEG-40 stearate	1.5
Hydrocortisone acetate	0.5
Part B:	
Water, deionized	82.4
Neo-Fat 18-55 stearic acid	4.0
Glucam E-20 methyl gluceth-20	2.0
KELTROL T xanthan gum	0.4
Preservative	0.2

Procedure:

1. Hydrate Keltrol T in the deionized water for at least 15 minutes using a Lightnin' type mixer.
2. Add the rest of Part B ingredients and heat to 71C (160F) while mixing.
3. In another container, blend and melt at 71C (160F) the Part A ingredients except the hydrocortisone acetate.
4. Add Part A to Part B while continuing to mix.
5. When fully mixed, add the hydrocortisone acetate and mix until cool.

The addition of KELTROL T xanthan gum stabilizes this anti-itch lotion and suspends the active ingredient, hydrocortisone acetate. KELTROL T also provides improved skin feel on application.

SOURCE: Kelco Division: Product Formulation SS-4899

FACE LOTION WITH HERBS

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	156.0 ml
b) Water, distilled	844.0 ml
Citric or	
lactic acid	3.0 g
c) Sedaplant Richter	50.0 g

Manufacture:

- b) dissolve and stir into a);
 - c) stir in.
- Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 23

LIGHT CONDITIONING HAND LOTION

RAW MATERIALS	% By Weight
Water Phase:	
Glucquat 100	1.0
Deionized water	84.0
Oil Phase:	
GLUCATE SS	0.8
GLUCAMATE SSE-20	1.2
ACETULAN	2.0
PROMULGEN D	3.0
Glyceryl Monostearate (neutral)	0.5
Mineral oil, 70 vis.	7.5
Perfume and preservative	q.s.

Procedure:

Dissolve GLUCQUAT 100 in deionized water, and heat to 70C. Combine oil phase ingredients, and heat to 70C with propeller agitation. Slowly add water phase to oil phase, and mix until uniform. Cool to room temperature with mixing.

Description:

Flowable lotion with a light, emollient feel. GLUCQUAT 100 provides moisturizing and conditioning properties to the skin. ACETULAN reduces greasiness associated with the mineral oil. Excellent stability is due to the primary nonionic emulsifier package of GLUCATE SS (w/o) and GLUCAMATE SSE-20 (o/w) and the auxiliary emulsifier, PROMULGEN D (o/w).

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T62-101-2

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Water Phase:	
KYTAMER PC	1.0
GLUCAMATE SSE-20	1.5
Deionized Water	82.0
Oil Phase:	
GLUCATE SS	1.5
PROMULGEN G	4.0
Mineral Oil	10.0
Perfume and Preservative	q.s.

Description:

Soft, white, glossy lotion. Contains KYTAMER PC, a substantive humectant which contributes to the lasting moisturization of the skin. The mild, nonionic emulsifying pair of GLUCAMATE SSE-20 (o/w) and GLUCATE SS (w/o) gives the lotion long-term stability. PROMULGEN G serves as an auxiliary emulsifier to this o/w lotion.

Procedure:

Disperse KYTAMER PC in water at room temperature with high speed agitation. When completely dispersed heat to 75C with continuous mixing until clear and uniform. Maintain temperature at 75C and add GLUCAMATE SSE-20. Heat oil phase to 75C. Add the water phase to 75C to oil phase at 75C with good agitation. Continue mixing while slowly cooling to room temperature. Add perfume below 50C.

SOURCE: Amerchol Corp.: KYTAMER PC: Formula T57-130-1

LIGHT MOISTURIZING LOTION

RAW MATERIALS	Sequence	% By Weight
Water	1	69.80
Triethanolamine 99%	1	0.20
Methylparaben	1	0.25
Unicide U-13	1	0.25
Trisodium EDTA	1	0.05
Unitriolenol T-7	2	2.00
Liponate NPGC-2	2	5.00
Lipocol C	2	0.50
Lipomulse 165	2	1.30
Silicone 200 Fluid (200 cts)	2	0.50
Propylparaben	2	0.10
Butylparaben	2	0.05
Carbopol 934 (2% Disp'n)	3	10.00
Water	3	10.00

Procedure:

1. Heat Sequence 1 to 75C.
2. Heat Sequence 2 to 78C.
3. Add Sequence 2 to Sequence 1 under homomixer and mix 15 minutes. Switch to Lightnin' mixing.
4. Add premixed Sequence 3 at 65-70C. Switch to sweep mixing as batch thickens to prevent aeration.
5. Cool to 25C.

Light weight moisturizing lotion for oily skin. NPCG-2 yields a dry silky feel and is a co-solvent for silicone and Unitriolenol T-27.

SOURCE: Lipo Chemicals Inc.: Formula No. 496

BODY LOTION

RAW MATERIALS	% By Weight
A. Hydromyristenol 2/014082	10.0
PCL-liquid 2/066210	3.0
Emulsifier E 2155	1.0
Lanolin (liquid)	0.5
Nipasteril 30 K	0.3
Silicone oil AK 350	0.5
B. Water	72.3
Hydroviton 2/059353	3.0
Karion F	3.0
1,2-propylene glycol	5.0
Neo Extrapone Chamomile liquid 2/070350	1.0
C. Perfume oil	0.4

SOURCE: Dragoco, Inc.: Suggested Formulation No. VKB 363/50

LIQUID W/O EMULSION, GOOD FATTING EFFECT, MASSAGE LOTION

RAW MATERIALS	% By Weight
Dehymuls HRE 7	3.0
Dehymuls F	7.0
Paraffin oil, thin liquid	10.0
Eutanol G	10.0
Zincum N 29	1.5
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.3
Water, preservative	ad 100.0

Viscosity: 15.000 mPas

Formula no. 88/080/1

LIQUID W/O EMULSION, GOOD FATTING EFFECT, MASSAGE LOTION

RAW MATERIALS	% By Weight
Dehymuls HRE 7	3.0
Dehymuls E	6.0
Paraffin oil, thin liquid	10.0
Eutanol G	10.0
Zincum N 29	1.5
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.3
Water, preservative	ad 100.0

Viscosity: 14.000 mPas

Formula no. 88/080/6

LIQUID W/O EMULSION, MEDIUM FATTING EFFECT, BODY LOTION

RAW MATERIALS	% By Weight
Dehymuls HRE 7	3.0
Monomuls 90-018	2.5
Paraffin oil, thin liquid	12.0
Cetiol V	8.0
Cutina BW	1.0
Zincum N 29	1.5
Glycerin 86%	3.0
MgSO ₄ -7H ₂ O	0.5
Water, preservative	ad 100.0

Viscosity: 13.000 mPas

Formula no. 88/080/12

SOURCE: Henkel: Cosmetics Nr. VIII/89/Lz: Formulas

LOTION

RAW MATERIALS	% By Weight
Phase A:	
Stearic Acid	4.00
Glyceryl Stearate SE	2.00
PEG 40 Stearate	0.50
Phase B:	
Deionized Water	87.85
Carbomer 941	0.20
Methyl p-hydroxybenzoate	0.15
Propyl p-hydroxybenzoate	0.10
DERMACRYL-79	2.00
Triethanolamine 99%	3.00
Phase C:	
Imidazolidinyl Urea	0.20
Formula 6590-06-2	

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Phase A:	
Mineral Oil	10.00
Octyl Palmitate	2.00
Stearic Acid	4.00
Glyceryl Stearate	3.00
PEG 40 Stearate	1.00
Dimethicone Copolymer	1.00
Lanolin Oil	0.50
Phase B:	
Deionized Water	74.75
Triethanolamine	1.30
DERMACRYL-79	1.00
Phase C:	
Carbomer 934	0.25
Phase D:	
Germaben IIE	1.00
Phase E:	
Fragrance	0.20
Formula 6238-119B	

SOURCE: National Starch and Chemical Co.: DERMACRYL-79

LOTION BASED ON SODIUM ALGINATE

RAW MATERIALS	% By Weight
A. SOFTISAN 601	6.0
SOFTISAN 649	1.0
Almond Oil	8.0
Cetyl Alcohol	1.0
Antioxidants	q.s.
B. Kelgin MV 1% aqueous	16.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	0.2

Preparation:

(A) is mixed together and heated to 75-80C. (B) is brought to the same temperature and emulsified into (A). At 30C., (C) is added.

Formula 1.3.3B

REGENERATING BEAUTY LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	8.0
Hostaphat KL 340N	5.0
MIGLYOL 812	5.0
Mineral Oil	5.0
Sorbitol	3.0
B. Preservative	q.s.
Distilled Water	up to 100.0
C. Perfume	
Water-soluble Liquid Placenta (or Collagen)	5.0

Note: Without the placenta (or collagen), this Beauty Lotion can serve as Skin Milk.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed, brought to the same temperature and then slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream.

Formula 1.3E

SOURCE: Huls America Inc.: Formulas

LOTION FOR DRY SKIN

RAW MATERIALS	% By Weight
Phase A:	
Cetyl Alcohol	2.00
Estol EHP 1543	2.00
Trivent NP-13	4.00
Drakeol 7	1.00
DC 200 Silicone	1.00
Brij 58	1.00
Brij 30	1.00
Phase B:	
Deionized Water	81.50
Carbopol 940	0.50
DERMACRYL-79	1.00
Pricerine 9083	3.00
Triethanolamine 99%	1.00
Phase C:	
Germaben II E	1.00
Phase D:	
Fragrance	Q.S.
Preparation:	

Disperse Carbopol 940 and DERMACRYL-79 in water and heat to 80C. Add TEA and Pricerine. Continue mixing at 80C until solution is complete. In a separate vessel, combine the ingredients of Phase A and heat to 80C while mixing. Add Phase A to Phase B and mix thoroughly. Cool to 40C. Add Phases C and D. When uniform, cool to room temperature. Filter and fill.

Final pH will be approximately 7-7.5

SOURCE: National Starch and Chemical Co.: DERMACRYL-79: 6142-120-2

MOISTURIZING SKIN LOTION

RAW MATERIALS	% By Weight
Phase A:	
Mineral Oil	10.00
Octyl Palmitate	2.00
Stearic Acid	4.00
Glyceryl Stearate SE	3.00
PEG 40 Stearate	1.00
Abil B8852	1.00
Lanolin Oil	0.50
Phase B:	
Deionized Water	71.75
Triethanolamine 99%	1.30
DERMACRYL-79	1.00
Glycerine	3.00
Carbomer 934	0.25
Germaben IIE	1.00
Phase C:	
Fragrance	0.20

SOURCE: National Starch and Chemical Co.: DERMACRYL-79: 6238-119B

LOW SOLIDS ALMOND LOTION II

RAW MATERIALS	Parts by Weight
Water	568.0
Carbomer 934	2.0
Rosswax 573	4.0
GMS SE	4.0
Almond Oil-Lipoval A1M	16.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
TEA	4.0
Preservative Germaben II	6.0
Fragrance GG44	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Almond Oil, Coconut Oil, and Jojoba Oil that have been heated to 65C. in a separate kettle. As soon as they have been mixed well add the preservative, the fragrance and then the TEA under high agitation. Cool the batch to 55C, and package.

APRICOT HAND LOTION

RAW MATERIALS	Parts by Weight
Water	568.0
Carbomer 934	2.0
GMS-SE	4.0
Apricot Oil-Lipoval P	16.0
Rosswax 573	4.0
Coconut Oil #76	16.0
Ross Jojoba Oil	4.0
TEA	4.0
Germaben II	6.0
Fragrance GK-17	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed, add the 573, GMS, Apricot Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the Oil Phase has been mixed well, add to the Water Phase with agitation. When fully mixed, add the Germaben II and then the TEA under high agitation, then fragrance. Cool to 55C for filling.

SOURCES: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

MOISTURE LOTION

INGREDIENT	% By Weight
A) Rice Bran Oil	2.70
Canola Oil	4.00
Sunflower Oil	4.00
Squalane	2.70
Siltech F-350	0.50
Delta Rich Tocopherols Concentrate	0.05
Trisept P	0.05
Carbopol 934	0.20
Pemulen TR-1	0.20
B) Glycerin	3.00
Phenoxyethanol	0.70
Trisept M	0.20
C) Deionized Water	74.65
Kelate 220	0.05
D) Deionized Water	1.50
Triethanolamine (99%)	0.35
E) Fragrance, #891118--Modern Floral Bouquet	0.15
F) GlycoCer HA	5.00

Procedure:

1. Combine Phase A ingredients. Mix well using propeller agitation to disperse powders.
2. Combine Phase B and mix to disperse.
3. Add Phase B to Phase C and mix well until paraben dissolves. (Note *)
4. Add A to BC and mix for 30 minutes or until smooth dispersion is formed. Then add Phase D and mix well until lotion is smooth and opaque.
5. Add Phase E and then Phase F and mix until homogeneous.

* Note: This is a cold process emulsion. However, it may be necessary to heat Phase BC slightly to hasten dissolution of Methylparaben. If so, either heat Phase A to the same temperature as Phase BC or cool Phase BC to room temperature before combining the two phases.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-92-3

MOISTURIZING CLEANSING LOTION

INGREDIENT	% By Weight
A. Triple Pressed Stearic Acid	4.5
Mineral Oil	2.5
Cetylstearyl Alcohol	1.0
Squalane	1.0
B. Polysorbate	1.0
Triethanolamine (85%)	0.85
Ethoxylated Lanolin	1.5
Sodium Hydroxide (50%)	0.1
Methylparaben	0.0375
Imidazolidinyl Urea	0.0375
Glycerol	1.0
Distilled Water	81.375
C. GlycoCer.HA or GlycoCer.HALA	5.0
D. Perfume, qs	0.1

Procedure:

1. Gentle heat in separate vessels to 80 degrees C.
2. Add A to B under agitation avoiding incorporation of air.
3. Cool to 40 degrees C. under agitation and ambient conditions.
4. Add C and D and continue agitation to about 35 degrees C.
5. Homogenize and fill into containers.

A lotion capable in cleansing the skin of make-up while moisturizing.

SOURCE: TRI-K Industries, Inc.: Formula GDS-MCL-903

MILD FACIAL CLEANSING LOTION

RAW MATERIALS	% By Weight
A. MIRANOL ESTER PO-LM4	5.0
Mineral Oil	10.0
Cerasynt SD	5.0
Stearyl Alcohol	0.5
Cetyl Alcohol	0.5
B. Water	69.7
Veegum HV	0.5
Xanthan Gum	0.8
C. MIRANOL C2M-SF Conc.	8.0

Procedure:

Heat A to 75C and B to 80C (homogenize Part B to ensure uniformity). With agitaion, add A to B, then add C. Continue agitation until uniform and cool to room temperature.

SOURCE: Miranol Inc.: MIRANOL Products: Formulas

MOISTURIZATION LOTION

INGREDIENTS	% By Weight
Part A:	
EMULGIN B-2	1.75
LANETTE E	0.35
CUTINA GMS	3.00
EUTANOL G-16	2.00
MYRITOL 318	5.00
Carnation Mineral Oil	8.00
CARROT OIL CLR	2.50
Propylparaben	0.10
Butylparaben	0.05
Part B:	
Carbopol 936 (% ag.)	20.00
Methylparaben	0.20
Deionized Water	q.s. to 100
Part C:	
Triethanolamine	0.40
Deionized water	1.00
Part D:	
Fragrance	0.1

Procedure:

- 1) Melt and heat Part A to 75-80C.
- 2) Stir while heating Part B to 75-80C.
- 3) When A and B are both uniform, stir Part A into Part B at 75-80C.
- 4) Stir in pre-mixed Part C at 65C.
- 5) Cool to 40-45C and add fragrance.
- 6) Stir, while cooling to 25-30C. Package.

Comments:

The Carrot Oil CLR in this formulation contains Carotene (Provitamin A) which prevents keratization and excessive drying to the skin.

SOURCE: Henkel: CLR Herbal Extracts: Formula HOB-286-12-2

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A. MIRANOL ESTER PO-LM4	5.0
Arlacel 165	5.0
Mineral Oil	2.5
Acetylated Lanolin Alcohol	1.0
Dow Corning Fluid 200	1.0
Stearic Acid	1.0
Stearyl Alcohol	0.5
Cetyl Alcohol	0.5
B. Water	78.0
Veegum HV	0.3
Carbopol 934, 3% solution	5.0
C. Triethanolamine	0.2

Procedure:

Heat A and B separately to 75C. With agitation, add B to A, then add C. Continue agitation until uniform, and cool to room temperature.

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
A. MIRANOL ESTER PO-LM4	5.0
Arlacel 165	6.5
Promulgen D	1.0
Isopropyl Myristate	2.5
Petrolatum	1.0
Dow Corning Fluid 200	1.0
Stearyl Alcohol	0.5
Cetyl Alcohol	0.5
B. Water	82.0

Procedure:

Heat A and B separately to 75C. With agitation, add B to A. Continue agitation until uniform and cool to room temperature.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
PROMULGEN D	5.0
Mineral oil	4.0
CETAL	2.0
AMEROXOL OE-2	1.0
GLUCAMATE SSE-20	2.0
Dimethicone	1.0
GLUCAM E-20 Distearate	1.0
Water Phase:	
GLUCATE SS	2.0
Deionized water	81.0
BIOCARE SA	1.0
Perfume and preservative	q.s.
Procedure:	

Heat the oil phase to 80C; heat water phase minus the BIOCARE SA to 80C. Add water to oil at 80C; add perfume and BIOCARE SA below 35C. Continue mixing with moderate agitation while cooling to room temperature.

Description:

A glossy nonionic lotion of medium consistency with wrinkle masking properties. BIOCARE SA, a "skin-activated" complex, lifts facial lines restoring a smoother surface and enhancing afterfeel. GLUCATE SS and GLUCAMATE SSE-20 act together to emulsify and stabilize the viscosity of this elegant lotion. AMEROXOL OE-2 and GLUCAM E-20 Distearate offer auxiliary emulsification and lubricity. PROMULGEN D imparts a good consistency and texture to the lotion.

SOURCE: Amerchol Corp.: BIOCARE SA: Formula T61-104-1

MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
AMERLATE P	0.5
Stearic Acid	3.0
Glyceryl Stearate	2.0
Water Phase:	
GLUCAM E-20	5.0
Triethanolamine	1.0
Water	83.7
BIOCARE Polymer HA-24	3.8
Germaben IIE	1.0
Description:	

Medium viscosity, slightly translucent, moisturizing lotion with good lubricity and rich feel. BIOCARE Polymer HA-24 is a substantive molecular complex which greatly enhances the softening and lubricating properties of Hyaluronic Acid. AMERLATE P and GLUCAM E-20 function as oil soluble and water soluble emollients, respectively.

SOURCE: Amerchol Corp.: BIOCARE Polymer HA-24: Formula T56-26-3

MOISTURIZING LOTION: NORMAL TO OILY SKIN

INGREDIENTS	% By Weight
Part A:	
EUMULGIN B-1	0.75
LANETTE 16	0.2
CUTINA GMS	0.5
CETIOL LC	2.0
ARNICA OIL CLR	3.0
Stearic Acid XXX	0.75
Silicon SF 18 (350 CS)	0.50
Propylparaben	0.1
Part B:	
Glycerin	2.0
Triethanolamine	0.1
Methylparaben	0.2
Tetrasodium EDTA	0.05
Deionized Water	q.s. to 100
Part C:	
Carbopol 941 (2% Aq.)	4.0
Deionized Water	4.0
Part D:	
Fragrance	0.15

Procedure:

- 1) Heat Part A to 75-80C.
- 2) Heat Part B to 75-80C.
- 3) Stir Part A into Part B, using a homomixer. Homomix for five (5) minutes at temperature.
- 3a) Remove and use "lightning" type stirrer.
- 4) At 60C, stir in pre-mixed Part C.
- 5) Cool to 40-45C and stir in fragrance.
- 6) Cool to 25C and package.

Comments:

This moisturizing lotion contains Arnica Oil, a popular and well proven herbal remedy with properties generally beneficial to the skin.

SOURCE: Henkel: CLR Herbal Extracts: Formula HOB-286-11-2

"NON-OILY" HAND AND BODY LOTION

INGREDIENTS % By Weight

Part A:

Deionized water	84.0
Magnesium aluminum silicate, high viscosity	0.4
KELTROL T xanthan gum	0.3

Part B:

Mineral oil, light purified	3.0
NEO-FAT 18-55 stearic acid	2.5
CETAL cetyl alcohol	2.0
ACETULAN acetylated lanolin alcohol	1.2
SOLULAN PB-2, PPG-2 lanolin ether	1.0
TEGIN 515 glyceryl stearate	0.7
Silicone 200 fluid, dimethicone	0.4

Part C:

Glucam E-20 methyl gluceth 20	3.5
Triethanolamine (TEA)	1.0

Procedure:

- Hydrate premixed KELTROL T and magnesium aluminum silicate in deionized water at 77C (170F) (10-15 minutes using a high shear mixer).
- In another container, mix Part B ingredients and heat to 77C (170F) until melted.
- Combine ingredients in Part C and heat to 77C (170F).
- Combine A, B and C while maintaining temperature at 77C (170F).
- Mix slowly while cooling until temperature reaches 38C (100F).
- Add fragrance.
- Package.

The addition of KELTROL T xanthan gum stabilizes this oil-in-water emulsion and improves skin feel of the lotion. Also, the pseudoplastic property conferred by KELTROL T allows ease of application.

SOURCE: Kelco Division: Product Formulation SS-4921

HAND LOTION

RAW MATERIALS % By Weight

EMPILAN GMS/SE40	3.0
Stearic acid	2.4
Glycerol	5.0
Triethanolamine	1.0
Water	Balance
Dye, perfume, preservative	qs

SOURCE: Albright & Wilson Americas: Formula HL1

NUTRITIVE LOTION
Oil Free

RAW MATERIALS	% By Weight
A-A1 Schercemol DISD	2.00
Schercemol CO	12.00
Arlacel 165	2.00
Stearyl Alcohol	0.60
Cetyl Alcohol	0.60
Stearic Acid	3.00
Silicone fl 350 cps	0.20
A2 Triethanolamine	1.00
B-B1 Deionized Water	57.50
Carbopol 941 2% Aq. Sln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Tocopherol Acetate	0.05
Retinyl Palmitate	0.05
E-E1 Concentrate R	5.00
E2 Ginseng Extract	1.00
F- Fragrance	0.20
G- FD&C Red 4 0.10% Aq. Sln.	0.40
FD&C Yellow 5 0.10% Aq. Sln.	0.20

Phase B:

In the main beaker, disperse B1 at 75C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

Phase A:

Blend A1 and A2 together at 75-80C until homogeneous.

Add Phase A to Phase B with continuous mixing at 75-80C for fifteen minutes.

Cool batch to 60C and add Phase C.

Continue to cool with mixing to 37C then add Phase D, E, F, G in sequence.

Continue mixing while cooling batch to 25-28C.

SOURCE: Scher Chemicals, Inc.: Formula L-213-2

O/W LOTION

RAW MATERIALS	% By Weight
1. A-C 580	2.0
2. Mineral Oil 70 s.s.	5.0
3. Dow Fluid 556	1.0
4. Propylene Glycol Dipelargonate	10.0
5. Amerchol 400	2.0
6. Ethoxyl 24	1.0
7. Arlacel 60	1.0
8. Tween 60	2.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Carbopol 941	0.5
12. Methyl-P-Hydroxybenzoate	0.2
13. Triethanolamine	0.75
14. Water	69.45

Procedure:

Disperse Carbopol in water. Weigh 1-9 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

BODY LOTION

RAW MATERIALS	% By Weight
A Belsil PDM 200	3,60
Stearic Acid	2,80
Cetyl Alcohol	1,00
B Glycerine	2,00
Triethanolamine	0,80
Water	89,80
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 80C, stir A into B.
Easily spread, quickly absorbed.

SOURCE: Wacker Silicone: Formulation 187/4 AH

O/W LOTION

RAW MATERIALS	% By Weight
1. A-C 580	2.0
2. Distilled Isopropyl Lanolate	3.0
3. Dow Fluid 556	2.0
4. Propylene Glycol Dipelargonate	13.0
5. Ethoxyl 24	1.0
6. Arlacel 60	1.0
7. Tween 60	2.0
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Carbopol 941	0.5
11. Methyl-P-Hydroxybenzoate	0.2
12. Triethanolamine	0.75
13. Water	69.45

Procedure:

Disperse Carbopol in water. Weigh 1-8 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

HAND LOTION

RAW MATERIALS	% By Weight
Water	79,40
Carbopol 934	0,40
Mineral oil, low viscosity	10,00
Belsil DM 350	10,00
Triethanolamine	0,20
Preservatives, perfume	q.s.

Mix the carbomer 934 slowly into the water until a homogeneous mixture is formed. Mix the mineral oil and Belsil DM 350 and add whilst stirring. Finally stir in the triethanolamine.

Temperature stability: at 45C over 10 weeks.

White, thick lotion. Does not feel greasy.

SOURCE: Wacker Silicone: Formulation 188 AH

O/W LOTION

RAW MATERIALS	% By Weight
1. A-C 617	1.0
2. A-C 540	1.0
3. Mineral Oil 70 s.s.	5.0
4. Dow Fluid 556	1.0
5. Propylene Glycol Dipelargonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlacel 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol (70%)	5.0
12. Carbopol 941	0.25
13. Germall 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.8

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

HAND LOTION

RAW MATERIALS	% By Weight
A Belsil SDM 6022	4,00
Oleic Acid	1,50
B Morpholine	0,30
Water	89,20
C Carbopol 934 Lsg 2%ig	5,00
Preservatives, perfume	q.s.

Heat A and B to 60C, mix together whilst stirring quickly. Mix C to AB at the temperature of 45C (at high energy). Fill at over 40C.

Temperature stability: 8 weeks at 45C.

Thick, white lotion. Easily spread, quickly absorbed.

SOURCE: Wacker Silicone: Formulation 156 AH

PERFORMING TREATMENT LOTION

RAW MATERIALS	Sequence	% By Weight
Stearic Acid	1	2.25
Primex III	1	0.90
Lipolan	1	2.10
Lipo GMS-450	1	2.50
Lipocol C	1	0.50
Lipocol L-23 Special	1	1.00
Propylparaben	1	0.10
Butylparaben	1	0.05
Vitamin E	1	0.25
Silicone 200 Fluid (200 cts)	1	0.20
Lipovol G	1	6.00
*Lipovol MOS-350	1	6.00
Liponate IPM	1	2.00
Lipovol ALM	1	6.50
Lipovol A	1	0.50
Water	2	49.31
Carbopol 941 (2% dispersion)	2	10.00
Propylene Glycol	2	6.00
Methylparaben	2	0.30
Sodium Dehydroacetate	2	0.25
Sequestrene Na3T	2	0.05
Triethanolamine	3	0.22
Water	3	0.22
Fragrance	4	0.50
Collagen	5	1.00
Water	5	1.00
Calendula Extract 5:1 PG	6	0.10
Arnica Extract 5:1 PG	6	0.10
Hayflower Extract 5:1 PG	6	0.10

* US Patent 4,659,573

Manufacturing Procedure:

1. In a separate kettle, mix the Sequence 1 ingredients and heat to 78C under Lightnin' mixer agitation.
2. In the main kettle, combine Sequence 2 ingredients. Heat to 75C under Lightnin' mixer agitation.
3. Combine Sequence 3 ingredients in an auxiliary vessel and mix until homogeneous. Add combined Sequence 3 to Sequence 2.
4. When Sequence 1 and combined Sequence 2 and 3 reach proper temperature, slowly add Sequence 1 (oil phase) at 78C into combined Sequence 2 and 3 (aqueous phase) at 75C under Lightnin' mixer agitation.
5. Mix for 15 minutes or until emulsion is complete. Begin cooling to 65C. At 65C, switch to side-wiping agitation.
6. Continue cooling with side-wiping agitation to 42C.
7. Add Sequence 4. When completely mixed, cool to 25-30C.
8. At 25-30C, add Sequence 5. Mix. Add Sequence 6 when product is homogeneous, package.

SOURCE: Lipo Chemicals Inc.: Formula No. 238

PHOSPHOLIPID EFA REMEDIAL SKINCARE LOTION

RAW MATERIALS	% By Weight
Part A.	
PHOSPHOLIPID EFA	3.20
Water	3.20
MONATERIC 1188M	1.60
Part B.	
0.5% Carbopol 941	67.80
Glycerin	5.00
Methyl Paraben	0.10
Part C.	
Isopropyl Myristate	6.00
Cetyl Palmitate	3.00
Myristyl Myristate	4.00
Isocetyl Stearate	3.00
Stearyl Stearate	2.00
Dow Fluid 200/100 cs.	1.00
Propyl Paraben	0.10

Procedure:

Preblend phases A and B, then combine and heat with stirring to 55C. Blend phase C with heat to 55C and combine the first two phases using sufficient homogenization to ensure good emulsification. Stir cool to 45C, add fragrance, and package.

Comments:

The synergistic emulsifying properties of Phospholipid EFA and Carbopol resins allows for a very mild product free of any additional nonionic surfactants, thereby reducing the need for excess preservatives. The high emollient phase provides a coherent barrier for water retention in the skin while the PHOSPHOLIPID EFA delivers a substantive, luxurious afterfeel.

SOURCE: Mona Industries, Inc.: Formula F-569

MILK LOTION

RAW MATERIALS	% By Weight
A) P.O.E. Sorbitan Monostearate	2.0
Sorbitan Monostearate	1.0
Stearic Acid	2.0
Cetanol	0.25
Polysynlane	7.0
Macadamia Oil	3.0
Butyl Paraben	0.1
B) Glycerin	3.0
Xanthan Gum (2% sol)	10.0
Methyl Paraben	0.1
Dist. Water	71.55
C) Perfume	q.s.

SOURCE: Polyester Corp.: Formula

HAND AND BODY LOTION

RAW MATERIALS	% By Weight
Part A.	
PHOSPHOLIPID SV	3.00
Steareth-20	0.45
Glycerin	10.00
Water	72.75
Methyl Paraben	0.25
Part B.	
Steareth-2	0.80
Cetearyl Alcohol	3.50
Myristyl Myristate	3.50
C12-C15 Alcohol Benzoates	2.50
Hexyl Laurate	2.00
Dow Fluid 200/100 cs.	1.00
Propyl Paraben	0.25

Procedure:

Combine phases A and B separately with heating to 65C. Homogenize B into A for a sufficient time to ensure good emulsification. Stir cool to 45C, add fragrance, and package.

Comments:

This smooth, creamy lotion provides instant relief of dry, chapped skin with a quick breaking formula. A generous amount of emollients and glycerin are delivered to the afflicted areas while the PHOSPHOLIPID SV eliminates any greasiness and leaves the skin with an elegant afterfeel.

SOURCE: Mona Industries, Inc.: Formula F-570

HAND LOTION

RAW MATERIALS	% By Weight
I. PHOSPHOLIPID SV	2.50
PEG 600	2.00
Glycerin	3.00
Steareth-20	0.30
Methyl Paraben	0.25
Water	83.50
II. Steareth-2	0.70
Mineral Oil	2.50
Isopropyl Isostearate	2.00
Cetearyl Alcohol	2.00
Dow Fluid 200/100 c.s.	1.00
Propyl Paraben	0.25

Procedure:

Prepare each phase separately and heat with mixing to 70C. Add the oil phase to the aqueous phase and continue to vigorously mix, without air entrainment, for ten minutes. Stir/cool to 45C, add fragrance, color and package.

Viscosity: 250,000 cps

SOURCE: Mona Industries, Inc.: Formula F-589

POURABLE MOISTURIZING LOTION

RAW MATERIALS % By Weight

Part A.

Monaquat P-TS (as is)	2.0
Germaben II	0.2
Glycerol (99%)	3.0
PEG 12	2.0
Deionized Water	84.1

Part B.

Carnation Mineral Oil	3.0
Isopropyl Isostearate	2.0
Cetyl Alcohol	2.0
Dow Corning 200 Silicone (100 C.S.)	0.2
Propylene Glycol Monostearate (Pure)	1.5

Procedure:

1. Melt Monaquat P-TS at 45C in closed container (to avoid loss of alcohol). Charge Part A ingredients and heat to 60C in a stainless steel or glass lined vessel fitted with a suitable stirrer and a stainless steel propeller and mix until clear and uniform.
2. Heat part B to 62-65C with mixing to ensure uniformity. Add slowly to part A with good mixing.
3. After 5 minutes remove heat and cool slowly (0.5 to 1.0C per minute).
4. When the temperature drops to the 45-40C range the product will thicken somewhat and the propeller rotational speed will slow down. Increase the speed to ensure thorough mixing.
5. Cool to 27C or below.

Formula F-255, when made according to the above procedures will withstand at least 5 freeze/thaw cycles and will exhibit no oil or bottom water separation at 50C for at least 3 months.

SOURCE: Mona Industries, Inc.: Formulating Guide MONAQUAT P-TS: Formula F-255

HAND LOTION

RAW MATERIALS % By Weight

Glyceryl Monostearate (S.E.)	2.7
Cetyl Alcohol	1.5
Silicone 200 Oil	1.5
Lanolin Oil	2.0
POLYSYLANE	3.0
Sodium Lauryl Sulfate	0.3
Preservative	0.2
Water	ad 100.0

SOURCE: Polyester Corp.: Formula

POURABLE MOISTURIZING LOTION

RAW MATERIALS	% By Weight
Part I:	
Deionized Water	84.3
MONAQUAT P-TS	2.0
Glycerin (99%)	3.0
PEG 12	2.0
Part II:	
Light Mineral Oil	3.0
Isopropyl Isostearate	2.0
Cetyl Alcohol (95%)	2.0
Dimethicone (100 C.S.)	0.2
Propylene Glycol Monostearate (Pure)	1.5

Procedure:

Heat Part I to 65C, with mixing, until clear. Heat Part II to 65C, with mixing. Slowly add Part II to Part I with efficient mixing. Remove heat after 5 minutes. Cool slowly. When the temperature drops to the 45-40C range the product will thicken somewhat and the propeller rotational speed will slow down. Increase the speed to ensure thorough mixing. Add fragrance, coloring or preservative as required. Cool to 27C or below and fill.

This formula, when made according to above procedures, will withstand multiple freeze/thaw cycles, remains stable at 50C for at least 3 months and maintains at least 1-year stability at room temperature.

This light-bodied pourable moisturizing lotion provides excellent lubricity when applied and worked into skin. The after-feel is smooth and silky. Skin is left moisturized without feeling oily. MONAQUAT P-TS provides primary emulsification and skin conditioning.

SOURCE: Mona Industries, Inc.: MONAQUAT P-TS: Formula

HAND LOTION

RAW MATERIALS	% By Weight
Hexadecyl alcohol	1.5
Silicone 200	1.5
Lanolin oil	2.0
Robane	3.0
Cetina	3.0
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robeco Chemicals, Inc.: ROBANE/SUPRAENE: Formula

PROTECTIVE EMOLLIENT LOTION

INGREDIENTS	% By Weight
Phase A:	
Glyceryl Stearate	3.5
Myrj 52	2.0
Promulgen D	1.5
Cetyl Alcohol	1.0
Velsan P8-16	4.0
Escalol 507	5.0
Dow 200 Fluid	0.5
Phase B:	
Natrosol HHR 250	0.5
Propylene Glycol	3.0
Cartaretin F-4	2.0
BTC-2125M	0.1
Water, Fragrance	Q.S.
Perfume	0.2

Procedure:

Heat phases A & B separately to 80C, mixing until uniform. Add A to B at 80C and cool with continuous agitation to 50C. Cool with stirring to 30C.

Properties:

pH: 7.06

Viscosity: 1560 cps

Appearance: Creamy, white lotion

A nonionic, emollient lotion which provides moisturization from Velsan P8-16 and incorporates light sun protection. Excellent after sun lotion.

SOURCE: Sandoz Chemicals Corp.: Formulation No. CSC-08

FACE LOTION

SUBSTANCE	% By Weight
96% ethyl alcohol (denatured)	13.0
Water	81.2
Hydroviton cryst. 2/059354	2.0
Extrapone Witch Hazel distilled colorless Special 2/032891	2.0
Neo-PCL water-soluble 2/966212	1.0
Aluminum hydroxychloride	0.4
Perfume oil	0.4

Adjust pH to 4.5 with citric acid

SOURCE: Dragoco, Inc.: Suggested Formulation No. VKG 21/40

SERUM CONTOUR LOTION

RAW MATERIALS	Sequence	% By Weight
Gingko Biloba Phytosome	1	0.50
Unicide U-13	1	0.25
Deionized Water	1	59.40
Carbopol 934 (2% Disp'n)	1	12.50
Propylene Glycol	1	3.50
Methylparaben	1	0.10
Allantoin	1	0.10
Panthenol	1	0.10
Britol 7	2	10.00
Lipomulse 165	2	6.00
Lipopeg 39-S	2	2.50
Lipopeg 2-DL	2	1.00
Lipocol L-23	2	1.00
Lipolan R	2	1.00
Propylparaben	2	0.05
Lipocol C	2	0.40
Triethanolamine 99%	3	0.40
Deionized Water	3	0.40
Monawet MO-70R	4	0.50
Butchers Broom 5:1 PG	5	0.50
Ground Ivy Glycolic 5:1 PG	5	0.10
Horse Chestnut 5:1 PG	5	0.10

Procedure:

1. In main kettle, combine Sequence 1 ingredients and heat to 75C under homomixing until all powders are dissolved.
2. In side kettle, combine Sequence 2 ingredients and heat to 80C.
3. At proper temperatures, add Sequence 2 to Sequence 1 under homomixing and continue to homogenize for a minimum of five minutes at temperature.
4. Switch to sweep mixing and begin cooling.
5. At 70C, add premixed Sequence 3 to batch. Continue cooling.
6. Slowly add Sequence 4 to batch. Continue cooling.
7. At 30C, add premixed Sequence 5 to batch and continue cooling to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 477

SHINY, NON-FATTING CARE LOTION

RAW MATERIALS	% By Weight
EMULGADE SE	8.0
Paraffin oil, viscous	6.0
IPP	4.0
Glycerin 86%	3.0
Water, demineralized	79.0

Viscosity in mPa.s: 10,000
Viscous
Formulation No. 88/051/C

SHINY, NON-FATTING CARE LOTION

RAW MATERIALS	% By Weight
EMULGADE SE	8.0
Paraffin oil, viscous	9.5
IPP	4.5
Glycerin 86%	3.0
Water, demineralized	75.0

Viscosity in mPa.s: 12,000
Viscous
Formulation No. 88/051/D

SHINY, NON-FATTING CARE LOTION

RAW MATERIALS	% By Weight
EMULGADE SE	6.0
IPP	4.0
Cetiol S	6.0
Glycerin 86%	3.0
Water, demineralized	81.0

Viscosity in mPa.s: 6,000
Medium viscous
Formulation No. 88/051/H

SHINY, NON-FATTING CARE LOTION

RAW MATERIALS	% By Weight
EMULGADE SE	8.0
Cetiol 868	10.0
Glycerin 86%	3.0
Water, demineralized	79.0

Viscosity in mPa.s: 10,000
Viscous
Formulation No. 88/051/O

SOURCE: Henkel: Cosmetics No. II/89: Formulas

SILK PROTEIN SKIN LOTION

RAW MATERIALS	% By Weight
1. White Petrolatum	2.6
2. MACKOL 1618	4.0
3. Sorbitan Oleate	1.2
4. Polysorbate 80	0.7
5. MACKERNIUM SDC-85	1.5
6. MACKAMIDE AME-75	0.5
7. MACKPRO NSP	1.0
8. Silicone Copolyol	0.1
9. MACKSTAT DM	qs
10. Fragrance	qs
11. Deionized Water	qs

Procedure:

1. Melt 1,2,3,4,5,6, in a separate container to 75 degrees C.
2. In the mixing tank heat the water #11 to 78 C. Add #7 and #8.
3. Start mixing and add hot mixture 1 thru 6 slowly with good agitation, mix for 20 minutes then start cooling while mixing.
4. Mix well for 20 minutes then start slow cooling while mixing. Avoid aeration.
5. At 45 degrees C. add 9 and 10 and mix, check pH 5-6. Adjust if needed, mix until cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

BODY LOTION, HERB CONTENT

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	208.0 ml
Camphor	0.2 g
b) Water, distilled	792.0 ml
Silicone oil L 03	30.0 g
c) Hexaplant Richter	30.0 g

Manufacture:

- a) dissolve;
- b) dissolve and stir into a);
- c) stir in.

Perfume.

aqueous-alcoholic preparation

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 17

SILK PROTEIN SKIN LOTION

RAW MATERIALS	% By Weight
1. Mineral Oil	3.00
2. MACKESTER SP	2.00
3. Emulsifying Wax N.F.	3.00
4. Glyceryl Stearate & PEG-100 Stearate	2.00
5. Polysorbate 80	0.66
6. Sorbitan Palmitate	0.60
7. Glycerin	2.00
8. Acetamide MEA 100%	1.00
9. MACKPRO NSP	2.50
10. MACKSTAT DM	qs
11. Fragrance	qs
12. Deionized Water	qs

Procedure:

1. Melt 1,2,3,4,5,6,7,8, in a separate container to 75 degrees C.
2. In the mixing tank heat the water #12 to 78 degrees C. and add #9.
3. Start mixing and add the hot mixture of 1 thru 8 slowly with good agitation and mix well for 20 minutes.
4. Then start slow cooling with good mixing without aeration.
5. At 45 degrees C. add #10 and #11 and mix in.
6. Check pH and adjust if needed to 4.8-5.8.
7. Mix until cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

VITAMIN BODY LOTION

RAW MATERIALS	Parts
a) Ethyl alcohol 96 vol. %	208.0 ml
Camphor	0.2 g
b) Water, distilled	792.0 ml
Silicone oil L 03	30.0 g
Cremogen Hamamelis Dest.	50.0 g
c) Vitamin F water-soluble CLR	20.0 g

Manufacture:

- a) dissolve;
 - b) dissolve and stir into a);
 - c) stir in.
- Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 33

STRAWBERRY HAND LOTION

RAW MATERIALS	Parts By Weight
Water	568.0
Carbomer 934	2.0
GMS-SE	4.0
Apricot Oil Lipoval P	16.0
Rosswax 573	4.0
Coconut Oil #76	16.0
Ross Jojoba Oil	4.0
TEA	4.0
Germaben II	6.0
Fragrance DO-60	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed, add the 573, GMS, Apricot Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the oil phase has been mixed well, add the Germaben II, the fragrance, and then the TEA under high agitation. Cool to 55C for filling.

JOJOBA LOTION

RAW MATERIALS	% By Weight
Part A:	
Modulan	1.6
Amerchol L-101	.8
Isopropyl Palmitate	5.0
Glyceryl Mono Stearate Pure	2.1
Rosswax 63-0412	4.0
Isopropyl Myristate	4.0
Ross Jojoba Oil	1.6

Part B:

Water	74.4
Glycerine Pure Emery 916	4.2
Triethanolamine	2.3

Procedure:

Heat Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached mix Part (A) to Part (B), and cool. Package in container at below 120F.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formula

SUPER MOISTURIZING LOTION

INGREDIENT	% By Weight
A VEEGUM	1.0
RHODIGEL	0.5
Deionized Water	74.5
B Sodium PCA (Ajidew N-50)	3.0
Glycerine	5.0
C Hydrogenated Polyisobutene (Polysynlane)	4.0
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	3.0
Cetyl Alcohol	2.0
Isopropyl Myristate	2.0
Sorbitan Palmitate	1.2
Polysorbate 40	3.8
D Citric Acid to pH 5.5	q.s.
Preservative, Dye, Fragrance	q.s.

Preparation:

Dry blend VEEGUM and RHODIGEL and add to the water, mixing with maximum available shear until smooth and uniform. Add B ingredients and mix until dissolved. Add C ingredients and heat to 50C until a uniform clear mixture is obtained. Add C to (A + B) with high speed mixing. Avoid incorporating air. Cool with continuous stirring to 30C and add D.

Consistency: Medium Viscosity Lotion (Viscosity - 1900-2400 cps)

Suggested Packaging: Plastic squeeze bottle or pump.

Features:

This silky-feeling emulsion is stabilized and thickened using a synergistic combination of VEEGUM Magnesium Aluminum Silicate and RHODIGEL Xanthan Gum. It also contains the sodium salt of pyrrolidone carboxylic acid as a natural moisturizing factor along with the well known humectant, glycerine. This lotion spreads easily and is quickly absorbed leaving the skin moist and supple.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 437

WASHING LOTION BASED ON MILD SURFACTANTS

RAW MATERIALS	% By Weight
Texapon SB 3	50,0
Lamepon S	10,0
Arlypon F	5,0
NaCl	4,0
Water and preservative	ad 100

pH value: 6,5

WAS: 20%

Viscosity (20C): 4400

Viscosity after 4 weeks storage: 11300

SOURCE: Henkel: Cosmetics Nr. IX/90/Lz: Formulation no. 89/216/19

TONIC LOTION

RAW MATERIALS	Parts
A. Deionized water	852
Glycerin	20
Tensami 10/06 (A.M.I.)	40
Saponaria extract	30
Passion flower extract	30
2 Bromo-Nitropropane 1,3-Diol	10
Methylparaben	10
B. Tween 20	6
Perfume Passion Flower HR 38643	1.5
C. Red dye E124 in water solution at 1%	0.5

Operating Method:

Weigh the ingredients of the A phase and mix slowly.
Then add the B phase and the C phase under gently shaking.

SOURCE: TRI-K Industries, Inc.: Formula

HAND AND BODY LOTION

RAW MATERIALS	% By Weight
A VEEGUM PRO	2.00
Water	70.75
Glycerin	6.00
B Marcol 130	10.00
Petrolatum	4.00
Arlacel 165	5.00
Synchrowax AW1-C	1.25
C Allantoin	1.00
Preservative	q.s.

Procedure:

Heat the water to 70 to 75C, then slowly add the VEEGUM PRO while agitating at maximum available shear. Mix until smooth. Add glycerine and mix until uniform. Heat B to 75 to 80C. Add B to A and mix until cool. Add C and mix until uniform.

Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottle.

Comments: VEEGUM PRO effectively thickens and stabilizes the emulsion even at elevated temperatures. Glycerin helps to rapidly hydrate dry skin and the selection of oils and waxes produces a smooth and non-greasy feel. The allantoin provides soothing relief for wounds, burns, and skin problems.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 420

ULTRA MOISTURIZING LOTION

INGREDIENT	% By Weight
A VEEGUM Ultra	0.15
Carbomer 980	0.15
Deionized Water	73.70
B Glycerin	5.00
C Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.00
Cetyl Alcohol	2.00
Isopropyl Palmitate	2.00
Hydrogenated Polyisobutene (Polysynlane)	5.00
Isopropyl Myristate	3.00
Sorbitan Palmitate	1.20
Polysorbate 40	3.80
D Preservative, Fragrance	q.s.
Triethanolamine to pH 6.0	q.s.

Procedure:

Dry blend VEEGUM Ultra and Carbomer and add them slowly to the water while stirring with a propeller mixer at 700 rpm. Increase the mixer speed to 1500-1700 rpm and continue mixing for 30 minutes. Add B and mix 5 minutes. Mix C ingredients and heat to 50C. Heat A and B mixture to 50C. Add C to A and B and mix at 50C and 1500-1700 rpm for 10 minutes. Slow the mixer to 1000 rpm while cooling to 30C. Add D and mix until uniform.

Product Characteristics: Viscosity: 2200-2800 cps
 pH: 6.0+-0.2
 Color: White, Bright

Features:

This creamy oil-in-water emulsion is thickened and stabilized with a combination of VEEGUM Ultra and Carbomer. The well known humectant glycerin provides the moisturizing function. VEEGUM Ultra also enhances the whiteness and brightness of the emulsion and helps adjust the pH to approximate that of the skin. The lotion spreads easily and is rapidly absorbed leaving the skin moist and supple.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 450

VASELINE INTENSIVE CARE

INGREDIENT	% By Weight
Water	62-79
Glycerine	3- 5
Perlatum 410	5- 7
Britol 7	3- 5
Stearic Acid XXX	2- 3
Polytex 10M	1- 2
Triethanolamine, 99%	1.5
Acetylated Lanolin Alcohol	1- 2
Lipo GMS-450	1- 2
Lipocol C	0- 1
Dimethicone	1- 2
Magnesium Aluminum Silicate	0- 1
Methylparaben	0.15
Propylparaben	0.10
Carbopol 934 (2% disp.)	2- 5
Disodium EDTA	0.05
Lipopeg 39S	0- 1
Glydant	0.015
Fragrance	q.s.

A general formula which will duplicate the ingredient labeling of Vaseline Intensive Care.

SOURCE: Lipo Chemicals Inc.: Formula No. 355

O/W LOTION

RAW MATERIALS	% By Weight
Phase 1:	
Ross Wax 63-0412	1.6
Ross Wax 1641	1.0
Mineral Oil #9	2.1
Ross Wax 63-0212	1.0
Amerchol L-101	5.2
Ross Jojoba Oil	2.1
GMS SE	2.1
Phase 2:	
Triethanolamine	1.0
Propylene Glycol	4.7
Water	78.2
Preservative Germaben II	1.0
Novarome DE-47 Fragrance	q.s.

Procedure:

In separate kettles bring Phase (1) and (2) to 170F. When temperature is reached add Phase (1) and (2) with agitation. Cool to 120F and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

WASHING LOTION BASED ON MILD SURFACTANTS

RAW MATERIALS	% By Weight
Texapon SB 3	30,0
Dehyton K	10,0
Arlypon F	5,0
NaCl	3,5
Water and preservative	ad 100

pH value: 6,5

WAS: 15%

Viscosity (20C): 2200

Viscosity after 4 weeks storage: 6900

Formula 89/216/12

WASHING LOTION BASED ON MILD SURFACTANTS

RAW MATERIALS	% By Weight
Texapon SB 3	25,0
Dehyton K	10,0
Lamepon S	8,0
Arlypon F	5,0
NaCl	2,5
Water and preservative	ad 100

pH value: 6,5

WAS: 15%

Viscosity (20C): 6000

Viscosity after 4 weeks storage: 10000

Formula no. 89/216/14

WASHING LOTION BASED ON MILD SURFACTANTS

RAW MATERIALS	% By Weight
Texapon SB 3	38,0
Lamepon S	10,0
Arlypon F	5,0
NaCl	4,0
Water and preservative	ad 100

pH value: 6,5

WAS: 15%

Viscosity (20C): 2000

Viscosity after 4 weeks storage: 8200

Formula no. 89/216/18

SOURCE: Henkel: Cosmetics Nr. IX/90/Lz: Formulas

WASHING LOTION

With pearl lustre effect, 14.8% active detergent

RECIPE	% By Weight
A GENAPOL ARO liquid	35.00
B GENAPOL AMG	8.00
Perfume	0.50
GENAPOL PGS liquid	3.00
Water	45.50
Dyestuff solution	q.s.
Preservative	q.s.
HOE S 3267-1	8.00
C Citric acid----> pH 6.5	q.s.
D Sodium chloride	q.s.

Procedure:

I Add one after another, the components of B to A.

II Adjust the pH with C, then adjust the viscosity with D.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula A II/4009BODY LOTION, O/W

RAW MATERIALS	% By Weight
I. Cutina CBS	10.0
Cutina E 24	2.0
Eumulgin B 2	0.5
Cetiol V	6.0
Eutanol G	4.0
II. 86% glycerine	5.0
Gludain AGP	1.0
Deionized water, preservative	ad 100.0

Viscosity: 8,000 mPas

SOURCE: Henkel: Cosmetics No. XIII/Lz: Formula 89/118/5

Section X

Shampoos

ACID BALANCED CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
TEA Lauryl Sulfate (40%)	35.0
MACKAM 35HP	10.0
MACKALENE 426	6.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust pH to 4.0 with citric acid.
4. Cool and fill.

ALL NATURAL SHAMPOO

RAW MATERIALS	% By Weight
MACKADET WGS	45.0
MACKAMIDE LLM	10.0
Sodium Chloride	2.5
MACKSTAT DM	Q.S.
EDTA (40%)	0.5
Fragrance	Q.S.
Deionized Water Q.S.	100.0

Procedure:

1. Add components to water and blend until clear.
2. If a higher viscosity is needed, adjust with sodium chloride.

ALL PURPOSE SHAMPOO

RAW MATERIALS	% By Weight
MACKADET SBC-8	20.0
Sodium Chloride	qs
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKADET SBC-8 to water and blend until clear.
2. Add MACKSTAT DM and adjust viscosity to 2000-3000 cps with sodium chloride.
3. Add dye, fragrance, and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

ACID CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate, 28%	50.0
Hamosyl L-30	10.0
Dimethyl Stearamine	1.0
Hamp-ene Na ₂	0.2
Water, perfume, preservative	q.s.

Adjust pH to 5.0 with citric acid.

Provides rich lather with mild detangling.

HIGH LATHER CREME RINSE SHAMPOO

RAW MATERIALS	% By Weight
Hamosyl L-30	20.0
Coco Betaine, 35%	10.0
Lauramide DEA	5.0
Cetrimonium Chloride, 30%	0.8
Stearalkonium Chloride, 25%	0.1
Hamp-ene Na ₂	0.2
Water, perfume, preservative	q.s.

Adjust pH to 6.7

Excellent lathering shampoo containing true creme rinse components for wet combability.

LOW COST SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate, 28%	18.0
Hamosyl C	5.0
Lauramide DEA	5.0
Hamp-ene Na ₂	0.2
Water, perfume, preservative	q.s.

Adjust to pH 6.5 with citric acid, NaCl or NH₄Cl may be used to increase viscosity.

A straightforward, high lathering shampoo.

SOURCE: W.R. Grace & Co.-Conn.: Shampoo Formulations

ALOE-SEAWEED SHAMPOO-NORMAL/DRY FORMULA

INGREDIENTS	% By Weight
A) Deionized Water	44.50
Aloe Vera Gel 1:1	10.00
Standapol ES-2	35.00
Tritaine PB	2.00
Velvetex BA-35	2.00
Standamid SD	3.00
Sodium Chloride	1.25
B) Kathon CG	0.05
Kiwi Fragrance #901058	0.20
Seaweed HS	0.50
Stinging Nettle HS	0.50
Oat Milk AMI	1.00

Procedure:

Add ingredients in Phase A in order. Mix well after each ingredient is added. When Phase A is homogeneous add Phase B ingredients in order. Mix well after each addition. Adjust pH to 6.0-6.5 with Citric Acid (50% solution).

Formula #MS-2-94-2

ALOE-SEAWEED SHAMPOO-NORMAL/OILY FORMULA

INGREDIENTS	% By Weight
A) Deionized Water	43.95
Aloe Vera Gel 1:1	10.00
Standapol ES-2	35.00
Velvetex BA-35	4.00
Standamid SD	3.00
Sodium Chloride	1.80
B) Kathon CG	0.05
Starfruit Fragrance #901409	0.20
Seaweed HS	0.50
Stinging Nettle HS	0.50
Soapwort HS	1.00

Procedure:

Add ingredients in Phase A in order. Mix well after each ingredient is added. When Phase A is homogeneous add Phase B ingredients in order. Mix well after each addition. Adjust pH to 6.0-6.5 with Citric Acid (50% solution).

Formula #MS-2-93-2

SOURCE: TRI-K Industries, Inc.: Formulas

ALOE VERA SHAMPOO

RAW MATERIALS	% By Weight
A D.I. Water	64.84
* Aloe Vera Gel S.D. Type H200	0.1
Sodium Chloride	1.3
Hydrolized Animal Protein	1.0
B Sodium Lauryl Sulfate	26.0
Citric Acid	0.40
Fragrance	0.15
D.M.D.M. Hydantoin	0.20
Germall 115	0.10
C Richamide Liquid	6.0

Procedure:

1. Mix phase A together.
2. Mix phase B together and add to phase A. Blend together.
3. Mix phase C and mix together.

*Note: 1 pound of Spray Dried Aloe Vera Gel H-200 is equivalent to 200 pounds of Aloe Vera Gel 1:1.

ALOE VERA SHAMPOO

RAW MATERIALS	% By Weight
A D.I. Water	39.85
Aloe Vera Gel	25.00
Sodium Chloride	1.3
Hydrolized Animal Protein	1.0
B Sodium Lauryl Sulfate	26.00
Citric Acid	0.40
Fragrance	0.15
D.M.D.M. Hydantoin	0.20
Germall 115	0.10
C Richamide Liq	6.0

Procedure:

1. Mix phase A together.
2. Mix phase B together and add to phase A. Blend together.
3. Mix phase C and mix together.

SOURCE: Meer Corp.: Formulas

ANIMAL FREE SHAMPOO

RAW MATERIALS	% By Weight
MACKADET 40K	50.0
MACKAMIDE LLM	10.0
Sodium Chloride	2.0
Tetrasodium EDTA (40%)	1.0
MACKSTAT DM	Q.S.
Deionized Water Q.S. to	100.0

Procedure:

1. Add MACKADET 40K, MACKAMIDE LLM, and EDTA to 90 percent of the water.
2. Blend until clear.
3. Dissolve Sodium Chloride in remaining water and slowly add to batch.
4. Add MACKSTAT DM and blend until clear.
5. If needed, sodium chloride can be increased to increase viscosity.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HIGH LATHER ACID pH SHAMPOO

RAW MATERIALS	% By Weight
Hamposyl L-30	12.0
Sodium Lauryl Sulfate, 30%	35.0
Cocamidopropylamine Oxide, 30%	5.0
HAMP-ENE Na2	0.2
Water, perfume, preservative	q.s.

Adjust to pH 5.5 with citric acid.

Cleans hair gently and provides shine and highlights.

DETANGLING SHAMPOO

RAW MATERIALS	% By Weight
Hamposyl L-30	40.0
Cocoamidopropyl Betaine, 35%	13.0
Sodium Trideceth 7-Carboxylate, 68%	6.0
Cationic Polymer	0.2-1.0
Hamp-ene Na2	0.2
Water, perfume, preservative	q.s.

Adjust to pH 6.0 with citric acid.

A mild shampoo which delivers the cationic polymer intact for maximum effectiveness.

SOURCE: W.R. Grace & Co.-Conn.: Shampoo Formulations

ANTI-DANDRUFF SHAMPOO

INGREDIENTS	% By Weight
Part A:	
Water, deionized	61.3
KELTROL T xanthan gum	0.5
Color	to suit
Part B:	
Stepanol WAT TEA lauryl sulfate	25.0
Maprosyl 30 sodium lauryl sarcosinate	10.0
Zinc Omadine zinc pyrithione, 48% dispersion	3.0
Methyl Parasept methylparaben	0.2
Perfume	to suit

Procedure:

Part A:

1. Hydrate KELTROL T in the water thoroughly. Mix for at least 10 minutes at moderate to high shear using a Lightnin'-type mixer.
2. Add the color and continue mixing.

Part B:

3. In a separate container, mix ingredients slowly to avoid bubble formation.
4. Add Part B to Part A while mixing slowly.

In this anti-dandruff shampoo, KELTROL T xanthan gum provides suspension stability to the active ingredient, zinc pyrithione.

SOURCE: Kelco Division: Product Formulation SS-4788

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
MACKAM 2C75	13.0
Sodium Laureth Sulfate (30%)	45.0
TEA Lauryl Sulfate	35.0
MACKAMIDE LLM	2.5
Irgasan DP300	0.2
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add first four components to water and heat to 50 degrees C.
2. Blend until clear.
3. Add Irgasan DP300.
4. Cool to 40 degrees C. and add remaining components.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

ANTIDANDRUFF SHAMPOO

RECIPE	% By Weight
A OCTOPIROX	0.75
B Water	20.00
C GENAPOL LRO liquid*	40.00
GENAPOL AMG	8.00
D Perfume	0.30
Water	30.95
Dyestuff solution	q.s.
Preservative	q.s.
E Citric acid---->pH 6.5	q.s.
F Sodium chloride	q.s.

* If Genapol LRO paste is being used instead of Genapol LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I Mix A and B.
- II C is added by continuing stirring until the solution is clear.
- III Add one after another, the components of D to II.
- IV Adjust the pH with E, then adjust the viscosity with F.

clear, 13.6% active detergent

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula B I/6112

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Water	41.0
TEA-Lauryl Sulfate (40%)	30.0
MONATERIC CAB	17.0
MONAMID 716	3.0
MONAMID 150-ADY	3.0
Zinc Pyrithione (48% Aqueous Dispersion)	4.0
Glycol Distearate	2.0

Procedure:

Add ingredients in order listed. Mix and heat to 60C. Cool, adjust pH to 6.0. Add coloring, fragrance and preservative as required.

Appearance: Off white, opaque liquid

Viscosity: Approximately 2000 cps.

SOURCE: Mona Industries, Inc.: MONAMID 716: Formulation

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LZV	20.0
EMPILAN EGMS	5.0
EMPILAN LDE	5.0
EMPICRYL APD/B	1.0
Selenium disulphide	5.5
Citric acid	to pH 4.0-5.5
Perfume, dye, preservative	qs
Water	Balance
Formula MAS1	

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LZV	18.0
EMPILAN EGMS	5.0
EMPILAN LDE	5.0
LAPONITE XLS (8% soln)	6.0
Selenium disulphide	5.5
Citric acid	to pH 4.0-4.5
Perfume, dye, preservative	qs
Water	Balance
Formula MAS2	

The water should be heated to approximately 80C and the EMPICOL LZV, EMPILAN LDE, EMPILAN EGMS and EMPICRYL APD/B or LAPONITE 8% aqueous solution added and stirred to give a uniform mixture. The selenium disulphide (45% suspension) should then be added and the product cooled to below 35C before adjustment of pH and addition of perfume, dye, etc.

Formulations MAS1 and MAS2 give high-viscosity lotions.

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL TL40/T	40.0
EMPILAN LDE	4.0
EMPICOL SEE	5.0
Citric acid	to pH 6.0-6.5
Ammonium chloride	qs (viscosity)
Perfume, dye, preservative	qs
Water	Balance
Formula MAS3	
Formulation MAS3 gives a clear liquid product.	

SOURCE: Albright & Wilson Americas: Formulas

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3	36.0
EMPILAN CDE	2.5
Zinc pyrithione (48% dispersion)	2.0
Carbopol 1342	1.0
Sodium chloride	qs (viscosity)
Citric acid	to pH 6.5-7.0
Perfume, dye, preservative	qs
Water	Balance

The Carbopol 1342 is thoroughly dispersed in water before addition of EMPICOL ESB3 and EMPILAN CDE. The zinc pyrithione is added followed by the perfume, dye, preservative, citric acid and finally the viscosity adjusted with sodium chloride.

Because of light sensitivity this product should be packed in an opaque bottle and because of zinc pyrithione, it is advisable that the label should carry instructions to shake before use.

Formula MAS4

MEDICATED SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3	45.0
EMPILAN CDE	3.0
Irgasan DP300	0.5
Citric acid	to pH 6.5-7.0
Sodium chloride	qs
Perfume, dye, preservative	qs
Water	Balance

Formula MAS5

MAS5 is a general purpose medicated shampoo. The Irgasan should be pre-dissolved in the EMPILAN CDE before addition to the solution of EMPICOL ESB3 in water.

SOURCE: Albright & Wilson Americas: Formulas

ANTI-DANDRUFF LOTION SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
Veegum	1.0
Methocel FYM	0.8
Water qs to	100.0
Part B:	
Sodium Olefin Sulfonate (40%)	35.0
MACKAMIDE LLM	4.0
MACKAMIDE S	1.0
MACKPRO NLP	2.0
Part C:	
Zinc Omadine (48%)	4.0

Procedure:

1. Thoroughly disperse Veegum in water at 70 degrees C.
2. Then slowly add Methocel FYM and blend until homogenous.
3. Add Part B to Part A and adjust pH to 6.5 with citric acid.
4. Add Zinc Omadine and blend until homogenous.

ANTI-DANDRUFF SHAMPOO CREAM TYPE

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate (30%)	61.8
MACKAM 35HP	10.0
Sodium Chloride	7.0
Triple Pressed Stearic Acid	5.0
MACKAMIDE LLM	4.0
Propylene Glycol	4.0
Zinc Pyrithione (48%)	4.0
MACKAMIDE PK	2.0
Caustic Soda (50%)	1.6
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat stearic acid, MACKAMIDE LLM, MACKAMIDE PKM and propylene glycol to 70 degrees C.
2. Heat SLS, MACKAM 35HP, Sodium Chloride, Caustic Soda and water to 70 degrees C.
3. Add oil to water and cool to 55 degrees C.
4. Slowly add Zinc Pyrithione.
5. Cool to 45 degrees C. and add remaining components.
6. Fill at 40 degrees C.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

2 IN 1 ANTIDANDRUFF SHAMPOO WITH Z.P.

RAW MATERIALS	% By Weight
1. Ammonium Lauryl Sulfate	64.00
2. Mackalene 426	10.00
3. Mackanate DC30	4.00
4. Ethylene Glycol Distearate	2.00
5. Mackamide C	1.00
6. Zinc Pyrithione 50% Suspension	2.00
7. 2% water solution of Hydroxyethyl Cellulose	9.00
8. 5% Dispersion of Magnesium Aluminum Silicate	9.00
9. Mackernium 007	0.50
10. Mackstat DM	QS
11. Fragrance	QS
12. Color	QS
13. Deionized Water qs to	100.00

pH: 5.5-6.0

Viscosity: 4000-5500 cps

Procedure:

1. Into a stainless steel tank place #1, #2, #3, #4 and start heating and slow mixing and heat to 80C (176F).
2. In a separate small stainless vessel, blend #6, and #5 and mix until a smooth uniform paste is formed. Do not add.
3. In a separate container prepare the 2% solution of #7 and mix till solution is completely clear.
4. In another container prepare a 5% suspension of #8 and blend well until the material has formed a completely smooth dispersion free of any particles.
5. Finally blend both, suspension #8 and solution #7, together and then add this blend to the hot batch with good mixing and continue agitation and keep temperature at 70C (160F).
6. Once this addition is completed, start addition of blend of #6 in #5 slowly. Keep mixing for 10 minutes then start slow cooling while mixing at 50C (120F) then adding #10.
7. Cool further to 35C (95F) while mixing and add #11, #12 and enough of #13 to compensate for evaporation.
8. Check pH and adjust with small amounts of diluted sodium hydroxide solution.

DO NOT ADD SALT to this preparation to increase viscosity. Try only small amounts of additional #5. Adding one half % of Lauryl Alcohol will help.

As color you could use very small amounts of FDC Blue #1 solution or FDC Green #3.

To prepare #8, McIntyre used Magnabrite HV made by American Colloid Co.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula No. BP-21

APRICOT SHOWER SHAMPOO GEL

INGREDIENTS	% By Weight
Sodium Lauryl Sulfate (30%)	25.10
Schercotaine APAB (40%)	12.6
Schercamox CAAG (35%)	3.8
Schercoquat APAS (90%)	0.6
Herbasol Extract Apricot	1.0
Preservative	0.2
Color, Fragrance	q.s.
Water (deionized)	56.7

Procedure:

1. Heat water to 50C. With stirring add Schercoquat APAS to dissolve.
2. Add Schercotaine APAB, mix.
3. Add Schercamox CAAG, mix.
4. Add preservative, mix.
5. Add Apricot Extract, mix.
6. Increase stirring and add Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
7. To clear up bubble formation, warm finished product at 45-50C.

Formula 221-89

NATURAL MILD (APRICOT) CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Schercoquat APAS	0.5
Schercotaine APAB (40%)	6.0
Schercotaine CAB-G (45%)	14.0
Sipon ES-2 (27%)	18.0
Herbasol Extract Apricot	1.0
Schercomid SAP	1.0
Preservative	0.2
Water (deionized)	59.3
Color, Fragrance	q.s.

Procedure:

1. Heat water to 50C. With stirring add Schercoquat APAS to dissolve.
2. Add preservative, mix.
3. Add Schercotaine APAB & Schercotaine CAB-G. Heat & mix to 50C until uniform.
4. Add Schercomid SAP, mix.
5. Add Apricot Extract, mix.
6. Add Sipon ES-2. Mix thoroughly until uniform.

Formula 220-195

SOURCE: Scher Chemicals, Inc.: Formulas

BASIC SHAMPOO

RAW MATERIALS	% By Weight
Triethanolamine Lauryl Sulfate (40%)	50.0
Lauramide DEA	2.0
CELLOSIZ HEC QP-4400H	1.5
Preservative, Color, Perfume	q.s.
Water	q.s.
Citric Acid	to pH 7.0-7.4

Procedure:

Add CELLOSIZ HEC QP-4400H to water at room temperature with rapid stirring. When well dispersed heat to 70C until a clear solution is obtained. When hydration is complete, add TEA Lauryl Sulfate and Lauramide DEA and mix until batch is clear and uniform. Adjust to pH 7.0 to 7.4 with Citric Acid. Cool to room temperature.

Description:

Simple system based on TEALS showing the compatibility and functionality of CELLOSIZ HEC.

SOURCE: Amerchol Corp.: CELLOSIZ HEC: Formula T55-117-1

CLEANSING SHAMPOO

RAW MATERIALS	% By Weight
AMERSIL DMC-357	2.5
GLUCAMATE DOE-120	2.0
Ammonium Lauryl Sulfate (28%)	35.7
Cocamidopropyl Betaine (35%)	10.0
Citric Acid (anhydrous)	0.4
Lauramide DEA	3.0
Deionized water	46.4
Preservative	q.s.

Procedure:

With propeller agitation mix deionized water and ammonium lauryl sulfate. Heat to 45C and add cocamidopropyl betaine, citric acid, lauramide DEA, AMERSIL DMC-357, GLUCAMATE DOE-120 and preservative, in that order, waiting for each ingredient to dissolve before adding the next. Cool to room temperature.

Description:

Basic cleansing shampoo for daily use. The AMERSIL DMC-357 improves foam quality and aids in combing. GLUCAMATE DOE-120 enhances viscosity.

SOURCE: Amerchol Corp.: AMERSIL: Formula T62-270-2

CHILDREN'S CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKADET BSC	25.0
MACKALENE 426	3.0
Sodium Chloride	1.5
MACKSTAT DM	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first two components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust viscosity with Sodium Chloride.
4. Add remaining components and cool.

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKAM 35	35.0
MACKALENE 116	10.0
Polymer JR30M	1.2
MACKSTAT DM	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Disperse Polymer JR30M in cold water.
2. Heat to 60 degrees C. with agitation.
3. Stir until lumps are dissolved.
4. Add MACKAM 35 and MACKALENE 116.
5. Cool to 45 degrees C. and add remaining components.

WHEAT GERM CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE OP	20.0
Sodium Laureth Sulfate (30%)	24.0
MACKANATE WGD	8.0
MACKAM WGB	5.0
Citric Acid to pH = 5.5	
Sodium Chloride	qs to viscosity = 20000 cps
MACKSTAT DM	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add surfactants to water and heat to 40 degrees C.
2. Adjust pH to 5.5.
3. Add remaining components and adjust viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAN SCALP TYPE SHAMPOO

RAW MATERIALS	% By Weight
1. Mackam 2C	28.00
2. Sodium Laureth Sulfate 28%	36.00
3. Mackamide LLM	4.00
4. Laneth 15 or Laneth 16	1.00
5. Propylene Glycol	3.00
6. Disodium EDTA	0.20
7. Polypro 5000	1.00
8. Methyl Paraben	0.14
9. Propyl Paraben	0.07
10. Germall 2	0.40
11. Botanical Extract Blend	QS
12. Color, Fragrance (if required)	QS
13. Deionized Water (qs to)	100.00

pH: 7.9-8.2

Solids: 35%

Viscosity: 600-800 cps

Procedure:

1. Place a major portion of water #13, into manufacturing tank and start heating to 160 degrees F (70 degrees C). Add #6. Start the mixing. Then add #1, #2, #3, #4 slowly.
2. In a separate container heat the remainder of the water #13 to 160 degrees F (70 degrees C) and dissolve in it #8, #9 and add the hot solution to the heated main batch in the tank. Start cooling and at 120 degrees F (50 degrees C) add #7, then #10. Keep mixing and add at 105 degrees F (40 degrees C) #11 and finally #12 (if required). Mix till cool.
3. Check pH and adjust if needed downward with citric acid or upward with diluted Sodium Hydroxide solution in small increments.

Formula No. BP-43 #2

ALL NATURAL SHAMPOO

RAW MATERIALS	% By Weight
MACKADET WGS	45.0
MACKAMIDE LLM	10.0
Sodium Chloride	2.5
MACKSTAT DM	Q.S.
EDTA (40%)	0.5
Fragrance	Q.S.
Deionized Water Q.S.	100.0

Procedure:

1. Add components to water and blend until clear.
2. If a higher viscosity is needed, adjust with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAR CLEAN SHAMPOO

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (30%)	25.0
MACKANATE EL	12.0
MACKAMINE CAO	5.0
MACKALENE 426	4.0
MACKSTAT DM	q.s.
Sodium Chloride qs to 2000 cps	
Citric Acid to pH 6.0-7.0	
Water, Fragrance qs to	100.0

Procedure:

1. Blend components and heat to 40 degrees C.
2. Adjust viscosity with sodium chloride and pH with citric acid.
3. Add fragrance and cool.

CRYSTAL CLEAR SHAMPOO

RAW MATERIALS	% By Weight
1. Sodium Lauryl Sulfate 30%	25.00
2. MACKAM CB-35	10.00
3. MACKANATE DC-30	2.25
4. MACKSTAT DM	qs
5. D.I. Water	qs
6. Fragrance	qs
7. Disodium EDTA	0.2
8. Sodium Chloride	qs

pH: 6.6-6.9 (adjust with diluted hydrochloric acid)

Viscosity: 1000-3000

Procedure:

1. To the water add #7 start mixing add #1, #2, #3 mix.
2. Add #4, #6 and mix until homogeneous.
3. Adjust viscosity by adding very small portions of #7.

Formula AY162-2

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CLEAR CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Standapol AEI	45.0
Standamox CAW	6.0
Nutrilan I	6.0
Dehyquart E	3.0
Fragrance	0.25
Kathon CG	0.05
Deionized Water	q.s. to 100
Citric Acid to pH 6-6.5	

Procedure:

Using moderate stirring at room temperature, add the Standapol AEI to the water. Then add, in order, remaining ingredients making sure the blend is clear after each addition. Adjust blend to pH 5.8-6.4 with citric acid and package.

Comments:

Dehyquart E is a special quaternary that improves the wet and dry combability without causing any loss in effectiveness of anionic surfactant systems. In addition, the Dehyquart E, unlike other conditioning polymers, does not lead to build-up with continued use.

SOURCE: Henkel: Formula HOB-270-35-4A

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	53,50
Texapon ASV	20,00
Dehyton K	11,00
Comperlan KD	4,00
Sodium Chloride	1,00
Texapon SG	10,00
Belsil DMC 6031	0,50
Preservatives, fragrances	q.s.

Mix all components in the given order.

Temperature stability: at 45C over 10 weeks.

High-viscosity product with a silky shine. Very mild.

SOURCE: Wacker Silicone: Formulation 201 AH

CLEAR LIQUID BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCA Modified	30.0
Hexylene Glycol	2.0
Tween 20	1.0
Water	67.0

Procedure:

Mix together all ingredients at 50-55C and adjust pH to 6.8-7.0 with hydrochloric acid. Cool. A slightly higher viscosity can be achieved with the addition of 1-2% of high active Lauramide DEA.

Solids: 18.0%

CLEAR LIQUID BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS Modified	35.0
Tween 20	1.0
Cedemide AX	1.0
Kessco PEG 6000 Distearate	1.0
Water	62.0

Procedure:

Blend the ingredients together at 70C and, when uniform, adjust pH to 6.8-7.0 with hydrochloric acid.

Solids: 19.5%

Viscosity: 600 cps.

PEARLESCENT BABY SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCAS Modified	35.0
Cedemide AX	2.0
Cerasynt IP	0.5
Methocel E4M Premium, 3% solution	50.0
Water	12.5

Procedure:

Combine MIRANOL 2MCAS Modified, Cedemide AX and Cerasynt IP and heat to 80C. Add 3% Methocel solution and mix until uniform, then add the remaining water. Adjust pH to 6.8-7.0 with hydrochloric acid.

Solids: 20.8%

Viscosity: 17,000 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

CLEAR MILD SHAMPOO

RAW MATERIALS	% By Weight
Water and preservative	61.0
MONAMATE LNT-40	15.0
MONATERIC LMAB	20.0
MONAMID 1089	4.0

Procedure:

Add ingredients in order listed and blend thoroughly. No heat is necessary. Adjust pH with 50% citric acid to level desired. At pH 6.5 viscosity is approximately 3000 cps.

Formula F-166

COLORLESS SHAMPOO

RAW MATERIALS	% By Weight
Water	47.0
MONATERIC CAB-LC	10.0
Sodium Laureth (2) Sulfate (25%)	40.0
MONAMID 716	3.0

pH adjusted to 6.7

Procedure:

Add ingredients in the order listed with agitation. Add preservative, color and fragrance as required.

This formulation is interesting for its water-white clarity. It is very mild with excellent lathering properties.

Formula F-488

BABY & FAMILY SHAMPOO

RAW MATERIALS	% By Weight
Water	12.0
MONAMATE OPA-30	46.3
MONATERIC CSH-32	41.7

Mixing Procedure:

Add ingredients in the order listed and blend with slow agitation. No heat is required. Adjust pH with phosphoric acid to 6.0. Viscosity = approximately 600 cps.

25.8% active

For an all "family shampoo" that is non-irritating and offers improved foam, lather and conditioning properties.

SOURCE: Mona Industries, Inc.: Formulas

CLEAR SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE XL	50.0
Cedemide AX	4.0
Water	46.0

Procedure:

Heat the MIRATAINE XL and Cedemide AX until the amide is dissolved. Add cool water and adjust the pH to 5.9-6.1 with hydrochloric acid.

Solids: 23.5%, viscosity: 10,000 cps.

PEARLESCENT SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE XL	53.0
MIRATAINE CBS	2.0
Cedemide CX	3.0
Cerasynt IP	2.0
Water	40.0

Procedure:

Heat the MIRATAINE XL, MIRATAINE CBS, Cedemide CX and Cerasynt IP until the Cerasynt IP has dissolved. Add cool water and adjust the pH to 5.0 with citric acid.

Solids: 26.5%, viscosity: 4800 cps.

MILD SHAMPOO

RAW MATERIALS	% By Weight
Sodium Trideceth Sulfate (30%)	30.00
Dimethicone Copolyol	6.20
Cocamidopropyl Betaine	17.00
PEG-150 Distearate	5.00
Trideceth-19 Carboxylic Acid	2.40
Sodium Laureth Sulfate	6.40
Lauroamphodiacetate	2.80
Sodium Chloride	1.40
Quaternium-15	0.20
Polyquaternium-7	2.20
Tetrasodium EDTA	0.26
Water	26.14

Compounding Procedure:

To 50 parts of Compound SBC, q.s. to 100 parts with fragrance, Quaternium-15, color and water. Adjust pH to 6.8 with citric acid. Finished shampoo will be approximately 16.5% solids and have viscosity of 1,000-1,200 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

CLEAR SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE BB	14.5
CEDEPAL TD 404M	14.5
Sodium Chloride	0.5
Water	70.5

Procedure:

Dissolve the sodium chloride in water. Add the MIRATAINE BB and CEDEPAL TD404M and stir until uniform. Adjust the pH to 7.0 with hydrochloric acid.

Solids: 10.6%, viscosity: 4500 cps

SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE CB	20.0
MIRAPOL A-15	2.4
Cedepon TL 40	15.0
Tween 20	4.0
Cedemide CX	3.0
Water	55.6

Procedure:

Dissolve MIRAPOL A-15 in water. Add MIRATAINE CB and Tween 20. Stir until uniform. Add Cedemide CX. Stir. Add Cedepon TL 40 and stir until uniform. Adjust pH to 7.1 with hydrochloric acid.

Solids: 20.5%, viscosity: 3800 cps.

NON-ALKALINE SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE TM	6.0
Ammonium Lauryl Sulfate, 28%	25.0
Cedemide AX	2.0
Sodium Lauroyl Sarcosinate	7.0
Water	60.0

Procedure:

Mix all ingredients together and heat to dissolve the Cedemide AX. Adjust pH to 5.7 with hydrochloric acid.

Solids: 13.5%, viscosity: 1200 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formulas

CLEAR SHAMPOO/CONDITIONER

INGREDIENTS	% By Weight
Water	41.90
Texapon ASV	45.00
Velvetex BK-35	6.00
Standamid SD	2.00
Lamequat L	5.00
Kathon CG	0.10

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.0-6.5 with a 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

This product contains a very effective conditioner, Lamequat L. Using Lamequat L with the above very mild ingredients, will produce a good baby/children's shampoo that leaves hair manageable. The product has a thick, but easy-flowing consistency with a typical viscosity of 3500-4000 cps (at room temperature).

SOURCE: Henkel: Formula HOB-296-42-2

SHAMPOO

RAW MATERIALS	% By Weight
Texapon NA	22,50
Hoe S 3267	22,50
Water	48,00
Belsil ADM 6041 E	1,00
Belsil DMC 6031	1,00
Ammonium Chloride	5,00
Preservatives, fragrances	q.s.

Dissolve HOE S 3267 in water, add the remaining components and adjust the viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

Clear, low viscosity.

SOURCE: Wacker Silicone: Formulation 150 AH

COAL TAR SHAMPOO

RAW MATERIALS	% By Weight
1. Coal Tar Extract	0.5-5.0
2. MACKAMIDE ODM	0.25-2.5
3. MACKADET CA	30.00
4. MACKSTAT DM	Q.S.
5. Fragrance	Q.S.
6. Deionized Water q.s to	100.00

Procedure:

1. Select the desired amount of Coal Tar Extract to be employed in the product. *
2. For each quantity of #1, exactly 1/2 of the #2 material is required to solubilize #1. At cooler temperatures a little warming will be necessary to obtain complete solution. (40C.-104F).
3. Into main tank meter #6 and add then #3 add Fragrance #5 and finally #4 and mix until everything is completely and uniformly dissolved.
4. Check pH value and adjust with either very small amount of dilute acid downward or a little Sodium Hydroxide upwards.
pH: 6.6-7.4
Viscosity: 1000-2000 cps

* Federal Register, Part IV, Department of Health and Human Services, 21 CFR Parts 348 and 358
Formula AY-183-1

SHAMPOO

RAW MATERIALS	% By Weight
MACKAM J	12.50
Sodium Lauryl Ether Sulfate 60%	6.60
MACKAMIDE C	2.60
DL Panthenol	0.10
Botanical Extracts Blend	Q.S.
Citric Acid (Desired pH level as 1% solution)	Q.S.
Methyl Paraben	Q.S.
Fragrance, Deionized Water	Q.S.
MACKSTAT DM	
Sodium Chloride (if necessary only)	Q.S.

Procedure:

Blend together at 40 degrees C. with slow mixing to avoid aeration.

Properties:

pH: 6.0
Solids: 12.0
Viscosity: 5300 cps

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

COAL TAR AND SALICYLIC ACID SHAMPOO

RAW MATERIALS	% By Weight
1. Coal Tar Extract	2.5-5.0
2. Salicylic Acid	1.8-3.0
3. MACKAMIDE ODM	0.25-2.5
4. MACKADET CA	50,000
5. D.I. Water qs to	100.0
6. 20% Sodium Hydroxide Solution qs to	pH 6.5
7. MACKSTAT DM	Q.S.
8. Fragrance	Q.S.

Procedures:

1. Select the desired amount of #1 to be employed in the product of #2.
2. * See Postscript note that Coal Tar Extract contains solvent.
3. For each addition of #1 exactly 1/2 of the material #3 is required to solubilize #1 at cooler temperatures or little warming may be necessary (Keep fumes from open flame).
4. Into the main tank meter #5 then add #4 and mix until all is completely dissolved.
5. Add carefully #2 into warm tank (protect eyes, hands) keep mixing until everything is clearly dissolved.
6. Check pH and or adjust upwards by adding small amounts of #6 solution to ? pH.
7. Add #8 mix in to cover odor of #1.

pH: 6.5-7.3

Viscosity: 1000-5000 cps

* Federal Register, Part IV, Department of Health and Human Services, 21 CFR Parts 348 and 358

GEL SHAMPOO

RAW MATERIALS	% By Weight
Sodium Lauryl Ether Sulfate 60%	24.00
MACKAM OB-30	14.50
MACKAMIDE LLM	4.00
Fragrance, Color, Deionized Water	Q.S.
Polysorbate 20	Q.S.
Propylene Glycol	Q.S.
MACKSTAT DM	Q.S.
Citric Acid (1% solution to desired pH level)	Q.S.

Procedure:

Blend together at 45 degrees C. with slow mixing to avoid aeration.

Properties:

pH: 6.1

Solids: 25.5

Viscosity: 15.000 cps

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CONCENTRATED CONDITIONING CREME SHAMPOO

RAW MATERIALS	% By Weight
1. MACKADET CA	60.0
2. Stearic Acid Triple Pressed	7.5
3. MACKERNIUM 007	7.0
4. Sodium Hydroxide 20% Solution	5.0-5.5
5. MACKSTAT DM	q.s.
6. Deionized Water	q.s.
7. Fragrance	q.s.

pH: 7.2-7.8

Procedure:

1. Add #1 into stainless steel creme kettle and start mixing.
2. In separate container separately add #4 to 2/3 of #6 and mix together carefully avoid splashing-PROTECT EYES.
3. Add this solution to creme kettle and start heating to 180 degrees F. (82 degrees C.) with mixing, keep tank well covered.
4. After mixing for 20 min. start cooling, continuing mixing, and at 130 degrees F. (55 degrees C.) add #3 and remainder of #6, keep slowly mixing and cooling.
5. Take sample of warm mixture from tank and take pH reading of cooled sample.
6. Adjust batch if necessary by adding small quantities of solution of #4 to tank if pH is too low or a little diluted citric acid solution if pH is too high.
7. Finally add #5 to tank and then #7 mix for 15 min. and recheck pH and fill at 86 degrees F. (30 degrees C) into jars.

Formula AY-176-8-319

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE LO-SPECIAL	83.0
MACKAMIDE PKM	4.0
MACKPRO NLP	2.0
MACKERNIUM 007	0.8
MACKSTAT DM	Q.S.
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM and MACKPRO NLP to MACKANATE LO-SPECIAL and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation

Formula BF-165

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

CONDITIONER SHAMPOO

RAW MATERIALS	% By Weight
Water and Preservative	32.95
MONATERIC 951A	50.00
MONATERIC LMAB	13.30
MONAQUAT P-TC	2.50
MONAMID 1007	1.25

Procedure:

Add ingredients in order above and blend. Adjust pH to level desired.

In this amphoteric/nonionic formula, MONATERIC 951A produces very high foaming without the need for an amphoteric surfactant. (SLS or AOS). Thus, the cationic conditioner, MONAQUAT P-TC, can deposit substantively on the hair without anionic interference. MONATERIC LMAB contributes additional conditioning and boosts viscosity.

SOURCE: Mona Industries, Inc.: MONATERIC 951A: Formula

NATURAL CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	41.6
Sodium Chloride	0.4
Sodium Lauryl Sulfate (28%)	35.7
Phosphoric Acid (85%)	0.1
MONAMATE LNT-40	12.5
MONATERIC CAB	6.7
AVAMID 150	3.0

Procedure:

Add ingredients in the order listed with good agitation. Adjust pH to 6.0-7.0. Add preservative, color and perfume as required.

Formulation Properties:

Physical Appearance: Crystal clear liquid

Activity: 20%

Viscosity: 2800 cps

This formula provides deep cleansing but at the same time prevents excessive stripping of oil from the hair and scalp. It is thus designed to prevent dry hair and scalp conditions.

SOURCE: Mona Industries, Inc.: AVAMID 150: Formula

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
MIRANOL 2MCAS-Modified	18.0
MIRATAINE CBS	12.0
MIRANOL C2M-Conc. N.P.	10.0
Lauramide DEA	3.0
Peptein AH	2.0
Part B:	
Deionized Water	52.2
MIRAPOL 9	2.4
Panthenol DL	0.4

Procedure:

Heat A and B separately to 75C. With agitation add B to A. Continue agitation until uniform. At 45C adjust pH to 7.0 with citric acid.

Solids: 25.4%, viscosity: 2,800 cps.

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
Sodium Laureth Sulfate (28%)	18.0
MIRATAINE CB	15.0
MIRANOL C2M Conc. N.P.	10.0
Lauramide DEA	2.0
Part B:	
Conditioner (active basis)	1.5
Deionized water	q.s. to 100.0

Procedure:

Heat A and B separately to 75C. With agitation, add B to A. Continue mixing until uniform and, at 45C, adjust pH to 6.8 with citric acid.

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRANATE LSS	10.0
MIRANOL 2MCAS Modified	20.0
MIRATAINE COB	10.0
Cedemide AX	2.0
Peptein 2000	1.0
Methocel E4M Premium, 3% solution	5.0
Water	52.0

Procedure:

Mix all ingredients except water and Methocel solution and heat to 75C. Agitate until uniform. Add water and Methocel solution and mix until uniform. Adjust pH to 6.2 with citric acid.

Solids: 18.6%, viscosity: 4000 cps

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics: Formulas

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	45.35
Sipon ES2	20.00
Monaterge 1164	20.00
Phosphoteric QL-38	10.00
Dow Corning 200 Fluid 200 CS	2.50
Kessco Ethylene Glycol Distearate	1.00
MONAMID CMA	1.00
Sodium Chloride	0.15

Procedure:

Add ingredients in order listed with agitation. Heat to 70C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Appearance: White pearled lotion
Viscosity @ 25C: 7,100 cps

SOURCE: Mona Industries, Inc.: Formula F-578

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL H2M Conc.	20.0
MIRATAINE CBS	10.0
MIRAPOL AD-1	2.1
CEDEPON LS30PM	15.0
Cedemide AX	1.0
Water	51.9

Procedure:

Mix all ingredients together and heat while stirring until uniform. Adjust pH to 7.0 with citric acid.

Solids: 22.1%

Viscosity: 1600 cps

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics and Toiletries: Formula

CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
A) Distilled Water	53.45
DeSulf ES-302	30.00
Methyl Paraben	0.20
Propyl Paraben	0.05
Tristat IU	0.30
Kelate 220	0.05
B) Tritaine PB	7.00
C) DeMide ML-100	3.00
D) Citric Acid (50% soln.)	0.40
E) Fragrance E6367	0.05
HMF: COMPLEX	5.00

Procedure:

Weigh water and add remaining Phase A ingredients, in order, mixing after each addition at room temperature. Add Phase B while mixing. When uniform, add C while mixing. When uniform, add D and E while mixing. Mix until uniform.

Formula #MS-2-59-1

CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
A) Distilled Water	53.45
DeSulf ES-302	30.00
Methyl Paraben	0.20
Propyl Paraben	0.05
Tristat IU	0.30
Kelate 220	0.05
B) Tritaine PB	7.00
C) De Mide ML-100	3.50
D) Citric Acid (50% soln.)	0.40
E) Fragrance E6367	0.05
HMF: COMPLEX	5.00

Procedure:

Weigh water and add remaining Phase A ingredients, in order, mixing after each addition at room temperature. Add Phase B while mixing. When uniform, add C while mixing. When uniform, add D and E while mixing. Mix until uniform.

Formula #MS-2-65-1

SOURCE: TRI-K Industries, Inc.: Formulas

CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
A) Distilled Water	65.45
B) DeSulf ES-302	22.50
C) Tritaine PB	7.00
Methylparaben	0.20
Propylparaben	0.05
Kelate 220	0.05
D) DeMide ML-100	3.00
E) Tristat IU	0.30
Distilled Water	1.00
F) Fragrance E6367	0.05
G) Citric Acid (50% aq. soln.)	0.40

pH: 5

Procedure:

Heat A to 55 deg. C. Add B and mix until uniform. Add C ingredients in order and mix until uniform. Add D and mix until uniform. When the batch cools to below 50 deg. C, add E and F. Mix until uniform and adjust pH with Citric Acid.

Formula #MS-2-56-1

CONDITIONING SHAMPOO WITH MILK PROTEIN

INGREDIENTS	% By Weight
A) Distilled Water	52.95
B) DeSulf ES-502	30.00
C) Detaine PB	7.0
Methylparaben	0.2
Propylparaben	0.05
Kelate 220	0.05
D) DeMide ML-100	3.0
E) Tristat IU	0.3
Distilled Water	1.0
F) Fragrance E6367	0.05
G) Citric Acid (50% aq. soln.)	0.4
H) Tritain Milk PP	5.0

pH: 5

Procedure:

Heat A to 55C. Add B and mix until uniform. Add C ingredients in order and mix until uniform. Add D and mix until uniform. When the batch cools to below 50C, add E and F. Mix until uniform and adjust pH with Citric Acid. Add H and mix until uniform.

Formula #MS-2-58-1

SOURCE: TRI-K Industries, Inc.: Formulas

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE COB	10.0
MIRANOL 2MCAS Modified	18.0
MIRAPOL AZ-1	2.1
Sodium Lauroyl Sarcosinate	7.5
Cedemide AX	2.0
Peptein 2000	2.0
Lauric Acid	0.8
Water	57.6

Procedure:

Blend all ingredients together and heat to 60C. Mix until uniform. Adjust pH to 7.0 with citric acid.

Solids: 19.5%, viscosity: 1400 cps.

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE CBS	10.0
MIRANOL C2M Conc. N.P.	10.0
MIRAPOL A-15	1.6
CEDEPAL TD 404M	7.0
Cedepal SN303	10.0
Water	61.4

Procedure:

Add MIRAPOL A-15 to water and stir. Add with stirring MIRATAINE CBS, MIRANOL C2M CONC. N.P., Cedepal SN303 and CEDEPAL TD404M. Mix until uniform and adjust pH to 7.0 with hydrochloric acid.

Solids: 15.7%, viscosity: 5800 cps.

LIQUID CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE ODMB-35	7.0
MIRANOL C2M Conc. N.P.	12.0
Cedepal SN 303	25.0
Cedemide CX	1.0
Water	55.0

Procedure:

Mix the MIRATAINE ODMB-35 with water and heat to dissolve. Add MIRANOL C2M Conc. N.P., Cedepal SN 303, and Cedemide CX. Adjust the pH to 7.0 with hydrochloric acid.

Solids: 16.8%, viscosity: 1150 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics: Formulas

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE BB	15.0
MIRANOL 2MCA Modified	20.0
MIRATAINE COB	10.0
Cedemide AX	2.0
Veragel liquid	1.0
Chamomile Extract	0.2
Water	51.8

Procedure:

Heat MIRATAINE BB, MIRANOL 2MCA Modified, MIRATAINE COB and Cedemide AX to dissolve the Cedemide AX. Add water, Veragel liquid and Chamomile Extract. Adjust pH to 7.0 with citric acid.

Solids: 21.1%, viscosity: 1400 cps.

CONDITIONING ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE CBC	8.5
MIRATAINE COB	3.5
Witconate AOS	20.0
Cerasynt M	2.0
Cedemide AX	2.0
Zinc Omadine	2.6
Bentone EW	0.8
Water	60.6

Procedure:

Heat water to 70C. Add Bentone and homogenize for 15 minutes. Cool to 65C; add Cerasynt M and Cedemide AX with mixing (mix for ten minutes). While cooling to room temperature, add Zinc Omadine (mix for 15 minutes). Add Witconate AOS, MIRATAINE CBC, MIRATAINE COB, and mix thoroughly.

Adjust pH to 7.0 with citric acid.

Solids: 19.0%, viscosity: 7500 cps

PEARLIZED CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRANOL 2MCA-ESF	45.0
MIRAPOL AD-1	2.0
Cedemide CX	2.0
Tween 20	1.0
Cerasynt IP	1.0
Water	49.0

Procedure:

Mix and heat all ingredients. Stir until uniform. Adjust pH to 7.0 with citric acid.

Solids: 20.7%, viscosity: 1800 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics: Formulas

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
QUATRISOFT Polymer LM-200	0.5
Water	54.0
Phase B:	
GLUCAM E-20	3.0
SOLULAN 16	2.5
Phase C:	
Sodium Laureth-2 Sulfate (25% active)	35.0
Lauramide DEA	5.0
Citric Acid	q.s. to pH 7.0
Perfume and Preservative	q.s.

Procedure:

Add QUATRISOFT Polymer LM-200 to water with good mixing at room temperature. When thoroughly dispersed, begin heating to 45C until completely hydrated. Add GLUCAM E-20. When uniform add SOLULAN 16 and heat with moderate mixing to 45C. Avoid air entrapment. When clear and uniform add phase C. Mix until uniform. Adjust to pH 7.0 with citric acid.

Description:

Clear, medium viscosity, mild, conditioning shampoo. The cationic cellulosic QUATRISOFT Polymer LM-200 is substantive to hair and is uniformly deposited along the hair shaft to improve combing, manageability and overall appearance. QUATRISOFT Polymer LM-200 acts synergistically with Lauramide DEA to dramatically boost viscosity. The combination of GLUCAM E-20 and SOLULAN 16 conditions the hair and helps to maintain its moisture.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-149-1

SHAMPOO WITH CONDITIONING EFFECTS-CLEAR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	50.0
EMPIGEN BS	6.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula COS26

CONDITIONING SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	25.0
EMPICOL ESB3	25.0
EMPILAN CDE, LDE or LIS	2.0
BRIPHOS 03D	1.5
Triethanolamine/sodium hydroxide	qs to adjust pH to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance
Formula COS14	

CONDITIONING SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPILAN CDE, LDE or LIS	55.0
BRIPHOS 03D	2.0
EMPICOL 0627	1.5
Triethanolamine/sodium hydroxide	qs to adjust pH to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance
Formula COS15	

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL TL40/T	20.0
EMPICOL ESB3	25.0
BRIPHOS 03D	1.5
EMPICOL 0627	10.0
Triethanolamine/sodium hydroxide	qs to adjust pH to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance
Formula COS16	

BRIPHOS 03D gives outstanding gloss and manageability to the hair. Shampoos designed for normal hair and include BRIPHOS 03D at approximately 1.5%. For dry hair this level should be increased to about 2.0% and for greasy hair reduced to about 1.0%.

These shampoos leave the hair with excellent overall manageability and high gloss.

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING SHAMPOO-DRY HAIR

RAW MATERIALS	% By Weight
EMPICOL TL40/T	30.0
EMPILAN CDE	4.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS1	

CONDITIONING SHAMPOO-DRY HAIR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	40.0
EMPILAN CDE	4.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS2	

CONDITIONING SHAMPOO-DRY HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB3	45.0
EMPILAN CDE	3.0
EMPIGEN BB	4.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS3	

CONDITIONING SHAMPOO-DRY HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB70	18.0
EMPILAN CDE	3.0
EMPIGEN BB	4.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS4	

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING SHAMPOO-GREASY HAIR

RAW MATERIALS	% By Weight
EMPICOL TL40/T	40.0
EMPILAN CDE	2.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS9	

CONDITIONING SHAMPOO-GREASY HAIR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	51.0
EMPILAN CDE	2.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS10	

CONDITIONING SHAMPOO-GREASY HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB3	58.0
EMPILAN CDE	2.0
EMPIGEN BB	2.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS11	

CONDITIONING SHAMPOO-GREASY HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB70	24.0
EMPILAN CDE	2.0
EPIGEN BB	2.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS12	

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING SHAMPOO-NORMAL HAIR

RAW MATERIALS	% By Weight
EMPICOL TL40/T	35.0
EMPILAN CDE	3.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS5	

CONDITIONING SHAMPOO-NORMAL HAIR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	45.0
EMPILAN CDE	3.0
Perfume, dye, preservative	qs
Ammonium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS6	

CONDITIONING SHAMPOO-NORMAL HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB3	52.0
EMPILAN CDE	2.5
EMPIGEN BB	3.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS7	

CONDITIONING SHAMPOO-NORMAL HAIR

RAW MATERIALS	% By Weight
EMPICOL ESB70	21.0
EMPILAN CDE	2.5
EMPIGEN BB	3.0
Perfume, dye, preservative	qs
Sodium chloride	qs
Citric acid	qs to pH 6.5-7.0
Formula COS8	

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	44.0
EMPILAN CDE, LDE or LIS	1.5
BRIPHOS 03D	1.5
EMPICOL 0627	5.0
Triethanolamine/sodium hydroxide	qs to adjust pH to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance
Formula COS17	

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL ESB3	50.0
EMPILAN CDE, LDE or LIS	1.5
BRIPHOS 03D	1.5
EMPICOL 0627	10.0
Triethanolamine/sodium hydroxide	qs to adjust pH to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance
Formula COS18	

BRIPHOS 03D gives outstanding gloss and manageability to the hair. Shampoos are designed for normal hair and include BRIPHOS 03D at approximately 1.5%. For dry hair this level should be increased to about 2.0% and for greasy hair reduced to about 1.0%.

These shampoos leave the hair with excellent overall manageability and high gloss.

CONDITIONING SHAMPOO WITH POLYMERIC ADDITIVE

RAW MATERIALS	% By Weight
EMPICOL TL40/T	37.0
EMPILAN LIS	2.0
POLYMER JR400	1.5
Perfume, dye, preservative	qs
Citric acid	to pH 6.5-7.5
Water	Balance
Formula COS22	

CONDITIONING SHAMPOO WITH POLYMERIC ADDITIVE

RAW MATERIALS	% By Weight
EMPICOL ESB3	50.0
EMPILAN LIS	2.0
EMPIGEN BB	3.0
POLYMER JR400	1.5
Perfume, dye, preservative	qs
Citric acid	to pH 6.5-7.5
Water	Balance

SOURCE: Albright & Wilson Americas: Formulas

CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Water	47.80
STANDAPOL ES-2	36.00
APG-625	6.00
VELVETEX BA-35	3.00
DEHYQUART E	2.00
AETHOXAL B	1.00
EUPERLAN PK-810	3.00
Sodium Chloride	1.00
Kathon CG	0.05
Fragrance U-8210	.15

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time, under agitation. Adjust pH to 6.5+-.0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

By combining APG-625 with an ether sulfate and a betaine, a lower irritation product is obtained. Conditioning effects are enhanced by the utilization of Dehyquart E and the glycoside resulting in a high performance shampoo.

SOURCE: Henkel: Formula H-4977

LIQUID SHAMPOO

RAW MATERIALS	% By Weight
Belsil DMC 6031	5,00
Water	60,00
Genapol CRT 40	35,00
Preservatives, fragrances	q.s.

Dissolve Belsil DMC 6031 in water, mix in Genapol CRT 40.
Temperature stability: at 45C over 10 weeks.
Formulation 222 AH

SHAMPOO

RAW MATERIALS	% By Weight
Belsil DMC 6035	2,00
Water	56,00
Genapol LRO	35,00
Comperlan KD	3,00
Sodium Chloride	2,00
Preservatives, fragrances	q.s.

Dissolve Belsil DMC 6035 in water, mix in Genapol LRO. Add Comperlan KD, regulate the viscosity with NaCl.
Temperature stability: at 45C over 10 weeks.
Formulation 284 AH

SOURCE: Wacker Silicone: Standard Formulations

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Phase A:	
QUATRISOFT POLYMER LM-200	0.5
Water	54.0
Phase B:	
GLUCAM E-20	3.0
SOLULAN 16	2.5
Phase C:	
Sodium Laureth-2 Sulfate (25% active)	35.0
Lauramide DEA	5.0
Citric Acid	q.s. to pH 7.0
Perfume and Preservative	q.s.

Procedure:

Add QUATRISOFT POLYMER LM-200 to water with good mixing at room temperature. When thoroughly dispersed, begin heating to 45C until completely hydrated. Add GLUCAM E-20. When uniform add SOLULAN 16 and heat with moderate mixing to 45C. Avoid air entrapment. When clear and uniform add phase C. Mix until uniform. Adjust to pH 7.0 with citric acid.

Description:

Clear, medium viscosity, mild, conditioning shampoo. The cationic cellulosic QUATRISOFT POLYMER LM-200 is substantive to hair and is uniformly deposited along the hair shaft to improve combing, manageability and overall appearance. QUATRISOFT POLYMER LM-200 acts synergistically with Lauramide DEA to dramatically boost viscosity. The combination of GLUCAM E-20 and SOLULAN 16 conditions the hair and helps to maintain its moisture.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-149-1

LOW FOAM CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKAM 35	10.0
MACKALENE 117	15.0
MACKPRO NLP	4.0
Natrosol 250 HHR	0.7
MACKSTAT DM	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Thoroughly disperse the Natrosol in water and heat to 45 degrees C.
2. Add MACKAM 35, MACKALENE 117, and MACKPRO NLP.
3. Blend until clear.
4. Add MACKSTAT DM, fragrance and dye.
5. Cool and fill.

Appearance: Yellow Clear

pH: 5.9

Viscosity: 470 cps

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: AY-157-828

CONDITIONING GEL SHAMPOO

RAW MATERIALS % By Weight

Part A:

Cedepal SN 303	18.0
MIRANOL C2M-Conc. N.P.	12.0
MIRATAINE COB	10.0
Lauramide DEA	2.0
Polysorbate 20	1.0
Peptein AH	2.0

Part B:

MIRAPOL 95	2.4
Deionized Water	52.6

Procedure:

Heat A and B separately to 75C. With agitation add B to A. Continue agitation until uniform. At 45C adjust pH to 7.0 with citric acid.

Solids: 20.5%, viscosity: 10,000 cps

CONDITIONING SHAMPOO

RAW MATERIALS % By Weight

Part A:

MIRANOL 2MCAS Modified	14.0
MIRATAINE CBS	13.0
MIRANATE SSB	16.0
Polysorbate 20	2.0
PEG 150 Distearate	0.5
Laureth-4	1.0

Part B:

Deionized Water	51.0
MIRAPOL 175	2.5

Procedure:

Heat A and B separately to 75C. With agitation add B to A. Continue agitation until uniform. At 45C adjust pH to 6.8 with citric acid.

Solids: 24.0%, viscosity: 8,500 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics: Formulas

CONDITIONING NEUTRALIZING SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	60.6
TEALS	25.0
Disodium EDTA	0.3
Part B:	
INCROMIDE LR	3.0
INCROMIDE CAC	1.1
INCROMINE OXIDE BA	2.0
INCRODET TD-7C	6.0
Part C:	
HYDROTRITICUM 2000	0.5
CRODACEL QS	0.5
Geramaben II	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 65-70C. Add Part B ingredients individually with good mixing and cool to 45C. Add Part C with mixing and cool to desired fill temperature.

This formula contains a blend of Croda surfactants which yields a product with gentle cleansing and good foam characteristics. HYDROTRITICUM 2000 and CRODACEL QS provide good manageability to hair.

Formula SH-69-2

WHEAT SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	48.0
TEALS	30.0
INCROMINE OXIDE WG	5.0
INCRONAM WG-30	5.0
Part B:	
INCROMIDE CAC	10.0
Part C:	
HYDROTRITICUM 2000	1.0
Germaben II	1.0

Citric Acid to pH 6.5

Brookfield Viscosity: 1580 cps

Procedure:

Combine ingredients of Part A with mixing and heat to 60C. When clear, add Part B with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature. Adjust pH with a 10% citric acid solution.

Croda's surfactants derived from wheat germ oil, INCROMINE OXIDE WG and INCRONAM WG-30, help build viscosity and foam in this formula. HYDROTRITICUM 2000, a protein from wheat, helps add conditioning and moisture retention.

Formula SH-77

SOURCE: Croda Inc.: HYDROTRITICUM 2000: Formulas

CREAM SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE LO-SPECIAL	88.0
MACKOL 16	2.0
Brij 52	2.0
MACKSTAT DM	qs
Water, Fragrance qs to	100.0
Solids, %: 40.0	
pH (as is): 5.5	
Appearance: Pearly Cream	

Procedure:

1. Add MACKOL 16, Brij 52 and water to MACKANATE LO-SPECIAL and heat to 70 degrees C.
2. Blend until homogenous.
3. Adjust pH to 5.5 to 6.0 with sodium hydroxide.
4. Cool to 50 degrees C. and add MACKSTAT DM and fragrance.
5. Adjust solid to 40.0+-1.0 at this point.
6. Cool and fill.

DILUTABLE SHAMPOO CONCENTRATE
(One Pint to a Gallon)

RAW MATERIALS	% By Weight
MACKAMIDE LMD	34.0
Sodium Laureth Sulfate (60%)	29.0
Sodium Olefin Sulfonate (40%)	14.0
Propylene Glycol	10.0
Ammonium Chloride	1.5
Citric Acid qs to pH = 6.5	
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Blend components to water and heat to 50 degrees C.
2. Adjust pH to 6.5.
3. Cool to room temperature.

ECONOMY SHAMPOO

RAW MATERIALS	% By Weight
MACKADET SBC-8	10.0
Sodium Chloride	qs
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKADET SBC-8 to water and blend until clear.
2. Add MACKSTAT DM and adjust viscosity to 3000-4000 cps with sodium chloride.
3. Add dye and fragrance and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

CREAM SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Zetesol NV	35.0
Zetesol SE 35 conc.	20.0
Water, distilled, preserved	19.0
b) Amphotensid B4	25.0
c) Biosulphur Powder	1.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume, roll.

pearly preparation
 Model formulations 4

SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Zetesol 856T	35.00
Setacin 103 special	5.00
Purton CFD	2.00
b) Water, distilled, preserved	57.95
Aminodermin CLR	0.05

Manufacture:

- a) heat to about 50C and mix;
 b) heat to about 50C, dissolve and stir into a).
 Allow to cool to about 35C.

Perfume.

liquid, transparent preparation
 Model formulations 1

SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Zetesol 856 T	35.0
Setacin 103 special	5.0
Purton CFD	1.0
b) Water, distilled, preserved	57.0
c) Biosulphur Fluid	1.0

Manufacture:

- a) heat to about 50C and mix.
 b) and c) stir in.

Perfume

liquid, transparent preparation
 Model formulations 5

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

CREAM FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LM45	25.0
EMPILAN LIS	2.0
Stearic acid	7.0
Sodium hydroxide pellets	1.0
Perfume, dye, preservative	qs
Water	Balance

Formula CFS1

CREAM FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LM45	50.0
EMPILAN LIS	3.0
Stearic acid	7.0
Sodium hydroxide pellets	1.0
Perfume, dye, preservative	qs
Water	Balance

Formula CFS2

CREAM FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LM45	30.0
EMPIGEN BB	3.0
Stearic acid	7.0
Sodium hydroxide pellets	1.0
Perfume, dye, preservative	qs
Water	Balance

Formula CFS3

CREAM FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LM45	68.0
EMPIWAX SK	6.0
EMPILAN LIS	4.0
Perfume, dye, preservative	qs
Water	Balance

Formula CFS4

SOURCE: Albright & Wilson Americas: Formulas

DAILY USE CONDITIONING SHAMPOO FOR OILY HAIR

RAW MATERIALS	% By Weight
UCARE Polymer JR-400	0.5
SOLULAN 16	2.0
SOLULAN 98	1.0
Ammonium Lauryl Sulfate (28%)	60.0
Cocamidopropylamine Oxide (30%)	5.0
Citric Acid (40% Aq. Solution)	q.s. to pH 5-6
Deionized water	31.5
Perfume and preservative	q.s.

Procedure:

Disperse UCARE Polymer JR-400 in water at room temperature. When well dispersed, heat to 65C. When clear, add ammonium lauryl sulfate, cocamidopropylamine oxide and SOLULAN 98, in this order, mixing until clear and uniform after addition of each material. Separately, heat SOLULAN 16 to 50C to rest of formula, mix with stirring until clear. Cool to room temperature and adjust pH with citric acid solution to pH 5-6.

Description:

Clear, medium viscosity, daily conditioning shampoo. UCARE Polymer JR-400 conditions and mends split-ends due to frequent shampooing and blow drying. SOLULAN 16 and SOLULAN 98 provide added manageability and luster.

SOURCE: Amerchol Corp.: UCARE Polymers: Formula HS-1015M

SHAMPOO WITH CONDITIONING EFFECTS-CLEAR

RAW MATERIALS	% By Weight
EMPICOL ESB3	60.0
EMPILAN 2125	3.0
EMPIGEN BB	3.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS27	

SHAMPOO WITH CONDITIONING EFFECTS-CLEAR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	15.0
EMIPICOL ESB3	40.0
EMPIGEN BB	3.0
EMPIGEN OY	5.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula COS28	

SOURCE: Albright & Wilson Americas: Formulas

DAMAGED HAIR SHAMPOO

RAW MATERIALS	% By Weight
UCARE Polymer LR-400	0.40
UCARE Polymer LR-30M	0.40
GLUCAMATE SSE-20	3.00
Triethanolamine Lauryl Sulfate (40%)	17.50
Sodium Laureth Sulfate (28%)	17.86
Disodium Laurethsulfosuccinate (40%)	7.50
Lauramide DEA	2.00
Tetrasodium EDTA	0.10
Deionized water	51.24
Perfume and preservative	q.s.

Procedure:

Add UCARE Polymers to water at room temperature with good agitation. Once hydrated add the disodium laureth-sulfosuccinate. Begin heating and add TEALS and SLES. When at 60-65C, add the melted GLUCAMATE SSE-20 and lauramide DEA. Upon complete solution, cool to room temperature and add the tetrasodium EDTA.

Description:

Clear, medium viscosity shampoo. UCARE Polymer LR-400 and UCARE Polymer LR-30M are used in combination to get the desired viscosity and conditioning properties attributed to this formula. The substantive UCARE Polymers leave the hair soft and manageable. GLUCAMATE SSE-20 contributes to the mildness of the system, as well as the solubilization of the perfume oil.

SOURCE: Amerchol Corp.: UCARE Polymers: Formula T55-63-3

BIO-INTENSIVE SHAMPOO

INGREDIENT	% By Weight
A:	
Deionized Water	38.65
Polyquaternium-10 (Polymer JR-125)	0.10
Sodium Laureth Sulfate (Sipon ES-2)	36.90
Lauramide DEA (Monamid 716)	1.70
VANSEAL NALS-30	8.80
LIPROPROTEL LCO	9.79
LIPACIDE UCO	1.70
Sodium Chloride	2.35
Citric Acid to pH 6	q.s.
B: Preservative, Fragrance	q.s.

Preparation:

Mix Polyquaternium-10 in available water until a clear uniform solution is obtained. Add the other ingredients in the order listed, mixing each until clear and uniform. Heating is not required.

Consistency: Pourable clear liquid (Viscosity-1400 to 1800 cps)

Features: This crystal clear shampoo features LIPACIDE UCO, which has been found effective against pityrosporomovale bacteria found in excessive amounts in the scalp of those suffering from dandruff and/or seborrhea. Hair conditioning properties. Excellent lathering characteristics.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 441

DETANGLING AND CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate	30.0
MACKAMIDE C	2.0
MACKAM CAP	6.0
MACKANATE DC-30	1.0
2% Solution of Polyquaternium 10 in deionized water	60.0
MACKSTAT DM	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 5-6

Viscosity (cps): 600-2000

Procedure:

1. Heat water to 60 degrees C. and add surfactants and start mixing, until solution is uniform and completely clear.
2. Add Polyquaternium 10 solution and blend in then add MACKANATE DC-30.
3. Start cooling while mixing and add remaining components at 30 degrees C. and mix, and cool to room temperature.
4. Adjust pH with Citric Acid and adjust viscosity with Sodium Chloride 1% - 1.5%.

DETANGLING SHAMPOO
(Salt-Free)

RAW MATERIALS	% By Weight
MACKAM CAP	20.0
Sodium Laureth Sulfate (60%)	10.0
MACKAMIDE LLM	3.5
Polymer JR	1.4
Disodium EDTA	0.1
MACKSTAT DM	qs

pH: 5.5-6.5

Viscosity (cps): 10,000-20,000

Procedure:

1. Hydrate Polymer JR in water and blend until clear.
2. Slowly add MACKAM CAP and blend until clear.
3. Add Disodium EDTA.
4. Add the remaining components and heat to 45 degrees C.
5. Adjust pH with citric acid if needed.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

DETANGLING SHAMPOO

RAW MATERIALS	% By Weight
1. Sodium Lauryl Ether Sulfate 60%	25.00
2. MACKAM J	5.00
3. MACKAMIDE S	3.00
4. Glycerin	2.00
5. Hydrolyzed Animal Protein 55%	1.00
6. MACKERNIUM 007	3.50
7. Polysorbate 20	1.00
8. Tetrasodium EDTA (40% solution)	0.10
9. MACKSTAT DM	Q.S.
10. Hydrochloric Acid (1 part acid plus 4 parts of water)	0.5-1.0
11. Fragrance	Q.S.
12. Color	Q.S.
13. Sodium Chloride to adjust viscosity	0.1-0.5
14. Deionized Water	100.0

Procedure:

1. Into the stainless steel manufacturing tank meter #14. Start heating.
2. Add #8 then #1, #2, #3, #4 with mixing and mix until everything is completely dissolved and the solution clear at 120F. Stop heating and add #5 and #6.
3. Separately blend #7 and #11 together well. Start cooling while mixing and at about 90F. add fragrance blend #7 and #11 then check and adjust pH.
4. By adding the diluted hydrochloric acid solution (slowly add the concentrated acid 1 part to 4 parts of deionized water, protecting your eyes and face) in small amount until correct pH is obtained (6.5 -7.00) after mixing in.
5. Add #9 and finally small quantities of salt dissolved in a little water until upon mixing the desired viscosity is obtained.
6. Addition of too much salt will thin out the product.
pH: 6.5-7.0
Viscosity: 500-1500 cps
Formula AY-176-1

DETANGLING SHAMPOO

RAW MATERIALS	% By Weight
Detangling Base B (AY119)	25.5
2% Polymer JR solution in the D.I. water	72.0
Fragrance	qs
MACKSTAT DM	qs
Deionized Water qs to	100.0
pH adjust with sulphuric acid if necessary 7-7.5	

Procedure:

1. Blend together 1,2 and all the other ingredients at room temperature.
2. Mix thoroughly, and adjust pH if needed.
Formula AY119

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

ECONOMY SHAMPOO

RAW MATERIALS	% By Weight
Schercoquat DAS	0.5
Sipon ES-2	25.0
Detergent Blend	18.0
Schercomid SCO-EX	2.0
Tap Water	54.5

Procedure:

1. Heat water to 50C. With stirring add Schercoquat to dissolve.
2. Add Detergent blend. Mix.
3. Add Scherocomid SCO-EX. Mix.
4. Add Sipon ES-2. Mix thorough until uniform.

GEL SHAMPOO-NATURAL SCENTS

INGREDIENTS	% By Weight
Part A:	
Na Lauryl Sulfate (30%)	20.00
Alpha Olefin Sulfonate (40%)	10.00
SCHERCOPOL OMES-NA (35%)	10.00
SCHERCOTAINA CAB (35%)	10.00
SCHERCAMOX C-AA (30%)	3.00
Part B:	
SCHERCOQUAT IAS-LC (90%)	1.00
Water (Distilled)	42.00
Part C:	
Herbasol Extract Geranium	2.00
Herbasol Extract Pansy	2.00
Preservative	q.s.

Procedure:

1. Add ingredients of Part A in the order given. Heat gently to around 60C.
2. Prepare Part B. Add Part B to Part A, stirring constantly and keeping the temperature at 60C.
3. When cool, add Part C.

SOURCE: Scher Chemicals, Inc.: Formulas

EGG SHAMPOO, LECITHIN CONTENT

RAW MATERIALS	% By Weight
a) Zetesol SE 35 conc.	40.0
Zetesol NV	20.0
Purton OFD	2.0
b) Water, distilled, preserved	36.0
Egg yolk, liquid, techn.	1.0
c) Lecithin water-dispersible CLR	1.0

Manufacture:

a) Heat to about 50C and mix;

b) and c) stir in.

Perfume.

liquid, pearly preparation

PROTEIN SHAMPOO, LECITHIN CONTENT

RAW MATERIALS	% By Weight
Texapon BS	50.0
Lamepon S	10.0
Nutrilan L	4.0
Comperlan OD	3.0
Water, distilled, preserved	31.0
Lecithin water-dispersible CLR	2.0

Manufacture:

Melt at room temperature in the order given.

Perfume.

liquid, pearly preparation

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 19

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL XC35	25.0
EMPICOL ESB3	20.0
EMPILAN CDE or EMPIGEN BB	2.0
Sodium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula PFS4

EMULSIFIED PEARLY FAMILY SHAMPOO

RAW MATERIALS	% By Weight
1. MACKADET CA	30.00
2. Glycerin	1.30
3. MACKESTER EGMS	1.50
4. MACKERNIUM 007	2.50
5. MACKSTAT DM	Q.S.
6. Fragrance, Color	Q.S.
7. Sodium Chloride	1.50
8. Deionized Water Q.S. to	100.00

Procedures:

1. Into stainless steel tank put #8 then #1, #2, #3 and heat to 75 degrees C.
2. Start mixing and keep the temperature at 75 degrees C. until everything is completely dissolved.
3. Start cooling and at 50 degrees C. add #4 while mixing; continue mixing while cooling and at 35 degrees C. add #5.
4. Then add #6, leave cool solution standing so that pearlescent can develop and then add #7 (dissolve in a very small amount of water) mix in.

pH: 6.6-7.4

Viscosity: 7000-14.000 cps

Formula BP-7 #4

HIGHLY PEARLESCENT SHAMPOO

RAW MATERIALS	% By Weight
Sodium Lauryl Ether Sulfate 60%	20.0
MACKAMIDE C	2.0
MACKESTER SP	2.0
Stearic Acid	2.0
Magnesium Sulfate (7H2O)	6.0
Diethanolamine	0.67
MACKSTAT DM	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 7.5-8.0

Viscosity (cps): 1000-2500

Procedure:

1. Heat water to 75 degrees C. and add Magnesium Sulfate.
2. Dissolve completely then add other surfactants and DEA then add waxes.
3. Keep temperature at 70 degrees C. for 20 minutes start cooling slowly.
4. At 35 degrees C. add remainder of ingredients and cool while mixing to room temperature.
5. Adjust pH with DEA or Sulfuric Acid diluted solutions.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

EVERYDAY CONDITIONING SHAMPOO
(FOR HAIR'S EVERYDAY NEEDS)

RAW MATERIALS	% By Weight
Water	42.1
MONATERIC L-30	40.0
MONATERIC LMAB	13.3
MONATERIC 1203	3.3
MONAMID 1007	1.3

Procedure:

Add ingredients as listed (no heat required). Mix until uniform. Adjust pH to 6.5-7.5. Add preservative as required.

Formulation Properties:

Appearance: Clear viscous liquid
Nominal Activity: 18.5%

The above formula contains no polymers and therefore results in an everyday conditioning shampoo without build-up and oily feel. The gentle cleaning action produces clean, healthy-looking hair.

SOURCE: Mona Industries, Inc.: MONATERIC 1203: Formula

SELF ADJUSTING CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Water	38.5
NaCl	1.0
MONATERIC 1202	7.5
MONAMID 1089	3.0
TEA-Lauryl Sulfate (40%)	50.0

Procedure:

Add ingredients in order listed.
Adjust pH to 6.0-7.0 with citric acid.
Add preservative as required.

Formulation Properties:

Appearance: Clear Liquid
Nominal Activity: 25.6%

This formulation blends the efficient cleaning of a high concentration of anionic tempered by the conditioning effects of MONATERIC 1202. The result is clean, shiny hair without the build-up or greasy feel usually associated with traditional conditioning agents. Additionally, the MONATERIC 1202 will selectively be more substantive at those sites on the hair where chemical or physical damage has occurred.

SOURCE: Mona Industries, Inc.: MONATERIC 1202: Formula

EVERY DAY SHAMPOO

INGREDIENTS	% By Weight
A Texapon K 14 S special	45,000
Lamepon S	5,000
Dehydol LS 3 deo	1,500
Perfume Oil	0,500
Cremogen Sage 739 016	0,500
Cremogen Camomile forte 728 790	0,100
Cremogen Melissa (Balm) 739 013	0,500
Cremogen Rosemary forte 758 302	0,100
B Demineralized Water	44,100
Phenonip	0,500
Polymer JR 400	0,200
Sodium chloride	2,000

Approx. 14% active surfactant

Manufacturing Process:

Part A: Mix all the ingredients.

Part B: Dissolve Phenonip in water, add Polymer while stirring and continue stirring until material is completely dispersed.

Add part B to part A and stir.

Final pH-value should be 6,5 and can be adjusted with the help of citric acid (aq. solution).

Remark: Without any colour dye:

the yellow-brownish colouring of the shampoo depends on the native colouring of the plant extracts.

Recommendation for colouring:

To receive a green colour add the following colour solution:
0,60% Sicomet Green Z 6120 (0,1% aq. solution/C.I. 19140 + 42051)

SOURCE: Haarman & Reimer GmbH: Formula K 9/1--72921 L/E

CLEAR LIQUID FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL TL40/T	30.0
EMPILAN CDE or EMPIGEN BB	3.0
Sodium or ammonium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula CLFS6

EXTRA GENTLE SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
Water	46.00
Ammonium Lauryl Sulfate	25.00
SCHERCOTAINÉ CAB-A	15.00
Part B:	
SCHERCOMID AME-70	5.00
Olive Oil 'W' Water Soluble	2.00
Part C:	
SCHERCOMID SL-ML	5.00
Part D:	
Herbasol Extract Corn Flowers	2.00
Preservative	q.s.

Procedure:

1. Prepare Part A.
2. Add Part B to Part A in the order given, stirring well.
3. Add Part C to Part A and Part B.
4. Q.S. with natural fragrance and preservative.

SHAMPOO FOR OILY HAIR

RAW MATERIALS	% By Weight
Part A:	
Sebum Controlled Factor	5.00
Ammonium Lauryl Sulfate	25.00
SCHERCOTAINÉ CAB-A	15.00
Water	46.00
Part B:	
SCHERCOMID SL-ML	5.00
Part C:	
Herbasol Extract Cucumber	2.00
Herbasol Extract Balm Mint	2.00
Preservative	q.s.

Procedure:

1. Mix Sebum Controlled Factor with surfactants. Then add water.
2. Add Part B to Part A.
3. Q.S. with preservative and natural fragrance.

SOURCE: Scher Chemicals, Inc.: Formulas

FAMILY SHAMPOO

RAW MATERIALS	% By Weight
Water and preservative	33.08
Sodium lauryl sulfate, 28%	23.60
MONATERIC 951A	24.50
MONAMATE LNT-40	11.80
Ethylene glycol monostearate	0.59
Polysorbate 20	0.11
Methocel (E4M prem, 3%)	6.00
Sodium Chloride	0.12
Fragrance and color	0.20

Adjust pH to 7.8 with 50% citric acid
 Viscosity approximately 6000 cps

Procedure:

Add ingredients in order listed. Warm to 70C. and maintain until EGMS has dissolved. Cool. Adjust pH, add fragrance and color.

Formula F-179

FAMILY SHAMPOO

RAW MATERIALS	% By Weight
Water	14.1
MONAMATE LNT-40	25.0
MONAMID 1089	5.0
Sipon LSB Alcolac	55.0
Cerasynt IP	0.5
Phosphoric Acid (85%)	0.4

Procedure:

Mix Sodium Lauryl Sulfate, water and preservative. Add Phosphoric Acid (85%). Stir and add MONAMID 1089. Stir until homogeneous and add MONAMATE LNT-40. Add Cerasynt IP. Stir and heat to completely melt the solid material (approx. 60C). Cool with stirring. At <40C add any perfume or colors. Continue stirring and cooling to 25C. Adjust pH to 6.0-7.0.

Formulation Properties:

Physical Appearance: Pearly liquid

Nominal Activity: 31%

Viscosity: 4000-5000 cps

MONAMATE LNT-40 in this formulation provides an immediate luxurious lather which gently cleanses without stripping and is easily rinsed off leaving manageable hair. MONAMATE LNT-40 provides mildness, lathering properties and a soft, full feeling to the hair.

SOURCE: Mona Industries, Inc.: Formulas

GEL CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
A:	
Sandobet SC	5.0
Sandoz Sulfate TL	35.0
Sandoteric TFL Double Str.	20.0
Sandoz Amide PE	3.0
Dye, Fragrance	
B:	
Polymer JR-400	0.25
Water	36.75

Procedure:

Disperse Polymer JR-400 into the water with agitation and heat to 60C. Mix well so all of the polymer is completely in solution. In a separate vessel mix (A) ingredients together and heat to 60C.

Add (A) to (B), stir until well mixed. Add fragrance, dye and preservative.

Allow to cool without stirring. Adjust pH to 6.5 with citric acid.

Properties:

Appearance: Clear light yellow gel

Foam Height: 140/140 (Ross Miles, .1% Sol @ 50C)

pH: 6.5+-.2

A clear yellow conditioning gel shampoo that exhibits excellent foaming characteristics. Sandopan TFL provides the properties of mildness, foaming and wetting. The Sandobet SC performs as a conditioning agent as well as a cleansing agent.

SOURCE: Sandoz Chemicals Corp.: Ethnic Hair Care: Formulation
CHC-40

CREAM SHAMPOO

COMPONENT	% By Weight
A Standapol WAAC	45.0
Acetulan	0.5
Lexemul 515	4.0
B Sodium chloride	1.5
Water	42.8
C Zinc OMADINE, 48%	4.2
D FD&C Blue #1 (0.2%)	1.5
FD&C Yellow #5 (0.1%)	0.5
Fragrance	q.s.

Procedure:

1. Heat A and B separately to 75C.
2. Add A to B.
3. Add C and cool to 45C.
4. Add D.
5. Stir slowly while cooling to 25C.

SOURCE: Olin Chemicals: Zinc OMADINE: Olin Formulation B8187

GEL SHAMPOO

RAW MATERIALS	% By Weight
Part A:	
INCROSUL OTS	20.00
INCRODET TD-7C	2.00
INCRONAM 30	5.00
INCROMEKTANT AQ	3.00
TEA Lauryl Sulfate	20.00
Deionized water	44.75
Part B:	
INCROMIDE LR	3.00
CROTHIX	1.25
Part C:	
Germaben II	1.00

Procedure:

Mix Part A and heat to 65C. Melt Crothix and add Incromide LR with mixing (Part B). Add Part B while still hot when Part A reaches 65C. Cool with mixing to 45C and add the Germaben II. Continue mixing and cooling to room temperature.

pH: 6.2

Viscosity: 120,000 cps

The combination of INCROSUL OTS, INCRODET TD-7C and INCRONAM 30 contributes mildness to this formula. INCROMEKTANT AQ helps prevent dryness of hair and INCROMIDE LR provides conditioning. CROTHIX imparts the gelling action.

SOURCE: Croda Inc.: INCROSUL OTS: Formula SH-72

SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3 or ESC3	45.0
EMPILAN CDE or EMPIGEN BB	3.0
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula CLFS4

HAIR BATH (MILD)

RAW MATERIALS	% By Weight
I. Dehyton G-SF	10.0
Dehyton K	8.0
Euperlan PK 810	5.0
Nutrilan I-50	12.0
Citric acid, 50%	3.0
Glycerin	5.0
Perfume	0.5
Water	48.5
II. Glucamate DOE 120	1.0
Water	4.0
pH-value: 3.5-4.0	

Preparation:

Mix together the ingredients for phase I in any sequence, and stir until the mixture is homogeneous. Heat the water for phase II to approx. 80C. Dissolve the Glucamate DOE in the water, cool, and stir phases I and II together until the mixture is homogeneous.

Formula no. 90/159/16

HAIR BATH (MILD)

RAW MATERIALS	% By Weight
I. Cosmedia Guar C 261	0.5
Glycerin	2.0
Water	30.0
II. Dehyton G-SF	10.0
Dehyton K	8.0
Euperlan PK 810	5.0
Nutrilan I-50	4.0
Citric acid 50%	3.0
Glucamate DOE 120, 20%	6.0
Perfume oil	0.5
Water	30.0
pH-value: 3.5-4.0	

Preparation:

Make a paste of Cosmedia Guar C 261 and glycerin. Stir the suspension into hot (approx. 60C) water, stirring continuously. Cool, stirring occasionally until room temperature is reached, then stir the ingredients of phase II into phase I in any sequence, ensuring that phase I remains homogeneous.

Formula no. 90/159/17

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

HAIR REPAIR SHAMPOO
(Shampoo for Damaged Hair)

RAW MATERIALS	% By Weight
Tetrasodium EDTA	0.1
Water	59.5
Ammonium Lauryl Sulfate	10.0
Ammonium Laureth Sulfate (2m E.O.)	20.0
Antil 141 Liquid	2.5
TEGO Betaine L-7	5.0
ABIL B8851	0.5
Propylene Glycol	1.0
ABIL S 201	1.0
ABIL Quat 3272	0.4
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.5
Ammonium Chloride	Q.S.

Procedure:

1. Add the water and Tetrasodium EDTA. Mix. Begin Heating to 60C.
2. Add the remaining ingredients in order.
3. Cool to 40-45C. Add color, preservatives, and fragrance and adjust pH with the Citric Acid.
4. Adjust viscosity with Ammonium Chloride.

SOURCE: Goldschmidt Chemical Co.: Formula

HAIRSHAMPOO

RECIPE	% By Weight
A HOSTAPON CT paste	5.00
B Water	20.00
C HOSTAPUR SAS 30	18.00
Perfume	0.50
Water	37.50
Preservative	q.s.
Dyestuff solution	q.s.
D Citric acid---->pH 6-7	q.s.
E HOE S 3267-1	19.00

Procedure:

- I Dissolve A in warmed B.
- II One after another the components of C are added to I.
- III Adjust the pH with D.
- IV Add E to III. The addition of E raises the viscosity.

Gel type, 12.6% active detergent, without ethersulfate

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula BI/1113

HAIRSHAMPOO

RECIPE	% By Weight
A GENAPOL LRO liquid*	35.00
B GENAPOL AMG	8.00
Perfume	0.30
Water	46.70
Preservative	q.s.
Dyestuff solution	q.s.
HOE S 3267-1	10.00
C Citric acid---->pH 6.5	q.s.
D Sodium chloride	q.s.

* If Genapol LRO paste is being used instead of Genapol LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I Add one after another, the components of B to A.
 II Adjust the pH with C, then adjust the viscosity with D.

clear, 15.2% active detergent
 for every day
 Formula BI/1111

HAIRSHAMPOO

RECIPE	% By Weight
A GENAPOL LRO liquid*	35.00
B GENAPOL AMG	8.00
Perfume	0.30
Gelita Sol C	2.00
Water	44.70
Preservative	q.s.
Dyestuff solution	q.s.
HOE S 3267-1	10.00
C Citric acid---->pH 6.5	q.s.
D Sodium chloride	q.s.

* If Genapol LRO paste is being used instead of GENAPOL LRO liquid, 0.4 times the quantity of Genapol LRO liquid is necessary.

Procedure:

- I Add one after another, the components of B to A.
 II Adjust the pH with C, then adjust the viscosity with D.

clear, 15.2% active detergent
 for dry hair
 Formula BI/1112

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

HERBAL SHAMPOO

RAW MATERIALS	% By Weight
a) Steinapol NL 2; 28%	30.0
Steinapol SBFA30; 40%	20.0
Steinamid DC 212/S	5.0
b) Water, distilled, preserved	42.0
c) Hexaplant Richter	3.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume.

liquid, transparent preparation

HERBAL SHAMPOO

RAW MATERIALS	% By Weight
a) Elfan NS243S	50.0
Lauradit OD	3.0
b) Water, distilled, preserved	43.0
Sodium chloride	1.0
c) Hexaplant Richter	3.0

Manufacture:

- a) heat to about 50C and mix;
 b) dissolve and stir into a);
 c) stir in.

Perfume.

liquid, transparent preparation

HERBAL SHAMPOO

RAW MATERIALS	% By Weight
a) Texapon N40	50.0
Comperlan KD	3.0
b) Lamepon S	10.0
c) Water, distilled, preserved	34.0
d) Hexaplant Richter	3.0

Manufacture:

- a) heat to about 50C and mix;
 b), c) and d) stir in.

Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 17

HIGH ACTIVE SHAMPOO

RAW MATERIALS	% By Weight
Hamosyl L-30	10.0
TEA Lauryl Sulfate, 40%	25.0
Sodium Laureth (1) Sulfate, 25%	25.0
Cocoamidopropylamine Oxide, 30%	12.0
Hamp-ene Na ₂	0.2
Water, perfume, preservative	q.s.

Adjust to pH 5.0 with citric acid.

Premium lather richness is obtained from this formula.

ANTIDANDRUFF SHAMPOO FOR OILY HAIR

RAW MATERIALS	% By Weight
Hamosyl L-30	10.0
TEA Lauryl Sulfate, 40%	25.0
Zinc Pyrithione, 48%	4.2
Magnesium Aluminum Silicate	1.0
Hydroxypropylmethyl cellulose, E4000	1.25
Water, perfume, color (D&C Green #5)	q.s.

Disperse last two ingredients in hot water and allow to mix overnight. Add rest of ingredients.

Lathers richly even on oily hair. A creamy, flowable thick liquid.

RICH LATHER OILY HAIR SHAMPOO

RAW MATERIALS	% By Weight
Hamosyl L-30	25.0
Sodium Lauryl Sulfate, 38%	15.0
Sodium Laureth (1) Sulfate, 27%	15.0
Sodium Chloride	4.0
Cocamide NMEA	2.0
Hamp-ene Na ₂	0.2
Water, fragrance, preservative	q.s.

Heat to 70C and mix until cocamide MEA is dissolved. Adjust pH to 6-6.5, cool to 40C, add fragrance, and package.

A viscous shampoo which provides rich lather on oily hair with only one application, yet does not strip the hair. The sarcosinate surfactant provides the superior lathering in the presence of sebum while also serving to lightly condition the hair. Ideal as an oily hair formulation or as a single application shampoo, especially for salons.

SOURCE: W.R. Grace & Co.--Conn.: Shampoo Formulations

HIGH FOAMING SHAMPOO

RAW MATERIALS	% By Weight
ALS	25.0
CROSULTAINE C-50	10.0
INCROMIDE CAC	5.0
Perfume	0.5
BHT	0.1
Disodium EDTA	0.1
Deionized Water	57.3
Germaben II	1.0
CROQUAT WKP	0.5
KERASOL	0.5

pH to 6.5 w/citric acid - 10%
 Viscosity 11,900 cps

Procedure:

Combine the Disodium EDTA and water and mix until uniform. Add the ALS, Crosultaine C-50 and Germaben II. Mix until uniform. Separately combine the Incromide CAC, perfume and BHT and mix until uniform (heat slightly, no more than 50C, if needed to dissolve the BHT). Add this mixture to the water and surfactants, blend with mixing and mix until uniform. Add the Croquat WKP and Kerasol and adjust the pH. Continue mixing until uniform.

This shampoo combines the high foaming and cleansing properties of ALS with the superior foam boosting aspect of CROSULTAINE C-50 to produce a rich high lather. The INCROMIDE CAC provides additional foam boosting, foam stabilizaton, and fragrance solubilization. Finally, the CROQUAT WKP and KERASOL provide conditioning and manageability for the hair without over-conditioning or buildup.

SOURCE: Croda Inc.: CROSULTAINES: Formula SH-70

SHAMPOO

RAW MATERIALS	% By Weight
A. Rewopol NL 3	32.0
Rewopol-Amid DO 280	7.0
SOFTIGEN 767	5.0
Water	up to 100.0
B. Perfume	q.s.

Preparation:

(A) is mixed until clear under slight heat. After cooling,
 (B) is stirred in.

SOURCE: Huls America Inc.: Formulas

HIGH FOAMING 2 IN 1 SHAMPOO CONTAINING SELENIUM DISULFIDE

RAW MATERIALS	% By Weight
1. Ammonium Lauryl Sulfate 28%	60.00
2. Mackalene 426	9.30
3. Mackanate DC30	3.70
4. Ethylene Glycol Distearate	1.85
5. Mackamide S	1.50
6. Selenium Disulfide Powder	1.00
7. 5% solution of Hydroxyethyl Cellulose in water	10.00
8. 5% suspension of Magnesium Aluminum Silicate	10.00
9. Dry pure silica (Aerosil)	1.50
10. Lauryl Alcohol	0.50
11. Diethanolamine to pH of 5 to 6	QS
12. Mackstat DM	QS
13. Fragrance	QS
14. Color solution Blue *	QS

pH: 5.2-6.4

Viscosity: 5000-10000 cps

Procedure:

Into stainless steel mixing tank measure #1, #2, #3, #4. Start heating and slow mixing and heat to 70C (160F). In a separate stainless or glass container blend #6 and #5 at room temperature until a smooth uniform paste is formed which will eventually be added later on.

In another container prepare the 5% suspension #8 and mix the suspension till it is completely uniform and viscous and shows no undissolved particles. Preserve suspension if not used immediately with some #12.

In another container prepare the % solution of #7 using heat and mix well until a perfectly sparkling clear viscous solution results. Preserve if not used immediately with a little of #12.

When the temperature in the main mixing tank has reached 70C (160F) mix the suspension #8 and solution #7 together and heat to 70C (160F) and add to the main tank while continuously mixing well. Be sure that there are no undissolved particles in the #1, #2, #3, #4 before the addition of the suspension #8 and the solution #7. Add #10.

After everything is well blended together add slowly the blend of #6 and #5 to the main tank.

After the blending of all ingredients at the high temperature has proceeded well start sprinkling the very fine flakes of #3. At 50C (120F) add #12 and finally 13. Cool a sample out of the batch and check pH and if necessary add #11 to adjust.

As color a solution of DC Blue #12 seems to be stable.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula No. BP 27

HIGHLY CONCENTRATED DETANGLING SHAMPOO

RAW MATERIALS	% By Weight
1. MACKADET CA (Mild Blend)	81.50
2. Tetrasodium EDTA (40% Solution)	0.20
3. Glycerin	4.00
4. Hydrolyzed Animal Protein 55% Liquid	2.00
5. MACKERNIUM 007 (Polyquaternium 7)	7.00
6. Polysorbate 20	2.00
7. Fragrance	Q.S.
8. MACKSTAT DM (DMDM Hydantoin)	Q.S.
9. Diluted Hydrochloric Acid Solution 1:4	Q.S. to pH spec.
10. Color	Q.S.
11. Sodium Chloride to adjust viscosity	Q.S.
12. Deionized Water	Q.S. to 100.00

Procedure:

- In a stainless steel mixing kettle blend #1, #2, #3 with mixing. Then add #4 and #5. Slowly mix until all is dissolved, if necessary use a little heating.
- Adjust pH with the diluted Hydrochloric Acid solution (made by adding 1 part of acid carefully to 4 parts of water Protecting the Eyes and Face) until correct pH is obtained (6.5-7.0).
- Add color, if required, add #8 slowly and mix in.
- If the product is to be sold as concentrate then the quantity of #8 must be increased, fragrance and color also properly increased.
- If the product is sold diluted then 1 part of the above formula is mixed with 2 parts of deionized water the increased fragrance added then the preservative #8 added at the corrected amount the pH adjusted and finally the salt addition done to obtain the desired viscosity.

pH: 6.5-7.0

Viscosity larger than 1000 cps

Formula AY-176-2

SUPER DETANGLING SHAMPOO CLEAR

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (60%)	10.0
MACKAM CAP	20.0
MACKAMIDE LLM	3.5
Tetrasodium EDTA	0.1
Polymer JR	1.5
MACKSTAT DM	qs
Deionized Water, Fragrance qs to	100

Procedure:

- Disperse Polymer JR in water and blend until clear.
- Add MACKAM CAP, Sodium Laureth Sulfate, MACKAMIDE LLM and Tetrasodium EDTA.
- Heat to 40 degrees C. and add remaining components.
- Blend until clear and adjust pH if necessary.
- Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HKP CONDITIONING SHAMPOO FOR NORMAL/DRY HAIR

INGREDIENT	% By Weight
Deionized Water	67.00(+/-)
Polymer JR 125	0.15
Standapol ES 40 Conc.	16.50
Lonzaine CS	8.00
Standamide KD	3.00
PEG 6000 Distearate	0.25
Acetamide MEA	2.00
dl-Panthenol	0.50
Tri-K HKP	1.00
Lactic Acid	QS to pH 5.5-6.5
Finsolv TN	0.50
Lexamul EGDS	Optional (1%)
Kelate 220	0.10
Color	Optional*
NaCl	QS to desired viscosity
Methyl Paraben	0.20
Propyl Paraben	0.10
Tri-Stat I.U.	0.20
Fragrance	0.50**

* Color: Can use Kelate Cu for light blue color.

HKP CONDITIONING SHAMPOO FOR NORMAL/OILY HAIR

INGREDIENT	% By Weight
Deionized Water	67.00(+/-)
Polymer JR400	0.100
Standapol ES-40 Conc.	20.000
Velvetex BA 35	6.500
Standamide KD	3.000
Acetamide MEA	1.500
dl-Panthenol	0.500
Tri-K HKP	0.750
Methyl Paraben	0.200
Propyl Paraben	0.100
Tri-Stat I.U.	0.200
Lactic Acid	QS to desired pH
Color	As desired*
Kelate 220	0.100
NaCl	QS to desired viscosity
Lexamul EGDS	optional to 1.00
Fragrance	0.500

* Color-can use Kelate Cu for "sea blue" color

SOURCE: TRI-K Industries, Inc.: Formulas

LIQUID SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate	24.00
MACKAMIDE C	4.95
MACKAM J	8.40
Glycerin	3.00
Deionized Water, Fragrance, Color	Q.S.
MACKSTAT DM	Q.S.
Citric Acid (1% solution to desired pH level)	Q.S.

Properties:

pH: 6.4

Solids: 19.0

Viscosity: 7700 cps

Procedure:

Blend together at 35-40 degrees C. slowly.

SHAMPOO WITH AWAPUHI EXTRACT TYPE

RAW MATERIALS	% By Weight
1. Sodium Laureth Sulfate 60%	18.5
2. MACKAMIDE C	4.3
3. Linoleic Acid	1.4-1.7
4. MACKAM J (or MACKAM 35 plus salt)	3.0
5. MACKAM HV	3.0
6. Hydrolyzed Animal Keratin	1.0
7. MACKERNIUM 007	1.0
8. DL Panthenol	0.05-0.1
9. Citric Acid	Q.S.
10. Lactic Acid	Q.S.
11. Methyl Paraben	Q.S.
12. Propyl Paraben	Q.S.
13. Quaternium 15	Q.S.
14. Plant Extract	Q.S.
15. Fragrance	Q.S.

Properties:

pH: 6.3

Solids, %: 20.0

Viscosity: 10,000 cps

Procedure:

- Place warm #14 into the tank and add #11, #12 and dissolve with mixing.
- To the solution add #1 thru #5 and dissolve with mixing.
- Add #6, #7, #8, add #9, #10 to obtain correct pH.
- While mixing add #13, then #15.
- Blend everything together uniformly with mixing.
- Adjust viscosity if needed with salt.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

LOTION SHAMPOO

RAW MATERIALS	% By Weight
Water	43.8
Veegum Regular	1.0
Methocel F4M	0.8
Zinc OMADINE, 48%	4.2
Monamid CMA	5.0
Standapol T	40.0
Triethanolamine	3.2
FD & C Blue #1 (0.2%)	1.5
FD & C Yellow #5 (0.1%)	0.5
Fragrance	q.s.

Procedure:

1. Heat water to 70C. Begin rapid stirring (1500 rpm) which is to continue, even during the adding of ingredients, through step 3.
2. Add Veegum and stir for 15 minutes. Add Methocel and continue stirring for an additional 15 minutes.
3. Add zinc OMADINE and stir for five minutes.
4. Reduce speed to 300 rpm and add Monamid CMA (melted). Stir for five minutes.
5. Turn off heat.
6. While cooling, add Standapol T, triethanolamine and colors. Stir slowly until mixed.
7. Weigh and add back Water to make up for evaporation losses.
8. Stir slowly while cooling to room temperature. Add fragrance.
pH: 8 Viscosity (cp): 1200

LOTION SHAMPOO

RAW MATERIALS	% By Weight
Water	51.9
Veegum Regular	1.0
Zinc OMADINE, 48%	4.2
Super Amide L9	4.5
Standapol T	35.0
FD & C Blue #1 (0.2%)	1.5
FD & C Yellow #5 (0.1%)	0.5
Sodium Chloride	1.4
Fragrance	q.s.

Procedure:

1. Heat water to 70C. Begin rapid stirring (1500 rpm) which is to continue, even during the adding of ingredients, through step 3.
2. Add Veegum and stir for 15 minutes.
3. Add zinc OMADINE and stir for 5 minutes.
4. Reduce speed to 300 rpm. Add Super Amide L9 (melted) and stir for 5 minutes. Turn off heat.
5. While cooling, add Standapol T and colors. Stir until mixed.
6. Weigh and add back water to make up for evaporation.
7. Stir slowly while cooling to room temperature. Add sodium chloride at 25-40C and fragrance.
pH: 7.2 Viscosity (cp): 2000

SOURCE: Olin Chemicals: Zinc OMADINE: Olin Formulation B8191/B8192

LOTION SHAMPOO

RAW MATERIALS	% By Weight
Water	65.3
Veegum Regular	1.0
Methocel F4M	1.1
Zinc OMADINE, 48%	4.2
Citric acid, 50%	0.4
Sipon ESY	18.0
Monamid 150-ADD	5.0
Hamosyl 1-30	1.0
Lexein X250	2.0
FD & C Blue #1 (0.2%)	1.5
FD & C Yellow #5 (0.1%)	0.5
Fragrance	q.s.

Procedure:

1. Heat water to 70C. Begin rapid stirring (1500 rpm) which is to continue, even during the adding of ingredients, through step 3.
2. Add Veegum and stir for 15 minutes. Add Methocel and continue stirring for an additional 15 minutes.
3. Add zinc OMADINE and stir for 5 minutes.
4. Reduce speed to 300 rpm. Add citric acid and stir until mixed. Turn off heat.
5. While cooling, add other ingredients (except fragrances) in order listed. Stir until mixed after each addition.
6. Weigh and add back water to make up for evaporation.
7. Cool to room temperature, stirring slowly. Add fragrance.

pH: 8

Viscosity (cp): 2200

Olin Formulation B8193

LOTION SHAMPOO

Same as B8193 with 2.0% sodium chloride substituted for the Methocel F4M. The procedure is the same except that the sodium chloride is added last at 25-40C.

pH: 8

Viscosity (cp): 1200

Olin Formulation B8194

SOURCE: Olin Chemicals: Zinc OMADINE: Formulations

MILD, CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Texapon ASV	40,0
Arlypon F	3,0
NaCl	1,5
Water and preservative	ad 100
pH-value: 6,5	
Viscosity in mPas: 5200	
WAS: 12%	
Formula no. 88/214/20	

MILD, CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Texapon ASV	48,0
Lamepon S	12,0
Arlypon F	3,0
Water and preservative	ad 100
pH-value: 6,5	
Viscosity in mPas: 4400	
WAS: 18%	
Formula no. 89/026/10	

CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Texapon N 25	30,0
Texapon SB 3	10,0
Dehyton K	5,0
Arlypon F	2,0
NaCl	1,7
Water and preservative	ad 100
pH-value: 6,5	
Viscosity in mPas: 4800	
WAS: 16%	
Formula no. 88/265/5	

SOURCE: Henkel: Cosmetics Nr. IX/90/Lz: Formulas

MILD, CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Texapon SB 3	23,0
Dehyton G	10,0
Lamepon S	8,0
Arlypon F	3,0
NaCl	4,5
Water and preservative	ad 100
pH value: 6,5	
Viscosity in mPas: 1400	
WAS: 14%	
Formula no. 89/087/25	

SHAMPOO FREE OF ANIONIC SURFACTANT

RAW MATERIALS	% By Weight
Dehyton G-SF	25,0
Dehyquart E	18,0
Arlypon F	3,0
Water and preservative	ad 100
pH value: 6,5	
Viscosity in mPas: 3500	
WAS: 18%	
Formula no. 89/244/31	

MILD, CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Texapon ASV	40,0
Dehyton G-SF	5,0
Arlypon F	2,0
NaCl	1,0
Water and preservative	ad 100
pH-value: 6,5	
Viscosity in mPas: 8700	
WAS: 14%	
Formula no. 88/265/8	

SOURCE: Henkel: Cosmetics Nr. IX/90/Lz: Formulas

MILD CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE TM	4.0
MIRANOL C2M Conc. N.P.	20.0
Cedepal SN 303	20.0
Tween 20	1.0
Cedemide AX	1.0
Water	54.0

Procedure:

Mix all ingredients together and heat to melt Cedemide AX. Adjust pH to 7.2 with citric acid.

Solids: 19.6%, viscosity: 4500 cps.

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE TM	3.7
MIRATAINE CB	3.3
Cedepon LA30HV	27.0
Maprofix LES-60A	3.5
Cocamide MEA	2.5
Methocel E4M Premium, 3% solution	10.0
Water	50.0

Procedure:

Mix MIRATAINE CB, MAPROFIX LES-60A, Cedepon LA30HV and Cocamide MEA. Heat to dissolve the Cocamide MEA. Add water, MIRATAINE TM and, when cool, add the Methocel solution.

Adjust pH to 5.5 with citric acid.

Solids: 13.0%, viscosity: 9000 cps.

PEARLESCENT CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MIRATAINE CBS	10.0
MIRANOL C2M Conc. N.P.	10.0
CEDEPAL TD 404M	7.0
Cedepal SN303	10.0
UCARE Polymer JR 400, 2% solution	50.0
Cerasynt IP	0.5
Water	12.5

Procedure:

Prepare a 2% stock solution of UCARE Polymer JR 400 by dispersing 2.0 parts of UCARE Polymer JR 400 in 98 parts of mildly agitated water at 20-25C. When the polymer is completely wetted, heat to 60-70C and agitate for approximately one hour until the solubilization is complete. Allow to cool with stirring.

Mix together while stirring; the UCARE Polymer JR 400 solution, MIRATAINE CBS, and MIRANOL C2M Conc. N.P. Add the water, Cedepal SN 303, CEDEPAL TD 404M and Cerasynt IP. Heat and mix until uniform making sure that the Cerasynt IP has dissolved. Cool with stirring. Adjust the pH to 6.7 with hydrochloric acid.

Solids: 15.7%, viscosity: 5500 cps.

SOURCE: Miranol, Inc.: MIRANOL Products for Cosmetics: Formulas

MILD PROTEIN SHAMPOO

INGREDIENT	% By Weight
Demineralized Water	
Primal ICS	1.1500
Texapon SBN	22.0000
Velvetex AB 45	9.0000
Texapon ST 40	5.0000
Capilotonique #245 HS	1.0000
Gafquat 755 N	0.5000
Tri-Sept M	0.2000
Tri-Sept P	0.1000
Tristat Iuabiol	0.2000
Tween 20	1.5000
Perfume	0.5000
TEA 99%	0.5000
Certified Color	QS

Procedure:

1. In main tank, blend the Primal ICS in water as RT with prop agitation.
2. Pre blend the fragrance with Tween and set aside.
3. Add to main tank: Texapon(s), Velvetex, Capilotonique, Gafquat, Methylparaben, Propylparaben, and Tristat IU in order listed mixing well between each add'n.
4. Add Fragrance Blend and TEA.

Formula: Code AMI.020.

NATURAL SHAMPOO

INGREDIENT	% By Weight
Natural Shampoo Base AMI	88.7500
Guar C-261	0.7500
Lavender AMI	10.0000
Tri-Sept M	0.2000
Tri-Sept P	0.1000
Tristat IU	0.2000

Procedure:

1. Charge Panama Wood/Soapwort Extract to main tank.
2. Slowly add Cosmedia Guar to batch and mix until fully dissolved.
3. Add Parabens and Tristat IU to batch and mix until fully dissolved.
4. Add Lavender Extract to batch and mix until fully dissolved.

Formula: Code: AMI.019

SOURCE: TRI-K Industries, Inc.: Formulas

MILD SALT FREE CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 426	8.0
MACKOL 1618	4.0
MACKSTAT DM	qs
Dye, Fragrance, Water qs to	100.0

Procedure:

1. Add MACKALENE 426 and MACKOL 1618 to water.
2. Heat to 65-70 degrees C. and blend until homogenous.
3. Cool to 50 degrees C. Add MACKSTAT DM, dye, and fragrance.
4. Cool and fill.

PEARLY LOTION CONDITIONER

RAW MATERIALS	% By Weight
MACKALENE 316	7.0
PEG 400 Distearate	0.5
Sodium Sulfate	0.5
Propylene Glycol	2.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 65 degrees C.
2. With mild agitation cool to 45 degrees C. and add remaining components.
3. Cool and fill.

PROTEIN LOTION CONDITIONER

RAW MATERIALS	% By Weight
MACKINE 301	1.5
MACKOL 16	2.5
Lactic Acid 88%	0.7
MACKPRO NLP	1.5
Sodium Chloride	0.5
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Dissolve sodium chloride in water.
2. Add first four components and heat to 70 degrees C.
3. Blend until homogenous.
4. Cool to 45 degrees C. and add remaining components.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL SGG	30.0
EMPICOL ESB3	20.0
EMPILAN CDE	3.0
Citric acid	qs to adjust pH to 6.2-6.5
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula MS17

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL SDD	20.0
EMPICOL ESB3	25.0
EMPIGEN BB	3.0
Citric acid	qs to adjust pH to 6.2-6.5
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula MS18

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL SDD	35.0
EMPICOL XC35	10.0
EMPIGEN OS/A	3.0
Citric acid	qs to adjust pH to 6.2-6.5
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Water	Balance

Formula MS19

SOURCE: Albright & Wilson Americas: Formulas

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL MD	40.0
EMPIGEN BB	5.0
Citric acid	qs to pH 6.0-7.0
Perfume, dye, preservative	qs
Water	Balance
Formula MS20	

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL MD	50.0
EMPIGEN BS	10.0
Citric acid	qs to pH 6.0-7.0
Perfume, dye, preservative	qs
Water	Balance
Formula MS21	

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESC3	55.0
EMPIGEN BB	6.0
Citric acid	qs to pH 6.0-7.0
Perfume, dye, preservative	qs
Water	Balance
Formula MS22	

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESC3	35.0
EMPIGEN BS	10.0
Citric acid	qs to pH 6.0-7.0
Perfume, dye, preservative	qs
Water	Balance
Formula MS23	

Formulations containing EMPICOL MD do not readily respond to viscosity adjustment using sodium chloride. For those, Albright & Wilson recommends the use of Natrosol 250 HHR at a level of 0.25-0.5% as thickening agent. The Natrosol should be dissolved in the water prior to the addition of the surfactants and other additives.

SOURCE: Albright & Wilson Americas: Formulas

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL LQ33/T	20.0
EMPILAN CDE	1.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS1	

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL ESB3	25.0
EMPILAN MAA	2.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS2	

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN CDR10	25.0
EMPICOL LQ33/T	10.0
EMPICOL ESB3	12.0
EMPILAN CDE	2.5
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS3	

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL ESC3	20.0
EMPILAN CDE	3.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS4	

SOURCE: Albright & Wilson Americas: Formulas

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN CDR10	15.0
EMPICOL ESC3	25.0
EMPILAN CDE	2.0
EMPILAN MAA	1.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS5	

MILD SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPIGEN CDR10	25.0
EMPICOL XC35	25.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS6	

MILD SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL XC35	20.0
EMPICOL ESB3	10.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS7	

MILD SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL LQ33/T	10.0
EMPICOL CDE	1.0
EMPICOL 0627	7.5
Citric acid	qs to adjust pH to 6.5-8.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS8	

SOURCE: Albright & Wilson Americas: Formulas

MILD SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPIGEN CDR10	18.0
EMPICOL ESB3	22.0
EMPICOL CDE	2.0
EMPILAN 0627	3.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS9	

MILD SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPIGEN CDR10	20.0
EMPICOL ESB3	15.0
EMPICOL 0627	10.0
Citric acid	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS10	

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN XDR121	70.0
EMPILAN CDE	3.0
BRIPHOS 03D	2.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Can be used as the basis for a very high quality mild gel shampoo.	
Formula MS11	

MILD SHAMPOO

RAW MATERIALS	% By Weight
EMPIGEN XDR123	30.0
EMPILAN CDE	2.5
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance
Formula MS12	

SOURCE: Albright & Wilson Americas: Formulas

MILD SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPIGEN XDR123	45.0
EMPILAN CDE	1.5
BRIPHOS 03D	2.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance

Formula MS13

MILD SHAMPOO-PEARLISED

RAW MATERIALS	% By Weight
EMPIGEN XDR121	40.0
EMPILAN CDE	2.0
EMPICOL 0627	3.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance

Formula MS14

MILD SHAMPOO-PEARLISED

RAW MATERIALS	% By Weight
EMPIGEN XDR123	40.0
EMPILAN CDE	2.0
EMPICOL 0627	5.0
Citric acid/sodium hydroxide	qs to adjust pH to 6.5-7.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Water	Balance

Formula MS15

SOURCE: Albright & Wilson Americas: Formulas

MOISTURIZING SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE NLD	20.0
Sodium Laureth Sulfate (25%)	18.0
MACKAM NLP	4.0
MACKALENE NLC	1.5
Sodium Chloride	Q.S.
MACKSTAT DM	Q.S.
Water, Fragrance, Dye qs to	100.0
Citric Acid to pH = 5.5-6.0	

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust viscosity to 3,00 cps with sodium chloride,.
4. Cool and fill.

SHAMPOO WITH CONDITIONING AND EASY COMBING ACTION

RAW MATERIALS	% By Weight
Sodium Lauryl Ether Sulfate (60%)	18.0
MACKAMIDE C	3.0
MACKAMIDE S	2.0
MACKAM 35	5.0
Glycerin	2.0
Disodium EDTA	0.1
Polysorbate 20	1.0
MACKANATE DC-30	1.0
Polyquaternium 10 (2% solution)	20.0
MACKSTAT DM	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 5.5-6.5

Viscosity (cps): 1000-3000

Procedure:

1. Heat water to 50 degrees C.
2. Start adding the surfactants, Disodium EDTA, Glycerin then the Polyquaternium solution, mix until everything is homogeneous and clear.
3. Then add the Mackanate DC-30 and finally dissolve fragrance in Polysorbate 20.
4. At 30 degrees C. add MACKSTAT DM, mix to room temperature.
5. Adjust pH if necessary with Citric Acid.
6. Adjust viscosity with Sodium Chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

MOISTURIZING SHAMPOO FOR OILY HAIR

RAW MATERIALS	% By Weight
Deionized Water	35.08
SLES	47.00
Germaben II	1.00
INCROMIDE LR	2.50
CROSULTAINE E-30	12.50
INCROMECTANT AQ	0.50
INCROMECTANT LQ	0.50
CROQUAT L	0.25
Citric Acid (10% Soln)	0.67

pH: 6.75

Viscosity: 1100 cps

Procedure:

Charge water into mixing kettle. Start mixing and heating to 65-70C. Add Germaben II and SLES. When the batch reaches 65-70C, add Incromide LR and Crosultaine E-30, one at a time, with agitation. When the batch is uniform and clear, start cooling. At 50C add Incromectants. At 40C add Croquat L. Continue mixing and cool to room temperature. Adjust pH with citric acid.

This formula combines CROSULTAINE E-30, INCROMIDE LR and SLES to provide a quality gentle cleanser. The INCROMECTANTS are incorporated to help maintain the moisture balance of hair while CROQUAT L provides light conditioning to hair.

Formula SH-73

SHAMPOO

INGREDIENTS	% By Weight
SLES 3M 30%	20
INCRODET TD7C	7
CROSULTAINE C-50	10
Deionized Water	63
System A	

SHAMPOO

INGREDIENTS	% By Weight
SLES 3M 30%	20
INCRODET TD7C	7
CROSULTAINE E-30	16.6
Deionized Water	56.4
System B	

SHAMPOO

INGREDIENTS	% By Weight
SLES 3M 30%	20
INCRODET TD7C	7
CROSULTAINE T-30	16.6
Deionized Water	56.4
System C	

SOURCE: Croda Inc.: CROSULTAINES: Formulas

MOUSSE SHAMPOO

INGREDIENTS	% By Weight
Part A:	
Water, deionized	63.21
KELTROL T xanthan gum	0.20
Methylparaben	0.20
Part B:	
Stepanol WAT, TEA lauryl sulfate	9.18
Bio Terge AS-40 sodium C14-C16 olefin sulfonate	9.18
Ninol 4821 lauramide DEA	4.59
Emid 6515 cocamide DEA	2.75
Merquat S polyquaternium 7	2.00
Amphosol CA cocamidopropyl betaine	1.38
Emerest 2400 glyceryl stearate	1.38
Tween 20 polysorbate 20	0.47
Neo-Fat 18-55 stearic acid	0.46
Fragrance	to suit
Part C:	
Propellant	5.00

Procedure:

Part A:

1. Using a Lightnin'-type mixer, hydrate KELTROL T in deionized water. Mix for 10-15 minutes.
2. When fully hydrated, add methylparaben and continue mixing.
3. Heat to 77C (170F) with continuous mixing.

Part B:

1. Mix Part B ingredients (except fragrance) in another container.
2. Heat to 77C (170F) with slow agitation until all ingredients are melted.
3. Blend Parts A and B together thoroughly with slow agitation.
4. Cool to 38C (100F) and add fragrance.

KELTROL T xanthan gum provides this mousse shampoo with shelf stability and rich, long-lasting lather.

SOURCE: Kelco Division: Product Formulation SS-5264

SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB70 or ESC70	17.5
EMPILAN CDE or EMPIGEN BB	3.0
Sodium or ammonium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formulation CLF55

NATURAL MILD (WHEAT GERM) CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Schercoquat WOAS	0.5
Schercotaine WOAB	6.0
Schercotaine CAB-G (45%)	14.0
Sipon ES-2 (27%)	18.0
Herbasol Extract Wheat Germ	1.0
Schercomid SWG	1.0
Preservative	0.2
Water (deionized)	59.3
Color, Fragrance	q.s.

Procedure:

1. Heat water to 50C. with stirring add Schercoquat WOAS to dissolve.
2. Add preservative, mix.
3. Add Schercotaine WOAB & Schercotaine CAB-G. Heat & mix to 50C until uniform.
4. Add Schercomid SWG, mix.
5. Add Wheat Germ Extract, mix.
6. Add Sipon ES-2. Mix thoroughly until uniform.

SOURCE: Scher Chemicals, Inc.: Formula 222-69

CLEAR CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
GLUCQUAT 100	1.0
GLUCAMATE DOE-120	3.5
TEA-Lauryl Sulfate (40% active)	25.0
Lauramide DEA	5.0
Deionized water	65.0
Citric Acid	0.5
Perfume and preservative	q.s.

Procedure:

Heat deionized water to 60C with propeller agitation. Add TEA-lauryl sulfate, lauramide DEA, preservative, GLUCAMATE DOE-120 and citric acid to batch, in that order, waiting for each ingredient to dissolve before adding the next. When clear add GLUCQUAT 100. Cool to room temperature.

Description:

In this clear shampoo, GLUCQUAT 100 provides conditioning properties and shine to hair. GLUCAMATE DOE-120 works synergistically with lauramide DEA in the surfactant system to build viscosity.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T62-82-2

NEUTRALIZER SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE OM	30.0
Sodium Laureth Sulfate (30%)	20.0
MACKAMINE CAO	6.0
MACKAMINE WGO	2.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0
Solids, %: 19.5	
pH: 5.3	
Viscosity (cps): 1500	

Procedure:

Add surfactants to water and blend until clear. Adjust pH to 5.0-5.5 with citric acid. Add dye and fragrance.

NEUTRALIZING SHAMPOO

RAW MATERIALS	% By Weight
MACKADET BSC	30.0
Glycerin 99%	2.0
MACKAM J	2.0
MACKSTAT DM	qs
Fragrance & Color	qs
Deionized Water	qs to 100.0

Adjust pH from 4.8-5.5, adjust with sulfuric acid if needed.

Procedure:

Blend all ingredients at room temperature.

NON-ALKALINE SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate	25.0
MACKAMIDE LLM	2.0
MACKAM 35	4.0
MACKAM TM	3.0
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 50 degrees C.
2. Blend until clear and add hydrochloric acid to pH = 5.0.
3. Cool to 40 degrees C. and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

NEUTRALIZING SHAMPOO

INGREDIENTS	% By Weight
Water	77.5
Sandoz Sulfate 218	13.9
Sandoz Amide PE	2.8
Sandopan DTC Linear P Acid	3.3
Cartaretin F-4	1.0
NaCl	1.0
Polymer JR-400	0.5
Dye, Fragrance	Q.S.

Procedure:

Heat water to 50C. Spinkle in polymer with agitation until completely in solution. Remove heat and add remaining ingredients stirring after each addition. Adjust pH to 5-5.5 with citric acid.

Properties:

Appearance: Clear liquid

pH: 5-5.5

Viscosity: 700-800 cps

Foam Height: 120/120mm Ross-Miles (0.1% @ 50C)

Clear neutralizing shampoo for use in combination with creme relaxer. Low pH neutralizes effect of creme relaxer.

SOURCE: Sandoz Chemicals Corp.: Ethnic Hair Care: Formulation CHC-29

CRYSTAL SHAMPOO

RAW MATERIALS	% By Weight
Elfan NS 243 S	45.0
Steinamid DL 203 S	3.0
Neo-PCL water-soluble 2/966212	1.0
Germall 115	0.2
Sodium chloride	2.0
Water	47.3
Perfume oil	0.5
Cremophor RH 410	1.0

SOURCE: Dragoco Inc.: Suggested Formulation No. VKS 554/60

NON-IRRITATING AND MILDLY CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MONATERIC 985A	40.00
MONAMATE OPA-30	30.00
Cerasynt IP	2.00
Preservative	0.30
H3PO4 (85%)	0.75
Water	26.95

Procedure:

Mix MONATERIC 985A, MONAMATE OPA-30, water, Preservative and Cerasynt IP. Heat with stirring to completely melt the solid materials (approx. 60C). Add H3PO4. Cool with stirring. At 40C add any perfume or colors. Continue stirring and cooling to 25C. Adjust pH to 6.5-7.0.

Properties:

Appearance: Pearly viscous liquid
Nominal Activity: 26%

MONAMATE OPA-30 in this formulation imparts a high, dense foam which leaves hair mildly conditioned and especially shiny. This formulation without Cerasynt IP or preservative exhibited zero eye and skin irritation when tested at 10% active.

SOURCE: Mona Industries: MONAMATES: Formulation

NON-ALKALINE SHAMPOO HIGH VISCOSITY (25% active)

RAW MATERIALS	% By Weight
Water	13.1
Sipon L22	60.7
MONAMATE OPA-30	14.8
MONATERIC ISA-35	11.4

Mixing Procedure:

Add components in order listed with sufficient agitation and heat (about 50C). Adjust pH to desired level with phosphoric or citric acid. Viscosity at pH 6.5 is approximately 15,000 cps. and at pH 4.5-5.0; it is over 35,000 cps. Lower viscosities will result if lower amounts of MONATERIC ISA-35 are used.

SOURCE: Mona Industries, Inc.: MONAMATE OPA-30: Formulation

ONE STEP SHAMPOO/CONDITIONER

INGREDIENT	% By Weight
A) Deionized Water	41.26
Trisept M	0.20
Standapol ES-1	40.00
Tritaine PB	9.00
Standamid KD	3.50
B) Deionized Water	1.00
Tristat IU	0.50
C) Citric Acid (50% aqueous soln)	0.20
Starfruit Bouquet #901409	0.20
Siltech MFF 5010-70	0.14
Euperlan PK-789	4.00

Procedure:

Add Phase A ingredients to tank in order listed. Mix well after each ingredient addition. Prepare Phase B and add to A. Add Phase C ingredients to A in order listed. Mix well after each ingredient addition. Mix batch until smooth and uniform.

Formula #MS-2-100-8

ONE STEP SHAMPOO/CONDITONER

INGREDIENT	% By Weight
A) Deionized Water	41.26
Trisept M	0.20
Standapol ES-1	40.00
Tritaine PB	9.00
Standamid KD	3.50
B) Deionized Water	1.00
Tristat IU	0.50
C) Citric Acid (50% aqueous soln.)	0.20
Herbal Tea E6367	0.20
Siltech MFF 5010-70	0.14
Euperlan PK-789	4.00

Procedure:

Add Phase A ingredients to tank in the order listed. Mix well after each ingredient addition. Prepare Phase B and add to A. Add Phase C ingredients to A in order listed. Mix well after each ingredient addition. Mix batch until smooth and uniform.

Formula #MS-2-100-9

SOURCE: TRI-K Industries, Inc.: Formulas

PEARLESCENT LIQUID SHAMPOO

INGREDIENTS	% By Weight
Water	41.45
STANDAPOL ES-3	40.00
VELVETEX BA-35	5.00
STANDAMOX LAO-30	3.00
STANDAMID SD	3.00
POLYQUART H	3.00
NUTRILAN I	1.50
EUPERLAN PK-810	3.00
Kathon CG	0.05

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time. Adjust pH to 6.5+-0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

The combination of amine oxide, betaine and protein contributes to the mildness and conditioning properties of the formulas. The inclusion of the polyamine quaternary also provides for good wet and dry combing.

Formula H-4952

CLEAR SHAMPOO WITH PROTEIN

INGREDIENTS	% By Weight
Water	52.45
STANDAPOL WAQ-LC	37.00
LAMEPON 4SK	5.50
STANDAMID LDO	3.50
GENEROL 122E-16	0.50
Sodium Chloride	1.00
Part B:	
Kathon CG	0.05
Fragrance & Dyes	q.s.

Procedure:

Charge kettle with water. Heat water to 50-55C. Keeping temperature constant, add remaining ingredients of Part A, under agitation. Once uniform, take heat off and continue stirring while product cools. At 40C, add individual components of Part B, under agitation. Adjust pH to 6.5+-0.3 reaches room temperature. Fill off.

Comments:

The addition of the ethoxylated Soya Sterol provides a desirable after shampoo sheen to the hair coupled with somewhat of an emollient effect. Milder formula with improved conditioning properties.

Formula H-4951

SOURCE: Henkel: Formulas

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB70	17.5
EMPILAN CDE	2.5
EMPILAN EGMS	2.0
Perfume, dye, preservative	qs
Sodium or ammonium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula PFS6	

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL AL30/T	40.0
EMPILAN LDE	2.5
EMPILAN EGMS	2.0
Perfume, dye, preservative	qs
Sodium or ammonium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula PFS7	

GEL FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3	60.0
EMPILAN CDE	3.0
Perfume, dye, preservative	qs
Citric acid (to adjust pH 6.5-7.0)	qs
Sodium chloride (to adjust viscosity)	qs
Water	Balance
Formula GFS1	

GEL FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB70	20.0
EMPILAN CDE	3.0
EMPIGEN BB or EMPIGEN BS	2.0
Perfume, dye, preservative	qs
Citric acid (to adjust pH 6.5-7.0)	qs
Sodium chloride (to adjust viscosity)	qs
Water	Balance
Formula GFS2	

SOURCE: Albright & Wilson Americas: Formulas

PEARLIZED CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Standapol AEI	35.00
Velvetex CDC	5.00
Standamox CAW	3.00
Cosmedia Guar C-261N	0.75
Aethoxal B	1.50
Euperlan PK-810	3.00
Kathon CG	0.05
Fragrance	0.25
Deionized Water	q.s. to 100
Citric Acid to pH 6-6.5	

Preparative Procedure:

- 1) Maintain moderate stirring while blending ingredients at room temperature. Add the Standapol AEI to the water, then stir in Velvetex CDC and Standamox CAW.
- 2) Slurry Guar C-261N with Aethoxal B, then add to main batch. Stir until Guar is hydrated. Batch will be slightly hazy.
- 3) Stir in Euperlan PK-810. Adjust to pH 6-6.5 than add Kathon CG and fragrance.
- 4) Package.

Comments:

Cosmedia Guar C-261N is a cationic gum that is compatible with anionic surfactants and adds conditioning and antistatic properties to these shampoo systems.

SOURCE: Henkel: Formula HOB-270-27B

SHAMPOO

RAW MATERIALS	% By Weight
Hoe S 3267	22,50
Water	52,00
Texapon NA	22,50
Belsil DMC 6033	1,00
Belsil ADM 6041 E	1,00
Ammonium Chloride	1,00
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 in water, add Texapon NA, Belsil DMC 6033 and Belsil ADM 6041E, homogenise the mixture and adjust the desired viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

Clear, thin gel.

SOURCE: Wacker Silicone: Formulation 151 AH

PEARLY SHAMPOO

RAW MATERIALS	% By Weight
1. Ammonium Laureth Sulfate 27%	40.00
2. MACKALENE 426	4.00
3. MACKAMIDE PKM	3.00
4. Ethylene Glycol Di-Stearate	1.50
5. MACKERNIUM 007	0.60
6. MACKSTAT DM	Q.S.
7. Color, Fragrance	Q.S.
8. Magnesium Sulfate (Epsom Salt)	1.00
9. Sodium Chloride	0.30
10. Deionized Water Q.S. to	100.00

Procedure:

1. Place #1, #2, #3 and #4 into stainless steel mixing tank, equipped with a slow speed mixing agitator.
2. Start heating the contents to 170 degrees F.
3. Start slow speed mixing and add D.I. Water 170 degrees hot.
4. In a part of the hot water dissolve #8 and #9 and add to the blend in the batch tank and mix in for 10-15 minutes.
5. Then start fast cooling, mix in #5 at 113 degrees F. and #6 and #7 at 105 degrees F.
6. Let the product stay for a few hours (or over night) without mixing then fill.

pH: 5.5-6.5

Addition of more of #9 will thin out solution if it is too viscous.

Formula No. BP-4C

PEARLESCENT SHAMPOO CONCENTRATE

RAW MATERIALS	% By Weight
TEA Lauryl Sulfate	50.0
MACKAMIDE LLM	30.0
MACKESTER SP	5.0
Propylene Glycol	5.0
Sodium Chloride	1.0
Phosphoric Acid to pH = 7.5	
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add first five components to water and heat to 70 degrees C.
 2. Blend until homogenous.
 3. Cool to 40 degrees C. and add MACKSTAT DM, dye and fragrance.
- Remarks: This product can be diluted one pint to a gallon with water. This viscosity can be controlled by regulating the propylene glycol.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

PEARLY SILVER SHAMPOO FOR GRAY OR WHITE HAIR

RAW MATERIALS	% By Weight
MACKADET SBC-8	40.0
MACKAM J	5.0
Glycerine	2.0
MACKESTER SP	1.3
MACKANATE DC-30	1.0
DC Violet #2	qs
DC External Violet #2	qs
Water, Fragrance	qs
MACKSTAT DM	qs

Procedure:

1. Heat water to 180 degrees, add melted MACKESTER SP and mix.
2. Add MACKADET SBC-8, keep heat at 180 degrees until all is dissolved.
3. Mix 15 minutes, start slow cooling.
4. Add glycerine at 150 degrees and then add MACKAM J mix to 110 degrees.
5. Add MACKANATE DC-30 and then add MACKSTAT DM and fragrance.
6. Dissolve colors in a little of above mixture and add to batch.
7. Cool to room temperature.
8. Check pH, adjust to 6.8 with citric acid.
9. Add salt to thicken.

Formula AY-121-B

"BEER" SHAMPOO

RAW MATERIALS	% By Weight
Beer (Flat)	33.3
Sodium Olefin Sulfonate	22.5
Sodium Laureth Sulfate	15.0
MACKAM 35HP	12.0
PEG 150 Distearate	2.0
Ammonium Chloride	1.0
MACKSTAT DM	qs
Citric Acid to pH 5.3	
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add surfactants to water and heat to 60 degrees C.
2. Blend until clear.
3. Cool to 40 degrees C. and add Beer.
4. Adjust pH and add remaining components

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

POWDER FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LZ	20.0
Sodium sulphate anhydrous	80.0
Formula PRFS1	

POWDER FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LZ	20.0
Sodium sulphate anhydrous	40.0
Sodium bicarbonate	40.0
Formula PRFS2	

POWDER FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LZ	15.0
Sodium sesquicarbonate	85.0
Formula PRFS3	

SOURCE: Albright & Wilson Americas: Formulas

SHAMPOO-NORMAL HAIR-CLEAR

RAW MATERIALS	% By Weight
EMPICOL TL40/T	35.0
EMPILAN CDE, LDE or LTS	2.0
BRIPHOS O3D	1.5
Triethanolamine/sodium hydroxide	qs to pH adjust to 6.0-6.5
Perfume, dye, preservative	qs
Sodium or ammonium chloride/ hexylene glycol	qs to adjust viscosity
Water	Balance

BRIPHOS O3D gives outstanding gloss and manageability to the hair. Designed for normal hair and include BRIPHOS O3D at approximately 1.5%. For dry hair this level should be increased to about 2.0% and for greasy hair reduced to about 1.0%.

These shampoos leave the hair with excellent overall manageability and high gloss.

SOURCE: Albright & Wilson Americas: Formula COS13

PROFESSIONAL FORMULA CONDITIONING SHAMPOO

INGREDIENTS	% By Weight
Water	42.7
Ammonium Laureth Sulfate (30%)	35.0
Ammonium Lauryl Sulfate (30%)	10.0
ANTIL 141 Liquid	3.0
TEGO Betaine L-7	7.0
ABIL Quat 3272	0.3
ABIL B 8851	0.3
ABIL B 88183	0.3
ABIL EM-90	0.4
Ammonium Chloride	1.0
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.

Procedure:

1. Add the water, ALES and ALS to a vessel. Heat to 60C and mix until uniform.
2. Add ANTIL 141 Liquid. Mix until fully dispersed.
3. Add the TEGO Betaine L-7. Mix. Begin cooling.
4. Add the ABIL Quat 3272, ABIL B 88183 and the ABIL EM-90. Continue cooling to 35-40C.
5. Adjust the viscosity using the Ammonium Chloride. Note for manufacturing ease, a 25% solution of the Ammonium Chloride can be made.

SOURCE: Goldschmidt Chemical Corp.: Formula

CONDITIONING SHAMPOO

RECIPE	% By Weight
A GENAPOL ARO Liquid	25.00
B GENAMIN KSL	2.00
C GENAPOL AMG	8.00
Perfume	0.30
Water	58.70
HOE S 3267-1	6.00
Dyestuff solution	q.s.
Preservative	q.s.
D Citric acid---->pH 6.5	q.s.
E Sodium chloride	q.s.

Procedure:

- I Dissolve B in A.
- II One after another, the components of C are added to I.
- III The pH is adjusted with D, then the viscosity is adjusted with E.
clear, 11.5% active detergent

SOURCE: Hoechst: Guide Formulations for Cosmetics: B I/6118

PROTEIN SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPICOL TL40/T	35.0
EMPILAN CDE	3.0
CROTEIN A or O	1.0
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS19

PROTEIN SHAMPOO-CLEAR

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	45.0
EMPILAN CDE	3.0
CROTEIN A or O	1.5
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS20

PROTEIN SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	25.0
EMPICOL ESB3	20.0
EMPICOL 0627	10.0
EMPILAN CDE	3.0
CROTEIN A or O	1.5
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS21

The CROTEIN A or CROTEIN O should be stirred into the solution of the primary surfactant and coactive ingredient, with warming to about 50C to give a clear solution. EMPICOL 0627 should not be added until the mixture has cooled to below 35C.

SOURCE: Albright & Wilson Americas: Formulas

SALICYLIC ACID SHAMPOO

RAW MATERIALS	% By Weight
MACKADET SBC-8	50.0
Salicylic Acid	2.0
MACKSTAT DM	q.s.
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Disperse Salicylic Acid in the Mackadet SBC-8 and blend until homogenous.
2. Add water and heat to 40 degrees C.
3. Slowly adjust pH to 5.0 with sodium hydroxide and blend until clear.
4. Add remaining components and cool.

SALICYLIC ACID SHAMPOO

RAW MATERIALS	% By Weight
MACKADET CBS	50.0
Salicylic Acid	2.0
MACKSTAT DM	q.s.
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Disperse Salicylic Acid in the Mackadet CBS and blend until homogenous.
2. Add water and heat to 40 degrees C.
3. Slowly adjust pH to 5.0 with sodium hydroxide and blend until clear.
4. Add remaining components and cool.

ALOE VERA GEL SHAMPOO

RAW MATERIALS	% By Weight
Aloe Vera Gel Liquid (1:1)	50.0
Water	14.5
MACKERNIUM 007	3.0
MACKADET SBC-8	32.0
MACKSTAT DM	qs
Fragrance, Dye qs to	100.0

Procedure:

1. Disperse MACKERNIUM 007 in water and Aloe Vera Liquid.
2. Add MACKADET SBC-8 and heat to 45 degrees C.
3. Blend until homogenous.
4. Adjust viscosity with sodium chloride.
5. Add remaining components and blend until clear.
6. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

SHAMPOO

RAW MATERIALS	% By Weight
Ammonium lauryl sulfate	15.0
Lauric diethanolamide	2.0
POLYOX Resin WSR N-750	0.5
Water	q.s.

Shampoo Viscosity, cps: 150

SHAMPOO

RAW MATERIALS	% By Weight
Ammonium lauryl sulfate	15.0
Lauric diethanolamide	2.0
POLYOX Resin WSR-205	0.5
Water	q.s.

Shampoo Viscosity, cps: 180

SHAMPOO

RAW MATERIALS	% By Weight
Ammonium lauryl sulfate	15.0
Lauric diethanolamide	2.0
POLYOX Resin WSR N-60K	0.5
Water	q.s.

Shampoo Viscosity, cps: 600

SHAMPOO

RAW MATERIALS	% By Weight
Ammonium lauryl sulfate	15.0
Lauric diethanolamide	2.0
POLYOX Resin WSR-301	0.5
Water	q.s.

Shampoo Viscosity, cps: 700

SOURCE: Amerchol Corp.: POLYOX Water-Soluble Resins:
Formulas

SHAMPOO

RAW MATERIALS	% By Weight(Actives)
Ammonium lauryl sulfate	10.0
"Standapol" ES-2	5.0
Lauric diethanolamide	2.0
POLYOX WSR N-750	0.3
Water, fragrance, preservatives	q.s
Viscosity, cps: 650	

SHAMPOO

RAW MATERIALS	% By Weight(Actives)
"Standapol" ES-2	7.5
"Standapol" ES-40	7.5
Lauric diethanolamide	2.0
"Tween" 60	1.0
POLYOX WSR N-60K	0.5
PEG 6000 distearate	1.5
Water, fragrance, preservatives	q.s.
Viscosity, cps: 1000	

SHAMPOO

RAW MATERIALS	% By Weight(Actives)
Ammonium lauryl sulfate	10.0
"Sarkosyl" NL-30	3.0
"Onyx-ol" SD	4.0
POLYOX WSR N-60K	0.25
CELLOSIZ QP 30,000	1.0
Sodium salt ethylene diamine tetraacetic acid	0.1
Water, fragrance, preservative	q.s.
Viscosity, cps: 1200	

SHAMPOO

RAW MATERIALS	% By Weight(Actives)
Ammonium lauryl sulfate	8.0
"Standapol" ES-2	2.0
Lauric diethanolamide	2.0
Cocobetaine	3.0
POLYOX WSR-205	0.5
Water, fragrance, preservatives	q.s.
Viscosity, cps: 3700	

SOURCE: Union Carbide Corp.: POLYOX Water-Soluble Resins:
Formulas

SHAMPOO

RAW MATERIALS	% By Weight
Texapon MG 3	27.0
Dehyton G	9.0
Arlypon F	0.5
Nutrilan I-50	1.5
Water	ad 100

Viscosity in mPas: 4800
Formula no. 90/159/09

SHAMPOO

RAW MATERIALS	% By Weight
Texapon MG 3	28.0
Dehyton K	9.0
Arlypon F	1.0
Nutrilan I-50	8.0
Water	ad 100

Viscosity in mPas: 8000
Formula no. 90/159/10

SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	40.0
Dehyton K	10.0
Arlypon F	1.0
Nutrilan I-50	4.0
Water	ad 100

Viscosity in mPas: 7900
Formula no.: 90/159/11

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	40.0
Dehyton K	10.0
Arlypon F	1.0
Euperlan PK 3000	3.0
Nutrilan I-50	4.0
Water	ad 100

Viscosity in mPas: 11700
Formula no. 90/159/12

SHAMPOO

RAW MATERIALS	% By Weight
Texapon ASV	48.0
Dehyton G	12.0
Lamesoft LMG	3.0
Cetiol HE	2.0
Arlypon F	0.5
Nutrilan I-50	4.0
Water	ad 100

Viscosity in mPas: 7500
Formula no. 90/159/13

SHAMPOO

RAW MATERIALS	% By Weight
Texapon N 25	14.0
Texapon SB 3	10.0
Dehyton K	10.0
Lamepon S	13.5
Dehydol LS 3 Deo	1.0
Euperlan PK 810	3.0
Nutrilan I-50	4.0
Cosmedia Guar C 261	0.2
Water	ad 100

Viscosity in mPas: 4000 after production
7390 after storage
Formula no. 90/159/14

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

SHAMPOO

RAW MATERIALS	% By Weight
Deionized water	51.35
TEALS	30.00
Germaben II	1.00
INCROMIDE LR	3.50
INCROMIDE CAC	2.00
CROSULTAINE T-30	8.00
CROQUAT L	0.25
CRODAFOS SG	1.00
Citric Acid (10% Soln)	2.90

pH: 6.55

Viscosity: 3,300 cps

Procedure:

Charge vessel with water, add TEALS and Germaben with agitation. Start heating batch to 65-70C. When the batch reaches temperature, add CAC, LR and Crosultaine T-30 one at a time with agitation. Mix until uniform and clear. Cool to batch to 40C and add Croquat L and then Crodafos SG. Cool to room temperature and add citric acid to adjust product to desired pH.

The combination of CROSULTAINE T-30, TEALS and amides have been optimized to yield a gentle cleansing; medium viscosity shampoo with good foam characteristics. The incorporation of CROQUAT L and CRODAFOS SG provide conditioning benefits to hair.

Formula SH-75

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
INCRONAM 30	5.0
Standapol ES-3	20.0
INCROMIDE LR	5.0
CRODAFOS SG	3.0
CROVOL PK-70	1.0
Germaben II	1.0
Deionized Water	64.0
CROSILKQUAT	1.0

Procedure:

Combine all ingredients except Crosilkquat and heat with mixing to 75C. Cool batch with mixing. At 40C add Crosilkquat. Mix well.

CROSILKQUAT is an elegant way to enhance wet comb, moisturizing, and conditioning in shampoos. This shampoo features CRO-ILKQUAT in a mild blend of surfactants.

Formula SH-76

SOURCE: Croda Inc.: CROSULTAINE/CROSILKQUAT: Formulas

SHAMPOO

RAW MATERIALS	% By Weight
A. Rewopol TLS 40	40.0
Rewopol NL3	15.0
Rewo-Amid DO 280	7.0
SOFTIGEN 767	5.0
SOFTIGEN 701	2.0
Water	up to 100.0
B. Perfume	q.s.

Preparation:

(A) is mixed until clear and homogeneous under slight heat. After cooling, (B) is stirred in.

Formula 6.3.1

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
SOFTIGEN 767	2.0
Extrakt 52	42.0
Purton SFD	2.0
Product GM 4055	5.0
Perfume Oil	1.0
Coloring matter	q.s.
Water	up to 100.0
Preservative	q.s.

Preparation:

All ingredients are mixed while heating.

Formula 5.1.6

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
SOFTIGEN 767	2.0
Extrakt 52	42.0
Purton SFD	2.0
Product GM 4055	5.0
Perfume Oil	1.0
Coloring Matter	q.s.
Water	ad 100.0

Preparation:

All ingredients are mixed under slight heat.

Formula 6.3.3

SOURCE: Huls America Inc.: Formulas

SHAMPOO, CLEAR

RAW MATERIALS	% By Weight
Texapon N 25	39.0
Dehyton K	10.0
Nutrilan Keratin W	5.0
Sodium chloride	1.0
Water, (preservative, colorant, perfume)	ad 100
Set pH to: 6.5	
Viscosity in mPas: 3200	
Formula no. 89/075/1	

SHAMPOO, CLEAR

RAW MATERIALS	% By Weight
Texapon N 25	39.0
Dehyton K	10.0
Nutrilan Keratin W	5.0
Sodium chloride	0.5
Arlypon F	1.0
Water, (preservative, colorant, perfume)	ad 100
Set pH to: 6.5	
Viscosity in mPas: 6800	
Formula no. 89/075/1/A	

SHAMPOO, CLEAR

RAW MATERIALS	% By Weight
Texapon N 25	34.0
Texapon SB 3	6.0
Dehyton K	10.0
Nutrilan Keratin W	5.0
Sodium chloride	1.5
Water, (preservative, colorant, perfume)	ad 100
Set pH to: 6.5	
Viscosity in mPas: 4400	
Formula no. 89/075/2	

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

SHAMPOO, CLEAR

RAW MATERIALS	% By Weight
Texapon ASV	40.0
Nutrilan Keratin W	5.0
Sodium chloride	0.6
Arlypon F	3.0
Water, (preservative, colorant, perfume)	ad 100

Set pH to: 6.5
 Viscosity in mPas: 5200
 Formula no. 89/075/5

SHAMPOO, CLEAR

RAW MATERIALS	% By Weight
Texapon ASV	30.0
Dehyton G	7.5
Nutrilan Keratin W	5.0
Sodium chloride	0.5
Arlypon F	2.0
Water, (preservative, colorant, perfume)	ad 100

Set pH to: 6.5
 Viscosity in mPas: 4000
 Formula no. 89/075/6

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

SHAMPOO FOR STRESSED HAIR

RAW MATERIALS	% By Weight
I. Texapon N 25	30.0
Dehyton K	6.0
Texapon SB 3	4.0
Comperlan KD	1.5
Nutrilan Elastin E 20	2.0
Sodium chloride	1.8
II. Citric acid	0.15
Water (preservative, colorant, perfume)	ad 100.0

pH set to: approx. 5.0-6.0
 Viscosity: approx. 4,000 mPas

SOURCE: Henkel: Cosmetics Nr. XXII/89/Lz: Formula 89/191/1

SHAMPOO

RAW MATERIALS	% By Weight
Hoe S 3267	22,50
Water	50,00
Belsil ADM 6042 E	4,00
Texapon NA	22,50
Ammonium Chloride	1,00
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 in water, mix in the amodimethicone and emulsifier. Add the ammonium laureth sulfate and adjust to the desired viscosity with the ammonium chloride.

Clear, high-viscosity. Shampoo with good conditioning effect.

Formulation 541 AH

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
A Water	76,50
Tylose H 4000 P	0,80
B Comperlan KD	3,00
Texapon NA	16,70
Belsil ADM 6057 E	3,00
Preservatives, Fragrances, Pigments	q.s.
Homogenise A well, mix Belsil ADM 6057 E.	
Milky cloudy, high viscosity.	
Formulation 551 AH	

SOURCE: Wacker Silicone: Standard Formulations

NON-ALKALINE SHAMPOO

RAW MATERIALS	% As Is
Ammonium Lauryl Sulfate	60.7
MONAMATE CPA-40%	15.0
MONATERIC ISA-35%	5.7
Water (deionized)	18.6

Manufacturing Procedure:

1. Weigh out ammonium lauryl sulfate and heat to 50-55C with slow agitation.
2. Add MONAMATE CPA-40%.
3. Add molten MONATERIC ISA-35% (pumpable at 45-50C).
4. Add water and allow batch to cool to 40-50C depending on viscosity.
5. Add perfume, preservative (e.g. methyl paraben) and color as desired.
6. Depending on viscosity, bottle between 25C and 45C.
pH (as is): 5.8-6.0
Viscosity (cps): 4100-4300
25% Active

SOURCE: Mona Industries Inc.: Non-Alkaline Shampoo: Formula

SHAMPOO FOR OILY HAIR

INGREDIENTS	% By Weight
A Texapon NSO	23,000
Texapon K 14 S special	23,000
Lamepon S	4,000
Cremogen M-82 730 337	5,000
Perfume Oil	0,500
B Demineralized Water	39,800
Phenonip	0,500
Sodium chloride	4,000
Sodium hydroxide (10% aq. solution)	0,200
(approx. 14% active surfact.)	

Manufacturing Process:

Part A: Mix all the ingredients well under stirring.

Part B: Solve all the ingredients in water.

Add part B to part A under stirring.

Final pH should be 6,5 and should be controlled.

Remarks: without any colour dye:

the yellow-brownish colouring of the shampoo depends on the native colouring of the plant extract.

Recommendation for colouring:

To receive a green color add the following colour solution:
0,50% Sicomet Blue S 74180 (0,1% aq solution)/C.I. 74180

SOURCE: Haarman & Reimer GmbH: Formula K 9/2-72956 A/E

CLEAR LIQUID FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	35.0
EMPILAN CDE or EMPIGEN BB	3.0
Sodium or ammonium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula CLFS7

SHAMPOO FOR PERMED HAIR-DAMAGED

RAW MATERIAL	Sequence	% By Weight
Water	1	35.90
Witconate 14-16 AOS Slurry	2	42.50
Witconate 60T	2	6.60
Lipamide LMWC	2	13.00
Lipamide DBS	3	1.00
Lipo Lecithin WS	3	0.10
Lipovol SES	3	0.10
Corn Oil	3	0.10
Lipovol SOY	3	0.10
Fragrance	4	0.50
Sodium Chloride	5	0.10
Phosphoric Acid, 10% Solution	6	q.s. to pH 5.3-5.7

Procedure:

1. Add Sequence 1 into primary kettle with variable speed Lightnin' mixer agitation and heat to 75C.
2. Add Sequence 2 materials under continuous agitation. Mix until uniform. Avoid aeration.
3. In a separate kettle under Lightnin' mixer, heat Sequence 3 to 75C and mix until clear.
4. Add combined Sequence 3 to batch and stir until uniform.
5. Begin cooling to 42C. Add fragrance (Sequence 4) and disperse thoroughly. Continue cooling to room temperature. Add (Sequence 5) sodium chloride and disperse thoroughly. Then adjust pH to 5.3-5.7 with phosphoric acid.

SOURCE: Lipo Chemicals Inc.: Formula No. 206

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL XC35	55.0
Sodium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula PFS1

SHAMPOO WITH CARE EFFECT

RAW MATERIALS	% By Weight
Texapon N 70	25.0
Euperlan PK 3000	3.0
Lamequat L	2.0
Arlypon F	1.0
Sodium chloride	1.5
Perfume, preservative	q.s.
Water	ad 100.0

Based on ethersulfate and cationic protein derivative.

Lamequat reduces electrostatical charge of hair.

Favourable influence on the structural strength of damaged hair.

Formulation no. 89/180/42a

CLEAR SHAMPOO WITH PROTEIN HYDROLYSATE

RAW MATERIALS	% By Weight
Texapon ALS	40.0
DEHYTON K	10.0
Arlypon F	1.0
Nutrilan I-50	4.0
Perfume, preservative	q.s.
Water	ad 100.0

Positive properties with regard to dermatological improvement of surfactant based products and functional effects on hair.

Formulation no. 90/159/11

SOURCE: Henkel: HENKEL KGaA R-CC Cospha: Formulas

AEROSOL DRY SHAMPOO

RAW MATERIALS	% By Weight
78-1898	3.50
Magnesium Stearate	0.30
Anhydrous Ethanol	3.00
Perfume	q.s.
Propellant A 46	93.20

Valve: Precision Valve: 2 x .020" stem
 .080 X .020 body
 .020" button

Can: Enamel Lined

SOURCE: National Starch and Chemical Corp.: 78-1898:
 Suggested Formulation 4015-60B

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL XC35	55.0
EMPIGEN OY	6.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS29

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL XC35	60.0
EMPIGEN BS	5.0
EMPIGEN OY	5.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS30

CONDITIONING SHAMPOO-PEARL

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	20.0
EMPICOL XC35	40.0
EMPIGEN BS	9.0
Perfume, dye, preservative	qs
Sodium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance

Formula COS31

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL AL30/T	50.0
EMPIGEN BS	10.0
Citric acid	to pH 4.0-5.0
Ammonium chloride/hexylene glycol	qs to adjust viscosity
Perfume, dye, preservative	qs
Water	Balance

Formula COS24

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL AL30/T	40.0
EMPIGEN OS/A	8.0
Citric acid	to pH 4.0-5.0
Ammonium chloride/hexylene glycol	qs to adjust viscosity
Perfume, dye, preservative	qs
Water	Balance

SOURCE: Albright & Wilson Americas: Formulas

SHAMPOO WITH EGG YOLK

RAW MATERIALS	% By Weight
REWOPOL NL 3, 28% IG	25.25
REWOMID IPP 240	2.00
Sodium chloride	3.00
REWOLAN 5	2.00
Fresh egg yolk	0.50
Perfume	
Preservative	
Water	
Formulation Nr. 12	

SHAMPOO WITH LECITHIN

RAW MATERIALS	% By Weight
Texapon WW	15.3
Lamepon S	18.8
Collagel Gelitta	1.25
Monomuls 90-L12	1.00
Perfume	0.30
Sodium chloride	1.60
Water	ad 100.00
Formulation Nr. 11	

SOURCE: Schulke & Mayr GmbH: EUXYL K 400: Formulas

PEARLESCENT LUXURY SHAMPOO

RAW MATERIALS	% By Weight
MONAMATE LNT-40	25.0
Sodium Lauryl Sulfate (28%)	55.0
MONAMID 1089	5.0
Cerasynt IP	0.5
Preservative	0.3
H3PO4 (85%)	0.4
Water	13.8

Procedure:

Mix Sodium Lauryl Sulfate, water and preservative. Add H3PO4. Stir and add MONAMID 1089. Stir until homogeneous and add MONAMATE LNT-40. Add Cerasynt IP. Stir and heat to completely melt the solid material (approx. 60C). Cool with stirring. At 40C add any perfume or colors. Continue stirring and cooling to 25C. Adjust pH to 6.0-7.0.

Appearance: Pearly liquid
 Nominal Activity: 31%
 Viscosity: 4000-5000 cps

MONAMATE LNT-40 in this formulation provides an immediate luxurious lather which gently cleanses without stripping and is easily rinsed off leaving manageable hair.

SOURCE: Mona Industries, Inc.: MONAMATES: Formula

SHAMPOO, WITH PEARL SHINE

RAW MATERIALS	% By Weight
Texapon N 25	39.0
Dehyton K	10.0
Nutrilan Keratin W	5.0
Euperlan PK 810	5.0
Sodium chloride	0.75
Water (preservative, perfume)	ad 100
Color: Sicomet yellow-orange 85 E 110 0.1% sol.	0.25
pH set to: 6.5	
Viscosity in mPas: 4400	
Formula no. 89/076/1	

SHAMPOO, WITH PEARL SHINE

RAW MATERIALS	% By Weight
Texapon N 25	34.0
Texapon SB 3	6.0
Dehyton K	10.0
Nutrilan Keratin W	5.0
Euperlan PK 810	5.0
Sodium chloride	1.0
Water (preservative, perfume)	ad 100
Color: Sicomet yellow-orange 85 E 110 0.1% sol.	0.3
pH set to: 6.5	
Viscosity in mPas: 4800	
Formula no. 89/076/2	

SHAMPOO, WITH PEARL SHINE

RAW MATERIALS	% By Weight
Texapon MG 3	28.0
Dehyton K	7.0
Nutrilan Keratin W	5.0
Euperlan PK 3000	5.0
Water (preservative, perfume)	ad 100
Color: Sicomet yellow Z 2787 0.1% sol.	0.3
pH set to: 6.5	
Viscosity in mPas: 6400	
Formula no. 89/076/4	

SOURCE: Henkel: Cosmetics Nr. XXIII/89/Lz: Formulas

SHAMPOO & CONDITIONER

RAW MATERIALS	% By Weight
Cosmedia Guar C 261	0.5
Cetiol HE	0.5
Perfume, preservative	q.s.
Water	ad 100.0
Texapon MLS	50.0
Dehyton K	5.0
Cutina AGS	1.0
COMPERLAN 100	1.0
LANETTE O	1.0
Siliconoil Dow Corning 193	1.5
DEHYQUART E	2.0
Arlypon F	1.0

SOURCE: Henkel: HENKEL KGaA R-CC Cospha: Formulation no.
90/020/53

CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
Texapon N 25	30.0-50.0
Perfume	q.s.
Water	ad 100
Preservatives	q.s.
Luviquat FC 550	0- 5.0
and/or Luviquat FC 370	
and/or Luviquat HM 552	
Comperlan KD	1.0
Sodium chloride	2.0

Preparation:

Weigh out in the order given and stir to dissolve.

Properties:

Clear, viscous solution, mild cleansing action, improves wet-combability, gives body to the hair and prevents dry hair from charging electrostatically.

Applications:

Spread evenly through the hair and work into lather with some water. Rinse out with plenty of water.

SOURCE: BASF Corp.: LUVIQUAT FC grades/LUVIQUAT HM 552:
Formula No. 08/008

SHAMPOO AND CONDITIONING RINSE

RAW MATERIALS	% By Weight
Natrosol 250 HR (2% aqueous swelling)	34.8
Cetiol HE	2.0
Texapon ALS	40.0
Texapon NA	17.0
Cutina AGS	1.0
Comperlan 100	1.0
Lanette O	1.0
Silicon oil Dow Corning 193 Surfactant	1.0
Dehyquart E	2.0
Water, preservative	ad 100

pH adjustment: 5.5-5.9

Formula no. 90-020-24

SHAMPOO AND CONDITIONING RINSE

RAW MATERIALS	% By Weight
Natrosol 250 HR (2% aqueous swelling)	34.3
Texapon ALS	40.0
Texapon NA	17.0
Cutina AGS	1.0
Comperlan 100	0.5
Lanette O	1.0
Silicon oil Dow Corning 193 Surfactant	1.0
Aethoxal B	5.0
Water, preservative	ad 100

pH adjustment: 5.5-5.9

Formula no. 90-020-27

SHAMPOO AND CONDITIONING RINSE

RAW MATERIALS	% By Weight
Cosmedia Guar C 261	0.5
Cetiol HE	1.0
Texapon ALS	40.0
Texapon NA	17.0
Cutina AGS	1.0
Comperlan 100	1.0
Lanette O	1.0
Silicon oil Dow Corning 193 Surfactant	2.0
Dehyquart E	2.0
Sodium chloride	1.0
Water, preservative	ad 100

pH adjustment: 5.5-5.9

Formula no. 90-020-49

SOURCE: Henkel: KOSMETIK Nr. XVI/90: Formulas

SHAMPOO AND CONDITIONING RINSE

RAW MATERIALS	% By Weight
Cosmedia Guar C 261	0.5
Cetiol HE	1.0
Texapon ALS	40.0
Texapon NA	17.0
Cutina AGS	1.0
Comperlan 100	1.0
Lanette O	1.0
Silicon oil Dow Corning 193 Surfactant	2.0
Sodium chloride	1.5
Water, preservative	ad 100
pH adjustment: 5.5-5.9	
Formula no. 90-020-50	

SHAMPOO AND CONDITIONING RINSE

RAW MATERIALS	% By Weight
Cosmedia Guar C 261	0.5
Cetiol HE	0.5
Texapon MLS	50.0
Dehyton K	5.0
Cutina AGS	1.0
Comperlan 100	1.0
Lanette O	1.0
Silicon oil Dow Corning 193 Surfactant	1.5
Dehyquart E	2.0
Arlypon F	1.0
Water, preservative	ad 100
pH adjustment: 5.5-5.9	
Formula no. 90-020-53	

SOURCE: Henkel: Kosmetik Nr. XVI/90: Formulas

SHAMPOO, CLEAR, ANTIDANDRUFF

RAW MATERIALS	% By Weight
Texapon N 25	43.0
Dehyton AB 30	9.0
Pyrrion sulfur 40%	0.5
Nutrilan Elastin E 20	1.0
Sodium chloride	1.0
Water (colorant, preservative, perfume)	ad 100.0
pH set to: 6.5	
Viscosity: approx. 10,000 mPas	

SOURCE: Henkel: Cosmetics Nr. XXII/89/Lz: Formula 89/187/1

SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Texapon N25	59.0
Comperlan KD	4.0
b) Water, distilled, preserved	36.0
c) Biosulphur Fluid	1.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume.

liquid, transparent preparation

SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Marlopon AT50	35.0
Marlon A375	10.0
Marlipal ML	3.0
Marlamid D1885	3.0
b) Water, distilled, preserved	48.0
c) Biosulphur Fluid	1.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume.

liquid, transparent preparation

SHAMPOO, FOR APPLICATION TO GREASY HAIR AND DANDRUFF

RAW MATERIALS	% By Weight
a) Steinapol NL2; 28%	20.0
Steinapol SBFA30; 40%	22.0
Steinamid DC 212/S	5.0
Steinazid SBU 185; 50%	3.0
b) Water, distilled, preserved	49.0
c) Biosulphur Fluid	1.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 5

SHAMPOO FOR DYED AND PERMED HAIR

RAW MATERIALS	% By Weight
Tetrasodium EDTA	0.1
Water	60.8
Ammonium Lauryl Sulfate	10.0
Ammonium Laureth Sulfate (2m E.O.)	20.0
ANTIL 141 Liquid	2.2
ABIL B 9950	1.5
ABIL B 88183	0.4
TEGO Betaine L-7	4.0
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.5
Ammonium Chloride	1.0

Procedure:

1. Add the water and Tetrasodium EDTA. Mix. Begin heating to 60C.
2. Add the remaining ingredients in order.
3. Cool to 40-45C. Add color, preservatives, and fragrance and adj. pH with Citric Acid.
4. Adjust viscosity with Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Formula

SHAMPOO FOR PERMED HAIR

RAW MATERIALS	% By Weight
MACKANATE OP	20.0
MACKANATE CP	12.0
Sodium Laureth Sulfate (30%)	15.0
MACKAMINE WGO	4.0
MACKALENE 716	1.0
MACKSTAT DM	qs
Citric Acid to pH = 6.0	
Sodium chloride qs to 2000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 40 degrees C.
2. Blend until clear and adjust pH with citric acid.
3. Add remaining components and adjust viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

SHAMPOO AND RINSE

RAW MATERIALS	% By Weight
MACKAM 35HP	30.0
MACKALENE 426	5.0
Polymer JR 30M	0.7
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add MACKAM 35HP and MACKALENE 426 to water.
2. Disperse Polymer JR 30M and heat to 60 degrees C.
3. Stir until completely dispersed.
4. Cool to 45 degrees C. and add remaining components.

VISCOUS CLEAR SHAMPOO

RAW MATERIALS	% By Weight
Sodium Lauryl Sulfate (30%)	31.0
MACKAM CAP	6.0
MACKAMIDE C	1.0
MACKPRO NLP	1.0
Disodium EDTA	0.1
Sodium Chloride	1-2.0
MACKSTAT DM	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 5.8-6.8

Viscosity (cps 25 degrees C.): 8000-12000

Procedure:

1. Add surfactants to water and slow mixing.
2. Use gentle heat until all components are completely and clearly dissolved.
3. Then add MACKPRO NLP and mix.
4. Add MACKSTAT DM, fragrance and dye.
5. Check pH and adjust with Citric Acid.
6. Adjust viscosity with the salt (Sodium Chloride) dissolved in a little water

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3	45.0
EMPILAN CDE	2.5
EMPILAN EGMS	2.0
Perfume, dye, preservative	qs
Sodium or ammonium chloride	qs to adjust viscosity
Citric acid	qs to pH 6.5-7.0
Water	Balance

SOURCE: Albright & Wilson Americas: Formula PFS5

SHAMPOO FOR NORMAL/DRY HAIR

RAW MATERIALS	% By Weight
Part A:	
Deionized Water	56.02
TEALS	25.00
Germaben II	1.00
INCROMIDE LR	3.00
INCROMIDE CAC	1.00
CROSULTAINE E-30	3.50
Disodium EDTA	0.30
Part B:	
INCRODET TD-7C	6.00
INCROQUAT MINK-85	0.50
CRODACEL QS	0.50
Part C:	
HYDROTRITICUM	0.50
TEA (10% Soln)	2.68
pH: 6.58	
Viscosity: 850 cps	

Procedure:

Add water, Disodium EDTA and Germaben II to mixing vessel. Start mixing and heat to 65-70C. Add remaining Part A ingredients one at a time with agitation. Mix until uniform. Cool to 50C and add Part B ingredients in given order with mixing. Cool to 40C and add Hydrotriticum. Cool to room temperature and adjust pH with TEA.

The blend of CROSULTANE E-30, INCRODET TD-7C, TEALS and the amides have been balanced to provide a low viscosity cleanser appropriate for normal to dry hair. The addition of INCROQUAT MINK-85, CRODACEL QS, and HYDROTRITICUM enhance the conditioning benefits of this shampoo.

SOURCE: Croda Inc.: CROSULTAINES: Formula SH-74

CLEAR LIQUID FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL TLP/T	40.0
Citric acid/triethanolamine	qs to pH 6.5-7.0
Perfume, dye, preservative	qs
Ammonium chloride	qs for viscosity
Water	Balance

Based on a simple dilution of a fully formulated product.

Ammonium chloride is the most effective viscosity modifier for the above formulation although sodium chloride may be used.

SOURCE: Albright & Wilson Americas: Formula CLFS1

SHAMPOO #1 (THICK, HIGH-FOAMING)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	19.55
Hydroxypropyl Methylcellulose	0.40
Sodium Hydroxide (50%)	qs
Water, Deionized	30.95
Part B:	
Sodium Laureth Sulfate (29%)	30.00
Ammonium Lauryl Sulfate (29%)	15.00
AROMOX DMCW	1.00
Cocamide DEA	2.00
Part C:	
Sodium Chloride	1.00
Citric Acid (50%)	qs to pH 5.0-7.0
Preservative	0.10

Procedure:

Heat water to 60C. Add hydroxypropyl methylcellulose with good agitation. Add sodium hydroxide until system clears. Agitate until homogeneous. Maintain temperature. Add remaining water. Add components of Part B in order shown, then add components of Part C.

pH (as is, room temp.): 5.0-7.0

Viscosity: 6,200 cps

Appearance: Clear

SHAMPOO #2 (HIGH-FOAMING, CONDITIONING)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	45.90
Sodium Laureth Sulfate (29%)	30.00
Ammonium Lauryl Sulfate	15.00
Part B:	
ELFACOS GT282S	3.00
Part C:	
AROMOX DMCW	5.00
Sodium Chloride	1.00
Preservative	0.10
Citric Acid (50%)	qs to pH 5.0-7.0

Procedure:

Heat water to 80C. Add contents of part A and agitate. Add ELFACOS GT282S and agitate until free of lumps. Cool to 45C. Add Part C in order shown. Adjust pH.

pH (as is): 5.0-7.0

Viscosity: 5,500 cps

Appearance: Clear

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives: Formula

SHAMPOO #3 (THICK CONDITIONING AND PEARLIZED)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	42.90
Sodium Laureth Sulfate (29%)	30.00
Ammonium Lauryl Sulfate (29%)	15.00
Ethylene Glycol Monostearate	3.00
Part B:	
ELFACOS GT282S	3.00
Part C:	
AROMOX DMCW	5.00
Sodium Chloride	1.00
Preservative	0.10
Citric Acid (50%)	qs to pH 5.0-7.0

Procedure:

Heat water to 80C and add contents of Part A. Add Part B and mix until completely dissolved and no lumps are present. Cool to 45C, add Part C in order shown. Adjust pH.

pH (as is): 5.0-7.0

Viscosity: 11,000 cps

Appearance: Pearlescent

SHAMPOO #4 (MILD CONDITIONING)

INGREDIENTS	% By Weight
Part A:	
Water, Deionized	50.90
Ammonium Lauryl Sulfate (29%)	25.00
Sodium Lauryl Sulfate (29%)	10.00
ARMOTERIC CAB	8.00
Part B:	
ELFACOS GT282S	3.00
Part C:	
AROMOX DMCW	3.00
Preservative	0.10
Citric Acid (50%)	qs to pH 5.0-7.0

Procedure:

Heat water to 80C and add contents of Part A. Add Part B and then Part C in order shown. Adjust pH.

pH: 5.0-7.0

Viscosity: 3,500 cps

Appearance: Clear

SOURCE: Akzo Chemicals Inc.: Hair Conditioning Additives:
Formulas

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	20.0
Texapon MGS	10.0
Dehyton G	10.0
Nutrilan I-50	4.0
Glucamate DOE 120	3.0
Sodium chloride	2.5
Water	ad 100

Viscosity in mPas: 3500
Formula no. 90/159/01

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	10.0
Texapon MGS	35.0
Dehyton K	5.0
Nutrilan I-50	3.0
Cetiol HE	5.0
Euperlan PK 771	1.5
Sodium chloride	1.0
Water	ad 100

Viscosity in mPas: 2900
Formula no. 90/159/02

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
Texapon N 25	15.0
Texapon MG	20.0
Nutrilan I-50	4.0
Arlypon F	2.0
Sodium chloride	1.5
Water	ad 100

Viscosity in mPas: 8000
Formula no. 90/159/03

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

SHOWER SHAMPOO

RAW MATERIALS

% By Weight

Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I-50	4.0
Menthol	0.3
Sodium Chloride	0.75
Water	ad 100

Viscosity in mPas: 6400

Formula no. 90/159/04

SHOWER SHAMPOO

RAW MATERIALS

% By Weight

Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I-50	4.0
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water	ad 100

Viscosity in mPas: approx. 6000

Formula no. 90/159/05

SHOWER SHAMPOO

RAW MATERIALS

% By Weight

Texapon N 25	40.0
Dehyton K	10.0
Nutrilan I-50	2.4
Cetiol HE	2.0
Euperlan PK 3000	1.5
Sodium chloride	1.0
Water	ad 100

Viscosity in mPas: approx. 4000

Formula no. 90/159/06

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	20.0
Texapon SB 3	10.0
Dehyton G-SF	2.0
Lamepon S	10.0
Nutrilan I-50	1.5
Lamesoft LMG	5.0
Sodium chloride	0.75
Water	ad 100

Viscosity in mPas: 3200

Formula no. 90/159/07

SHOWER SHAMPOO

RAW MATERIALS	% By Weight
Texapon K 14 S spec.	25.0
Dehyton K	5.0
Nutrilan I-50	1.5
Arlypon F	1.5
Sodium chloride	2.0
Water	ad 100

Viscosity in mPas: 5600

Formula no.: 90/159/08

ANTIDANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Texapon ALS	50.0
Lamepon UD	5.0
Lamesoft LMG	2.0
Dehydol LS 3 Deo	3.0
Nutrilan I 50	1.5
Sodium chloride	1.2
Pyrion Disulfid	1.5

Viscosity in mPas: 2300

Formula no. 90/159/15

SOURCE: Henkel: Cosmetics Nr. XI/90/Lz: Formulas

SHOWER SHAMPOO-CLEAR PRODUCT

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	40.0
EMPIGEN BB	11.0
Ammonium chloride	qs
Perfume, dye, preservative	qs
Citric acid	pH 6.5-7.0
Water	Balance
Formula CSS1	

SHOWER SHAMPOO-CLEAR PRODUCT

RAW MATERIALS	% By Weight
EMPICOL ESB3	80.0
EMPILAN CDE	3.0
Sodium chloride	qs
Perfume, dye, preservative	qs
Citric acid	pH 6.5-7.0
Water	Balance
Formula CSS2	

SHOWER SHAMPOO-CLEAR PRODUCT

RAW MATERIALS	% By Weight
EMPIGEN XDR121	45.0
EMPILAN CDE	2.5
BRIPHOS O3D	2.0
Sodium chloride	1.0
Citric acid, triethanolamine	to pH 6.5-7.0
Perfume, dye, preservative	qs
Water	Balance
Formula CSS3	

SHOWER SHAMPOO-CLEAR PRODUCT

RAW MATERIALS	% By Weight
EMPICOL ESB70	40.0
EMPIGEN BS	10.0
EMPILAN CDE	2.0
Sodium chloride	3.0
Perfume, dye, preservative	qs
Citric acid	pH 6.5-7.0
Water	Balance
Formula CSS4	

The above formulations give particularly good foam for this application, i.e. a close textured, creamy type which feels very smooth on the skin. Formulations CSS3 and CSS4 are very high-quality products which contain combinations of low-irritancy detergents in balanced blends.

SOURCE: Albright & Wilson Americas: Formulas

SHOWER SHAMPOO-PEARLY PRODUCT

RAW MATERIALS	% By Weight
EMPICOL XC35	80.0
Sodium chloride	qs
Perfume, dye, preservative	qs
Water	Balance
Formula PSS1	

SHOWER SHAMPOO-PEARLY PRODUCT

RAW MATERIALS	% By Weight
EMPICOL ESB3	60.0
EMPIGEN BB	5.0
EMPICOL 0627	10.0
Sodium chloride	qs
Perfume, dye, preservative	qs
Citric acid	pH 6.5-7.0
Water	Balance
Formula PSS2	

SHOWER SHAMPOO-PEARLY PRODUCT

RAW MATERIALS	% By Weight
EMPIGEN XDR121 OR XDR123	40.0
EMPILAN CDE	2.0
EMPICOL 0627	7.0
Citric acid	pH 6.5-7.0
Sodium chloride (viscosity)	qs
Perfume, dye, preservative	qs
Water	Balance
Formula PSS3	

SOURCE: Albright & Wilson Americas: Formulas

SUPERMILD CONDITIONING SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE CP SPECIAL	25.0
Sodium Laureth-1 Sulfate (30%)	25.0
MACKESTER EGMS	1.0
MACKALENE 426	4.0
MACKAMIDE LLM	3.0
MACKAM 35HP	4.0
Sodium Chloride	Q.S. to 2-5 M cps
MACKSTAT DM	0.4
Water	Q.S. to 100.0

Procedure:

1. Add components (except NaCl and DM) to water and heat to 70C.
 2. Blend until homogenous.
 3. Cool to 50C and add NaCl and MACKSTAT DM.
 4. Adjust pH to 6.0-6.5 with citric acid and add fragrance.
- Formula No. BP-39B

MILD SHAMPOO

RAW MATERIALS	% By Weight
Sodium Laureth Sulfate (30%)	20.0
MACKAMIDE C	2.0
MACKAM 35	4.0
MACKANATE OM	6.0
Sodium Chloride	2.0
MACKSTAT DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add component to water and heat to 40 degrees C.
2. Blend until clear and adjust pH to 6.5-7.0 with citric acid.

ANTI-DANDRUFF SHAMPOO

RAW MATERIALS	% By Weight
Sodium Olefin Sulfonate	20.0
MACKAM 2C75	16.0
Zinc Omadine	2.6
MACKOL 16	2.0
MACKAMIDE LLM	2.5
Bentone EW	0.8
MACKSTAT DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat water to 70 degrees C.
2. Disperse and homogenize the Bentone EW.
3. Add Zinc Omadine and Mackol 16.
4. Cool to 50 degrees C. and add MACKAM 2C75, AOS and Zinc Omadine.
5. Cool to 40 degrees C. and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

SUPER MILD SHAMPOO

RAW MATERIALS	% By Weight
1. Ammonium Laureth Sulfate 30%	20.0
2. MACKANATE LO-Special	20.0
3. MACKAMIDE PKM	4.0
4. EGDS	1.0
5. MACKAM 35HP	7.0
6. Sodium Chloride	1.0
7. Deionized Water Q.S. to	100.0
8. MACKAMIDE LLM	Q.S.
9. MACKSTAT DM	Q.S.
10. Fragrance	Q.S.

pH: 6-7

Misc.: 1000-4000 cps

Procedure:

1. Into mixing tank place #1, 2, 3, 4, 5 and 7 start heating to 170 degrees F. (76 degrees C.).
2. Start mixing keep for 20 minutes at 170 degrees F. (76 degrees C.) than start cooling to 90 degrees F. (30 degrees C.).
3. Adjust pH with diluted Sodium Hydroxide solution up to specifications, then add #6.
4. If needed, increase viscosity with Mackamide LLM.

Formula AY-186

MILD SALON SHAMPOO

RAW MATERIALS	% By Weight
MACKANATE OM	20.0
MACKANATE CP	10.0
Sodium Laureth Sulfate (30%)	20.0
MACKAM 35HP	5.0
Sodium Chloride qs to	5,000 cps
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add surfactants to water and heat to 50 degrees C.
2. Blend until clear and add remaining components.
3. Adjust viscosity and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

ULTRA PEARLESCENT CONDITIONING SHAMPOO

INGREDIENT	% By Weight
A VEEGUM Ultra	2.00
Deionized Water	61.25
B Mica (and) Titanium Dioxide (Timiron MP-1001)	0.50
C Sodium Laureth Sulfate	25.00
Lauramide DEA (Monamid 716)	7.50
VANSEAL CS	3.75
Preservative, Fragrance	q.s.

Procedure:

Sift VEEGUM Ultra into the water while mixing at 700 rpm with a propeller stirrer. Adjust the propeller speed to 1500-1700 rpm and mix for 30 minutes. Add the B ingredients and mix for 5 minutes. Adjust the speed to 200 to 500 rpm and add the C ingredients in the order shown, mixing after each addition until smooth and uniform.

Product Characteristics:

Viscosity: 7000-9000 cps

pH: 5.0+-0.2

Color: Pearlescent, white

Features:

This luxurious shampoo formula is thickened using VEEGUM Ultra which also suspends the mica pigment that provides pearlescence. VANSEAL CS (cocoyl sarcosine) provides mildness and hair conditioning while combining with lauramide DEA to markedly enhance the quality and stability of the lather produced during shampooing.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 452

CONDITIONING SHAMPOO FOR DRY SCALP

RAW MATERIALS	% By Weight
Part A:	
Water (Distilled)	34.00
Na Lauryl Sulfate	20.00
SCHERCOTAINÉ CAB-Z	20.00
Part B:	
Water (Distilled)	20.00
SCHERCOQUAT IAS-LC	1.00
Part C:	
SHERCOMID SL-ML	5.00
Part D:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Prepare Part A, stirring until a clear and uniform solution is formed.
2. Dissolve SCHERCOQUAT IAS-LC in water. Add solution to Part A, warming slightly if necessary to produce a clear solution.
3. Add Part C to Part D.

SOURCE: Scher Chemicals, Inc.: Formula

VITAMIN SHAMPOO

RAW MATERIALS	% By Weight
a) Texapon N40	50.0
Comperlan OD	3.0
b) Water, distilled, preserved	43.0
Sodium chloride	1.0
c) Soluvit Richter	3.0

Manufacture:

- a) heat to about 50C and mix;
 b) dissolve and stir into a);
 c) stir in.

Perfume.

liquid, transparent preparation
 Model formulations 24

VITAMIN SHAMPOO

RAW MATERIALS	% By Weight
a) Hostapon CT paste	50.0
Genapol LRO liquid	24.0
Pearling agent MS	3.0
b) Water, distilled, preserved	21.0
c) Vitamin F water-soluble CLR	2.0

Manufacture:

- a) heat to about 50C and mix;
 b) and c) stir in.

Perfume.

liquid, pearly preparation
 Model formulations 33

VITAMIN SHAMPOO

RAW MATERIALS	% By Weight
a) Texapon MLS	50.0
Comperlan OD	4.0
b) Dehyton AB30	5.0
c) Water, distilled, preserved	40.0
d) Vitamin F water-soluble CLR	1.0

Manufacture:

- a) heat to about 50C and mix;
 b), c) and d) stir in.

Perfume.

Model formulations 33

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

VOLUMIZING SHAMPOO-EXTRA BODY
(Match to Jose Eber)

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	43.35
Sipon LT-6	1	41.00
Lipamide LMWC	1	7.00
Siponate A246LX	1	5.00
Hydroxypropyl Bis-cetearyl dimonium chloride	1	0.10
Propylene glycol	1	0.50
Polytex 10M	1	1.00
Lipophos TA	1	0.50
Uvatone 2-6	1	0.10
Lipolan 98	1	0.50
Citric Acid	1	0.35
Methylparaben	1	0.20
DMDM Hydantoin	1	0.10
Tetrasodium EDTA	1	0.05
Fragrance SMCO E6712	2	0.25

Manufacturing Procedure:

1. Heat Sequence 1 ingredients to 75C under slow Lightnin' mixing. When clear solution is obtained, cool slowly to 42C. Add Sequence 2.
2. Cool slowly to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 383

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB3	40.0
EMPICOL 0627	8.0
EMPILAN CDE or EMPIGEN BB	3.0
Sodium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula PFS2	

PEARLISED FAMILY SHAMPOO

RAW MATERIALS	% By Weight
EMPICOL ESB70	15.0
EMPICOL 0627	8.0
EMPILAN CDE or EMPIGEN BB	3.0
Sodium chloride	qs to adjust viscosity
Perfume, dye, preservative	qs
Citric acid	qs to pH 6.5-7.0
Water	Balance
Formula PFS3	

SOURCE: Albright & Wilson Americas: Formulas

2 IN 1 SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (28%)	65.0
MACKALENE 426	10.0
MACKANATE DC-30	4.0
MACKERNIUM 007	0.5
Ethylene Glycol Distearate	2.0
Sodium Chloride	0.5
Stearic Acid	0.2
MACKSTAT DM	q.s.
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Add ammonium lauryl sulfate, MACKALENE 426, MACKANATE DC-30, Ethylene Glycol Distearate and Stearic Acid to water.
2. With continuous mixing heat to 70 degrees C. and blend until homogenous.
3. Slowly add MACKERNIUM 007 and sodium chloride.
4. Cool to 50 degrees C. Add fragrance, MACKSTAT DM and dye.
5. Adjust pH to 5.5-6.0 with Sodium Hydroxide if needed.
6. Cool and fill.

HIGH FOAMING 2 IN 1 SHAMPOO

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (28%)	65.0
MACKALENE 426	6.0
MACKANATE DC-30	4.0
Ethylene Glycol Distearate	1.0
MACKAMIDE PKM	2.0
MACKERNIUM 007	0.4
MACKSTAT DM	Q.S.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Combine the first five components and heat to 70 degrees C. with continuous mixing.
2. Dilute the MACKERNIUM 007 in the remaining water and slowly add to the blend.
3. Blend until product is homogenous and cool to 50 degrees C.
4. Add Mackstat DM, fragrance and dye.
5. Adjust pH with citric acid to 5.0-6.0 and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Section XI

Shaving Products

AEROSOL SHAVE CREAM

RAW MATERIALS	% By Weight
Concentrate:	
Oil Phase:	
GLUCAM E-20 Distearate	5.0
Stripped Coconut Fatty Acids	2.0
Stearic Acid, xxx	5.5
AMERLATE LFA	0.8
Lauramide DEA	0.5
Water Phase:	
Carbomer 941 (3% aqueous)	3.0
Deionized Water	79.6
Triethanolamine (99%)	3.6
Perfume and Preservative	q.s.

Procedure:

Heat oil to 70C. Heat water phase minus the triethanolamine to 70C. Add water to oil at 70C and immediately add the triethanolamine. Cool while mixing to 35C and add the perfume.

Fill: 97% Concentrate: 3% Propellant A-46

Description:

Highly emollient aerosol shave cream. GLUCAM E-20 Distearate gives excellent spreading properties while imparting slip and lubricity to improve razor glide. The triethanolamine soap of AMERLATE LFA is a powerful emulsifier for the propellants and gives long-term stability to the aerosol pack.

SOURCE: Amerchol Corp.: GLUCAM E-20: Formula T51-114-1A

AEROSOL SHAVE CREAM

RAW MATERIALS	% By Weight
Concentrate Phase:	
GLUCQUAT 100	2.00
SOLULAN 25	1.50
SOLULAN 5	0.50
Stearic Acid, xxx	5.00
Triethanolamine (99%)	2.62
Deionized water	88.38
Perfume and preservative	q.s.

Description:

This aerosol shave cream has a rich, lathery foam with good spreadability. GLUCQUAT 100 provides lasting conditioning effects such as emolliency and moisturization. SOLULAN 5 (w/o) and SOLULAN 25 (o/w) help to stabilize the aerosol foam.

SOURCE: Amerchol Corp.: GLUCQUAT 100: Formula T62-166-3

AEROSOL SHAVE CREAM

RAW MATERIALS	% By Weight
Phase A:	
Pristerene 4904	6.00
Prifac 5901	1.00
Tween 20	1.00
Estol 1526	1.00
Phase B:	
Deionized Water	76.40
Pricerine 9083	3.00
Witcolate SL-1	5.00
Triethanolamine 99%	4.00
Potassium Hydroxide 85%	0.50
DERMACRYL-79	1.00
Phase C:	
Germaben IIE	1.00
Phase D:	
Fragrance	0.10
Procedure:	

Mix ingredients of Phase A and heat to 75C. In a separate vessel, mix water, triethanolamine and potassium hydroxide. Slowly sprinkle in the DERMACRYL-79 and heat to 75C. When completely dissolved, add remaining ingredients. Add Phase A to Phase B and mix thoroughly. Cool to room temperature and add Phases C and D. Final pH should be approximately 8.4.

Fill: 96.5% Concentrate

3.5% Propellant A-46

SOURCE: National Starch and Chemical Co.: DERMACRYL-79:

Formula 6590-16

SHAVING CREME #2

RAW MATERIALS	% By Weight
Stearic Acid	6.00
Coco Fatty Acid	0.70
Triethanolamine	3.82
Propylene Glycol	1.88
Glycerin	2.00
MACKAMIDE C	1.00
Sodium Lauryl Sulfate (30%)	2.50
Sorbitol 70%	1.88
Water Q.S. to	100.00
Fragrance	Q.S.
MACKSTAT DM	Q.S.

pH: 8.4-8.6

Fill Ration: Isobutane: 3,47-3,5

Concentrate: 96,5

Procedures:

1. In main tank heat water, add TEA, Propylene Glycol, Glycerin, Sorbitol, heat to 75 degrees C.
2. In separate vessel melt Stearic Acid, Coco Fatty Acid, Lanolin to 70 degrees C. Add with mixing to main tank.
3. Add Mackamide C. Mix 20 minutes cool and at 35 degrees C. add remainder.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

AFTER-SHAVE

RAW MATERIALS	% By Weight
A. SOFTIGEN 767	5.0
Glycerin	1.5
Menthol	0.2
B. Water	34.8
Citric Acid	0.2
C. Ethanol 96%	58.0
Perfume	q.s.

Preparation:

(B) is dissolved and added to (A). (C) is added to (A + B).
Formula 6.1.1

PRE-SHAVE

RAW MATERIALS	% By Weight
A. Extrapone Hamamelis Dist. Colorless Special	3.0
Iso-Adipate	10.0
Locron L	10.0
Ethanol 96%	60.0
Water	11.6
B. SOFTIGEN 767	5.0
Camphor	0.2
Menthol	0.2
Perfume	q.s.

Preparation:

(A) is mixed. The menthol and camphor are dissolved in SOFTIGEN 767. (B) is added to (A) while stirring, and the perfume is added last.
Formula 6.1.2

SOURCE: Huls America Inc.: Formulas

AFTER SHAVE LOTION

RAW MATERIALS	Parts By Weight
a) Ethyl alcohol 96 vol. %	156.0 ml
Camphor	0.5 g
Menthol	0.5 g
b) Water, distilled	844.0 ml
Citric or lactic acid	3.0 g
c) Epidermin water-soluble	5.0 g

Manufacture:

a) dissolve;
b) dissolve and stir into a);
c) stir in.
Perfume.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 13

AFTER SHAVE BALM

RAW MATERIALS	% By Weight
I. Emulgade SE	6,0
Cetiol SN	5,0
II. Carbopol 950 (2%)	10,0
KOH (50%)	0,1
Water, demin.	ad 100
III. Ethanol, cosm.	20,0
IV. Hydagen B	0,5
Collapurool	10,0

Preparation:

Phase II (80C) is added to phase I (80C) with agitation. After cooling to <30C, phase III and phase IV are added one after the other by stirring.

Formula no. 89/394/4

AFTER SHAVE LOTION

RAW MATERIALS	% By Weight
I. Lamacit GML 20	5,0
Monomuls 90 L 12	0,2
Glycerin 86%	5,0
Allantoin	0,3
Water, demin.	71,5
II. Ethanol, cosm.	20,0
III. Collapurool	8,0

Appearance: clear

Cloud point: <0C

Preparation:

Heat phase I until Monomuls 90 L 12 has melted, cool with agitation, and then add ethanol and Collapurool one after the other at 30C.

Formula no. 89/394/1

SOURCE: Henkel: Cosmetics Nr. X/90/Lz: Formulas

AFTER SHAVE BALM

INGREDIENTS	% By Weight
A Demineralized Water	89,150
Phenonip	0,500
D-Panthenol	1,000
Trilon B liquid	0,100
Allantoin	0,100
Carbopol 940	0,400
B Sodium hydroxide (10% aq. solution)	1,750
C Frescolat, Type ML 620105	1,000
Perfume Oil	1,000
Neo Heliopan, Type AV 660523	2,000
Abil B 8839	3,000

Manufacturing Process:

Part A: Dissolve the ingredients (without Carbopol 940) in water. Then slowly add under stirring Carbopol 940 and continue until completely dispersed.

Part B: Add slowly the sodium hydroxide solution to part A for neutralisation. A transparent high viscid gel will be formed.

Part C: Blend perfume oil, Neo Heliopan, Type AV and Abil B 8839, dissolve Frescolat in this mixture (if necessary heat to max. 35C). Add part C while stirring to the gel.

After complete mixing it is necessary to pass the dispersion through a homogenizer (colloid mill).

SOURCE: Haarman & Reimer GmbH: Formula K 8/7-51533/E

AFTER SHAVE BALM

INGREDIENTS	% By Weight
A. Deionized Water	69.7
Carbomer 940	0.2
Propylene Glycol	1.0
Allantoin	0.2
Methylparaben	0.2
Triethanolamine	0.2
B. Polysorbate 80	2.0
Glyceryl Stearate and PEG 100 Stearate	3.0
PEG-75 Lanolin Oil	2.0
Cocoa Butter	5.0
Ethylene Glycol Monostearate	2.0
C. DERMATEIN GSL	3.0
D. Dimethicone	1.0
Diazolidinyl Urea	0.3
SD Alcohol-40	10.0
Menthol	0.1
Fragrance	0.1

Procedure:

Begin heating water to 80C; sift Carbomer into water with constant agitation; mix until clear. Add rest of Part A ingredients. Mix well. Add Part B ingredients in order. Mix until homogenous. Begin cooling to room temperature. Slowly add DERMATEIN GSL, mix until smooth. Add Part D ingredients in order; mix until uniform.

Description:

This men's light facial lotion demonstrates how Dermatein GSL helps skin recover from nicks and cuts caused by shaving. DERMATEIN GSL works to replace the lipid lost from dry, damaged skin. DERMATEIN GSL rejuvenates skin by increasing the skin's ability to bind moisture.

SOURCE: Geo. A. Hormel & Co.: Formula 621-29

CONDITIONING AFTER SHAVE

INGREDIENTS	% By Weight
Fragrance #573075	4.0
Velsan P8-3	6.0
SDA-40 Alcohol	87.0
DM Water	3.0

Procedure:

Mix the above ingredients in the order given, stirring well after each addition. Chill to 0C, and filter.

Appearance: Clear pale yellow thin liquid.

In a typical hydroalcoholic system, water & alcohol soluble Velsan P8-3 ester gives a light, soft skin feel.

SOURCE: Sandoz Chemicals Corp.: Formulation CMP-06

AFTER SHAVE EMULSION, VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgade F special	2.0
Cetiol V	2.0
Vitamin (A+D3) Concentrate CLR	0.2
Menthol	0.1
Camphor	0.1
Ethyl alcohol 96 vol. %	30.0
Carbopol 934	0.3
b) Water, distilled	57.3
Glycerin	2.0
Cremogen Hamamelis Dest.	5.0
Boric acid	0.5
Triethanolamine	0.5

Manufacture:

- a) heat to about 40C and stir until the Carbopol 934 is dispersed
 b) heat to about 40C and stir into a).
 Perfume, homogenize.

liquid preparation
 Model formulations 27

AFTER SHAVE LOTION, VITAMIN CONTENT

RAW MATERIALS	Parts By Weight
a) Ethyl alcohol 96% vol. %	417.0 ml
Camphor	0.5 g
Menthol	0.5 g
b) Water, distilled	583.0 ml
Citric or lactic acid	3.0 g
c) Vitamin F alcohol-soluble CLR	20.0 g

Manufacture:

- a) dissolve;
 b) dissolve and stir into a);
 c) stir in.

Perfume.

aqueous-alcoholic preparation
 Model formulations 32

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

AFTER SHAVE GEL

INGREDIENTS	% By Weight
A Ethylalcohol (96Vol. %)	50,000
Perfume Oil	1,000
Uvinul D 50	0,050
Frescolat, Type ML 620105	0,800
Cremophor RH 60	1,600
Solulan 98	1,000
B Demineralized Water	34,050
Allantoin	0,100
C Carbopol 940	0,500
D Demineralized Water	10,000
Neutrol TE	0,900

Manufacturing Process:

Part A: Dissolve the ingredients in listed order in ethyl alcohol

Part B: Dissolve Allantoin in water and add part B to part A under stirring.

Part C: Add Carbopol 940 to part A/B slowly under stirring and continue until completely dispersed.

Part D: Dissolve Neutrol TE in water and add into the mixture A/B/C for neutralisation. A transparent gel of high viscosity will be formed.

The final pH-value of the gel should be approx. 7,0-7,5.

SOURCE: Haarman & Reimer GmbH: Formula K 8/7-45720/E

AFTER SHAVE GEL

RAW MATERIALS	% By Weight
a) Ethyl alcohol 96 vol. %	15.0
Water, distilled	50.0
Carbopol 934	1.0
b) Water, distilled	21.2
Glycerin	10.0
Triethanolamine	0.8
c) Epidermin water-soluble	2.0

Manufacture:

- a) disperse at room temperature with rapid stirring;
 b) slowly stir into a);
 c) slowly stir in.
 Perfume.

Model formulations 13

AFTER SHAVE SPRAY WITH VITAMINS, QUICK-BREAKING FOAM

RAW MATERIALS	% By Weight
a) Lanette O	1.0
Eumulgin B1	0.7
b) Menthol	0.1
Camphor	0.1
Ethyl alcohol 96 vol. %	60.0
c) Water, distilled	34.8
Solvit Richter	3.0
d) Perfume oil	0.3

Manufacture:

- a) heat to about 50C;
 b) and c) dissolve, heat to about 50C and stir into a);
 d) stir in.
 Fill into aerosol containers immediately after perfuming.

Concentrate:

Product 90.0%
 Propellant 12 10.0%

Valve:

R-70 micoflex

Actuator:

350-025

Note: Shake before use.

Model formulations 24

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Formulas

AFTER SHAVE LOTION FOR SENSITIVE SKIN

INGREDIENTS	% By Weight
A Arlatone 983 S	1,200
Brij 76	1,200
Finsolv TN	4,000
Cutina MD	2,500
Neo Heliopan, Type AV 660523	2,000
Neo Heliopan, Type BB 116210	0,600
Isopropyl myristate	1,500
Abil B 8839	0,800
Solbrol P	0,050
B Demineralized Water	56,700
Solbrol M	0,150
Glycerin 86%	2,500
Germall 115	0,200
C Demineralized Water	25,000
Carbopol 941	0,300
Sodium hydroxide (10% aq. solution)	1,100
Perfume Oil	0,200

Manufacturing Process:

Part A: Heat up to 75C.

Part B: Heat up to 85C. Add part B to part A while stirring.
Cool while stirring to 55C.

Part C: Disperse the Carbopol in the water using high speed agitation. Mix to form a uniform dispersion free from lumps. Add sodium hydroxide solution while stirring to form a gel. Add part C to part A/B while stirring. At 40C add the fragrance and cool down while stirring to room temperature.

The pH of the finished emulsion should be 6.5-7.

SOURCE: Haarman & Reimer GmbH: Formula K 8/7-51378 B/E

AFTER SHAVE SOOTHER

RAW MATERIALS	% By Weight
Phase A:	
KYTAMER PC	0.5
Deionized Water	54.5
Phase B:	
GLUCAM P-20	5.0
SD Alcohol 40 (Anhydrous)	40.0
Perfume and Preservative	q.s.

Procedure:

Disperse KYTAMER PC in water at room temperature using high speed agitation. When completely dispersed begin heating to 75C with mixing. Mix at 75C until clear. Allow solution to cool to room temperature. Dissolve GLUCAM P-20, perfume and preservative in the SD Alcohol 40 at room temperature. Mix until clear. Slowly add to the KYTAMER PC aqueous solution at room temperature and mix until clear and uniform.

Description:

After shave soothing hydroalcoholic lotion, KYTAMER PC imparts a polymeric film on the face leaving the skin feeling smooth and conditioned. The combination of KYTAMER PC and GLUCAM P-20 help to reduce facial stinging typical of such hydroalcoholic systems while also acting as fragrance fixatives.

SOURCE: Amerchol Corp.: KYTAMER PC: Formula T57-271-1

AFTER SHAVE SOOTHING GEL

RAW MATERIALS	% By Weight
Phase A:	
Carbomer 941	0.25
Water	63.05
Phase B:	
QUATRISOFT Polymer LM-200	0.25
Water	9.75
Phase C:	
SD Alcohol 40	15.00
Phase D:	
Triethanolamine (99%)	2.50
Water	9.20
Perfume	q.s.

Procedure:

Prepare phase A and phase B separately with good agitation at room temperature until clear and uniform. If necessary, heat phase B after initial dispersing of QUATRISOFT Polymer LM-200. Cool to room temperature. Add phase B to phase C. Add phase D to phase A, avoiding air entrapment. Add BC to AD and mix until clear and uniform.

Description:

Clear, hydroalcoholic, low viscosity, pourable gel suitable for use as a soothing after shave skin conditioner. Smooth, emollient afterfeel.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: T53-154-3

AFTER SHAVE SOOTHING GEL

RAW MATERIALS	% By Weight
Phase A:	
Carbomer 941	0.25
Water	63.05
Phase B:	
QUATRISOFT POLYMER LM-200	0.25
Water	9.75
Phase C:	
SD Alcohol 40	15.00
Phase D:	
Triethanolamine (99%)	2.50
Water	9.20
Perfume	q.s.
Procedure:	

Prepare phase A and phase B separately with good agitation at room temperature until clear and uniform. If necessary, heat phase B after initial dispersing of QUATRISOFT POLYMER LM-200. Cool to room temperature. Add phase B to phase C. Add phase D to phase A, avoiding air entrapment. Add BC to AD and mix until clear and uniform.

Description:

Clear, hydroalcoholic, low viscosity, pourable gel suitable for use as a soothing after shave skin conditioner. QUATRISOFT POLYMER LM-200 serves as a substantive, cationic conditioner for the face, giving a smooth, emollient afterfeel.

SOURCE: Amerchol Corp.: QUATRISOFT POLYMER LM-200: Formula T53-154-3

AFTER-SHAVE-EMULSION

RECIPE	% By Weight
A HOSTAPHAT KL 340 N	3.00
HOSTACERIN DGS	6.00
Mineral oil, high viscosity	10.00
Menthol	0.10
Camphor	0.10
B HOSTACERIN PN 73*	0.90
C ALLANTOIN	0.20
Extrapon Hamamelis	2.00
Water	47.40
Preservative	q.s.
D Ethanol	30.00
Perfume	0.40

* Alternative thickeners could also be used.

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V At 40C the components of D are added to IV.
- VI Homogenize if necessary.

SOURCE: Hoechst: Guide Formulations: Formula A VI/1114

AFTER SHAVE TONER

RAW MATERIALS	% By Weight
I.	
Water	51.00
Carbomer 940	0.35
Triethanolamine (99%)	0.60
II.	
Water	30.05
PHOSPHOLIPID PTS	1.00
SD3A Alcohol	15.00
III.	
Phenyl Dimethicone (556 Fluid)	2.00

Part I:

Slowly add Carbomer 940 to water with good agitation. After Carbomer 940 is completely dissolved add triethanolamine.

Part II:

In a separate container, mix water and PHOSPHOLIPID PTS. Heat to 65C with agitation until PHOSPHOLIPID PTS is completely dissolved. Cool to 30-35C and add SD3A Alcohol. Add to Part I and mix until homogeneous.

Part III:

Add Phenyl Dimethicone with agitation. Add Fragrance, coloring and preservative as required, cool to room temperature and fill.

SOURCE: Mona Industries, Inc.: Formula F-393

AFTER-SHAVE

SUBSTANCE	% By Weight
96% ethyl alcohol (denatured)	50.0
Water	44.4
Allantoin	0.1
Hydroviton 2/059353	1.5
Extrapone Witch Hazel distilled colorless Special 2/032891	1.5
Neo-PCL water soluble 2/966212	0.5
Perfume oil	2.0

SOURCE: Dragoco, Inc.: Suggested Formulation VKA 385/50

BRUSHLESS SHAVE CREAM

INGREDIENTS	% By Weight
Phase A:	
PEG 400 Diisostearate	0.5
Dipsal	3.0
Cetyl Alcohol	0.5
Stearic Acid (T.P.)	22.0
Schercemol 318	2.0
Phase B:	
Propylene Glycol	14.0
Water (Deionized)	56.9
Triethanolamine	1.0
Methyl Paraben	.1
Phase C:	
Fragrance	q.s.

Procedure:

1. Heat Phase A to 80C.
2. Heat Phase B to 80C.
3. Add Phase B to Phase A with good agitation.
4. Cool to room temperature.
5. Add Phase C.

SOURCE: Scher Chemicals, Inc.: Formula SO-022

SHAVE CREAM

COMPONENTS	% By Weight
A Stearine	18
Beeswax	2
Shea Butter	6
B Potassium Hydroxide	7
Sodium Hydroxide	1
Water	10 of the total
C Palmitostearic Acid	15
Glycerin	15
EDTA	0,30
Water	at 100
Preservative Agents and Perfume	Sufficient quantity

Melt A

Saponify by adding B

Melt palmitostearic acid C

Mix till the end of the reaction

Add water, glycerin and EDTA. Heat at 60C.

At 90C add preservative agents and perfume.

SOURCE: La Ceresine: Formula

BRUSHLESS SHAVE CREAM

INGREDIENT	% By Weight
A VANSEAL NACS-30	15.00
VANSEAL CS	2.50
Deionized Water	25.75
Potassium Cocoate	35.00
Sorbitol, 70%	5.00
PVP-K-30	0.75
B AGI Talc	5.00
C Stearic Acid	7.00
Propylene Glycol Stearate (Cerasynt PA)	2.50
Cetyl Alcohol	1.50
D Preservative, Dye, Fragrance	q.s.

Preparation:

Mix A ingredients together and heat to 55C with gentle stirring until clear. Add B to A with adequate agitation. Heat C to 60C. Add C to (A + B), mixing until uniform and homogeneous. Cool to 30C and add D.

Consistency: Flowable gel (Viscosity: 2500-3500 cps)

Suggested Packaging: Plastic bottle or pump.

Features:

This formulation features VANSEAL NACS-30, sodium cocoylsarcosinate, VANSEAL CS, cocoylsarcosine and potassium cocoate as high foaming yet mild surfactants. Sorbitol adds humectancy while PVP and talc provide lubricity. Stearic acid, propylene glycol stearate, and cetyl alcohol are included as thickeners and to provide pleasant after-feel.

Formula No. 434

ULTRA AEROSOL SHAVE CREAM FOR SENSITIVE SKIN

INGREDIENT	% By Weight
A VEEGUM Ultra	1.00
Deionized Water	75.80
B Glycerin	3.00
Triethanolamine	4.00
C Stearic Acid XXX	6.00
Coconut Acid (Emery 622)	1.30
Mineral Oil	2.50
Cetyl Alcohol	1.00
VANOX PCX (BHT)	0.20
D VANSEAL NACS-30	5.00
Methylparaben	0.20
Fragrance	q.s.

Product Characteristics:

Viscosity: 500-700 cps

pH: 8.0+-0.2

Features:

VEEGUM Ultra is used in this emulsion formula to enhance the stability of the luxurious lather produced by combining VANSEAL NACS-30 (sodium cocoyl sarcosinate) with stearic and coconut acid soaps. VANOX PCX acts as an antioxidant in this formulation.

Formula No. 451

SOURCE: R. T. Vanderbilt Co., Inc.: Formulas

COOLING LOTION

INGREDIENTS	% By Weight
A Demineralized Water	86.910
Phenonip	0.500
D-Panthenol	1.000
Trilon B liquid	0.100
Allantoin	0.100
Creragen Hamamelis Water 739023	4.000
Brilliant Blue FCF 308001 0.1% aq. solution	0.040
Carbopol 940	0.400
B Sodium hydroxide (10% aq. solution)	1.750
C Frescolat 620105	1.500
Perfume Oil	0.200
Isopropyl myristate	0.500
Abil B 8839	3.000

Manufacturing Process:

- Part A: Dissolve the ingredients (without Carbopol 940) in water. Then slowly add while stirring Carbopol 940 and continue until completely dispersed.
- Part B: Add slowly the sodium hydroxide solution to part A for neutralisation. A transparent gel will be formed.
- Part C: Dissolve Frescolat and perfume oil in isopropyl myristate and Abil B 8839 (if necessary heat to max. 35C). Add part C while stirring to the gel part A/B.

After complete mixing it is necessary to pass the dispersion through a homogeniser (colloid mill).

SOURCE: Haarman & Reimer GmbH: Formulation K 8/1-51467/E

HYDROALCOHOLIC AFTERSHAVE BALM

RAW MATERIALS	% By Weight
Phase A:	
Carbomer 934 (3% aqueous sol'n)	6.6
Deionized Water	70.4
Phase B:	
GLUCAM E-20 Distearate	2.0
PROMULGEN D	2.5
PROPAL	1.5
Triethanolamine (10% aqueous sol'n)	2.0
Phase C:	
Specially Denatured Alcohol #40	15.0
Perfume and preservative	q.s.

Procedure:

Heat phase A to 80C. Heat phase B minus the triethanolamine to 80C. Add phase A to phase B at 80C. Mix while cooling to 50C at which point add the triethanolamine. When uniform add phase C and then the perfume. Stir with cooling to 30C and pour.

Description:

An opaque, soothing, low alcohol aftershave lotion with medium viscosity. GLUCAM E-20 Distearate, in combination with PROPAL, leaves a smooth, emollient afterfeel on the skin. This pair of emollients protects the skin from the drying effects of the alcohol. PROMULGEN D enhances the stability and controls viscosity drift.

SOURCE: Amerchol Corp.: GLUCAM E-20 Distearate: Formula T52-34-1

PRE-SHAVE LOTION

RAW MATERIALS	% By Weight
A Ethanol	75,00
B Belsil DMC 6031	4,00
Adol 66	2,50
Isopropyl Myristate	5,00
Rewolan AWS	2,50
C Water	11,00

Mix B into A stirring lightly. Add C stirring lightly. Stir until a clear solution is formed.

Temperature stability: at 45C over 10 weeks.

Slightly yellow, clear, low viscosity.

SOURCE: Wacker Silicone: Formulation 351 AH

PRE-SHAVE LOTION

INGREDIENTS	% By Weight
A Ethylalcohol (96Vol.%) denatured	75,000
Isopropyl adipate	4,000
Perfume Oil	1,000
Frescolat 620105	1,000
B Demineralized Water	13,700
1,2-Propylene glycol	3,000
Lactic acid, 90%	0,300
Cremogen Tormentil 739 018	0,500
Cremogen Camomile 739 012	0,500
Cremogen Hamamelis (Witch Hazel) 739 008	0,500
Cremogen Sage 739 016	0,500

Manufacturing Process:

Part A: Mix the ingredients until all is dissolved.

Part B: Mix the ingredients. Then add part A to part B and stir. For maturing allow to store the Pre Shave Lotion for 2-4 weeks at low temperatures (approx. 4-10C). After maturing filter the Pre Shave Lotion with fine clarifying sheets at low temperatures.

Types of sheets: Seitz Supra 80 or Seits K 100.

Supplier: SEN Seitz Filter Werke, Planiger Str. 137,
D-6550 Bad Kreuznach

SOURCE: Haarman & Reimer GmbH: Formula K 8/7-43232 A/E

SHAVE CREAM

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	74.40
Methylparaben	1	0.25
Allantoin	1	0.10
Titanium dioxide, 3328	1	0.50
Carbowax 400	1	1.00
Propylene glycol	1	2.00
Ammonyx 4002	2	1.00
Lipopeg 2-L	2	3.25
Liponate GC	2	1.00
Lipo GMS-450	2	5.00
Stearyl alcohol	2	0.20
Cetyl alcohol	2	2.30
Propylparaben	2	0.10
Polytex 10	2	1.00
Merquat S	3	1.75
Timiron Supersilver	4	0.40
α-Bisabolol	5	0.30
dl-α-tocopherol	6	0.20
Slippery Elm Bark Extract 5:1	7	0.25
Aloe Vera Gel	7	5.00

Manufacturing Procedure:

1. In main kettle fitted with a homo mixer and a planetary side-wiping mixer, mix Sequence 1 ingredients using the homo mixer and heat to 75C.
2. In a side kettle, combine the Sequence 2 ingredients and heat to 75C under Lightnin' mixing.
3. Add Sequence 2 at 75C, sequence 1 at 75C and continue homo mixing.
4. Cool to 64C and switch to planetary mixing. Continue cooling.
5. At 45C, add Sequence 3.
6. At 42C, add Sequence 4.
7. At 38C, add Sequence 5 followed by Sequence 6.
8. At 35C, add Sequence 7. Continue mixing and cooling to 28C. Package.

SOURCE: Lipo Chemicals Inc.: Formula No. 273

SHAVING CREAM-BRUSHLESS

RAW MATERIALS	% By Weight
EMPILAN GMS/SE40	6.5
LAUREX CS	4.5
Liquid paraffin	2.5
Glycerol	7.0
Perfume and preservative	qs
Water	to 100
Formula SC1	

SHAVING CREAM

RAW MATERIALS	% By Weight
EMPICOL LM45	40.0
EMPILAN CME	2.0
EMPIWAX SK	1.0
Stearic acid	3.5
Sodium hydroxide	0.5
Glycerol	1.0
Lanolin	0.5
Dye, perfume and preservative	qs
Water	Balance
Suitable for use with a shaving brush.	
Formula SC2	
SOURCE: Albright & Wilson Americas: Formulas	

SHAVING-CREAM

RECIPE	Parts by Weight
A Stearic acid	11.20
Myristic acid	5.60
Coconut fatty acid	6.40
B Water	50.84
Potassium hydroxide	7.52
Sodium hydroxide	0.39
Triethanolamine	1.05
PEG 400	6.00
C Stearic acid	11.20
Myristic acid	5.60
D GENAPOL LRO paste	3.00
E Menthol	0.20
Perfume	1.00
Procedure:	
I Melt A at 90C.	
II Heat the solution of B to 90C.	
III Slowly stir II into I, continue stirring at temperature 70-80C for 30 minutes.	
IV Melt C at 90C.	
V Stir IV into III.	
VI Stir until cool (avoid foam formation).	
VII Stir D into VI at 50C, and at 40C add the solution of E.	
VIII At room temperataure allow to homogenize and one day later homogenize again.	
SOURCE: Hoechst: Guide Formulations: Formula A III/1003	

SHAVING CREME #1

RAW MATERIALS	% By Weight Concentrate	% By Weight Finished
1. Deionized Water	83.80	80.99
2. Natrosol 250 HHR	0.10	0.09
3. Methyl Paraben	0.20	0.19
4. Sorbo	4.00	3.864
5. Sodium Lauryl Sulfate (30%)	1.00	0.96
6. Triethanolamine (TEA)	3.00	2.90
7. MACKAMIDE STD	0.10	0.09
8. Neofat 18-55	6.00	5.79
9. Ceraphyl 424	0.20	0.19
10. Mineral Oil	1.00	0.96
11. Solulan C-24	0.30	0.29
12. Perfume	0.30	0.29
13. Isobutane	----	3.40

Procedures:

- A. Clean and dry a stainless steel tank of suitable capacity. Meter #1 into the tank. Start agitation and disperse #2 at room temperature (Do Not Dump! Use Eductor). When thoroughly dispersed, begin heating the batch and continue agitation. Add #3, #4, #5, #6 and #7. Continue agitation (Avoid Aeration).
- B. In a separate container mix #8, #9, and #10. Start heating this tank to 75C. (167F). Agitate well and add this phase B to phase A. Continue agitation at this temperature, i.e. 167F for 45 minutes (AVOID AERATION). Continue agitation and cool the batch to 45C. (113F).
- C. In a separate container add #11 and heat to 45C. (113F). Add #12 and mix well. Now, add this phase to main batch at 45C. (113F.). Continue slow agitation and cool the batch to room temperature. Withdraw a sample at room temperature and send to Quality Control Lab. Filter through 100 mesh Triclove before filling. (If aerated, do not fill the same day).

Concentrate Specifications:

Appearance: Uniform White Emulsion

Fragrance: To Match Standard

pH @ 25 degrees C.: 8.3+/-0.3

Oven Solids, %: 14.3+/-0.5

SLS (30%): 1.0+/-0.2

Stearic Acid: 6.0+/-0.4

Specific Gravity: 0.94 minimum

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

SHAVING GEL

RAW MATERIALS	% By Weight
Water	q.s.
CELLOSIZÉ Polymer PCG-10	1.25
POLYOX WSR-205	0.10
Water	3.23
Palmitic Acid	6.00
Triethanolamine (99%)	5.00
AMEROXOL OE-20	2.00
Glycerin	2.00
Isopentane	6.00
Fragrance, Preservative, Color	q.s.

Procedure:

Add CELLOSIZÉ Polymer PCG-10 to water at room temperature with rapid stirring. When well dispersed heat to 75C. Make a 3% solution using 0.1% of POLYOX added to 3.23% water. Add to the CELLOSIZÉ dispersion as it is heating to 75C. When batch is 75C and a clear gel has formed, add Palmitic Acid, Triethanolamine, AMEROXOL OE-20, Glycerin and the Preservative system to the batch individually waiting for each ingredient to dissolve before adding the next one. When the batch is uniform, cool to room temperature and add Fragrance and Color. Allow air to escape from the mixture. Cool Isopentane and shave gel to 15C. Add Isopentane slowly to batch with gentle stirring to avoid introducing foam. Package in sepro-type aerosol cans with A-40 propellant.

Description:

This shaving gel is thickened to its gel consistency with CELLOSIZÉ Polymer PCG-10. It contains TEA-Palmitate soap for foaming and AMEROXOL OE-20 for foam stability. POLYOX WSR-205 is added to provide lubrication between the skin and the razor blade.

SOURCE: Amerchol Corp.: CELLOSIZÉ HEC: Formula T55-5-1

TUBE CREAM SHAVE

RAW MATERIALS	Sequence	% By Weight
Stearic Acid	1	17.50
Lipolan R	1	1.00
Perfecta 239A	1	2.00
Lipo PGMS	1	3.20
Propylparaben	1	0.10
Liponate IPP	1	0.80
Liponate MM	1	1.00
DC 200 Fluid (200 cts.)	1	0.25
OP-2000	1	1.50
Water	2	45.85
Hamp-ene Na3T	2	0.05
Propylene Glycol	2	4.50
Cellosize QP-3000	2	0.05
Triethanolamine, 99%	2	0.70
Unicide U-13	2	0.30
Methylparaben	2	0.25
Sodium Dehydroacetate	2	0.25
Kelgin HV (2% Dispersion)	2	20.00
Propylene Glycol	3	0.50
Menthol	3	0.20

Manufacturing Procedure:

1. In a side kettle, combine Sequence 1 ingredients and heat to 83C with Lightnin' mixing.
2. In the main kettle, combine all Sequence 2 ingredients and heat to 80C with Lightnin' mixing.
3. Add Sequence 1 to Sequence 2 with continuous Lightnin' mixing. Maintain temperature at 80C during the addition.
4. Cool with stirring to 72C.
5. At 72C begin to cool the batch. Continue agitation.
6. At approximately 58-60C or when the product becomes too thick for Lightnin' mixer, change to variable speed side-wiping agitator. Continue cooling the batch.
7. At 45C, add premixed (be sure Menthol is completely dissolved) Sequence 3 and disperse thoroughly.
8. Continue mixing and cooling to 30C. Package.

SOURCE: Lipo Chemicals Inc.: Formula No. 291

Section XII

Soaps

CREAM HAND CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-Special	83.0
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.8
MACKSTAT DM	q.s.
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-Special and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation.

HANDSOAP WITH SALICYLIC ACID

RAW MATERIALS	% By Weight
1. MACKADET CA	30.0
2. Salicylic Acid **	0.5-2.0
3. MACKSTAT DM	q.s.
4. Fragrance, Color	q.s.
5. Deionized Water q.s. to	100.0
6. Salt	q.s.
7. Tetra Sodium EDTA 40%	0.4

Procedure:

1. Into a stainless steel mixing tank add #5, #1 and #7.
2. Start heating to 120 degrees F. with slow mixing.
3. Add carefully #2 and dissolve. When everything is clearly dissolved start cooling to 110 degrees F.
4. Add #4, then #3 and dissolve, check pH and adjust upwards with diluted iron free sodium hydroxide solution to pH 6.6-7.4.
5. Finally add small amounts of salt to bring viscosity to specification. Viscosity 800-2000 cps.

** Please Note: Federal Register Part IV, Vol 51 Department of Health and Human Resources 21 CFR Part 348 & 358. States drug status of salicylic acid.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

DETERGENT FREE HAND SOAP

RAW MATERIALS	% By Weight
MACKADET 40K	50.0
MACKAMIDE LLM	10.0
Sodium Chloride	2.0
Tetrasodium EDTA (40%)	1.0
MACKSTAT DM	Q.S.
Deionized Water	Q.S. to 100.0

Procedure:

1. Add MACKADET 40K, MACKAMIDE LLM, and EDTA to 90 percent of the water.
2. Blend until clear.
3. Dissolve Sodium Chloride in remaining water and slowly add to batch.
4. Add MACKSTAT DM and blend until clear.
5. If needed, sodium chloride can be increased to increase viscosity.

HEAVY DUTY LIQUID HANDSOAP

RAW MATERIALS	% By Weight
Dodecylbenzene Sulfonic Acid	21.5
Caustic Soda (50%)	5.4
Sodium Laureth Sulfate (60%)	4.0
MACKAM 35	5.5
Propylene Glycol	8.0
Water, Dye, Fragrance	qs to 100.0

Solids, %: 30+-1.0

pH: 6.5-7.0

Procedure:

1. Add caustic soda to water and adjust pH to 7.0-8.0 with DBSA.
2. Add remaining components and adjust pH to 6.5-7.0 with citric acid.
3. If necessary, lower viscosity with Propylene Glycol, or raise viscosity with sodium chloride.
4. Latex opacifier may be added if needed.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

GENERAL PURPOSE "LIQUID SOAP"

RAW MATERIALS	% By Weight
EMPICOL LX28	30.0
EMPILAN 2502	5.0
EMPICOL 0627	5.0
Citric acid	qs to pH 6.5-7.0
Sodium chloride/hexylene glycol	qs to adjust viscosity
Perfume, dye, preservative	qs
Water	Balance
Formula LS1	

GENERAL PURPOSE "LIQUID SOAP"

RAW MATERIALS	% By Weight
EMPICOL ESB3	30.0
EMPIGEN BS	8.0
EMPILAN LDE	3.0
EMPICOL 0627	3.0
Citric Acid	qs to pH 6.5-7.0
Sodium chloride/hexylene glycol	qs to adjust viscosity
Perfume, dye, preservative	qs
Water	Balance
Formula LS2	

GENERAL PURPOSE "LIQUID SOAP"

RAW MATERIALS	% By Weight
EMPICOL ESC3	20.0
EMPICOL LQ33/T	10.0
EMPIGEN BB	7.0
EMPILAN 2502	2.0
EMPICOL 0627	1.0
Citric Acid	qs to pH 6.5-7.0
Sodium chloride/hexylene glycol	qs to adjust viscosity
Perfume, dye, preservative	qs
Water	Balance
Formula LS3	

MILD "LIQUID SOAP"

RAW MATERIALS	% By Weight
EMPIGEN CDR30	25.0
EMPICOL ESC3	25.0
EMIGEN BS	3.0
EMPICOL 0627	5.0
Perfume, dye, preservative	qs
Sodium chloride/hexylene glycol	qs to adjust viscosity
Citric acid/sodium hydroxide	qs to pH 6.5-7.2
Water	Balance
Formula MLS1	

SOURCE: Albright & Wilson Americas: Formulas

GERMICIDAL HAND CLEANSER

RAW MATERIALS	% By Weight
ANTIL 141 Liquid	3.5
TEGO Betaine L-7	20.0
TEGO Betaine S	20.0
ABIL B 88183	0.3
Water	55.7
Chlorhexidine	0.5
Sodium Chloride	As Needed
Fragrance	Q.S.

Procedure:

1. Add the water and TEGO Betaine to a vessel-heat to 60C. Mix.
2. Add the ANTIL 141 liquid. Mix until uniform.
3. Cool to 40C. Add the remaining ingredients. Adjust viscosity with Sodium Chloride.

Note: If a pearled or opaque product is desired, add 3-4% of TEGO Pearl B-48.

SOURCE: Goldschmidt Chemical Corp.: Formula

HAND CLEANER/SHOWER SOAP

RAW MATERIALS	% By Weight
Water and Preservative	29.3
MONATERIC 951A	20.8
MONAMATE LNT-40	25.0
Sipon LSB	17.9
MONAMID 1089	5.0
Ethylene Glycol Monostearate	2.0

Procedure:

Add ingredients in order listed above and heat slowly to 70C with stirring until completely melted. Cool to 40C and adjust pH. At pH 6.8 viscosity is approximately 3000 cps.

This pearled formulation combines the high foaming properties of MONATERIC 951A with the extra mild skin-softening effect of the MONAMATE. The MONAMID 1089 and EGMS build viscosity and add a soapy feel to the lather.

SOURCE: Mona Industries Inc.: MONATERIC 951A: Formulas

HAND CLEANER

RAW MATERIALS	% By Weight
MIRATAINE CBC	15.0
CEDEPON LS 30PM	30.0
Cedemide CX	2.0
Propylene Glycol	1.0
Water	52.0

Procedure:

Mix all ingredients together and adjust pH to 7.5 with citric acid.

Solids: 17.3%, Viscosity: 17,500 cps.

HAND CLEANER

RAW MATERIALS	% By Weight
MIRATAINE CBS	10.8
Cedepal SN 303	17.8
Cedemide CX	1.4
Water	70.0

Procedure:

Mix all ingredients together and adjust pH to 7.5 with citric acid.

Solids: 12.0%, viscosity: 10,500 cps.

LIQUID PEARLESCENT HANDSOAP

RAW MATERIALS	% By Weight
MIRATAINE COB	15.0
Witconate AOS	15.0
CEDEPAL TD 407M	5.0
Lauramide DEA	2.5
Cerasynt IP	1.0
Water	61.5

Procedure:

Add all ingredients together. Heat and mix until uniform. Allow to cool to 40C and adjust pH to 7.0 with citric acid.

Solids: 18.7%, viscosity: 8500 cps.

SOURCE: Miranol Inc.: MIRANOL Products for Cosmetics: Formulas

LIQUID HAND SOAP

INGREDIENTS	% By Weight
Water	52.95
Sodium Chloride	2.00
STANDAPOL ES-3	30.00
VELVETEX BA-35	6.00
CETIOL HE	1.50
NUTRILAN I	3.50
STANDAMOX LAO-30	1.00
EUPERLAN PK-810	3.00
Kathon CG	0.05

Procedure:

Charge kettle with water. Add remaining ingredients, one at a time. Adjust pH to 6.5+0.3 with 50% citric acid. Continue stirring until product is homogeneous. Fill off.

Comments:

The blend of anionic, betaine and protein contributes to the mildness of this preparation. The ethoxylated cocoate provides emollient and substantive dermal effects.

SOURCE: Henkel: Formula H-4949

JOJOBA SOAP BAR

INGREDIENTS	% By Weight
Duveen Toliet Soap Base	93.55
Ross Powdered Jojoba Meal	5.00
Ross Jojoba Oil	0.50
Novarome Fragrance CD-69	0.75
Titanium Dioxide	0.20

SOURCE: Frank B. Ross Co., Inc.: Formula

COMBINED SYNTHETIC/NATURAL "LIQUID SOAP"

RAW MATERIALS	% By Weight
EMPICOL LQ33/T	20.0
EMPICOL 0627	5.0
Oleic Acid	8.0
Monoethanolamine	2.0
Glycerol	2.0
Dye, perfume, preservative	qs
Potassium chloride	qs to adjust viscosity
pH	approx. 9
Water	Balance

SOURCE: Albright & Wilson Americas: Formula

LIQUID HAND SOAP (PEARLESCENT)

INGREDIENTS	% By Weight
Water (Deionized)	51.8
Dowicil-200	0.2
Schercoquat IAS (90%)	1.0
Schercotaine CAB-G (45%)	10.0
Schercomid SLM-LC	1.0
Ethylene Glycol Monostearate	1.0
Stepanol WA Paste (30%)	35.0
Fragrance	q.s.

Procedure:

1. Heat water to 45-50C. With stirring add Dowicil-200 and Schercoquat IAS. Mix to dissolve.
2. Add Schercotaine CAB-G.
3. Dissolve (melt) EGMS in Schercomid SLM-LC, then add to above.
4. Add Stepanol WA Paste.
5. When uniform, cool and add fragrance.

Specifications:

Activity, %: 18
 Viscosity @ 25C: 4,000-6,000
 pH @ 25C: 8.0

- * To increase viscosity, decrease % amide.
 To decrease viscosity, increase % amide.

SOURCE: Scher Chemicals, Inc.: Formula SO-021

LIQUID SOAP

RAW MATERIALS	% By Weight
Hoe S 3267	16,00
Water	41,20
Water	37,30
Genagen CA 050	2,00
Sodium Chloride	2,00
Belsil DMC 6031	0,50
Preservatives, pigments, fragrances	q.s.

Dissolve HOE S 3267 in water, mix in the remaining components.
 Temperature stability: at 45C over 10 weeks.
 Clear, slightly yellow gel.

SOURCE: Wacker Silicone: Formulation 230 AH

LIQUID SOAP-A

RAW MATERIALS	% By Weight
Alpha Olefin Sulfonate	15.00
"Crodafos" SG	2.00
"Crodapearl"	1.75
"Crotein" SPC	2.0
"Standamid" SD	5.0
POLYOX Resin WSR-205	0.1
Diethanolamine (neutralize pH 6.5)	1.0
Sodium chloride	0.3
Water, fragrance, preservative	q.s.
Viscosity: 3,400 cps.	

LIQUID SOAP-B

RAW MATERIALS	% By Weight
Alpha Olefin Sulfonate	13.0
"Sipon" GPA	7.5
"Lexaine" X350	2.0
POLYOX WSR N-60K	0.2
Ammonium Chloride	0.75
Citric Acid (neutralize pH 6.5)	q.s.
Water, fragrance, preservative	q.s.
Viscosity: 5,600 cps	

LIQUID SOAP-C

RAW MATERIALS	% By Weight
Alpha Olefin Sulfonate	12.0
"Standapol" AB-45	4.5
Ethyleneglycol monostearate	2.0
"Standamid" SD	3.0
POLYOX WSR N-12K	0.3
Sodium Chloride	0.5
Water, fragrance, preservative	q.s.
Viscosity: 9,400 cps	

SOURCE: Amerchol Corp.: POLYOX Water-Soluble Resins:
Formulas

LIQUID SOAP 1

RAW MATERIALS	% By Weight
A. Coconut Acid	15.0
Oleic Acid	6.0
B. SOFTIGEN 767	5.0
Triethanolamine	15.0
Caustic Potash Solution (45%)	2.5
Viscontran HEC (30,000 PR) 2% in Water	30.0
Water	27.5
C. Fragrance	1.0

Preparation:

(B) is heated to 80-90C. (A) is brought to the same temperature and added in a thin stream to (B) while stirring. (C) is added at 30C.

Formula 1.4B

LIQUID SOAP 2

RAW MATERIALS	% By Weight
Texapon N40	19.0
Comperlan KD	6.0
Aminoxid WS 35	4.0
Setacin 103 Special	5.0
SOFTIGEN 767	2.0
Fragrance	1.0
1% Color in SOFTIGEN 767	0.3
Hexylene Glycol	1.0
Water	up to 100.0

Preparation:

All components are mixed together at room temperature and stirred for ca. 10 minutes until homogeneous.

Formula 1.4C

SOURCE: Huls America Inc.: Formulas

LIQUID SOAP 3

RAW MATERIALS	% By Weight
A. Texapon N 70	28.0
Euperlan PK 771	16.0
SOFTIGEN 767	5.0
B. Sodium Chloride	4.0
Water	up to 100.0
C. Fragrance	0.5
Color	0.01

Preparation:

(A) and (B) are prepared, and (B) is then added to (A). The mixture is heated up to ca. 40C. The mass is then cooled while stirring. (C) is stirred in at ca. 30C.

Formula 1.4D

LIQUID SOAP 4

RAW MATERIALS	% By Weight
A. SOFTIGEN 767	5.0
Texapon N 40	35.0
Dehyton AB 30	5.0
Elfacos GT 282 S	2.0
Preservative	q.s.
Water	up to 100.0
B. Color	q.s.
Fragrance	q.s.

Preparation:

(A) is brought together and heated at 55-60C. until the GT 282 S is dissolved. Finally, it is cooled to ca. 30C. while stirring and (B) is added.

Formula 1.4E

LIQUID SOAP 5

RAW MATERIALS	% By Weight
Rewopol TLS40	35.0
Rewopol NL 3	15.0
SOFTIGEN 767	8.0
SOFTIGEN 701	2.0
Antil 141 liquid	6.0
Water	up to 100.0
Color: Sicomet green 26120 2% in Softigen 767	0.03
Fragrance	0.5
Citric Acid (20%)	0.5

Preparation:

All the ingredients are mixed together, heated to ca. 40C., and stirred until homogeneous.

Formula 1.4F

SOURCE: Huls America Inc.: Formulas

LOTIONIZED LIQUID SOAP

RAW MATERIALS	% By Weight
MIRAPOL AD-1	1.5
MIRANOL C2M Conc. N.P.	10.0
MIRATAINE COB	10.0
Witconate AOS	25.0
Cedemide AX	2.5
Cerasynt IP	1.0
Water	50.0

Procedure:

Heat all ingredients to 75C with agitation. Mix until uniform. At 40C, adjust pH to 7.0 with citric acid.
Solids: 23.0%, viscosity: 30,000 cps.

LOTIONIZED LIQUID SOAP

RAW MATERIALS	% By Weight
MIRAPOL AD-1	1.5
MIRANOL 2MCAS Modified	20.0
MIRATAINE COB	7.5
Cedepon TL 40	5.0
Sodium Lauroyl Sarcosinate	5.0
Cedemide AX	2.0
Peptein 2000	3.0
Water	56.0

Procedure:

Heat all ingredients to 75C and mix until uniform. At 40C adjust pH to 7.0 with citric acid (50%).
Solids: 20.0%, viscosity: 3000 cps.

MILD LIQUID SOAP

RAW MATERIALS	% By Weight
Part A:	
MIRATAINE CBS	15.0
MIRANOL C2M Conc. N.P.	5.0
Sodium Laureth Sulfate	18.0
Lauric Diethanolamide	2.0
Surfactol 365	1.5
Cerasynt IP	1.0
PEG-120 Methyl Glucose Dioleate	1.0

Part B:

Deionized Water	54.5
MIRAPOL 175	2.0

Procedure:

Heat A and B separately to 75C. With agitation add B to A. Continue agitation until uniform. At 45C adjust pH to 6.8 with citric acid.

Solids: 22.2%, viscosity: 8,500 cps.

SOURCE: Miranol Inc.: MIRANOL Products For Cosmetics: Formulas

OPAQUE LIQUID SOAP

INGREDIENTS	% By Weight
Water	75.88
Sodium C14-C16 olefin sulfonate, 40% active	7.50
Sodium lauroyl sarcosinate, 30% active	6.66
Cocamidopropyl betaine, 35% active	6.66
Glycol stearate	1.00
NATROSOL 250HHR hydroxyethylcellulose	0.80
Propylene glycol	0.50
Glycerin	0.50
Tetrasodium EDTA	0.30
Stearalkonium chloride	0.10
Methylparaben	0.10

Procedure:

1. Dissolve the NATROSOL in water. Add the methylparaben to the finished solution.
2. While slowly stirring the water-soluble polymer solution, add the stearalkonium chloride, olefin sulfonate, and glycol stearate. Heat the mixture to 80C until all of the glycol stearate has melted and the solution has turned opaque.
3. Add the remaining ingredients while cooling the solution slowly to room temperature.
4. Add color and fragrance.

TRANSPARENT TOILET SOAP

INGREDIENTS	% By Weight
Water	65.70
Sodium C14-C16 olefin sulfonate	20.00
Sodium lauroyl sarcosinate	10.00
Cocamide MEA	3.00
NATROSOL 250HR	1.00
Disodium EDTA	0.20
Methylparaben	0.10

Procedure:

1. Dissolve the NATROSOL in water. Add the methylparaben to the finished solution.
2. In a separate vessel, combine the surfactants, heat to 80C, and mix until homogeneous.
3. Add the surfactant solution to the water-soluble polymer solution and mix until well blended.
4. Add the disodium EDTA and cool to room temperature.

NATROSOL 250HR gives emolliency to this transparent hand soap. The excellent lathering properties of the formula are attributed to the combination of olefin sulfonate, sodium lauroyl sarcosinate, and cocamide MEA.

SOURCE: Aqualon Co.: NATROSOL 250: Formulas

PEARLIZED HAND SOAP

RAW MATERIALS	% By Weight
Water	56.5
MONATERGE 1164	40.0
MONAMID 716	3.0
Pearlizing Agent	0.5

Procedure:

Mix ingredients while warming to 65C. Agitate until uniform. Cool and adjust pH to 6.5. Add coloring, fragrance and preservative as required.

Appearance: Off white, opaque liquid.

Viscosity: Approximately 1500 cps.

SOURCE: Mona Industries, Inc.: MONAMID 716: Formula

LIQUID SOAP-I

RAW MATERIALS	% By Weight
MIRANOL SM Conc.	20.0
Potassium Cocoate (40%)	20.0
Water	60.0

LIQUID SOAP-II

RAW MATERIALS	% By Weight
MIRANOL SM Conc.	10.0
Potassium Cocoate (40%)	10.0
Sodium Chloride	1.0
Water	79.0

Note: Unlike straight soap formulations, these will not clog dispenser valves; but the addition of sodium chloride in formulations intended for use in dispensers with metal valves is not recommended. It is important that potassium soaps be used because triethanolamine soaps foam considerably less in such formulations.

CLEAR LIQUID SOAP

RAW MATERIALS	% By Weight
MIRANOL CM-SF Conc.	20.0
Cedepal SN 303	24.0
Cedemide AX	2.0
Water	54.0

Procedure:

Blend all ingredients at 55-60C and adjust pH to 6.5 with hydrochloric acid. Without fragrance, this shampoo has a viscosity at 25C of about 5000 cps. Solids: 16.4%

SOURCE: Miranol Inc.: MIRANOL Products For Cosmetics: Formulas

Section XIII

Sun Care Products

AFTER SUN CARE LOTION

RAW MATERIALS	% By Weight
I TEFOSE 1500	7,00
Cetyl Alcohol	1,00
Sweet Almonds Oil	4,00
VEGETOL HUILEUX CALENDULA WL 1072	2,00
Antioxygen	Q.S.
II Demineralized Water	79,40
Allantoin	0,10
Carbopol 941	0,10
Triethanolamine 99% (50% Sol.)	0,20
IIIDemineralized Water	5,00
PANCOGENE S	1,00
Preservative	Q.S.
Perfume	0,20

Preparation:

Disperse the Carbopol. Let stand.

Under moderate agitation, pour II heated up to 75C into I heated up to 75C.

Add the triethanolamine solution.

Cool down while stirring and around 30C add III and the other components.

SOURCE: Gattefosse: Formula MM 2614/C

AFTER SUN LOTION

RAW MATERIALS	% By Weight
A. IMWITOR 960	4.0
MIGLYOL 840	7.0
Hostaphat KL 340N	5.0
Cetyl Alcohol	2.0
B. Sorbitol	5.0
Carbopol-Gel 1%	12.5
Citric Acid	0.3
Allantoin	0.2
Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.
Collagen	2.0

Preparation of Carbopol-Gel:

Carbopol 940 1.0%

Triethanolamine 0.6%

Distilled Water up to 100.0%

Preparation:

(A) is melted and heated to 75-80C. (B) is brought to the same temperature and gradually stirred into (A). (C) is added at about 30C.

SOURCE: Huls America Inc.: Formula 4.5.1

AFTER-SUN CREAM

SUBSTANCE	% By Weight
A. Paraffin oil 5E	10.0
PCL-liquid 2/066210	5.0
Lanette C	6.6
Dragosantol 2/012681	0.3
Silicone oil AK 100	0.5
Nipasteril 30 K	0.3
B. Dragophos 2/918500	3.3
Glycerin	2.0
1,2-propylene glycol	3.0
Distilled water	68.4
Allantoin	0.2
C. Perfume oil	0.4

Suggested Formulation No. VKC 574/60

SUNSCREEN OIL

SUBSTANCE	% By Weight
Paraffin oil 5E	66.0
Isopropyl myristate 2/044111	25.0
PCL-liquid 2/066210	6.0
Prosolal S 2/066133	2.0
Perfume oil	1.0

Suggested Formulation No. VKS 759/71

SUNSCREEN CREAM W/O

SUBSTANCE	% By Weight
A Neo-PCL self-emulsifying 2/066255	25.0
Isopropyl myristate 2/044111	7.2
Prosolal S 9 2/066133	1.5
Nipasteril 30 K	0.3
B Water	60.1
Magnesium sulfate	0.5
Karion F	5.0
C Perfume oil	0.4

Suggested Formulation No. VKS 82/40

SOURCE: Dragoco Inc.: Suggested Formulations

AFTER SUN CREAM

RAW MATERIALS		% By Weight
a) Emulgade F		7.0
Anhydrous lanolin		3.0
Isopropyl palmitate		12.9
Vitamin (A+D3) Concentrate	400 000 I.U.A + 40 000 I.U.D3/g*	0.1
Phenonip		0.3
b) Distilled water		64.9
Phenonip		0.3
Veegum		1.5
Karion F liquid		5.0
c) Collagen CLR		5.0

Manufacture:

- a) melt and bring to about 70C;
 b) warm to about 70C, stir well until the Veegum is finely distributed, and stir into a).
 Continue stirring until the cream has cooled to about 35C;
 c) stir into the cream.

Perfume, homogenize.

* CLR Active Agent

Molecular distillate from cod-liver oil. Granulates and epithelizes skin which has been attacked and damaged by external influences, e.g. solar radiation (for after sun preparations).

pH of the preparation: 6.4

Cream O/W

For the body exposed to sun

i.e., therapeutic care after sunbathing of all uncovered areas of skin, and prophylactic care for the next sunbathing, and renewal or maintenance of the skin's elasticity.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formula

SUN TAN CREAM

RAW MATERIALS		% By Weight
A Belsil DM 350		3,00
Cetyl Alcohol		2,00
Stearic Acid		4,00
B Parsol MCX		2,00
Belsil BNP		1,00
C Glycerine		2,00
Triethanolamine		0,90
Water		85,10
Preservatives, fragrances, pigments		q.s.

Heat A and C to 80C, stir A into C, cool whilst stirring.

Add B at approx. 45C, stir cold.

Temperature stability: at 45C over 10 weeks.

Creamy soft.

SOURCE: Wacker Silicone: Formulation 133/2 AH

AFTER SUN FOAM, FOR SKIN WITH DIMINISHED ELASTICITY TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgade F	4.0
Eumulgin B1	0.4
Eutanol G	8.0
Myritol 318	11.1
Epidermin in Oil	0.2
Preservative	q.s.
b) Water, distilled, preserved	66.0
Karion F liquid	5.0
c) Collagen CLR	5.0
d) Perfume oil	0.3

Manufacture:

- a) melt and bring to about 70C;
 b) heat to about 70C and stir into a).
 Continue stirring until the emulsion has cooled to about 35C;
 c) and d) stir in.

Concentrate:

Product	88.0%
Propellant 12	12.0%
Valve: AR-74 R/Neo BL	
Foam actuator: SF 66/6	

Note: Shake before use.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
 Model formulations 8

SUN PROTECTION GEL

Composition	% By Weight
Carbopol 934	1.0
Triethanolamine (TEA)	1.35
Water, demineralized	83.45
Germall 115	0.2
Eusolex 232	4.0
Sorbitol	5.0
Pearl lustre pigments	5.0
e.g. COLORONA Bronze or COLORONA Oriental Beige	

Preparation:

The pearl pigment is dispersed in a solution containing water, GERMALL 115 and Sorbitol. Carbopol 934 is added and dissolved under stirring and stirring is continued until a clear solution is obtained. Then successively the TEA (mixed with a small amount of water) are added.

SOURCE: EM Pigments Division: Formula

AFTER SUN GEL

INGREDIENTS	% By Weight
A Demineralized Water	66,800
1,2-Propylene glycol	3,000
Allantoin	0,100
D-Panthenol	1,000
Creragen Camomile Special 739027	3,000
Glycerin 86%	3,000
Carbopol 940	0,500
B Demineralized Water	5,000
Triethanolamine	0,900
C Ethylalcohol (96Vol.%) denatured	15,000
Mulsifan RT 203/80	1,200
Perfume Oil	0,200
Phenonip	0,300

Manufacturing Process:

- Part A: Dissolve propylene glycol, Panthenol, Allantoin, Creragen Camomile and glycerin in water. Then disperse the Carbopol using high speed agitation. Mix to form a uniform dispersion free from lumps.
- Part B: Dilute triethanolamine with water and add slowly into Part A for neutralisation. A transparent high viscous gel will be formed.
- Part C: Dissolve fragrance, Phenonip and Mulsifan in ethyl alcohol and add slowly under stirring into the gel part A/B.

The pH-value of the finished gel should be approx. 6,5-7.

SOURCE: Haarman & Reimer GmbH: Formula K 18/7-45717 D/E

AFTER SUN LOTION

RAW MATERIALS	Parts By Weight
Part I:	
Water	500.0
Carbomer 934	2.0
Part II:	
Rosswax 2540	6.0
Rosswax 1824	15.0
Coconut Oil #76	25.0
GMS SE	6.0
Ross Jojoba Oil	4.0
Part III:	
Aloe Vera Liquid	10.0
Part IV:	
Germaben II	6.0
Part V:	
Fragrance	q.s.
Part VI:	
Triethanolamine	4.5

Procedure:

Heat the water in a steam jacketed kettle and add the Carbomer 934 with agitation. In a separate jacketed kettle heat Part II until clear. Next add Part III, then Part IV, then Part V, fragrance and finally Part VI. Cool to 130F and package.

JOJOBA AFTER SUN LOTION

RAW MATERIALS	% By Weight
Part (A):	
Mineral Oil 60/70	8.2
Modulan	5.0
Rosswax 63-0412	7.6
Propylene Glycol	2.3
Ross Jojoba Oil	1.7
Part (B):	
Water	69.7
Aloe Vera Liquid	3.3
Triethanolamine	1.2
Fragrance	q.s.
Germaben II	1.0

Procedure:

Melt Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached, mix Part (A) to Part (B) and cool. Package in containers at below 120F.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

AFTER SUN LOTION

RAW MATERIALS		% By Weight
a) Emulgade F		3.0
Eumulgin B		0.3
Eutanol G		8.0
Miglyol 812		10.9
Vitamin (A+D3) Concentrate	400 000 I.U.A+	
	40 000 I.U.D3/g*	0.1
Phenonip		0.3
b) Distilled water		69.1
Phenonip		0.3
Karion F liquid		3.0
c) Collagen CLR		5.0

Manufacture:

a) melt and bring to about 70C;

b) warm to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C;

c) stir into the emulsion.

Perfume, homogenize.

* CLR Active Agent

Molecular distillate from cod-liver oil. Granulates and epithelizes skin which has been attacked and damaged by external influences, e.g.. solar radiation (for after sun preparations).

pH of the preparation: 4.0

Liquid emulsion O/W

For the body exposed to sun

i.e., therapeutic care after sunbathing of all uncovered areas of skin, and prophylactic care for the next sunbathing, and renewal or maintenance of the skin's elasticity.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formula

SUN TAN CREAM

RAW MATERIALS		% By Weight
A Belsil DM 350		2,00
Isopropyl Myristate		9,00
Stearyl Alcohol		9,50
Cetyl Alcohol		0,50
Stearic Acid		4,00
Parsol MCX		1,50
B Triethanolamine		1,20
Carbopol 934 (1%ige Lsg.)		5,00
Water		67,30
Preservatives, pigments, fragrances		q.s.
Heat A And B each to 70C, add Parsol MCX to A. Mix B into A whilst stirring quickly.		
Temperature stability: at 45C over 10 weeks.		
Creamy soft. Easily spread, quickly absorbed and leaves a silky soft feeling on the skin.		

SOURCE: Wacker Silicone: Formulation 130 AH

AFTER SUN SKIN REPAIR

INGREDIENTS	% By Weight
A. Deionized Water	81.7
Hydroxyethylcellulose	1.0
Sorbitol	1.0
Allantoin	0.2
B. Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.5
Cetyl Alcohol	0.5
PEG 75 Lanolin Oil	1.0
C. DERMATEIN MPS	1.0
DERMATEIN GSL	5.0
D. Dimethicone	1.0
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben	1.0
Aloe Vera	1.0
Fragrance	0.1

Procedure:

Begin heating water to 80C; sift Hydroxyethylcellulose into water with constant agitation. Add rest of part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Cool to room temperature. Slowly add DERMATEIN MPS and DERMATEIN GSL; mix until uniform. Add Part D ingredients. Mix until homogeneous.

Description:

After a day in the sun, skin needs repair! DERMATEIN MPS, Hydrolyzed Mucopolysaccharides, replenishes the moisture lost from the skin. DERMATEIN MPS adds a luxurious skin feel to the product. DERMATEIN GSL, Glycosphingolipids, replaces the lost lipid and increases the skin's ability to bind moisture!

SOURCE: Geo. A. Hormel & Co.: Formula

AFTER SUN REPAIR O/W

RAW MATERIALS	% By Weight
I. EMULGADE SE	8,0
CETIOL V	6,0
Paraffin oil, subl.	2,0
II. Glycerol 86%	3,0
Hostacarin PN 73 (1%ig)	10,0
GLUADIN AGP	0,5
Water, demin.	70,5
Preservatives	
Viscosity in mPas: 5000	

SOURCE: Henkel: Cosmetics No. III/91: Formulation no. 90/227/11

ALOE CATIONIC SUNTAN LOTION

RAW MATERIALS	% By Weight
Water	66.49
Propylene glycol	3.00
Phosphoric acid (85%)	0.31
PEG-10 soya sterol	1.00
PABA	0.50
Light mineral oil	4.00
Stearic acid	2.00
Isopropyl myristate	1.50
Glyceryl monostearate	2.00
Soya sterol	0.20
Myristamidopropyl dimethylamine	3.00
Propylene glycol hydroxystearate	1.00
Aloe Vera Gel	15.00
Fragrance & preservatives	q.s.

SOURCE: Florida Food Products, Inc.: Aloe as a Humectant in
New Skin Preparations: Formula 3

SUNSCREEN OIL

RAW MATERIALS	% By Weight
A Uvinul T 150	5.0
Cetiol HE	5.0
Miglyol 812	45.0
Citroflex 2	45.0
B Perfume	q.s.

Preparation:

Heat phase A until it is dissolved, add phase B at ca. 35C.

Properties:

Emollient oil, spreads well, water resistant

SOURCE: BASF Corp.: UVINUL T 150: Formula 53/085

CHILD'S DELICATE SKIN SUNBLOCK LOTION SPF 30+

RAW MATERIALS	Sequence	% By Weight
Deionized Water	1	57.05
Veegum Regular	1	0.15
Sorbitol Solution 70%	1	3.25
Triethanolamine, 99%	1	0.90
Methylparaben	1	0.30
Disodium EDTA	1	0.05
Unicide U-13	1	0.30
Liposorb O	2	4.00
Octyl Methoxycinnamate	2	7.50
Benzophenone-3	2	6.00
Octyl Salicylate	2	5.00
Homosalate	2	4.00
Lipo GMS-470	2	2.25
Liposorb S	2	2.10
Lipo SS	2	2.00
Stearic Acid #132	2	2.00
Silicone 200 fluid (200 cts)	2	0.75
Vitamin E Acetate	2	0.10
Propylparaben	2	0.15
PA-18 Polyanhydride	3	2.00
Benzyl Alcohol	4	0.05
Fragrance SMCO HQ-115	4	0.10

Manufacturing Procedure:

1. Combine all Sequence 1 ingredients into main kettle. Heat to 78C with Lightnin' mixing. Thoroughly disperse Veegum.
2. Combine all Sequence 2 ingredients in side kettle. Heat to 78C with Lightnin' mixing. When all solids are dissolved, slowly sprinkle in Sequence 3 under continuous mixing. Heat to 80C to insure that all materials are dissolved.
3. When both phases are at proper temperatures, stop Lightnin' mixing and insert homogenizer mixer into main kettle. Slowly add combined Sequences 2 and 3 under homo mixing to Sequence 1. Maintain temperature at 78C for 10 minutes after oil phase addition is complete.
4. Remove homo mixer. Begin side-wiping agitation and start cooling batch. At 40C add premixed Sequence 4 and thoroughly disperse. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 390

CLEAR ANHYDROUS SUNSCREEN

RAW MATERIALS	% By Weight
ABIL B 8839	56.0
ABIL OSW-12	20.0
Diisopropyl Adipate	10.0
C12-15 Alcohols Benzoate	10.0
Octyl Dimethyl PABA	4.0

Procedure:

Mix ingredients in order.

This formula is anhydrous, oil-free and clear. It is quick spreading and hydrophobic on the skin.

COLD MIX - W/O EMULSION SUNSCREEN

RAW MATERIALS	% By Weight
A. ABIL WE-09	5.0
Octyl Methoxycinnamate	4.0
ABIL B8839	5.0
ABIL Wax 9800	1.0
Mineral Oil	4.0
Caprylic/Capric Triglyceride	3.0
B. Water	75.8
Benzophenone-4	1.5
Sodium Chloride	0.4
Sodium Phosphite	0.3
Sodium Hydroxide	to pH 7.5

Procedure:

1. Blend Phase A.
2. Mix Phase B.
3. With slow lightening mix - slowly stream B into A. A milky dispersion will form.
4. Homogenize.

CLEAR SUNSCREEN OIL

RAW MATERIALS	% By Weight
ABIL B8839	16.0
Isopropyl Myristate	13.0
Mineral Oil	68.0
Octyl Dimethyl PABA	3.0
Perfume	QS

Procedure:

Mix together all ingredients until uniformly blended; add color desired.

Comments:

The addition of Cyclomethicone to a traditional mineral oil-based formulation results in improved aesthetics; the product is perceived as being less oily when applied to the skin. The effect becomes more apparent as the ration of Cyclomethicone to Mineral Oil is increased.

SOURCE: Goldschmidt Chemical Co.: Formulas

CLEAR LIQUID SUNBLOCK SPF 15

INGREDIENTS	% By Weight
VELSAN D8P-3	10.0
Spectrasorb UV 9	3.0
SD Alcohol 40	25.0
Neobee M-20	5.0
Escalol 507	7.0
Dow 344 Fluid	50.0
SPF 15	
CL 9-145-02	

CLEAR LIQUID SUNBLOCK SPF 20-25

RAW MATERIALS	% By Weight
Velsan D8P-3	10.0
Spectrasorb UV 9	6.0
SD Alcohol 40	24.1
Neobee M-20	4.6
Escalol 507	7.0
Dow 344 Fluid	48.3
SPF 20-25	
CL 9-145-03	

Procedure:

Dissolve Benzophenone-3 into the Velsan D8P-3. Add rest of the ingredients in any convenient order and mix to homogeneity.

Hard-to-dissolve Benzophenone-3 instantly solubilizes in Velsan D8P-3 to produce these cold mix sunblocks similar to the popular pre sun product. Velsan D8P-3 imparts an excellent non-greasy afterfeel to the formula.

SOURCE: Sandoz Chemicals Corp.: Formulation No. CSS-01

AFTER SUN LOTION O/W

RAW MATERIALS	% By Weight
I. EMULGADE SE	8,0
CETIOL S	3,0
CETIOL V	4,0
COPHEROL F 1300	0,5
II. Glycerol 86%	3,0
Water, demin.	79,5
Preservatives	
III. COLLAPUR	2,0

Viscosity in mPas: 3500

The packaging should be lightproof in order to avoid discoloration of the light-sensitive COPHEROL.

SOURCE: Henkel: Cosmetics No. III/91: Formulation no. 90/227/5.1

COLD MIX SUNSCREEN OIL

INGREDIENTS	% By Weight
Velsan D8P-3	44.0
Benzophenone-3	6.0
Escalol 507	7.0
Propyl Paraben	0.1
Cottonseed Oil	20.9
Dow 344 Fluid	22.0

Procedure:

Disperse Benzophenone-3 into the Velsan D8P-3. With stirring, add the remaining ingredients in the order listed.

Properties:

Appearance: Clear yellow oil
 Viscosity: 675 cps
 Approximate SPF: 2-4

A clear, light oil formulated with Velsan D8P-3 for a reduction in the oily afterfeel and for instantly solubilizing Benzophenone-3.

SOURCE: Sandoz Chemicals Corp.: Formulation No. CSS-02

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Cetiol SN	10.0
Myritol 318	10.0
Parsol MCX	2.0
Parsol 1789	1.5
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0

Viscosity: approx. 90000 mPas

SOURCE: Henkel: Cosmetics No. XIV/90: Formula 89/213/64

DAY CREAM SPF 15

INGREDIENTS	% By Weight
Oil Phase:	
Mineral Oil, USP (65/35)	4.500
White Petrolatum, USP	2.500
Acetylated Lanolin	1.000
CERASYNT MN	5.000
ESCALOL 557	7.500
ESCALOL 567	3.000
ESCALOL 587	3.000
CERASYNT 840	2.000
Water Phase:	
Deionized Water	q.s.
Carbomer 954	0.500
Triethanolamine Premix:	
Triethanolamine, 99%	0.600
Deionized Water	2.000
Propylene Glycol Premix:	
Propylene Glycol, USP	3.000
Methylparaben	0.100
Propylparaben	0.100
CERAPHYL GA	3.000
Imidazolidinyl Urea Premix:	
Imidazolidinyl Urea	0.300
Deionized Water	3.000
Aloe Vera Gel	0.005
St. John's Wort Extract	0.050
Fragrance (Cream D84-386)	0.150

Procedure:

1. Mix each premix before adding to the batch.
2. Heat water to 80C and mix in carbomer until uniform.
3. Add triethanolamine premix.
4. Add propylene glycol premix.
5. Heat oil phase to 80C and mix.
6. Add oil phase to water phase and mix. Maintain at 80C.
7. Homogenize.
8. Add Maleated Soybean Oil (CERAPHYL GA). Mix.
9. Cool to 50C. Mix in remaining ingredients separately.

SOURCE: Van Dyk & Co., Inc.: Formula G133-24-1

DIHYDROXYACETONE SELF TANNING LOTION

RAW MATERIALS	% By Weight
A) Distilled Water	64.15
B) Propylene Glycol	3.0
Methylparaben (Tri-K)	0.2
Propylparaben (Tri-K)	0.1
C) Amigel	0.4
D) T Wax	3.5
T Base	2.0
Sesame Oil (Tri-K)	2.5
Jojoba Oil (Tri-K)	2.5
Squalane (Tri-K)	5.0
DC 200 Silicone (350cs)	0.5
Tocopherol Acetate (Tri-K)	0.2
E) Phenoxyethanol (Tri-K)	0.7
Fragrance TC-316	0.25
F) Distilled Water	10.0
Dihydroxyacetone (Tri-K)	5.0

Procedure:

Heat A to 75C. Dissolve parabens in glycol. Then disperse Amigel into glycol. Add Glycol mixture to water while mixing vigorously with a propeller. Weigh D and heat to 75C. Add D to water phase with mixing. Switch to side sweep agitation and cool to 45C. Add E. Mix and cool to 40C and add F. Cool to room temperature. Adjust pH if necessary to pH 5.

A smooth, quickly absorbing lotion that will produce a golden bronze "tan" in 3 hours.

Formula MS-2-53-5

SUNTAN OIL SPRAY

INGREDIENT	% By Weight
Rice Bran Oil	4.0
Canola Oil	50.0
Safflower Oil (Hi Oleic)	20.0
Sweet Almond Oil	4.0
Apricot Kernel Oil	2.0
Sesame Oil	1.75
Spectrasorb UV-9	2.0
Neo Heliopan AV	6.0
Siltech FVC	10.0
White Flower Bouquet #891116	0.2
d-delta rich Tocopherols Concentrate	0.05

Procedure:

Premix Spectrasorb and Siltech FVC to dissolve. When mixture is clear, add remaining ingredients to batch while mixing. Mix until clear and uniform. Can be sprayed using a Calmar Mark II High Viscosity spray dispenser.

Formula #MS-2-90-4

SOURCE: TRI-K Industries, Inc.: Formulas

MIDRANGE SPF SUNTAN LOTION

INGREDIENT	% By Weight
Demineralized Water	83.0500
Acrisint 400	0.2000
Methyl Paraben	0.2000
Abiol	0.2000
Acetamide MEA 70%	3.5000
'T' Base	3.0000
'T' Wax	3.0000
Octyl Dimethyl PABA	5.0000
TEA 99%	0.4000
Glucose Tyrosinate AMI	0.5000
Perfume #M-3042	0.2500
Aloe Extract HS	0.6000
Propyl Paraben	0.1000

Procedure:

1. Disperse the Acrisint in water while heating batch to 70C.
 2. Add methylparaben and mix until dissolved.
 3. Add acetamide MEA and mix until uniform.
 4. Combine the waxes and oils with propylparaben and heat to 75C. to clear.
 5. Add oil phase to main batch and mix with sweep agitation until smooth.
 6. Begin cooling to 50C. and add TEA while cooling...Mix until uniform.
 7. Add remaining ingredients while cooling to RT.
- Formula 089

TROPICAL SUNTAN OIL

INGREDIENTS	% By Weight
Rice Bran Oil	70.2
Rose Hip Oil	1.0
Hazelnut Oil	1.0
Squalane	12.0
Octyl Methoxy Cinnamate	6.0
Benzophenone-3	2.0
Vitamin E Acetate	0.5
Kikui Oil	1.0
Passion Fruit Oil	2.0
Camellia Oil	2.0
Macademia Nut Oil	2.0
Fragrance E4094	0.2
Trisept P	0.1

Procedure:

Premix Benzophenone-3 and Squalane to dissolve. When clear and uniform add remaining ingredients to batch while mixing. Mix until clear and uniform.

Formula #MS2-54-1

SOURCE: TRI-K Industries, Inc.: Formulas

"MINERAL OIL FREE" SUNTAN OIL

INGREDIENTS	% By Weight
VELSAN D8P-3	44.0
Benzophenone-3	6.0
Escalol 507	7.0
Propyl Paraben	0.1
Lipovol MOS-70	42.9

Appearance: Clear yellow oil

Viscosity: 425 cps

SPF: 2-4

Procedure:

Dissolve Benzophenone-3 into Velsan D8P-3. With stirring, add the remaining ingredients in order.

A clear, light feeling blend of emollient esters incorporating Velsan D8P3 for instantly solubilizing Benzophenone-3.

SOURCE: Sandoz Chemicals Corp.: Formula CSC-03

SUNTAN CREAM

INGREDIENTS	% By Weight
Stearic acid, triple-pressed	4.50
Cetyl alcohol	0.90
Mineral oil	14.75
"Pur-Cellin" liquid	5.00
"Pur-Cellin" solid	0.25
"Prosolal" S9	1.00
"Super Sat" AWS-4	2.00
AMP-95	0.90
"Carbopol" 934	0.20
Deionized water	69.75
Preservative	q.s.
Perfume	q.s.

SOURCE: Angus Chemical Co.: Formulation PF-0105 suggested by Dragoco, Inc.

OIL FREE WATERPROOF TANNING CREAM SPF 8

RAW MATERIAL	Sequence	% By Weight
Octyl Methoxycinnamate	1	5.00
Benzophenone-3	1	1.00
Lipolan	1	1.00
Silicone 200 fluid (350 cts)	1	0.50
Lipo GMS-470	1	3.00
Stearic Acid	1	3.00
Liposorb SQO	1	2.00
Bentone Gel IPM	1	4.50
Propylparaben	1	0.10
Water	2	66.70
Lipo Polyol NC	2	2.50
Carbopol 934 (2% disp'n)	2	9.00
Methylparaben	2	0.30
Butylparaben	2	0.05
Unicide U-13	2	0.30
Trisodium EDTA	2	0.05
Triethanolamine, 99%	3	0.70
Benzyl Alcohol	4	0.10
Fragrance TC 337	4	0.20

Manufacturing Procedure:

- Heat Sequence 1 ingredients to 85C under Lightnin' mixing. Disperse Bentone gel completely with Lightnin' mixing.
- Heat Sequence 2 ingredients to 78C under Lightnin' mixing, until Carbopol is dispersed. Add Sequence 3 ingredients.
- Add Sequence 1 to combined Sequences 2 and 3 under Homomixing and mix at temperature for 15 minutes.
- Switch to sweep stirring and add Sequence 4 ingredients at 40C. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 431

SUN LOTION

COMPONENTS	% By Weight
Squalane	2
Isopropyl Lanolate	2
Glyceril Stearate	3
Beeswax	1
Stearic Acid	1,3
Homomenthyl Salicylate	7
Sorbitol (at 70%)	5
Triethanolamine	1,1
Distilled Water	at 100
Preservative Agents	Sufficient quantity
Perfume	Sufficient quantity

SOURCE: La Ceresine: Formula

O/W SUN PROTECTION CREAM II

RAW MATERIALS	% By Weight
A. SOFTISAN 601	35.0
MIGLYOL 812	7.0
IMWITOR 960	5.0
Neo-Heliopan E 1000	3.0
B. Preservative	q.s.
Water	up to 100.0
C. Fragrance	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is brought up to the same temperature and emulsified into (A). Fragrance is added at ca. 30C.

Formula 4.1.4B

SUN PROTECTION MILK I

RAW MATERIALS	% By Weight
A. DYNASAN 114	6.0
IMWITOR 900	6.0
MIGLYOL 812	5.0
Siponic E-3	2.0
Plurafac A 38	3.0
Cetyl Alcohol	2.0
Mineral Oil	5.0
Neo-Heliopan F 1000	3.0
B. Water-Soluble Nut Extract	2.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is brought up to the same temperature and emulsified into (A). At ca. 30C., the fragrance is added.

Formula 4.2A

SOURCE: Huls America Inc.: Formulas

O/W SUNSCREEN CREAM

RAW MATERIALS	% By Weight
A Cremophor A 6	2.0
Cremophor A 25	2.0
Dracorin 100 SE	5.0
Diisopropyl Adipate	10.0
Miglyol 812	10.0
Vaseline	5.0
Stearic Acid	2.0
Vitamin E Acetate	1.0
Uvinul T 150	3.0
B 1,2-Propylene Glycol	3.0
Uvinul MS 40	2.0
Preservative	q.s.
Panthenol 50 P	4.0
Carbopol 934	0.3
Water	49.3
C Triethanolamine Pure C	1.4
D Perfume	q.s.

Preparation:

Phase A and B are heated to 75C separately; phase B is added to phase A under stirring; phase C is added, the emulsion is homogenized and stirred until cold. Phase D is added at ca. 35C.

Properties:

Soft to pasty cream, spreads well, penetrates readily.
Formula 53/095

SUNSCREEN GEL

RAW MATERIALS	% By Weight
A Uvinul T 150	3.0
Isopropyl Myristate	38.0
Miglyol 812	39.0
Perfume	q.s.
B Bentone 38	15.0
C Propylene Carbonate	5.0

Preparation:

Dissolve phase A, add phase B and homogenize, then add Phase C.

Properties:

Stiff, brownish, oily gel, spreads well, good emollience.
Formula 53/093

SOURCE: BASF Corp.: Uvinul T 150: Formulas

O/W SUNSCREEN LOTION

RAW MATERIALS	% By Weight
1. A-C 617	1.0
2. A-C 540	1.0
3. Escalol 507	5.0
4. Dow Fluid 556	2.0
5. Propylene Glycol Dipeleragonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlacel 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol	5.0
12. Carbopol 941	0.5
13. Germall 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.45

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

SUN TAN CREAM

RAW MATERIALS	% By Weight
A Belsil DM 350	3,00
Cetyl Alcohol	2,00
Stearic Acid	4,00
Parsol MCX	2,00
B Glycerine	2,00
Triethanolamine	0,90
Water	86,10
Preservatives, pigments, fragrances	q.s.

Heat A and B to 80C, mix A into B, cool whilst stirring, at approx. 45C add Parsol MCX, stir cold.
 Temperature stability: at 45C over 10 weeks.
 Creamy soft.

SOURCE: Wacker Silicone: Formulation 133 AH

O/W SUNSCREEN LOTION

RAW MATERIALS	% By Weight
1. A-C 580	2.0
2. Distilled Isopropyl Lanolate	3.0
3. Escalol 507	5.0
4. Dow Fluid 556	2.0
5. Propylene Glycol Dipelargonate	10.0
6. Ethoxyol 24	1.0
7. Arlancel 60	1.0
8. Tween 60	2.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Carbopol 941	0.5
12. Methyl-P-Hydroxybenzoate	0.2
13. Triethanolamine	0.75
14. Water	67.45

Procedure:

Disperse Carbopol in water. Weigh 1-9 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue to shear while cooling to 40C, then add Triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

SUN TAN LOTION

RAW MATERIALS	% By Weight
A Teginacid	6,00
Isopropyl Myristate	1,00
Belsil DM 350	1,00
Mineral Oil, low viscosity	4,00
Lanette O	1,00
Belsil CM 1000	10,00
Parasol MCX	3,00
B Water	71,50
Glycerine	1,50
C Belsil BNP	1,00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65-70C, stir B into A, stir C into AB.
Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 913 AH

"PABA FREE" WATERPROOF SUNSCREEN (APPROX. SPF 15)

INGREDIENTS	% By Weight
Phase A:	
Escalol 557	7.50
Escalol 567	3.00
Estol EHP 1543	3.00
Cetyl Alcohol	1.00
Emersol 132	2.00
Myrj 52S	1.50
Abil B8852	1.00
Armeen DM18D	2.00
DERMACRYL-79	2.00
Phase B:	
Deionized Water	74.90
Carbopol 941	0.20
Triethanolamine 99%	0.70
Phase C:	
Germaben II E	1.00
Phase D:	
Fragrance	0.20

Substantivity (In Vitro Waterproof Test) - 93.0%

Procedure:

Disperse Carbopol 941 into water and heat to 80C, add triethanolamine slowly to prepare Phase B. Combine Phase A ingredients except DERMACRYL-79 and heat to 80C. Sift DERMACRYL-79 in the oil phase with constant stirring until dissolved. Add Phase A to Phase B at 80C and mix for 15 minutes. Cool to 40C and add Phase C and Phase D to it. Cool to room temperature and package.

Description:

This product features excellent emollient properties that help to keep skin soft and smooth, while at the same time, providing excellent waterproof sun protection.

SOURCE: National Starch and Chemical Corp.: Formula 6590-53-3

SELF TANNING CREAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
Lanette N	5.0
Propylene Glycol	3.0
Isopropyl Myristate	3.0
B. Hygroplex HHG	0.5
Preservative	q.s.
Water	up to 100.0
C. Dihydroxyacetone	5.0
Water	5.0
D. Perfume	q.s.
MIGLYOL 812	5.0
Carotene	0.04

Preparation:

(A) is melted and brought to 75-80C. (B) is heated to the same temperature, and emulsified into (A). (C) is dissolved and stirred in at 30C. Finally, (D) is mixed and stirred in. Before filling, it is beneficial to homogenize the cream.

Formula 4.6.1

SELF TANNING LOTION

RAW MATERIALS	% By Weight
A. Cremophor A 6	1.5
Cremophor A 25	1.5
Cremophor EL	1.0
MIGLYOL 812	5.0
1,2-Propylene Glycol	5.0
Cetyl Alcohol	2.5
B. Dihydroxyacetone	5.0
Water	5.0
C. Preservative	q.s.
Water	up to 100.0
D. Perfume	q.s.

Preparation:

(A) is heated to 75-80C. (C) is heated to the same temperature and is stirred into (A). (B) is dissolved and added together with (D) at about 30C.

Formula 4.6.2

SOURCE: Huls America Inc.: Formulas

SELF-TANNING-CREAM (O/W)

RAW MATERIALS	% By Weight
A Emulsifier E 2155	8,00
Paraffin oil medium viscosity	12,00
Paraffin wax	2,00
Miglyol 812	3,00
Isopropyl myristate	2,00
B Propanediol-1,2	4,00
Sorbitol F liquid	2,00
Preservatives	q.s.
Water, demineralized	ad 100,00
C Dihydroxyacetone	5,00
Water, demineralized	11,80

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring. Add phase C and at 40C. Add perfume as required.

Viscosity: 152.000 mPas
Formula: 1-1/89

SELF-TANNING-CREAM(O/W)

RAW MATERIALS	% By Weight
A Arlacel 165	6,60
Atlas G-1790	3,60
Lanette O	3,00
Paraffin oil medium viscosity	1,50
Isopropyl myristate	4,00
Abil AV 200	1,00
Oxynex 2004	0,05
B Sorbitol F liquid	6,00
Preservatives	q.s.
Wasser, demineralized	ad 100,00
C Dihydroxyacetone	5,00
Water, demineralized	10,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring. Add phase C at 40C. Add perfume as required.

Viscosity: 38.000 mPas
Formula 24-7/89

SOURCE: E. Merck, Darmstadt: Formulas

SELF-TANNING-LOTION (O/W)

RAW MATERIALS	% By Weight
A Arlatone 983 S	1,50
Arlatone 985	2,20
Brij 76	1,50
Paraffin oil medium viscosity	5,00
Miglyol 812	5,00
B Sorbitol F liquid	2,50
Propanediol-1,2	2,50
Preservatives	q.s.
Water, demineralized	ad 100,00
C Dihydroxyacetone	5,00
Water, demineralized	5,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring. Add phase C at 40C. Add perfume as required.

Viscosity: 34.000 mPas

SOURCE: E. Merck, Darmstadt: Formula 3-1/89

AFTER SUN GEL

INGREDIENTS	% By Weight
Water Phase:	
Water, deionized	q.s.
Propylene glycol (and) diazolidinyl urea (and) methylparaben (and) propylparaben	1.00
Carbomer 940	0.40
Premix:	3.80
Water, deionized	3.0
Triethanolamine, 99%	0.8
Oil Phase:	
CERAPHYL GA	27.0
CERAPHYL ICA	28.0
CERAPHYL 45	28.5
Alpha-bisabolol	4.5
Microcrystalline wax	5.0
SPECTRA-PEARL MTW	3.5
dl-alpha tocopheryl acetate	3.5

Procedure:

1. At room temperature add ingredients of water phase in order listed. Mix until completely uniform between additions. Do not aerate.
2. Add premix to water phase slowly. Do not aerate.
3. At 85C, add ingredients of the oil phase to separate vessel in order listed. Mix until uniform between additions.
4. While in liquid form, add oil phase to water phase in desired design.

SOURCE: Van Dyk & Co., Inc.: Formula #G135-39-1

SOLAR TANNING CREAM: HIGH PROTECTION

RAW MATERIALS	% By Weight
Part (A):	
Water	79.9
Carbomer 934	.6
Part (B):	
Prottox T 25	.2
Rosswax 573	.8
Rosswax 1824	2.0
Ross Jojoba Oil	.8
GMS-SE	.8
Coconut Oil #76	3.0
Escalal 507	7.0
Escalal 567	3.0
Part (C):	
Germaben II	1.0
Part (D):	
Fragrance	q.s.
Part (E):	
Triethanolamine	0.9

Procedure:

Heat the water in a steam jacketed kettle and add the Carbomer 934 under agitation. Heat Part (B) in a steam jacketed kettle until clear under agitation. When fully mixed add Part (B) to Part (A) under agitation. Then add Part (C) and mix thoroughly. Next add Part (D) and finally add Part (E) with agitation. Cool to 120F and package.

TANNING JELLY

RAW MATERIALS	% By Weight
Petrolatum USP	49.0
Mineral Oil #7	20.0
Henkel Cutina-LM	23.9
Ross Jojoba Oil	2.0
Escalal 507	5.0
Propyl Paraben	0.1
Fragrance	q.s.

Procedure:

Load ingredients in steam jacketed kettle and melt to a liquid state under agitation. When thoroughly mixed, cool to 130F, fragrance and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

SOLAR TANNING CREAM: SOFT

RAW MATERIALS

Part By Weight

Water Phase:	
Water	427.9
Carbomer 934	3.0
Oil Phase:	
Protox T-25	1.0
Rosswax 573	4.0
GMS SE	4.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
Rosswax 1824	12.0
Escalol 507	25.0
Fragrance	q.s.
Germaben II	5.0
Triethanolamine	4.4

Procedure:

Disperse the Carbomer 934 in the water. In a second vessel heat the Oil Phase including the Escalol 507 until completely clear. When both phases are ready add the Oil Phase to the Water Phase, add the Preservative, fragrance and add the triethanolamine under high agitation. When fully mixed you may package.

SOLAR TANNING CREAM: HARD

RAW MATERIALS

Parts by Weight

Water Phase:	
Water	410.0
Carbomer 934	3.0
Oil Phase:	
Protox T-25	1.0
Rosswax 573	4.0
GMS SE	4.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
Rosswax 1824	12.0
Escalol 507	25.0
Fragrance	q.s.
Germaben II	4.8
Triethanolamine	4.4

Procedure:

Disperse the Carbomer 934 in the water. In a second vessel heat the Oil Phase including the Escalol 507 until completely clear. When both phases are ready add the Oil Phase to the Water Phase, add the preservative, Fragrance and add the Triethanolamine under high agitation. When fully mixed you may package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

SOLAR TANNING CREAM: SUPER PROTECTION

RAW MATERIALS	% By Weight
Part (A):	
Water	69.1
Carbomer 934	.6
Part (B):	
Protox T 25	.2
Rosswax 573	.8
Rosswax 1824	2.4
Ross Jojoba Oil	1.0
GMS-SE	.8
Coconut Oil #76	3.2
Escolal 507	8.0
Escolal 567	4.5
Escolal 557	7.5
Part (C):	
Germaben II	1.0
Part (D):	
Fragrance	q.s.
Part (E):	
Triethanolamine	0.9

Procedure:

Heat the waxes in a steam jacketed kettle and add the Carbomer 934 under agitation. Heat Part (B) in a steam jacketed kettle until clear under agitation. When fully mixed add Part (B) to Part (A) under agitation. Then add Part (C) and mix thoroughly. Next add Part (D) and finally add Part (E) with agitation. Cool to 120F and package.

SUN SCREEN STICK

INGREDIENTS	% By Weight
Ross White Bleached Beeswax	20.0
Ross Pure Refined Candelilla Wax	16.1
Ross Pure #1 Yellow Carnauba Wax	4.0
Petrolatum	16.1
IPM	10.0
Mineral Oil 60/70	32.6
Ross Jojoba Oil	1.2
Amerscreen P	q.s.

Procedure:

Heat all ingredients in a steam jacketed kettle to 170F under agitation. When fully mixed cool to 145F and package. (Note: Capping may be necessary).

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

SOLAR TANNING LOTION-A

RAW MATERIALS	Parts by Weight
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	13.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

SOLAR TANNING LOTION-B

RAW MATERIALS	% By Weight
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	19.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt Part II until clear. As soon as everything is melted add Part II to Part I with agitation. Then add Part III and Part IV with increased agitation: then add Triethanolamine. Cool to 130F. and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

SOLAR TANNING LOTION-C

RAW MATERIALS	% By Weight
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	25.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

SOLAR TANNING LOTION-D

RAW MATERIALS	% By Weight
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	32.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt Part II until clear. As soon as everything is melted add Part II to Part I with agitation. Then add Part III and Part IV with increased agitation. Then add Triethanolamine. Cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: *Cosmetic Formulary: Formulas*

SOLAR TANNING LOTION: HIGH PROTECTION

RAW MATERIALS	Parts by Weight
Water	517.0
Carbomer 934	1.8
Rosswax 573	2.0
Gms SE	3.6
Jojoba Oil	3.6
Escalol 507	42.0
Escalol 567	18.0
Germaben II	6.0
Fragrance	q.s.
Triethanolamine	3.6

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt the oil phase till clear with agitation. Now add the oil phase to the water phase with agitation, add the Germaben II, fragrance and finally add the triethanolamine with high agitation. Next cool to 130F and package.

SOLAR TANNING LOTION: SUPER PROTECTION

RAW MATERIALS	Parts by Weight
Water	381.5
Carbomer 934	1.5
Rosswax 2540	3.0
GMS-SE	3.0
White Jojoba Oil	3.0
Escalol 507	40.0
Escalol 567	22.5
Escalol 557	37.5
Germaben II	5.0
Fragrance	q.s.
Triethanolamine	3.6

Procedure:

Heat the water in a steam jacketed kettle with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt the oil phase until clear with agitation. Now add the oil phase to the water phase with agitation, then the Germaben II, then the Fragrance and finally add the Triethanolamine with high agitation. Next cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

SOLAR TANNING OIL-A

RAW MATERIALS	% By Weight
Cocoanut Oil #76	15.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	2.0
Fragrance	q.s.

SOLAR TANNING OIL-B

RAW MATERIALS	% By Weight
Cocoanut Oil #76	14.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	3.0
Fragrance	q.s.

SOLAR TANNING OIL-C

RAW MATERIALS	% By Weight
Cocoanut Oil #76	13.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	4.0
Fragrance	q.s.

SOLAR TANNING OIL-D

RAW MATERIALS	% By Weight
Cocoanut Oil #76	12.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.

Mix all of the above ingredients in a stainless steel vessel, run thru a filter and package.

SOURCE: Frank B. Ross Co., Inc.: *Cosmetic Formulary: Formulas*

SOLAR TANNING STICK: WHITE COLOR

RAW MATERIALS	% By Weight
Rosswax 26-1152	15.0
Rosswax 1641	15.0
Rosswax 1824	20.0
Mineral Oil #7	17.5
Dow Silicone 344	8.0
Isopropyl Myristate	6.5
Coconut Oil #76	5.0
Acetulan	4.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.
Preservative	q.s.

Procedure:

Load the waxes and the oils in a steam jacketed kettle, under agitation until melted. Cool to just before cloudy, add preservatives. Mold in containers. (Note: Capping may be necessary).

SOLAR TANNING STICK: TAN COLOR

RAW MATERIALS	% By Weight
Rosswax 26-1152	30.0
Rosswax 1824	20.0
Mineral Oil #7	17.5
Dow Silicone 344	8.0
Isopropyl Myristate	6.5
Coconut Oil #76	5.0
Acetulan	4.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.
Preservative	q.s.

Procedure:

Heat the waxes and the oil in a steam jacketed kettle, to 175F under agitation. When mixed fully, cool to just before cloudy, and add Fragrance and Preservative. Mold in containers. (Note: Capping may be necessary).

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

'SUN BLOC' SUNSCREEN SPF 15

INGREDIENTS	% By Weight
A. Deionized Water	61.9
Carbomer 1342	0.5
Propylene Glycol	3.0
Methylparaben	0.2
B. Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	3.0
Cetyl Alcohol	0.5
Lanolin	1.0
PVP Eicosine Copolymer	2.0
Octyl Dimethyl PABA	7.0
Octyl Methoxy Cinnamate	2.0
Benzophenone-3	3.0
C. Triethanolamine	0.8
D. SOLLAGEN	1.0
DERMATEIN GSL	5.0
E. Dimethicone	2.0
Diazolidinyl Urea	0.3
Aloe Vera	0.5
Fragrance	0.1

Procedure:

Begin heating water to 80C; sift Carbomer into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Add TEA; mix until smooth. Cool to room temperature. Slowly add SOLLAGEN and DERMATEIN GSL; mix until uniform. Add Part E ingredients. Mix until homogeneous.

Description:

Sun damages skin--it dries out! SOLLAGEN, Soluble Collagen, provides skin with the moisture it needs. DERMATEIN GSL, Glycosphingolipids, replaces the lipid lost from the skin and increases the skin's ability to bind moisture! This formula demonstrates a total sun block--SPF 15.

SOURCE: Geo. A. Hormel & Co.: Formula

SUN CARE SPF 15
PABA Free, Oil Free

RAW MATERIALS	% By Weight
A-A1 Schercemol CO	10.00
Schercemol DISD	1.00
Schercemol TISC	5.00
Silicone fl. 350 cps	0.20
Cetyl Alcohol	1.50
Glyceryl Stearate	4.00
Amphisol	2.50
A2 Parsol MCX	7.50
Dipsal	5.00
B-B1 Deionized Water	48.40
Carbopol 1342 2% Aq. Sln.	5.00
Carbopol 940 2% Aq. Sln.	5.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Aloe Vera Extract	0.50
E- Fragrance	0.20

Procedure:

Phase B:

In the main beaker, disperse B1 together at 75-85C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

Phase A:

Blend Phase A1 at 85C.

Once completely clear add A2.

Blend Phase A together until a homogeneous oil phase is obtained.

Add Phase A to Phase B with continuous mixing at 80-85C for fifteen minutes.

Cool batch to 60C with continuous mixing then add Phase C.

Continue to cool batch to 30C then add Phase D and Phase E in sequence.

Continue to cool batch with mixing to 25-28C.

SOURCE: Scher Chemicals, Inc.: Formula L-213-4

SPF 12 SUN CREAM

RAW MATERIALS	% By Weight
Amphisol	2,50
Beeswax	4,00
Isopropyl Sebacate	10,00
Ganex 220-V	2,50
Octyl P Methoxy Cinnamate	7,50
Benzophenon 3	4,50
Demetil Polysiloxane (Free Running Silicon)	0,50
Water	At 100
Carbomer 1342	0,20
Glycerin	5,00
Triethanolamine (at 10%)	0,9
Preservative Agents	Sufficient quantity
Perfume	Sufficient quantity

SOURCE: La Ceresine: Formula

SUN PROTECTANT LOTION SPF 8

INGREDIENTS	% By Weight
A. Deionized Water	73.8
Carbomer 1342	0.3
Propylene Glycol	3.0
Methylparaben	0.2
Allantoin	0.2
B. Stearic Acid	3.0
Glyceryl Stearate and PEG 100 Stearate	2.0
Cetyl Alcohol	0.5
Lanolin	1.0
Octyl Dimethyl PABA	5.0
Octyl Methoxy Cinnamate	2.0
C. Triethanolamine	0.6
D. SOLLAGEN	1.0
DERMATEIN GSL	5.0
E. Dimethicone	1.0
Diazolidinyl Urea	0.3
Aloe Vera	1.0
Fragrance	0.1

Procedure:

Begin heating water to 80C; sift Carbomer into water with constant agitation. Add rest of Part A. Mix until clear. Add Part B ingredients in order. Mix until homogeneous. Add TEA; mix until smooth. Cool to room temperature. Slowly add SOLLAGEN and DERMATEIN GSL; mix until uniform. Add part E ingredients. Mix until homogeneous.

Description:

Skin needs moisture to remain healthy, especially in the searing sun! SOLLAGEN, Soluble Collagen, provides skin with the moisture it requires. DERMATEIN GSL, Glycosphingolipids, replaces the lipid lost from the skin and increases the skin's ability to bind moisture! This formula demonstrates a sun screen factor--SPF 8.

SOURCE: Geo. A. Hormel & Co.: Formula

SUN-PROTECTION-CREAM (O/W)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	3,00
Eusolex 4360	2,00
Arlacel 165	10,00
Paraffin oil medium viscosity	25,00
Cetyl alcohol	2,00
Lanolin Corona	2,00
Oxyxex 2004	0,05
B Eusolex 232	2,00
Tris (hydroxymethyl) aminomethane	0,88
Sorbitol F liquid	3,00
Glycerine	2,00
Titriplex III	0,05
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 56,000 mPas

Formula 12-5/89

SUN-PROTECTION-CREAM (O/W)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	5,00
Eusolex 4360	5,00
Lanette N	15,00
Isopropyl myristate	6,00
Vaseline	10,00
B Eusolex 232	5,00
Tris(hydroxymethyl)aminomethane	2,21
Glycerine	2,00
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Viscosity: 54,000 mPas

pH: 6,9

Formula 16-3/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-CREAM (O/W)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6007	8,00
Eusolex 4360	4,00
Homonmenthylsalicylate	5,00
Cutina KD 16	3,00
Stearic acid	2,00
Antaron V-220	1,00
Lanolin Corona	3,00
Oxydex 2004	0,05
B Sorbitol F liquid	5,00
Carbomer 940	0,05
Preservatives	q.s.
Water, demineralized	ad 100,00
C Triethanolamine	1,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase C to B, homogenize and add this mixture slowly to phase A while stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Viscosity: 53,000 mPas

Formula 33-3/89

SUN-PROTECTION-CREAM (O/W)

RAW MATERIALS	% By Weight
A Eusolex 6007	3,00
Emulgade 1000 Ni	10,00
Paraffin oil high viscosity	2,00
Dow Corning 200 (100 cs)	0,50
B Eusolex 232	3,00
Tris(hydroxymethyl)aminomethane	1,33
Glycerine	5,00
Titriplex III	0,10
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 57.000 mPas

pH 22C: 6,0

Formula 35-1/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-CREAM (W/O)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	4,00
Eusolex 4360	2,00
Arlacel 581	7,00
Arlamol S 7	2,00
Paraffin oil low viscosity	6,00
Paraffin wax	5,00
Dow Corning 344	4,00
Miglyol 812	2,00
Tocopherol acetate	0,50
B Eusolex 232	3,00
Tris(hydroxymethyl)aminomethane	1,33
Glycerine	2,00
Magnesium sulfate heptahydrate	0,70
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 135.000 mPas

Formula 40-3/89

SUN-PROTECTION-CREAM (W/O)
SPF app. 7

RAW MATERIALS	% By Weight
A Eusolex 6300	1,50
Arlacel 581	6,00
Paraffin oil high viscosity	14,50
Beeswax, white	3,00
Miglyol 812	11,50
Dow Corning 200 (100 cs)	2,00
Tocopherol acetate	0,50
B Glycerine	2,00
Magnesium sulfate heptahydrate	0,70
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Viscosity: 52.000 mPas

Formula 41-19/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-CREAM (W/O)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	4,00
Eusolex 4360	2,00
Arlacel 581	7,00
Paraffin oil low viscosity	6,00
Arlamol S 7	2,00
Lunacera M	5,00
Dow Corning 344	4,00
Miglyol 812	2,00
Oxyhex 2004	0,05
B Eusolex 232	3,00
Tris(hydroxymethyl)aminomethane	1,33
Glycerine	2,00
Magnesium sulfate heptahydrate	0,17
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 26.000 mPas

Formula 55-4/89

SUN-PROTECTION-LOTION (W/O)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	4,00
Eusolex 4360	2,00
Arlacel 582	2,75
Arlatone T	1,00
Paraffin oil low viscosity	11,00
Isopropyl myristate	5,00
Cetiol 568	6,00
B Atlas G-2330	1,25
Propanadiol-1,2	1,25
Magnesium sulfate heptahydrate	0,70
Preservatives	q.s.
Water, demineralized	ad 100,00
C Aerosil R 972	1,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B and then phase C slowly to phase A while stirring. Homoeogenize. Cool down to 25C while stirring. Add perfume at 40C as required.

Viscosity: 16.000 mPas

Formula 22-1/90

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-CREAM (W/O)
SPF app. 10

RAW MATERIALS	% By Weight
A Eusolex 6300	1,50
Arlacel 581	6,00
Paraffin oil high viscosity	14,50
Beeswax, white	3,00
Miglyol 812	11,50
Dow Corning 200 (100 cs)	2,00
Tocopherol acetate	0,50
B Eusolex 232	1,50
Tris(hydroxymethyl)aminomethane	0,66
Glycerine	2,00
Magnesium sulfate heptahydrate	0,70
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 65.000 mPas

Formula 41-20/89

SUN-PROTECTION-CREAM (W/O)
SPF app. 5

RAW MATERIALS	% By Weight
A Arlacel 581	6,00
Paraffin oil high viscosity	14,50
Beeswax, white	3,00
Miglyol 812	11,50
Dow Corning 200 (100 cs)	2,00
Tocopherol acetate	0,50
B Eusolex 232	1,50
Tris(hydroxymethyl)aminomethane	0,66
Glycerine	2,00
Magnesium sulfate heptahydrate	0,70
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Viscosity: 76.000 mPas

Formula 41-21/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-GEL (AQUEOUS)
SPF app. 10

RAW MATERIALS	% By Weight
A Eusolex 232	4,00
Tris(hydroxymethyl)aminomethane	1,77
Allantoin	0,20
Sorbitol F liquid	5,00
Preservatives	q.s.
Water, demineralized	ad 100,00
B Carbomer 940	1,50
Water, demineralized	36,10
C Tris(hydroxymethyl)aminomethane	2,40
Water, demineralized	10,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase A. Heat to 70C until homogeneous and cool while stirring. Disperse Carbomer 940 in the water of Phase B and homogenize. Dissolve the Tris(hydroxymethyl)aminomethane in the water of Phase C. Combine phases B and C and homogenize. Incorporate phase A. Homogenize again. Add perfume in combination with a solubilizer as required.

Transparent gel
Viscosity: 35.000 mPas
pH: 6,7
Formula 32-2/89

SUN-PROTECTION-STICK
With UV-A/B-Protection
SPF app. 10

RAW MATERIALS	% By Weight
Eusolex 4360	4,00
Eusolex 6300	2,00
Lanolin	3,90
Paraffin oil high viscosity	2,35
Paraffin wax	1,20
Beeswax, white	9,75
Carnauba wax	5,45
Isopropyl myristate	6,25
OxyneX 2004	0,05
Ricinus oil	65,05

Procedure:

Combine all ingredients and heat to 60C. Mix until clear. Pour into molds.
Formula 42-1/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-GEL (AQUEOUS-ALCOHOLIC)

RAW MATERIALS	% By Weight
A Eusolex 232	4,00
Tris(hydroxymethyl)aminomethane	1,77
Allantoin	0,20
Sorbitol F liquid	5,00
Preservatives	q.s.
Water, demineralized	ad 100,00
B Carbomer 940	1,50
Water, demineralized	36,10
C Tris(hydroxymethyl)aminomethane	2,40
Water, demineralized	10,00
D Ethanol (96%)	20,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase A. Heat to 70C until homogeneous and cool while stirring. Disperse Carbomer 940 in the water of Phase B and homogenize. Dissolve the Tris(hydroxymethyl)aminomethane in water of Phase C. Combine phases B and C and homogenize. Add phase D step by step while stirring, proceeding with each addition after it is clear and uniform. Add phase A and homogenize again. Add perfume in combination with a solubilizer as required.

Transparent gel
 Viscosity: 20.000 mPas
 Formula 14-2/89

SUN-PROTECTION-OIL
WITH INSECT REPELLENT

RAW MATERIALS	% By Weight
A Eusolex 6300	3,00
Repellent 3535	10,00
Arlatone T	2,00
Miglyol 812	16,00
Cetiol B	22,50
Isopropyl myristate	7,50
Paraffin oil low viscosity	38,95
Oxydex 2004	0,05

Procedure:

Heat phase A to 70C until clear. Stir to cool and add perfume at 40C as required.
 Formula 44-2/89

SOURCE: E. Merck, Darmstadt: Formulas

SUN PROTECTION LOTION

INGREDIENT	% By Weight
A VEEGUM	1.00
RHODIGEL	0.20
Glycerin	5.50
Deionized Water	68.80
B A-C 617G Polyethylene	2.00
Glyceryl Monostearate, SE (Kessco Glycerol Mono- stearate S.E.)	3.00
Dioctyl Malate (Ceraphyl 45)	2.00
Cetyl Alcohol	0.50
Mineral Oil	4.00
Steareth-2 (Brij 72)	0.30
Steareth-20 (Brij 78)	2.70
Benzophenone-3 (Escalol 567)	3.00
Octyl Dimethyl PABA (Escalol 507)	7.00
C Preservative, Fragrance	q.s.

Preparation:

Dry blend VEEGUM and RHODIGEL. Add VEEGUM/RHODIGEL blend to water preheated to 85-90C. Hydrate using maximum available shear until smooth, uniform and free of undispersed particles. Add glycerin and maintain temperature at 85-90C. In a separate container, add all B ingredients and heat to 85-90C until all components are in a liquid state. Stir gently as necessary. Slowly add B to A and homogenize for 5 minutes. Cool emulsion quickly to room temperature with gentle stirring. Add C and mix until uniform.

Consistency: Flowable liquid: Viscosity after 30 days: 1500-1900 cps

Suggested Packaging: Plastic bottles or tubes.

Features:

This medium viscosity lotion utilizes a synergistic VEEGUM/RHODIGEL blend to help stabilize the emulsion and modify the viscosity. In addition, this formula incorporates A-C 617G polyethylene to provide a luxurious after feel and improve the water resistance of the sun protection film. This product is designed to have an SPF (Sun Protection Factor) of about 15.

SOURCE: R. T. Vanderbilt Co., Inc.: Formula No. 444

SUN PROTECTION LOTION

INGREDIENT	% By Weight
A VEEGUM	1.00
RHODIGEL	0.20
Glycerin	5.50
Deionized Water	70.80
B Glyceryl Monostearate, SE (Kessco Glycerol Monostearate, S.E.)	3.00
Diocetyl Malate (Ceraphyl 45)	2.00
Cetyl Alcohol	0.50
Mineral Oil	4.00
Steareth-2 (Brij 72)	0.30
Steareth-20 (Brij 78)	2.70
Benzophenone-3 (Escalol 567)	3.00
Octyl Dimethyl PABA (Escalol 507)	7.00
C Preservative, Fragrance	q.s.

Preparation:

Dry blend VEEGUM and RHODIGEL. Add VEEGUM/RHODIGEL blend to water preheated to 75 to 85C. Hydrate using maximum available shear until smooth, uniform and free of undispersed particles. Add glycerin and maintain temperature at 75 to 85C. In a separate container, add all B ingredients and heat to 75 to 85C until all components are in a liquid state. Stir gently as necessary. Slowly add B to A and homogenize for 5 minutes. Cool emulsion to room temperature with gentle stirring. Add C and mix until uniform.

Consistency: Flowable liquid. Viscosity after 30 days: 750 to 1000 cps

Features:

This medium viscosity lotion utilizes a synergistic VEEGUM/RHODIGEL blend to help stabilize the emulsion and modify the viscosity. It is designed to have an SPF (Sun Protection Factor) of about 15.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 446

AFTER SUN EMULSION, FOR STRESSED SKIN TYPE O/W

RAW MATERIALS	% By Weight
a) Emulgate F	3.0
Acetulan	3.0
Cetiol V	3.0
Calendula Oil CLR	3.0
Epidermin in Oil	0.5
Isopropyl palmitate	3.0
Stearin	1.0
Preservative	q.s.
b) Water, distilled, preserved	83.3
D-Panthenol	0.2

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a.

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH: 12

SUN PROTECTION LOTION

RAW MATERIALS	% By Weight
A ARLATONE 983 S	6.0
LANETTE 16	2.0
EDENOR C 18/98	3.0
Paraffin oil	6.0
Parsol MCX	3.0
B 1,2-propylene glycol	2.0
Glycerine	1.5
Water	75.6
C Perfume	0.4
Preservative	

SOURCE: Schulke & Mayr GmbH: EUXYL K 400: Formulation Nr. 13 o/w

SUNTAN STICK

RAW MATERIALS	% By Weight
A. SOFTISAN 100	35.0
SOFTISAN 649	6.0
MIGLYOL 812	12.0
Beeswax	11.0
Microcrystalline Wax	12.0
Petrolatum	13.0
Olive Oil	6.0
Neo-Heliopan E 1000	5.0
Antioxidants	q.s.
B. Fragrance	q.s.

Preparation:

(A) is melted together and cooled under stirring to a creamy consistency. The fragrance (B) is then added and the mass poured into appropriate molds.

SOURCE: Huls America Inc.: Formula 4.4.1C

SUN-PROTECTION-LOTION (O/W)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	3,00
Eusolex 4360	2,00
Eumulgin B 2	2,00
Cutina CBS	9,00
Cutina E 24	2,00
Paraffin oil medium viscosity	4,00
B Glycerine	5,00
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down to 25C while stirring. Add perfume at 40C as required.

Viscosity: 9.000 mPas
Formula 27-2/90

SUN-PROTECTION-LOTION (O/W)
With UV-A/B-Protection

RAW MATERIALS	% By Weight
A Eusolex 6300	3,00
Eusolex 4360	2,00
Eumulgin B 1	3,00
Cutina MD	8,00
Miglyol 812	7,00
B Eusolex 232	4,00
Tris(hydroxymethyl)aminomethane	1,77
Glycerine	5,00
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Viscosity: 2.000 mPas
Formula 28-6/90

SOURCE: E. Merck, Darmstadt: Formulas

SUN-PROTECTION-LOTION (W/O)

RAW MATERIALS	% By Weight
A Eusolex 6300	3,00
Pionier L-15	19,00
Paraffin oil high viscosity	15,00
B Eusolex 232	2,00
Tris(hydroxymethyl)aminomethane	0,88
Glycerine	5,00
Magnesium sulfate heptahydrate	0,50
Preservatives	q.s.
Water, demineralized	ad 100,00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Viscosity: 5.800 mPas
Formula 23-3/90

SUN-PROTECTION-OIL
With UV-A/B-Protection

RAW MATERIALS	% By Weight
Eusolex 6007	5,00
Eusolex 4360	5,00
Paraffin oil low viscosity	47,00
Miglyol 812	15,00
Cetiol B	22,50
Isopropyl myristate	7,50

Procedure:

Heat to 70C until clear. Stir to cool and add perfume at 40C as required.

Formula 22-2/89

SOURCE: E. Merck, Darmstadt: Formulas

SUNSCREEN

RAW MATERIALS	% By Weight
A. SOFTISAN 601	35.0
MIGLYOL 812	7.0
IMWITOR 960	5.0
Neo-Heliopan E 1000	3.0
B. Hygroplex HHG	3.0
Panthenol	3.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance 74 804	0.3

Preparation:

(A) is melted and heated up to 75-80C. (B) is heated up to the same temperature and emulsified slowly into (A). (C) is stirred in at ca. 30C. Before filling, it is beneficial to homogenize the cream.

Formula 4.1.4A

W/O SUNSCREEN CREAM

RAW MATERIALS	% By Weight
A. SOFTISAN GEL	20.0
SOFTISAN 649	5.0
IMWITOR 780K	3.0
Neo Heliopan E1000	4.0
B. Paraffin	3.0
C. Magnesium Sulfate	2.0
Preservative	q.s.
Water	up to 100.0
D. Perfume	q.s.

Preparation:

(A) is mixed together. (B) is then added and (A & B) are heated up to 75-80C. (C) is brought to the same temperature and emulsified into (A & B). (D) is added at about 30C.

Soft w/o emulsion with excellent spreadability, which penetrates quickly into the skin.

Formula 4.1.1A

SOURCE: Huls America Inc.: Formulas

SUNSCREEN I

RAW MATERIALS	% By Weight
SOFTIGEN 767	35.0
Simethicone-Emulsion	0.1
Cremophor RH 40	5.0
Neo-Heliopan E 1000	2.0
Escalol 507	2.0
Preservative	q.s.
Water	up to 100.0

Preparation:

SOFTIGEN, Cremophor and the Simethicone-Emulsion are mixed together at ca. 40C. The other components are added and mixed together with the homogenizer.

Formula 4.3B

SUNSCREEN II

RAW MATERIALS	% By Weight
SOFTIGEN 767	30.0
Simethicone-Emulsion	0.1
Tween 80	5.0
Neo-Heliopan E 1000	2.0
Preservative	q.s.
Water	up to 100.0

Preparation:

SOFTIGEN, Tween 80, and the Simethicone-Emulsion are mixed together at ca. 40C. The other components are added and mixed together with the homogenizer.

Formula 4.3C

SUNSCREEN III

RAW MATERIALS	% By Weight
SOFTIGEN 767	30.0
Simethicone-Emulsion	0.3
Tween 80	10.0
Neo-Heliopan E 1000	2.0
Escalol 507	2.0
Preservative	q.s.
Water	up to 100.0

Preparation:

SOFTIGEN, Tween 80, and the Simethicone-Emulsion are mixed together at ca. 40C. The other components are added and mixed together with the homogenizer.

Formula 4.3D

SOURCE: Huls America Inc.: Formulas

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
Phase A:	
NEO HELIOPAN AV	7.50
NEO HELIOPAN MA	5.00
Dow Corning 344 Fluid	2.00
Trivent OC-16	4.00
Ganex V-220	3.00
AC Polyethylene	2.00
Lanette Wax O	0.50
Myrj 52S	0.50
Pemulen TR-1	0.25
Vitamin E Acetate	0.10
Phase B:	
Water, Deionized	59.75
Carbopol 980 2% Aq. Sol.	10.00
Propylene Glycol	3.00
Aloe Vera Gel	1.00
Phase C:	
Triethanolamine 99%	0.40
Phase D:	
Germaben IIE	1.00

Procedure:

In a suitable vessel weigh Phase A, heat to 75C and completely disperse Pemulen TR-1. In another vessel able to contain the entire batch, weigh Phase B and heat to 75C with agitation. Slowly add Phase A to Phase B, mix for 10 minutes and add Phase C. Mix until uniform and start cooling with continuous agitation. Cool to 40C and add Phase D. Continue cooling with agitation to 28-25C, pass through a mill and package.

pH: 6.4

Viscosity: 100,000 cps @ 20C

This formulation provides UVA/UVB protection with the use of NEO HELIOPAN AV and NEO HELIOPAN MA. This totally eliminates the need for PABA and Benzophenone-3 to obtain such protection. This formulation has been tested and produced a SPF value of 8. With the use of resins, film formers and minimum emulsifier levels, it is anticipated that this formulation will be water-proof.

SOURCE: Haarman & Reimer Corp.: Formulation #H100-2-3

SUNSCREEN CREAM

INGREDIENT	% By Weight
A VEEGUM PRO	1.5
Water	67.7
Propylene glycol	3.0
Triethanolamine	0.6
B Benzophenone-3 (Uvinol M-40)	5.0
C12-15 Alcohols Benzoate (Finsolv TN)	7.5
Octyl Methoxycinnamate (Parsol MCX)	7.5
Mineral Oil (and) Lanolin Alcohol (Ritachol)	4.0
Stearic acid XXX	2.0
C18-36 Acid (Synchrowax AW1-C)	0.2
Glycol Stearate SE (Cerasynt MN)	0.5
Cetyl alcohol	0.5
C Preservative, Dye, Fragrance	q.s.

Procedure:

Heat the water to 75 to 80C, then slowly add the VEEGUM PRO while agitating at maximum available shear. Mix until smooth. Add remaining ingredients in order shown with careful mixing until smooth, maintain at 75 to 80C. Heat B to 75 to 80C. Add B to A and mix until cool. Add C.

Features:

Sunscreen Cream No. 421 illustrates the use of VEEGUM PRO as a suspending agent and viscosity modifier. VEEGUM PRO effectively thickens and stabilizes the emulsion even at elevated temperatures. This lotion has an estimated SPF of 12 and has a light feel with quick, greaseless rub-in. Benzophenone-3 is a UV-A absorber for protection against tanning radiation. Octyl Methoxycinnamate is a UV-B absorber for protection against burning radiation.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 421

AFTER SUN MILK

COMPONENTS	% By Weight
Hostaphat KW 340 N	8
Hostacerin T3	2
Lanette 16	2
Microcrystalline Wax	0,5
Myristyl Lactate	4,5
Vitamin F	0,4
Distilled Water	At 100
Preservative Agents	Sufficient quantity
Sorbitol (70%)	4
D Panthenol	0,1
Hyaluronic Acid	0,07
Mauve (Dry Matter)	0,1
Perfume	Sufficient quantity

SOURCE: La Ceresine: Formula

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
1. A-C 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Mineral Oil, 70 s.s.	6.2
5. Dow Fluid 200, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	7.0
7. Triglycerol Diostearate	5.5
8. Escalol 507	5.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Water	59.4

Procedure:

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-14 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc: Prototype Formulations: Formula

SUN TAN CREAM

RAW MATERIALS	% By Weight
A Belsil DM 100	3,00
Cetyl Alcohol	2,00
Stearic Acid	4,00
Eusolex 6300	3,00
B Glycerine	2,00
Triethanolamine	0,90
Water	85,10
Preservatives, pigments, fragrances	q.s.

Heat A and B each to 80C. Work B into A whilst stirring quickly, cool whilst stirring.

Temperature stability: at 45C over 10 weeks.

Creamy soft.

SOURCE: Wacker Silicone: Formulation 198 AH

SUNSCREEN CREAM

RAW MATERIALS	% By Weight
1. A-C 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Isopropyl Palmitate	6.2
5. Dow Fluid 200, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	7.0
7. Triglycerol Diisostearate	5.5
8. Escalol 507	5.1
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Water	59.4

Procedure:

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-14 to 85-95C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

SUN TAN OIL

RAW MATERIALS	% By Weight
A Belsil CM 025	10,00
Isopropyl Myristate	10,00
Mineral Oil	77,00
Parsol MCX	3,00
Preservatives, pigments, fragrances	q.s.

Mix A, add Parsol MCX and mix.

Temperature stability: at 45C over 10 weeks.

Colourless, clear, low viscosity.

SOURCE: Wacker Silicone: Formulation 197 AH

SUNSCREEN FACIAL CREME WITH A SUN PROTECTION FACTOR (SPF) OF 4

INGREDIENTS	% By Weight
Part A:	
Water, deionized	70.7
KELTROL T xanthan gum	0.3
Magnesium aluminum silicate	0.2
Methyl Parasept methylparaben	0.2
Perfume	0.1
Part B:	
White Protopet #1S petrolatum	10.3
Promulgen D cetearyl alcohol and ceteareth 20	7.0
Arlacel 165 glyceryl stearate and PEG 100 stearate	5.0
Parsol MCX octyl methoxycinnamate	4.0
Glucamate SSE-20 methyl gluceth-20 sesquistearate	2.0
L-45 Silicone dimethylpolysiloxane	0.5

Procedure:

Part A:

1. Pre-mix KELTROL T magnesium aluminum silicate and methyl parasept.
2. Dissolve pre-mix thoroughly in water, agitating with a Lightnin'-type mixer.
3. Heat the solution to 65-70C (149-158F) with continued agitation.

Part B:

4. Combine all Part B ingredients and heat to 65-70C (149-158F).
5. When both solutions have reached 65-70C, add Part B to Part A while mixing.
6. Cool to 30C (86F) and add the perfume.
7. Continue cooling until the desired filling temperature is reached.

This light-bodied sunscreen creme applies and absorbs easily. KELTROL T xanthan gum provides smooth spreadability and excellent heat stability at 49C (120F).

SOURCE: Kelco Division: Product Formulation SS-4746

SUNSCREEN OIL SPRAY

RAW MATERIALS	% By Weight
Isopropyl myristate	29.5
Vaseline oil	40.0
Myritol 318	22.5
Carrot Oil CLR	2.0
Epidermin in Oil	0.5
Parsol MCX	5.0
Perfume oil	0.5

Manufacture:

Mix at room temperature in the order given.

Concentrate:

Product	40.0%
Propellant 11/12 5050	60.0%
Valve: R-70 gold lacquered	Actuator: 130-016/016

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 12

SUN SCREEN FOAM

RAW MATERIALS	% By Weight
MIGLYOL 840	10.0
MIGLYOL 812	5.0
Lanolin	1.0
SOFTIGEN 767	1.5
SOFTIGEN 701	0.5
Cetyl Alcohol	1.0
Stearic Acid	4.0
Triethanolamine	2.0
Neo-Heliopan E 1000	3.0
Water	69.0
Perfume	q.s.

Filling station:

90% active ingredient

10% R 12/114 40:60

SOURCE: Huls America Inc.: Formula 4.7.1

WATER RESISTANT SUNSCREEN MOUSSE

RAW MATERIALS	% By Weight
Oil Phase:	
CRILL 6	1.4
Mineral Oil 70 csk	16.8
LIQUID BASE TYPE T	6.0
Stearic Acid XXX	1.7
POLAWAX	0.9
CRODAMOL PMP	5.0
Parsol MCX	1.5
Water Phase:	
Deionized water	64.92
Glycerin	0.9
Triethanolamine	0.88
Perfume, preservatives	qs

Procedure:

Heat oil phase to 75C. Heat water phase to 75C. Add water phase to oil phase with agitation. Cool to room temperature and fill.

This mousse provides a sunscreen film that resists wash off. CRILL 6, a mild but powerful low HLB emulsifier, balances the emulsifying power of the stearic acid soap to produce this unique effect.

SOURCE: Croda Inc.: CRILLS and CRILLETS: Formula SC-161

SUNSCREEN GEL

RAW MATERIALS	% By Weight
Phase A:	
Water, Deionized	10.80
Carbopol 940 (2% Aq. Sol.)	55.00
SD Alcohol 39-C	5.00
Propylene Glycol	5.00
Cremogen Aloe Vera	2.00
Germaben II	1.00
Phase B:	
Water, Deionized	10.00
Triethanolamine 99%	2.20
DL-Phanthenol	0.50
Phase C:	
NEO HELIOPAN HYDRO 30% TEA Salt	6.70
Phase D:	
Fragrance	0.30
Sandoxylate SX-424	1.50

Procedure:

- 1). In a suitable vessel able to contain the entire batch, weigh Phase A and mix until uniform.
- 2). Slowly add Phase B and mix until uniform.
- 3). Add Phase C and mix until uniform.
- 4). Add Phase D, (slightly heated) mix until uniform and package.

Viscosity: 70,200 cps pH: 7.7

This clear gel contains NEO HELIOPAN HYDRO as the water soluble UV-B sunscreen. Minimal amounts (2.0% solids) of sunscreen were used to obtain an SPF of six. This formulation is not water-proof, but is an excellent product when waterproofing is not a consideration.

Formula #H100-32-2

SILKY SUNTAN OIL

RAW MATERIALS	% By Weight
Phase A:	
NEO HELIOPAN AV	7.50
NEO HELIOPAN MA	5.00
NEO HELIOPAN OS	5.00
Dow Corning 344 Fluid	35.00
Drakol #7	37.40
Trivent OC-16	10.00
Vitamin E Acetate	0.10

Procedure:

In a suitable vessel weigh ingredients in order written. Mix until uniform and package.

PABA/Oxybenzone Free Estimated SPF 8

This formulation provides UVA/UVB protection with the use of NEO HELIOPAN's AV, OS and MA in a non-greasy lotion. It delivers a silky dry feel with a quick drying non-oily residue. It is anticipated that this formulation will be waterproof.

Formula #H100-16-1

SOURCE: Haarman & Reimer Corp.: Formulas

SUNSCREEN LOTION

RAW MATERIALS	% By Weight
Phase A:	
NEO HELIOPAN AV	7.50
NEO HELIOPAN MA	5.00
Isopropyl Myristate	3.00
Myrj 52S	2.00
Cerasynt SD	3.00
Promulgen D	2.00
Ganex V-220	4.00
Dow Corning 220 Fluid (10 cs)	2.00
Phase B:	
Water, Deionized	46.23
Carbopol 940 (2.0% Aq. Sol.)	15.00
Propylene Glycol	2.00
Versene NA2	0.10
Phase C:	
Triethanolamine 99%	0.50
Phase D:	
NEO HELIOPAN HYDRO (30% TEA Salt)	6.67
Phase E:	
Germaben II	1.00
Fragrance	q.s.

Procedure:

In a suitable vessel weigh Phase A and heat to 75C with agitation. In another vessel able to contain the entire batch, weigh Phase B and heat to 75C with agitation. Slowly add Phase A to Phase B, mix for 10 minutes and add Phase C. Mix until uniform and start cooling with continuous agitation. Cool to 40C and add Phases D and E. Continue cooling with agitation to 28-25C and package.

pH: 7.6

Viscosity: 121,000 cps

PABA/Oxybenzone/Free

Tested SPF 18.25

This white lotion combines three sunscreens to achieve excellent UVA/UVB protection. Attaining an SPF of 18.25 without the use of Oxybenzone, PABA Derivatives or Titanium Dioxide demonstrates the synergism of the three sunscreens: NEO HELIOPAN AV, NEO HELIOPAN HYDRO and NEO HELIOPAN MA.

Source: Haarman & Reimer Corp.: Formula #H100-46-4

SUNSCREEN LOTION

RAW MATERIALS	% By Weight
Phase A:	
Brij 76	1.00
Arlacel 165	1.50
NEO HELIOPAN AV	7.50
NEO HELIOPAN OS	5.00
NEO HELIOPAN MA	4.00
Ganex V-220	3.00
Titanium Dioxide 328	3.00
Trivent OC-16	5.00
Vitamin E Acetate	0.20
Phase B:	
Water, Deionized	53.40
Carbopol 980 2% Aq. Sol.	12.50
Propylene Glycol	2.50
Hamp-Ene Na4	0.10
Phase C:	
Triethanolamine 99%	0.30
Phase D:	
Germaben IIE	1.00

Procedure:

In a suitable vessel weigh Phase A and heat to 75C with agitation. In another vessel able to contain the entire batch, weigh Phase B and heat to 75C with agitation. Slowly add Phase A to Phase B, mix for 10 minutes and add Phase C. Mix until uniform and start cooling with continuous agitation. Cool to 40C and add Phase D, continue cooling with agitation to 28-25C and package.

pH: 6.8

Viscosity: 168,000 cps

Offering a high degree of UVB/UVA protection, this white lotion accomplishes this with menthyl anthranilate without the use of PABA or oxybenzone. The use of a waterproof resin along with minimum emulsifier levels insure no rewetting on the skin. This formulation has been tested and produced an SPF value of 15. It is anticipated that this product will be waterproof.

SOURCE: Haarman & Reimer Corp.: Formula #H100-5-1

SUNSCREEN LOTION

RAW MATERIALS	% By Weight
Oil Phase:	
AMERSIL ME-358	9.0
Cyclomethicone Pentamer	2.0
AMERCHOL L-101	3.0
GLUCAM P-20 Distearate	1.0
Octyldodecyl Stearoyl Stearate	0.5
GLUCATE DO	0.4
AMERSCOL U.S.P.	4.0
Water Phase:	
Glycerin	5.0
CELLOSIZATE HEC QP-40	1.4
NaCl	0.8
Deionized water	72.9
Preservative and perfume	q.s.

Procedure:

Combine oil phase ingredients and heat gently to 40C. Combine water phase ingredients with mixing at room temperature. When oil phase solids have melted, remove from heat and begin adding water phase. Water phase should be added in 10, 40, 40 and 10% increments. Mix between 500 and 1,000 RPMs. Allow formula to obtain a uniform consistency after each incremental addition, before next increment is added.

Description:

Flowing, glossy, white lotion with moderate sun protection provided by UV absorber AMERSCOL U.S.P. AMERSIL ME-358 imparts a luxurious, velvety, nongreasy feel to the skin while also contributing to the emulsification of the cyclomethicone pentamer. Emolliency is enhanced by GLUCAM P-20 Distearate. The combination of w/o emulsifiers GLUCATE DO and AMERCHOL L-101 provides good stability and contributes to the smooth appearance of the lotion.

SOURCE: Amerchol Corp.: AMERSIL ME-358: Formula T59-197-1

ANHYDROUS SUN GEL

COMPONENTS	% By Weight
Vaseline Oil	10
Isopropyl Myristate	10
Miglyol Gel	50
Parsol MCX	10
Eutanol G	10
Parsol 1789	2
Almond Oil	Sufficient quantity at 100
Antioxidants and Perfume	Sufficient quantity

SOURCE: La Ceresine: Formula

SUNSCREEN LOTION "SPF 15"

INGREDIENTS	% By Weight
A) Deionized Water	54.73
Carbopol 940	0.08
B) Trisept M	0.25
Trisept P	0.10
Propylene Glycol	2.5
C) Ceraphyl 368	2.0
Spermwax	0.7
Adol 62	1.0
Adol 1655	5.0
Cocoa Butter U.S.P.	0.2
Cerasynt MN	3.5
Neo Heliopan AV	7.0
Benzophenone-3	3.0
Apricot Kernel Oil	2.0
Ceraphyl 230	2.0
D) Triethanolamine (99%)	1.3
E) Deionized Water	22.0
Powdered Aloe Vera	0.1
Tristat IU	0.3
F) Polysorbate 20	0.5
Carrot Oleoresin (0.2%)	0.5
G) Robertet Fragrance Bahamas E 4094	0.3

Procedure:

Disperse Carbomer in Water (A) and heat to 60-65C. Prepare Phase B and when clear add to A while mixing. Weigh C and heat to 65-70C. Add C to AB with side sweep agitation. Add D to batch and mix until smooth and uniform. Start cooling batch. Prepare Phase E by dispersing Aloe in water while mixing and then add Tristat IU. When Aloe is fully dispersed add E to batch at a moderate rate while mixing. Mix until smooth and uniform. Prepare Phase F by mixing the ingredients together until uniformly blended. Add F to batch while mixing. (Note: If Carrot Oleoresin is added to batch without being blended with Polysorbate 20, it will not disperse through the batch properly.) Mix until uniformly colored. Add G and mix till uniform. Cool to 30-35C.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-71-1

SUN SCREEN O/W

RAW MATERIALS	% By Weight
A. SOFTISAN 601	35.0
MIGLYOL 812	7.0
IMWITOR 960	5.0
Prosolal S9	3.0
Hygroplex HHG	3.0
B. Preservative	q.s.
Panthenol	3.0
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is melted and brought to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A). (C) is stirred in at about 40C. Before filling, it is beneficial to homogenize the cream

Formula 4.1.4

SUN SCREEN CREAM O/W

RAW MATERIALS	% By Weight
A. IMWITOR 960	10.0
MIGLYOL 840	8.0
Lanette N	6.0
Neo Heliopan E 1000	3.0
B. Hygroplex HHG	5.0
Propylene Glycol	3.0
Preservative	q.s.
Water	up to 100.0
C. Fragrance	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is brought up to the same temperature and emulsified into (A). Fragrance is added at ca. 30C.

Formula 4.1.5

SOURCE: Huls America Inc.: Formulas

SUN SCREEN CREAM W/O

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	20.0
IMWITOR 780K	10.0
Aluminum Distearate	3.0
B. Paraffin	3.0
Mineral Oil	5.0
Eusolex 6300	4.0
Antioxidants	q.s.
C. Eusolex 232	6.0
Triethanolamine	5.0
Polyvinyl Alcohol	3.0
Preservative	q.s.
Water	up to 100.0
D. Perfume Oil	q.s.

Preparation:

(A) is mixed and heated to approximately 80C. (B) is brought to the same temperature and added to (A). (C) is heated to approximately 75C., and is emulsified into (A + B). At about 30C., the perfume is added.

Formula 4.1.3

SUN SCREEN LOTION W/O

RAW MATERIALS	% By Weight
A. MIGLYOL GEL B	4.0
MIGLYOL 812	5.0
Arlacel 481	3.0
Arlacel 989	5.0
Isopropyl Myristate	12.5
Petrolatum	2.0
Parsol MCX	7.5
Parsol 1789	4.0
B. Glycerin	5.0
Carbopol 934	0.2
Magnesium Sulphate	0.7
Preservative	q.s.
Water	ad 100.0
C. Perfume oil	q.s.

Preparation:

(A) is mixed and brought to 75-80C. (B) is mixed with the high-speed mixer and brought to the same temperature. (B) is emulsified into (A). At about 30C, the perfume is added.

Formula 4.2.2

SOURCE: Huls America Inc.: Formulas

SUNSCREEN CREAM W/O

RAW MATERIALS	% By Weight
I APIFAC	12,00
Mineral Oil	10,00
Beeswax	1,00
M.O.D.	6,00
VEGETOL HUILEUX CALENDULA WL 1072	5,00
Parsol MCX	6,00
Antioxygen	Q.S.
Preservative	Q.S.
II Demineralized Water	53,80
Carbopol 934	0,30
Glycerin	5,00
Triethanolamine 99% (50% Sol.)	0,60
Preservative	Q.S.
Perfume	0,30

Preparation:

Disperse the Carbopol. Let stand.

Under stirring, pour II heated up to 80C into I heated up to 80C.

Add the T.E.A. solution.

Stir with a high speed stirrer for 2-3 min.

Cool down with moderate stirring.

Around 35C, add the other components.

Formula MM 2870/A

SUNSCREEN OIL

RAW MATERIALS	% By Weight
I Coconut Oil	10,00
LABRAFIL ISOSTEARIQUE	20,00
VEGETOL HUILEUX CALENDULA WL 1072	15,00
Parsol MCX	4,00
Mineral Oil	50,50
Antioxygen	Q.S.
Perfume	0,50

Preparation:

Heat I up to 40C until coconut oil is melted.

Then add the other components.

Formula PL 256/C

SOURCE: Gattefosse: Formulas

SUN SCREEN CREAM W/O, OILY

RAW MATERIALS	% By Weight
A. MIGLYOL 840 Gel B	20.0
SOFTISAN 649	5.0
IMWITOR 780K	5.0
Mineral Oil	8.0
Neo-Heliopan E 1000	3.0
B. Paraffin	3.0
C. Magnesium Sulphate	2.0
Preservative	0.3
Water	ad 100.0
D. Perfume Oil	q.s.

Preparation:

(A) is mixed, (B) is added, both are heated to 75-80C. (C) is brought to the same temperature and is emulsified into (A + B). At about 30C, the perfume is added.

Formula 4.1.1

SUN SCREEN CREAM W/O

RAW MATERIALS	% By Weight
A. MIGLYOL-GEL B	15.0
IMWITOR 780K	5.0
Mineral Oil	5.0
Neo-Heliopan E 1000	5.0
B. Preservative	q.s.
Water	up to 100.0
C. Perfume	q.s.

Preparation:

(A) is heated to 75-80C. (B) is brought to the same temperature and is gradually stirred into (A). (C) is added at 40C.

Formula 4.1.2

SOURCE: Huls America Inc.: Formulas

SUNSCREEN LOTION

RAW MATERIALS	% By Weight
I HYDROLACTOL 70	8,00
Cetyl Alcohol	1,00
Mineral Oil	6,00
VEGETOL HUILEUX CALENDULA WL 1072	3,00
Parsol MCX	7,50
Eusolex 4360	2,00
Antioxygen	Q.S.
II Demineralized Water	67,95
Glycerin	3,00
E.D.T.A. Tetrasodium Salt	0,05
Carbopol 941	0,41
Triethanolamine 99% (50% Sol.)	0,20
CEVENYL	1,00
Preservative	Q.S.
Perfume	0,20

Preparation:

Disperse the Carbopol. Let stand.

Under moderate stirring, pour II heated up to 75C into I heated up to 75C.

Add the T.E.A. solution and the CEVENYL.

Cool down while stirring and around 30-35C, add the other components.

SOURCE: Gattefosse: Formula MM2893 bis

SUNSCREEN FOAM

RAW MATERIALS	% By Weight
a) Emulan OG	9.0
Isopropyl palmitate	4.3
Carrot Oil CLR	1.5
Epidermin in Oil	0.2
Eutanol G	4.0
Neo-Heliopan H&R	4.0
b) Water, distilled, preserved	68,5
c) Ethyl alcohol 96 vol. %	8,0
Perfume oil	0,5

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 40C;

c) stir in.

Concentrate:

Product 85.0%

Propellant 12/114 4060 15.0%

Valve: AR-74R/Neo BL

Foam actuator: SF 66/6

Note: Shake before use.

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 7

SUN SCREEN MILK

RAW MATERIALS	% By Weight
A. IMWITOR 960	4.0
MIGLYOL 840	7.0
Carotene	1.5
Hostaphat KL 340N	5.0
Cetyl Alcohol	2.0
Neo-Heliopan E 1000	4.0
Antioxidants	q.s.
Panthenol	3.0
B. *Carbopol-Gel 1%	12.5
Sorbitol	5.0
Preservatives	q.s.
Water	up to 100.0
C. Perfume	q.s.

* Preparation of the Carbopol-Gel:

Carbopol 940	1.0%
Triethanolamine	0.6%
Water	up to 100.0%

Carbopol is mixed in water until smooth, triethanolamine is added, and it is stirred until homogeneous.

Preparation:

(A) is heated up to 75-80C. (B) is stirred together, brought up to the same temperature, and emulsified into (A). At ca. 30C., the fragrance is added.

Formula 4.2.1

SUN SCREEN OIL

RAW MATERIALS	% By Weight
MIGLYOL 840	40.0
Walnut Shell Oil	2.0
Carotene	3.0
Neo-Heliopan E 1000	3.0
Mineral Oil	47.0
Isopropyl Myristate	5.0
Antioxidants	q.s.
Fragrance	q.s.

Preparation:

All components are mixed at room temperature.

Formula 4.3.1

SOURCE: Huls America Inc.: Formulas

SUN SCREEN OIL

RAW MATERIALS	% By Weight
MIGLYOL 812	68.0
Mineral Oil	25.0
Isopropyl myristate	5.0
Prosolal S9	2.0
Perfume	q.s.

Preparation:

All the materials are simply stirred together at room temperature.

Formula 4.3A

O/W SUNSCREEN

RAW MATERIALS	% By Weight
A. Parsol MCX	5
MIGLYOL 812	7
IMWITOR 960	5
SOFTISAN 601	47
B. Water	up to 100
Preservative	q.s.
SPF: ca. 8	

Preparation:

(A) is melted and heated to 75-80C. (B) is mixed and heated to the same temperature. (B) is slowly emulsified into (A).

Before filling, it is beneficial to homogenize the cream.

Formula 4.1A

SOURCE: Huls America Inc.: Formulas

O/W-SUN-SCREEN-MILK

RECIPE	% By Weight
A HOE S 3495	1.00
HOSTACERIN DGS	4.00
Mineral oil, high viscosity	6.00
Avocado oil	1.00
Neo-Heliopan E1000	9.00
Neo-Heliopan BB	1.00
B HOSTACERIN PN 73*	0.30
C Water	71.40
D Perfume	0.30

* Alternative thickeners could also be used.

Procedure:

I Melt A at 70C, then add B.

II Heat C to 70C.

III Stir II into I.

IV Stir until cool.

V Add D to IV at 40C.

VI Homogenize if necessary.

SOURCE: Hoechst: Guide Formulations: Formula A VI/7200

SUN SCREEN STICK

RAW MATERIALS	% By Weight
A. SOFTISAN 100	18.0
MIGLYOL 812	14.0
Beeswax	14.0
Paraffin	5.0
Cetyl Alcohol	5.0
Carnauba Wax	1.0
SOFTISAN 649	6.0
Carrot Oil	4.0
Petrolatum	27.78
Neo-Heliopan E 1000	5.0
BHT	0.02
B. Parfumol 74 886	0.2

Preparation:

(A) is melted together and stirred while cooling to a cream melt. Fragrance is then added and it is poured into a mold.

Formula 4.4A

SUN SCREEN STICK

RAW MATERIALS	% By Weight
SOFTISAN 100	38.0
MIGLYOL 812	28.0
IMWITOR 960 Flakes	10.0
Beeswax	20.0
Neo-Heliopan E1000	4.0
Perfume	q.s.
Preservative	q.s.

Preparation:

All of the components are melted together at 70C. Then the mass is cooled while stirring. The perfume is added at ca. 40C. Finally, the mass is poured into molds.

White, temperature-stable stick, which softens readily upon contact with the skin.

Formula 4.4B

SOURCE: Huls America Inc.: Formulas

SUNSCREEN STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	75.0
Cegesoft C 17	5.0
Cetiol MM	5.0
Parsol MCX	7.0
Parsol 1789	3.0
Copherol F 1300	5.0

Formulation no. 89/320/16

SUNSCREEN STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	72.0
Copherol F 1300	5.0
Myritol 318	13.0
Controx VP	0.5
Eusolex 4360	8.0

Formulation no. 89/320/32

SUNSCREEN STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	75.0
Cegesoft C 17	5.0
Cetiol MM	5.0
Parsol MCX	7.0
Parsol 1789	3.0
Copherol 1250	5.0

Formulation no. 89/320/17

Sticks containing Copherol 1250 (D-alpha-tocopherol) are storage stable and colour fast for 3 months at room temperature, +40C, +45C, -5C. Sticks containing free D-alpha tocopherol (Copherol F 1300) also show good storage stability in lipsticks housings over a period of 3 months at room temperature, +40C, +45C, -5C. The sticks are colour fast at room temperature and -5C.; slight but acceptable colour changes occur at +40C and +45C.

SOURCE: Henkel: Cosmetics No. XXI/90: Formulas

SUNSCREEN STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	75.0
Cegesoft C 17	5.0
Cetiol MM	5.0
Copherol 1250	5.0
Eusolex 4360	8.0
Formulation no. 89/320/25	

SUNSCREEN STICK

RAW MATERIALS	% By Weight
Cutina LM (BHA-free)	72.0
Copherol 1250	5.0
Eusolex 4360	8.0
Myritol 318	13.0
Controx VP	0.5
Formulation no. 89/320/33	

Sticks containing Copherol 1250 (D-alpha-tocopherol) are storage stable and colour fast for 3 months at room temperature, +40C, +45C, -5C. Sticks containing free D-alpha tocopherol (Copherol F 1300) also show good storage stability in lipsticks housings over a period of 3 months at room temperature, +40C, +45C, -5C. The sticks are colour fast at room temperature and -5C, slight but acceptable colour changes occur at +40C and +45C.

SOURCE: Henkel: Cosmetics No. XXI/90: Formulas

ALOE AFTER SUN LOTION(40% ALOE)

INGREDIENT	% By Weight
A Water	74.0
Glycerin	3.0
Triethanolamine	1.0
Germaben II	0.5
B Stearic Acid	8.0
Light Mineral Oil	5.0
Finesolv TN	2.0
Cetyl Alcohol	1.0
Silicon Fluid 225	0.5
Cocoa Butter	2.0
Isopropyl Lanolate	2.0
C Aloe-Con WG-40	1.0
D Fragrance	Q.S.

Procedure:

1. Heat phases to 80C.
2. At 80C add oil phase to water phase.
3. Mix and cool to 55C.
4. Add Aloe concentrate to batch at 55C.
5. Add fragrance at 45C.

SOURCE: Florida Food Products, Inc.: Figure #2

SUN TAN CREAM

RAW MATERIALS	% By Weight
A Crodawax GP 200	5,00
Lamecreme KSM	6,00
Belsil DM 35	5,00
Eusolex 6300	3,00
B Water	81,00
Preservatives, pigments, fragrances	q.s.
Melt A at 70C, heat the water to 70C. Work A into B. Firm cream. Formulation 199 AH	

SUN TAN LOTION W/O

RAW MATERIALS	% By Weight
A Hostacerin WO	12,00
Belsil CM 040	25,00
Belsil PDM 20	6,00
Belsil DM 350	3,00
Isopropyl Myristate	3,50
B Water	47,50
C Parsol MCX	3,00
Preservatives, perfumes, fragrances	q.s.
Mix A, heat the water to 60C and stir into A. Leave to cool somewhat, add Parsol MCX. Formulation 260 AH	

SOURCE: Wacker Silicone: Standard Formulations

TANNING ACCELERATOR

RAW MATERIALS	Parts by Weight
Part A:	
Water	500.0
Carbomer 934	2.0
Part B:	
Rosswax 1824	15.0
Rosswax 2540	6.0
GMS-SE	6.0
Ross Jojoba Oil	4.0
Escalol 507	12.0
Coconut Oil #76	25.0
Unipertan P-24	3.0
Part C:	
Germaben II	6.0
Part D:	
Fragrance	q.s.
Part E:	
Triethanolamine	4.5

Procedure:

In a steam jacketed kettle heat the water and add the Carbomer 934 until fully dispersed under agitation. In a separate steam jacketed kettle melt the Oil Phase. When fully melted, add the Oil Phase to the Water Phase under agitation. Then add the Germaben II, then the fragrance and finally add the TEA with high agitation, until smooth. Cool to 130F and package.

SOLAR TANNING OIL MOUSSE

RAW MATERIALS	% By Weight
Part (A):	
Ross Base Oil 2539	62.3
Escalol 507	5.0
Arlacel 60	3.0
Tween 60	4.0
Part (B):	
Water	24.7
Germaben II	1.0
Fragrance	q.s.

Procedure:

Heat Part (A) and Part (B) in separate stainless steel vessels under gentle agitation to 170F. When temperature is reached and both are clear, add Part (B) to Part (A), cool to 120F. Fragrance and package.

Aerosil Fill:

90% of above concentrate 10% of A-46 Propellant

Note: Pack in Epon lined cans with Precision Valve Systems.

SOURCE: Frank B. Ross Co., Inc.: Formulas

TITANIUM DIOXIDE BASED WATERPROOF SUNSCREEN

INGREDIENTS	% By Weight
Phase A:	
Ceraphyl ICA	7.00
Finsolv TN	8.00
Emersol 132	2.00
Myrj 52-S	2.00
Abil B 8852	1.00
Cetyl Alcohol	1.00
Cerasynt SD	0.50
Armeen DM18D	2.00
DERMACRYL-79	2.00
Titanium Dioxide	4.00
Phase B:	
Deionized Water	59.30
Carbopol 941 (2% soln)	10.00
Methylparaben	0.15
Propylparaben	0.10
Triethanolamine (99%)	0.80
Phase C:	
Germall II	0.15

Procedure:

Combine Phase B and heat to 80C. In separate vessel combine Phase A except for DERMACRYL-79 and Titanium Dioxide to 80C. Sift in DERMACRYL-79 with constant stirring until dissolved. Sift in Titanium Dioxide with constant stirring until completely dispersed. Add Phase A to Phase B at 80C and mix for 30 minutes. Cool to 40C and add Phase C. Cool to room temperature and package.

SOURCE: National Starch and Chemical Co.: Formula 6590-94-2

AFTER SUN LOTION O/W

RAW MATERIALS	% By Weight
I. EMULGADE SE	6,0
CETIOL V	4,0
Paraffin oil, subl.	3,0
II. Glyceryl 86%	3,0
Hostacerin PN 73 (1%ig)	30,0
NUTRILAN ELASTIN P	0,5
Water, demin.	53,3
Preservatives	
III. HYDAGEN B	0,2

Viscosity in mPas: 10000

SOURCE: Henkel: Cosmetics No. III/91: Formulation no. 90/227/10

ULTRA VIOLET ABSORBING SUNSCREEN

INGREDIENT	% By Weight
A VEEGUM Ultra	1.50
Deionized Water	70.50
Glycerin	5.50
B PEG-150 Distearate	3.00
Dioctyl Malate (Ceraphyl 45)	2.00
Mineral Oil	4.00
Cetyl Alcohol	0.50
Benzophenone-3	3.00
Octyl Dimethyl PABA	7.00
Steareth-2	0.90
Steareth-20	2.10
C Preservative, Fragrance	q.s.

Procedure:

Heat the water to 55C. Slowly add VEEGUM Ultra to the water while stirring with a propeller mixer at 500 rpm. Increase the mixer speed to 1500-1700 rpm and mix for 30 minutes, maintaining temperature at 55C. Add glycerin and mix for 5 minutes. Mix B ingredients and heat to 60C. Add B to A while mixing at 1500-1700 rpm. Continue mixing for 30 minutes. Avoid air entrapment. Slow mixing speed to 1000 rpm and continue mixing while cooling to 35C. Add C and mix until uniform. Package.

Product Characteristics: Viscosity: 5500 cps

pH: 5.0

Features:

VEEGUM Ultra is used to thicken and stabilize this sunscreen emulsion. Two ultra violet absorbers are used to achieve an estimated SPF (Sun Protection Factor) of approximately 15. This smooth, flowable lotion spreads easily and dries quickly, leaving a non-tacky after-feel.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 448

AFTER-SUN LOTION O/W

RAW MATERIALS	% By Weight
I. Emulgade SE	8.0
IPP	5.0
Eutanol G	5.0
Amerchol CAB	3.0
Avocado oil	1.5
II. Glycerin 86%	5.0
Water, deionized, preservative	ad 100.0
III. Collapurion DAK	3.0

Viscosity: approx. 5000 mPas

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz: Formula no. 89/169/2

VITAMIN SUN GEL

RAW MATERIALS	% By Weight
MIGLYOL GEL B	80.0
Eusolex 8021	4.0
Aloe Vera, oil soluble	1.0
Panthenol	0.5
Carrot oil	5.0
Purcellin Oil	4.5
Mineral Oil	5.0
Fragrance	0.3

Preparation:

All materials are added together and stirred until homogeneous.

Formula 4.7A

WATERPROOF SUNSCREEN GEL

RAW MATERIALS	% By Weight
MIGLYOL GEL B	80.0
Eusolex 0007	4.0
Carrot Oil	5.0
Mineral Oil	5.0
PCL Liquid	4.5
Aloe Vera Lipo Quinone	1.0
d-Panthenol	0.5
Perfume	q.s.

Preparation:

All of the ingredients are heated to ca. 40C and stirred until smooth.

Formula 4.7C

SUN PROTECTION MASK

RAW MATERIALS	% By Weight
A. SOFTISAN 100	18.0
SOFTISAN 649	6.0
MIGLYOL 812	14.0
Beeswax	14.0
Paraffin	5.0
Cetyl Alcohol	5.0
Carnauba Wax	1.0
Carotene	4.0
Neo-Heliopan E 1000	5.0
Petrolatum	27.8
Antioxidants	q.s.
B. Fragrance	q.s.

Preparation:

All raw materials under (A) are melted together and cooled under stirring to a creamy consistency. The fragrance is then added.

Formula 4.7B

SOURCE: Huls America Inc.: Formulas

WATERPROOF SUNSCREEN SPF 22

INGREDIENTS	% By Weight
Phase A:	
Octyl Dimethyl PABA	8.00
Octyl Salicylate	5.00
Escalol 557	7.50
Escalol 567	4.00
Estol EHP 1543	3.00
Cetyl Alcohol	2.00
Myrj 52S	1.00
Estol 1473	2.00
Abil B8852	1.00
Emersol 132	6.00
Lexamine L-13	2.00
DERMACRYL-79	2.00
Phase B:	
Deionized Water	53.60
Carbopol 941	0.20
Triethanolamine 99%	1.50
Phase C:	
Germaben IIE	1.00
Phase D:	
Fragrance	0.20

Substantivity (In vivo waterproof test) - 95.5%

Procedure:

Disperse Carbopol 941 into water and heat to 80C, add Triethanolamine slowly to prepare Phase B. Combine Phase A ingredients except DERMACRYL-79 and heat to 80C. Sift DERMACRYL-79 in the oil phase with constant stirring until dissolved. Add Phase A to Phase B at 80C and mix for 15 minutes. Cool to room temperature and package.

Description:

This high SPF moisturizing, waterproof sunscreen provides protection against UV radiation. The polymer DERMACRYL-79 adds the waterproofing properties.

SOURCE: National Starch and Chemical Co.: Formula 6142-133-1

W/O SUNSCREEN CREAM

RAW MATERIALS	% By Weight
A Arlancel 481	8.0
Cremophor WO 7	2.0
Elfacos ST 9	2.0
Diisopropyl Adipate	12.0
Permulgin 3220	2.0
Vaseline	5.0
Magnesium Stearate	0.5
Aluminum Stearate	0.5
Isopropyl Myristate	10.0
Uvinul T 150	3.0
B 1,2-Propylene Glycol	5.0
Magnesium Sulfate Heptahydrate	0.7
Preservative	q.s.
Water	49.3
C Perfume	q.s.

Preparation:

Phase A is heated to 90C and phase B to 75C; phase B is added to phase A under stirring, the emulsion is homogenized and stirred until cold. Phase C is added at 35C.

Properties:

Soft cream, spreads well, penetrates readily, imparts a pleasant feeling to the skin, water resistant.

Formula 53/094

O/W SUNSCREEN CREAM

RAW MATERIALS	% By Weight
A Cetiol HE	15.0
Luvitol EHO	5.0
Cremophor A 6	5.0
Uvinul T 150	3.0
B Carbopol 940 1% in H2O	50.0
Water	17.3
Preservative	q.s.
C Neutrol TE 20% in H2O	4.5
Perfume	q.s.

Preparation:

Phase A and B are heated to 75C separately; phase B is added to phase A under stirring; the emulsion is homogenized and stirred until cold. Phase C is added at ca. 35C.

Properties:

Soft to pasty cream, spreads well, penetrates readily.

Formula 53/087

SOURCE: BASF Corp.: Uvinul T 150: Formulas

Section XIV

Toothpastes

CHALK TOOTHPASTE

RAW MATERIALS	% By Weight
Water	43.94
Carboxymethyl cellulose	0.80
Preservative	0.15
Sweetener	0.05
AEROSIL 200	3.00
Glycerin	12.00
Sorbitol	10.00
Chalk	27.00
Flavour oil	1.00
Foaming agent	1.30
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76
pH value: 8.6	
RDA: 35	

ALUMINUM HYDROXIDE TOOTHPASTE

RAW MATERIALS	% By Weight
Water	28.60
Carboxymethyl cellulose	0.60
Preservative	0.15
Sweetener	0.15
AEROSIL 200	2.50
Sorbitol	30.00
Titanium dioxide	0.20
Aluminum hydroxide	36.00
Flavour oil	0.50
Foaming agent	1.30
pH value: 5.6	
RDA: 45	

ALUMINUM HYDROXIDE TOOTHPASTE

RAW MATERIALS	% By Weight
Water	30.94
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.15
AEROSIL 200	3.00
Sorbitol	30.00
Titanium dioxide	0.20
Aluminum hydroxide	32.00
Flavour oil	0.50
Foaming agent	1.30
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76
pH value: 6.0	
RDA: 35	

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

CLEAR GEL TOOTHPASTE

INGREDIENT	% By Weight
Sorbitol (70% solids)	68.14
Hydrated silica abrasive Sylodent 700	14.00
Hydrated silica thickener Sylodent 15	7.00
Polyethylene glycol (PEG-32)	4.00
Distilled water	to 100.00
Sodium lauryl sulfate (SLS)	1.40
SD alcohol 38B	1.10
Flavor	1.00
Sodium monofluorophosphate	0.76
AQUALON CMC-9M31XF	0.30
Sodium saccharin	0.20
Sodium benzoate	0.10
FD&C Blue No. 1 (1.0 wt% solution)	0.20
D&C Yellow No. 10 (1.0 wt% solution)	0.09

Procedure:

1. Combine all of the sodium saccharin, sodium benzoate, and sodium monofluorophosphate with all the available distilled water and 10% of the sorbitol. Add the FD&C Blue No. 1 and D&C Yellow No. 10 solutions. Mix and heat to 45 to 50C. Cool to room temperature.
2. In a separate vessel, add the sodium lauryl sulfate to a portion of the sorbitol, using the following weight ratio: 1 part SLS to 4 parts sorbitol. Mix, using mild agitation. Heat to 60C to deaerate.
3. In another vessel, combine the flavor and SD alcohol 38D.
4. Combine all the remaining sorbitol with the PEG-32. Heat to 50C. While mixing vigorously with an electric stirrer, sift in the CMC. Mix for 30 min or until the CMC is fully dissolved and no polymer gels remain.
5. Add the polymer mixture to a Ross double planetary toothpaste mixer. The cooling water in the jacket should be set to 20C.
6. Add the salt solution to the toothpaste mixer. Mix at speed 6 for 25 min.
7. Add one-third of the hydrated silica. Mix at speed 2 until the ingredients are combined. Repeat until all the hydrated silica is added.
8. Increase to speed 6 (highest) and mix for 25 min at a vacuum of 27 to 28 in Hg or until homogeneous and transparent.
9. Add the flavor and SLS solutions. Mix at speed 1 at a vacuum of 27 to 28 in Hg for 5 min or until combined and homogeneous.

SOURCE: Aqualon Co.: AQUALON Cellulose Gum: Formula Developed by Aqualon Personal Care Laboratory, based on U.S. Patents 3,689,637 and 4,599,363

PHOSPHATE TOOTHPASTE

RAW MATERIALS	% By Weight
Water	38.50
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.05
AEROSIL 200	2.00
Glycerin	20.00
Dicalcium phosphate dihydrate	36.00
Flavour oil	1.00
Foaming agent	1.30

pH value: 6.7

RDA: 30

PHOSPHATE TOOTHPASTE

RAW MATERIALS	% By Weight
Water	44.70
Carboxymethyl cellulose	0.80
Preservative	0.15
Sweetener	0.05
AEROSIL 200	3.50
Glycerin	12.50
Sorbitol	12.50
Dicalcium phosphate dihydrate	24.00
Flavour oil	0.50
Foaming agent	1.30

pH value: 6.6

RDA: 30

CHALK TOOTHPASTE

RAW MATERIALS	% By Weight
Water	28.20
Carboxymethyl cellulose	0.80
Preservative	0.15
Sweetener	0.05
AEROSIL 200	1.50
Glycerin	25.00
Paraffin	0.50
Chalk	41.50
Flavour oil	1.00
Foaming agent	1.30

pH value: 8.6

RDA: 50

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
OPAQUE PASTE

RAW MATERIALS	% By Weight
Water	34.59
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.40
Sorbitol, 70%	40.00
SIDENT 12/12 DS	10.00
SIDENT 22S	10.00
Paraffin oil	0.50
Flavour oil	1.00
Foaming agent	1.50
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76

pH value: 5.8
RDA: 50

SILICA TOOTHPASTE
OPAQUE PASTE

RAW MATERIALS	% By Weight
Water	38.09
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.40
Sorbitol, 70%	40.00
SIDENT 15	16.50
Paraffin oil	0.50
Flavour oil	1.00
Foaming agent	1.50
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76

pH Value: 5.9
RDA: 80

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
OPAQUE PASTE

RAW MATERIALS	% By Weight
Water	32.59
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.40
Sorbitol, 70%	40.00
SIDENT 18	22.00
Paraffin oil	0.50
Flavour oil	1.00
Foaming agent	1.50
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76

pH value: 5.5

RDA: 115

SILICA TOOTHPASTE
OPAQUE PASTE

RAW MATERIALS	% By Weight
Water	33.13
Carboxymethyl cellulose	1.00
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.40
Sorbitol, 70%	40.00
SIDENT 9	15.00
SIDENT 22S	7.00
Paraffin oil	0.50
Flavour oil	1.00
Foaming agent	1.50
Sodium fluoride (NaF)	0.22

pH value: 6.7

RDA: 80

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
TRANSPARENT PASTE

RAW MATERIALS	% By Weight
Water	6.99
Colouring agent, 1%	0.70
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Polyethylene glycol 400	3.50
Glycerin	15.00
Sorbitol, 70%	48.00
SIDENT 12/12 DS	14.00
SIDENT 22 S	8.00
Flavour oil	1.00
Foaming agent	1.30
Sodium Monofluorophosphate (Na ₂ PO ₃ F)	0.76
pH value: 6.5	
RDA: 70	

SILICA TOOTHPASTE
TRANSPARENT PASTE

RAW MATERIALS	% By Weight
Water	6.53
Colouring agent, 1%	0.70
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Polyethylene glycol 400	2.50
Glycerin	15.00
Sorbitol, 70%	56.00
SIDENT 15	16.00
Flavour oil	1.00
Foaming agent	1.30
Sodium fluoride (NaF)	0.22
pH value: 6.6	
RDA: 90	

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
TRANSPARENT PASTE

RAW MATERIALS	% By Weight
Water	6.99
Colouring agent, 1%	0.70
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Polyethylene glycol 400	3.50
Glycerin	15.00
Sorbitol, 70%	49.00
SIDENT 18	21.00
Flavour oil	1.00
Foaming agent	1.30
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76
pH value: 6.0	
RDA: 120	

SILICA TOOTHPASTE
TRANSPARENT PASTE

RAW MATERIALS	% By Weight
Water	6.53
Colouring agent, 1%	0.70
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Polyethylene glycol 400	3.50
Glycerin	15.00
Sorbitol, 70%	49.00
SIDENT 9	16.00
SIDENT 22 S	6.00
Flavour oil	1.00
Foaming agent	1.30
Sodium fluoride (NaF)	0.22
pH value: 7.0	
RDA: 85	

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
TRANSLUCENT PASTE

RAW MATERIALS	% By Weight
Water	15.59
Colouring agent, 0.5%	0.50
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.10
Sorbitol, 70%	60.00
SIDENT 12/12 DS	10.00
SIDENT 22 S	10.00
Flavour oil	1.00
Foaming agent	1.30
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76

pH value: 6.3
RDA: 60

SILICA TOOTHPASTE
TRANSLUCENT PASTE

RAW MATERIALS	% By Weight
Water	15.13
Colouring agent, 0.5%	0.50
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.10
Sorbitol, 70%	65.00
SIDENT 15	16.00
Flavour oil	1.00
Foaming agent	1.30
Sodium fluoride (NaF)	0.22

pH value: 6.2
RDA: 85

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

SILICA TOOTHPASTE
TRANSLUCENT PASTE

RAW MATERIALS	% By Weight
Water	14.89
Coloring agent, 0.5%	0.20
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.10
Sorbitol, 70%	60.00
SIDENT 18	21.00
Flavour oil	1.00
Foaming agent	1.30
Sodium monofluorophosphate (Na ₂ PO ₃ F)	0.76

pH value: 6.2

RDA: 110

SILICA TOOTHPASTE
TRANSLUCENT PASTE

RAW MATERIALS	% By Weight
Water	16.13
Colouring agent, 0.5%	0.50
Carboxymethyl cellulose	0.50
Preservative	0.15
Sweetener	0.10
Titanium dioxide	0.10
Sorbitol, 70%	58.00
SIDENT 9	16.00
SIDENT 22S	6.00
Flavour oil	1.00
Foaming agent	1.30
Sodium fluoride (NaF)	0.22

pH value: 6.9

RDA: 80

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

TARTAR CONTROL TOOTHPASTE

INGREDIENTS	% By Weight
Distilled Water	to 100.00
Sorbitol	40.00
Hydrated Silica Abrasive Zeodent 113	20.00
Glycerin	12.00
Tetrasodium pyrophosphate	3.40
Disodium pyrophosphate	1.37
Sodium lauryl sulfate (SLS)	1.35
Flavor oil	1.33
PEG-6	1.00
AQUALON CMC-9M31XF	0.50
Sodium fluoride	0.25
Carbomer 940	0.20
Sodium saccharin	0.20
Titanium dioxide	0.16
FD&C Blue No. 1 (1% solution)	0.03

Toothpaste Appearance: Midway between an opacified gel and a cream paste. Add more TiO₂ for a cream appearance, less for an opacified gel.

Procedure:

1. Add FD&C Blue No. 1 (1.0 wt% solution) to a 28.0% solution of sodium lauryl sulfate. Heat to 60C to deaerate.
2. Prepare a solution of sodium fluoride, tetrasodium pyrophosphate, disodium pyrophosphate, and sodium saccharin in 220 g distilled water at 50C.
3. Combine carbomer and CMC-9M31XF. Slurry the polymer mixture in glycerin, using a propeller blade agitator at high speed, and heat to 50C. Mix in the sorbitol, the PEG-6, and the remaining distilled water. Mix for 30 min or until fully hydrated.
4. Add the polymer solution to the Ross mixer, set to 20C. Mix at speed 6 (highest) for 30 min.
5. Add the salt solution to the Ross mixer. Mix at speed 6 for 15 min or until the salts are thoroughly dissolved.
6. Add the hydrated silica and titanium dioxide. Mix at speed 2 for 5 min or until combined. Increase to speed 6 and mix for 15 min at a vacuum of 27 to 28 in Hg or until homogeneous and deaerated.
7. Add the surfactant solution and flavor. Mix at speed 1 at a vacuum of 27 to 28 in Hg for 5 min or just until thoroughly combined.

SOURCE: Aqualon Co.: AQUALON Cellulose Gum: Formula Developed by Aqualon Personal Care Laboratory, based on U.S. Patents 4,254,101 and 4,515,772

TOOTHGEL

COMPOSITION	% By Weight
Cellulose Gum 7 MF (5% solution)	10.0
Sodium fluoride	0.1
Sodium benzoate	0.2
Saccharin sodium	0.1
Sodium monofluorophosphate	0.76
Peppermint oil 77526-34	1.0
Sorbitol 70%	65.29
Dye solution 1%	q.s.
Sident 12	10.0
Sipernat 22 S	9.0
Pearl pigment*	0.05
Water, demineralized	ad 100
Texapon K 1296	

* Sparkle Types are recommended

Manufacturing Process:

Preparation of the Blanose-Cellulose Gum 7 MF solution:

Blanose is added to water under stirring and preserved (e.g. 0.2% Sodium benzoate) and heated to 80C for about half an hour.

SOURCE: EM Pigments Division: Formulas

TOOTHPASTE

RAW MATERIALS	% By Weight
CALBRITE SM dicalcium phosphate dihydrate	45.0-50.0
ALBRITE dicalcium phosphate anhydrous	0- 5.0
EMPICOL LZ	1.5
Glycerol (humectant)	25.0
Sodium carboxymethyl cellulose	1.0
Sodium benzoate	0.5
Sweetener	qs
Flavour	qs
Water	Balance

CALBRITE SM dicalcium phosphate dihydrate is stabilised for use in dentrifice formulations, and passes stability test TGA46 of the Board of Standards of the US Toilet Goods Association Inc.

CALBRITE DM dicalcium phosphate dihydrate is stabilised to give improved compatibility with sodium monofluorophosphate for use in therapeutic toothpaste manufacture. A typical therapeutic toothpaste could be made by adding 0.8% ALBRITE sodium monofluorophosphate to the formulation given above, with CALBRITE DM replacing the CALBRITE SM.

SOURCE: Albright & Wilson Americas: Formula TP1

TOOTHPASTE

RAW MATERIALS	Sequence	% By Weight
Liponic NC-70	1	30.00
Water, deionized	1	16.82
Viscarin TP-4	2	0.75
Sodium saccharin	2	0.20
Methylparaben	2	0.18
Propylparaben	2	0.05
Sodium lauryl sulfate, dentrifrice grade	2	2.00
Dicalcium phosphate dehydrate	2	48.50
Trimagnesium phosphate	2	0.50
Flavor oil	3	1.00

Procedure:

1. Mix Sequence 1 materials together.
2. Dry-blend Sequence 2 materials thoroughly. Add to Sequence 1 and mix until uniform.
3. Add Sequence 3 and mix thoroughly.
4. Mill and deaerate.
Formula No. 126

TOOTHPASTE

RAW MATERIALS	Sequence	% By Weight
Veegum	1	0.80
CMC 7MF	1	0.56
Water, deionized	1	20.76
Glycerine, USP	2	5.00
Liponic NC-70	2	20.00
Saccharin	3	0.15
Calcium pyrophosphate	3	45.00
Methylparaben	3	0.18
Propylparaben	3	0.05
Flavor	4	1.00
Sodium N-lauroyl sarcosinate, 30%, dentifrice grade	5	6.50

Procedure:

1. Dry blend Sequence 1 materials together and add slowly to the water, mixing until smooth.
2. Add Sequence 2 materials and continue mixing until smooth.
3. Dry blend Sequence 3 materials. Add to batch and mix until smooth and uniform.
4. Add Sequences 4 and 5. Mix thoroughly.
5. Mill and deaerate.
Formula No. 127

SOURCE: Lipo Chemicals Inc.: Formulas

TOOTHPASTE

RAW MATERIALS	% By Weight
Water	up to 100
Binder	max. 2
Preservative	0,2
Sweetener	0,2
Humectant	max. 60
Abrasive	max. 50
Flavour oil	max. 2
Foaming agent	max. 2
Active ingredients	max. 10
Colouring Agents	depending on colour intensity
Opacifier	max. 1

CONVENTIONAL PASTE

RAW MATERIALS	% By Weight
Abrasive without silica	40-50
Silica	0,5- 3
Humectant	20-30
Water	10-20
Binder	0,5- 2
Preservative	0,1-0,2
Sweetener	0,1-0,2
Flavour oils	1- 2
Foaming agent	1- 2
Whiteness enhancer	0,4- 1
Colouring agents	
Active ingredients	

SILICA PASTE

RAW MATERIALS	% By Weight
Silica	15-25
Humectant	40-60
Water	10-20
Binder	0,5- 2
Preservative	0,1-0,2
Sweetener	0,1-0,2
Flavour oils	1- 2
Foaming agent	1- 2
Whiteness enhancer	0,4- 1
Colouring agents	
Active ingredients	

SOURCE: Degussa Corp.: Synthetic Silicas in Toothpastes: Formulas

TOOTHPASTE

RAW MATERIALS	% By Weight
Tylose CB 200	1,20
Water	31,80
HDK N20P	2,00
Glycerine	10,00
Sorbitol 70%ig	10,00
Calcium Carbonate	40,00
Texapon K 1296	5,00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Add HDK and disperse well; mix in glycerine and Sorbitol. Stir in calcium carbonate. Add Texapon K 1296 carefully; avoid strong foaming.

Evacuate the finished formulation for a short period.

Formulation 250 AH

TOOTHPASTE

RAW MATERIALS	% By Weight
A Water	43,14
Tylose CB 200	1,00
HDK N 20 P	3,00
B Glycerine	8,00
C Dentphos K	21,00
Tetrasodium Pyrophosphate	0,50
Sodium Chloride	15,00
D Medialan LD	6,00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK and disperse well. Add B. Stir in C thoroughly. Mix in D slowly (avoid strong foaming).

Formulation 270 AH

SOURCE: Wacker Silicone: Standard Formulations

TOOTHPASTE

RAW MATERIALS	% By Weight
A Water	37,60
Tylose CB 200	1,30
B HDK N 20 P	3,20
C Glycerine	15,00
D Dentphos K	35,00
E Medialan LD	6,60
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK and disperse well. Add C. Stir in D thoroughly. Mix in E slowly (avoid strong foaming).

Formulation 271 AH

TOOTHPASTE

RAW MATERIALS	% By Weight
A Water	32,20
Tylose CB 200	1,00
B HDK N 20 P	1,50
C Glycerine	7,00
Sorbitol 70%ig	15,00
D Calcium Carbonate	38,00
Hostapon KTW neu	4,00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK N 20 P and disperse well. Add C. Stir in D thoroughly.

Temperature stability: at 45C over 10 weeks.

Formulation 272 AH

TOOTHPASTE, TRANSPARENT

RAW MATERIALS	% By Weight
Tylose CB 200	0,50
Water	19,00
PEG-8	4,30
Sorbitol 70%ig	17,00
Glycerine	50,00
HDK N 20 P	5,70
Texapon K 1296	2,50
Presearavatives, flavours, pigments	q.s.

Add Tylose and HDK to the water whilst stirring. Stir in PEG-8. Add Texapon K 1296 carefully; avoid strong foaming. Evacuate the finished formulation for a short period.

Formulation 252 AH

SOURCE: Wacker Silicone: Standard Formulations

Section XV
Miscellaneous

ACNE SCRUB CREAM

RAW MATERIALS	% By Weight
1. A-C 617A	0.9
2. A-C 540	0.9
3. Mineral Oil, 70 s.s.	4.5
4. Dow Fluid 556	0.9
5. Propylene Glycol Dipelargonate	9.5
6. Amerchol 400	1.8
7. Solulan 25	0.9
8. Arlacel 60	1.2
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	4.5
11. Tween 60	1.6
12. Carbopol 940	0.7
13. Germall 115	0.3
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.7
16. Water	61.3
17. A-C 9A	10.0

Procedure:

Disperse Carbopol 940 in water. Add other water phase ingredients to Carbopol 940/water dispersion and heat to 80-90C. Weigh oil phase and heat to 80-90C. Stir gently until homogeneous. Add water phase to oil phase and shear in homomixer. Cool to 40-50C, add 10 parts A-C 9A to cold o/w cream then add perfume, de-aerate, and package.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formula

SKIN FLUID, O/W, "HIGH QUALITY"

RAW MATERIALS	% By Weight
I. Cutina CBS	9.0
Cutina E 24	2.0
Eumulgin B 2	1.0
Eutanol G	3.0
Cetiol SB 45	2.0
Cetiol S	4.0
II. Glycerine 86%	5.0
Water, deionized, preservative	ad 100.0
III. Collapur	5.0

Viscosity: approx. 20,000 mPas
Formula no. 89/170/2

SOURCE: Henkel: Cosmetics Nr. XXI/89/Lz: Formula

AMPOULE NO. 1

INGREDIENT	% By Weight
A) Deionized Water	86.25
Tristat IU	0.5
B) Gingko Biloba HS	5.0
Trisept M	0.2
Trisept P	0.05
C) DC 193 Surfactant	2.0
D) Theophyllisilane	6.0

Procedure:

Weigh A and mix until clear. In a separate container, prepare B and mix until parabens are dissolved. Then add B to A and mix until clear and uniform. Weigh C and slowly add to AB while mixing. Mix until clear and uniform. Weigh D and add while mixing. Mix until clear and uniform.

Formula #MS-2-55-1

AMPOULE NO. 2

INGREDIENT	% By Weight
A) Deionized water	84.75
Tristat IU	0.5
B) Horsetail HS	5.0
Trisept M	0.2
Trisept P	0.05
C) DC 193 Surfactant	2.0
D) Pronectin	7.5

Procedure:

Weigh A and mix until clear. In a separate container, prepare B and mix until parabens are dissolved. Then add B to A and mix until clear and uniform. Weigh C and slowly add to AB while mixing. Mix until clear and uniform. Weigh D and add while mixing. Mix until clear and uniform.

Formula #MS-2-55-2

SOURCE: TRI-K Industries, Inc.: Formulas

AMPOULE NO. 4

INGREDIENT	% By Weight
A) Deionized Water	77.25
Tristat IU	0.5
B) Pot Marigold HS	5.0
Trisept M	0.2
Trisept P	0.05
C) DC 193 Surfactant	2.0
D) CMF Complex	15.0

Procedure:

Weigh A and mix until clear. In a separate container, prepare B and mix until parabens are dissolved. Then add B to A and mix until clear and uniform. Weigh C and slowly add to AB while mixing. Mix until clear and uniform. Weigh D and add while mixing. Mix until clear and uniform.

SOURCE: TRI-K Industries, Inc.: Formula #MS-2-55-4

CHILD'S WOUND OINTMENT

INGREDIENTS	% By Weight
EMULGADE F	12.0
Petrolatum	18.0
CETIOL	6.0
Mineral Oil	6.0
Zinc Oxide	10.0
Talc	10.0
Part B:	
Water	37.0
Germaben II	1.0

Procedure:

1. Mix and melt Part A 70C.
2. Heat Part B to 70C and add to Part A. Mix.
3. Stir until room temperature. Homogenize.

Comments:

This skin protective cream is an O/W emulsion. CETIOL closely resembles biological skin oils and is used in many pharmaceutical applications as a re-fattening and spreading agent.

SOURCE: Henkel: Suggested Formula H-4822

AMPOULE PREPARATION

RAW MATERIALS	% By Weight
a) Eumulgin L	0.75
Cetiol HE	3.00
Carbopol 941 2% aqueous solution	15.00
Glycerin	2.00
b) Water, distilled	73.50
Phenonip	0.30
Triethanolamine	0.45
c) Proteodermin	5.00

Manufacture:

- a) mix at room temperature,
 b) and c) stir in.
 Perfume.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
 PROTEODERMIN: Formula

TALCUM POWDER

RAW MATERIALS	% By Weight
Talcum	61.0
DYNASAN 114	15.0
Ground Kaolin	15.0
Magnesium Stearate	5.0
Zinc Oxide	2.0
Magnesium Carbonate	2.0

Preparation:

All the materials are blended together and passed through an 0.16 mm sieve. Any portion which fails to pass through the sieve is ground in a micromill and sieved once more until nothing remains.

SOURCE: Huls America Inc.: Formula 1.5.2

ANHYDROUS BENZOCAINE OINTMENT

RAW MATERIALS	% By Weight
A. SOFTISAN 601	20.0
SOFTISAN 378	20.0
MIGLYOL-GEL B	10.0
White Petrolatum	20.0
Mineral Oil	10.0
B. Benzocaine	20.0

Preparation:

(A) is combined/ground and melted at 75-80C and cooled while stirring until homogeneous. The ointment base is then added little by little to the finely pulverized benzocaine.

Formula 1.5k

BENZOCAINE OINTMENT 20%
(W/O Emulsion)

RAW MATERIALS	% By Weight
A. SOFTISAN 649	5.0
MIGLYOL-840 GEL B	20.0
IMWITOR 780	5.0
Mineral Oil	8.0
Paraffin	3.0
B. Magnesium sulfate	2.0
Water	37.0
C. Benzocaine	20.0

Preparation:

(A) is combined/ground and melted at 75-80C.

(B) is heated to the same temperature and emulsified into (A). The emulsion is cooled while stirring, and then added little by little to the finely pulverized benzocaine.

Formula 1.2D

SOURCE: Huls America Inc.: Formulas

ANTI-ACNE-STICK

RAW MATERIALS	% By Weight
A. MIGLYOL 829	6.0
IMWITOR 900	10.0
SOFTISAN 378	20.0
SOFTISAN 649	7.0
Eutanol G	3.0
Lanolin Alcohol	3.0
Petrolatum	8.2
Beeswax	8.0
Candelilla Wax	2.0
Microcrystalline Wax	3.0
Span 20	2.0
Wheat Germ Oil	2.0
Corn Germ Oil	2.0
Propylene Glycol	3.0
Antioxidants	q.s.
B. Zinc Oxide	17.5
Colloidal Sulfur	0.2
Resorcinol	2.5
Allantoin	0.1
Lo-Micron Sienna 7166	0.25
Cosmetic Brown Iron Oxide 7058	0.25
C. Fragrance	q.s.

Preparation:

(A) is heated up to 75-80C. (B) is mixed and homogeneously ground. (A) is mixed in small portions with (B). (C) is added at about 40C. and the mass is poured into appropriate molds.

SOURCE: Huls America Inc.: Formula 1.5E

MUSTACHE WAX

RAW MATERIALS	% By Weight
Lanolin USP	3.2
White USP Petrolatum	9.5
Ceraphyl 50S	31.6
Crystal O	17.6
Mineral Oil Blandol	6.3
Ross Ozokerite Wax 77W	6.3
Ceraphyl 41	9.4
Ross White Bleached Beeswax	4.4
Ross Refined Candelilla Wax	4.4
Ross Refined #1 Yellow Carnauba Wax	1.3
Preservative	6.0

Procedure:

Melt all ingredients in a steam jacketed kettle under agitation until clear. Cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: Cosmetic Formulary: Formulas

BENZOCAINE AEROSOL SPRAY NON-ALCOHOL

RAW MATERIALS	% By Weight
Concentrate:	
Propylene Glycol	33.33
Benzocaine	3.20
Lipocol O-2	36.80
Liposorb TO	26.67
In Can:	
Propylene Glycol	25.00
Benzocaine	2.40
Lipocol O-2	27.60
Liposorb TO	20.00
Isobutane (A-31)	25.00
Manufacturing Instructions:	
1. Add benzocaine to propylene glycol with constant agitation. Heat mixture to 35C and agitate to solution.	
2. Add Lipocol O-2 to batch with constant mixing till batch is uniform. No heat is required.	
3. Add Liposorb TO to batch and mix to homogeneity.	
4. Fill into approved containers while batch is slowly mixing.	
Note: Final package must have shake well label on it since product separates.	

SOURCE: Lipo Chemicals Inc.: Formula No. 161

GEL FORMULATION

INGREDIENT	% By Weight
A. Glycerin	25.51
Thickener	0.35
Distilled water	2.91
PEG-12	3.06
B. Sorbitol (70%)	43.65
C. Sodium saccharin	0.19
Sodium benzoate	0.51
Sodium monofluorophosphate	0.76
D. Syloid 74	16.33
E. Syloid 244	5.10
F. Flavor	0.56
Color	0.05
Sodium lauryl sulfate	1.02

Procedure:

- Slurry the thickener in the glycerin. Add the water and PEG-12. Mix for 10 min at speed 1 at full vacuum.
- Add the sorbitol and mix for 20 min at speed 1 at 20-in. vacuum.
- Add the sodium salts and mix for 2 min at speed 1 at 20-in. vacuum.
- Add the Syloid 74 and mix briefly with no vacuum until the particles are wetted out. Then proceed with 5-min mixing at 12 to 14-in. vacuum.
- Add the Syloid 244 and mix as in Step 4.
- Add the flavor and surfactant. Mix for 30 to 40 minutes at speed 1 with full vacuum.
- Package into tubes and test after 24 hrs.

SOURCE: Aqualon Co.: AQUALON Cellulose Gum: Formula

BIO COMPLEX

RAW MATERIALS	% By Weight
I Demineralized Water	69,60
Glycerin	20,00
Carbopol 941	0,10
Sodium Hydroxyde (10% Sol.)	0,30
Preservative	Q.S.
PHOSPHOSOMES CEVENYL 11.G	5,00
PHOSPHOSOMES GINGKO BILOBA 15.G	5,00
Perfume	Q.S.
Orange Dye	Q.S.

Preparation:

Disperse the CARBOPOL in I. Let stand.
Then add the other components in order of formula.

Formula MM 3611

PROTECTIVE STICK

RAW MATERIALS	% By Weight
I BASE POUR STICK PL 1916	84,70
Parsol MCX	8,00
Eusolex 4360	2,00
II Timiron Supersilk MP 1005	2,00
LABRAFIL ISOSTEARIQUE	3,00
Perfume	0,30

Preparation:

Heat I up to 80C.
Prepare II by mixing carefully until complete homogenization.
Pour II into I. Add perfume.
Around 65-70C, pour into moulds.

Formula PL 1932

SOURCE: Gattefosse S.A.: Formulas

BODY OIL SPRAY, VITAMIN CONTENT

RAW MATERIALS	% By Weight
Vegetable oil	54.0
Isopropyl myristate	35.0
Tocopherol Oil CLR	5.0
Vitamin F Glyceryl Ester CLR	5.0
Antioxidant	q.s.
Perfume oil	1.0

Manufacture:

Mix at room temperature in the order given.

Concentrate:

Product 40.0%
 Propellant 11/12 5050 60.0%

Valve: R-70 gold-lacquered

Actuator: 130-013/015

MASSAGE OIL, VITAMIN CONTENT

RAW MATERIALS	% By Weight
Miglyol 812	72.0
Paraffin oil	20.0
Vitamin F Glyceryl Ester CLR	5.0
Tocopherol Oil CLR	3.0

Manufacture:

Mix at room temperature in the order given.

Perfume.

Model formulations 26

VITAMIN LEG BALSAM TYPE O/W

RAW MATERIALS	% By Weight
a) Lanette N	3.0
Cetiol V	6.0
Vitamin F Ethyl Ester CLR	3.0
b) Water, distilled, preserved	70.0
c) Cremogen Hamamelis Dest.	11.0
Camphor	1.0
Ethyl alcohol 96 vol. % or Isopropyl alcohol	6.0

Manufacture:

a) melt and bring to about 70C;

b) heat to about 70C and stir into a).

Continue stirring until the emulsion has cooled to about 35C;

c) dissolve and stir in.

Perfume, homogenize.

Model formulations 30

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH

DENTAL-CREAM

RAW MATERIALS	% By Weight
A Cetylamine hydrofluoride	0,50
Bis(hydroxyethyl)aminopropyl-N-hydroxyethyl- octadecylamin-dihydrofluoride solution about 33% in propanediol-1,2	1,50
Tego Betain BL 215	5,00
Paraffin oil high viscosity	0,70
Glycerine (87%)	7,50
Sorbitol F liquid	11,00
Sodium benzoate	0,20
Sodium saccharinate	0,20
Menthol cryst.	0,20
Flavour	q.s.
B Tylose MBH 1000	0,80
Water, demineralized	ad 100,00
C Aerosil 200	3,20
Sident 15	6,30
Dentphos M	14,50

Procedure:

Suspend Tylose in water with stirring, let swell until it is completely dissolved. Heat phase A to 50C until clear, cool down and add to phase B. Add phase C while stirring and homogenize well.

Formula 16-1/90

DENTAL-POWDER

RAW MATERIALS	% By Weight
A Cetylamine hydrofluoride	0,15
Sodium poly phosphate	6,00
Calcium carbonate	78,55
Blanose 7 HF	1,50
Alumimum lactate	8,00
Sident 12	3,50
Texapon K 12	1,40
Sodium saccharinate (grain size <50 um)	0,30
B Flavour 35049	0,60

Procedure:

Blend the ingredients of phase A for 15 or 20 minutes in a Turbula-mixer. Pass the mixture through a fine sieve to ensure uniform particle size. Spray phase B on the powder. Blend the mixture again for 15 or 20 minutes and sieve again.

Note: To increase the foam power, increase the amount of Texapon K 12.

Formula 17-1/90

SOURCE: E. Merck, Darmstadt: Formulas

DENTAL-GEL (BLUE)

RAW MATERIALS	% By Weight
A Sodium fluoride	0,075
Sorbitol F liquid	62,125
Sodium benzoate	0,200
Sodium saccharinate	0,200
Water, demineralized	9,000
B Bromochlorophene	0,100
Bis-(hydroxyethyl)-aminopropyl-N-hydroxyethyl- octadecylamindihydrofluoride solution about 33% in propanediol-1,2	1,500
Flavour 35049	1,000
C Polyethylene glycol 400	3,000
Tego Betain BL 215	5,000
Sicomet patent blue 80 (E 131) (0,1% in water)	0,800
D Sident 12	9,500
Sident 22 S	7,500

Procedure:

Mix phases A and B separately. Heat phase C to 50C. Add phases A and B to phase C while stirring, mix under vacuum. Add phase D, homogenize under vacuum. Stir under vacuum until the gel is clear.

Note: Exposure 1 h, 100 W/m 2: no colour change

Formula 11-2/90

SOURCE: E. Merck, Darmstadt: Formula

DENTURE ADHESIVE-CREAM

RAW MATERIALS	% By Weight
Sodium carboxy methyl cellulose	30-35
POLYOX WSR-301	12-15
Petrolatum	40-45
Liquid petrolatum	10-12
Preservatives, flavor	q.s.

DENTURE ADHESIVE-POWDER

RAW MATERIALS	% By Weight
Karaya gum	92-95
POLYOX WSR-301	4- 6
Preservatives, flavor	q.s.

DENTURE ADHESIVE-LIQUID

RAW MATERIALS	% By Weight
Sodium carboxy methyl cellulose	22-34
POLYOX WSR-301	11-14
Mineral oil	52-67
Preservatives, flavor	q.s.

A denture adhesive is a device applied to the base of a denture before the denture is inserted into the user's mouth. The device is used to improve denture retention and comfort. Although this definition describes the adhesive as a device, it is supplied as a powder, cream, or liquid.

Many products on the market include POLYOX Resins as described in U.S. Patents 2978812 and 4280936. POLYOX has the unique property of being wetted rapidly by water, resulting in a soft, resilient gel between the plate and the jaw. Its tackiness also helps prevent undesirable slippage of the dental plate. The low toxicity, resistance to attack by salivary enzymes, low odor and tastelessness make these resins ideal for denture adhesives.

SOURCE: Amerchol Corp.: POLYOX Water-Soluble Resins:
Formulas

EMULSION, O/W

RAW MATERIALS	% By Weight
a) Cutina MD	3.0
Lanette O	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Rilanit GMRO	0.5
Eutanol G	10.0
Phenonip	0.3
b) Water, distilled	65.9
Phenonip	0.3
Glycerin	5.0
c) Proteodermin	10.0

Manufacture:

a) melt and bring to approx. 70C,

b) heat to approx. 70C and stir into a).

Continue stirring until the emulsion has cooled to approx. 30C,

c) stir in.

Perfume, homogenize.

EMULSION, W/O

RAW MATERIALS	% By Weight
a) Arlacel 989	5.8
Arlacel 481	2.2
Miglyol 812	8.0
Cetiol V	5.0
Cetiol S	6.0
Eutanol G	3.0
Phenonip	0.3
b) Water, distilled	59.9
Phenonip	0.3
Glycerin	2.0
1.2-propylene glycol	1.8
Magnesium sulfate	0.7
c) Proteodermin	5.0

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
PROTEODERMIN: Formulas

EMULSION, TYPE W/O

RAW MATERIALS	% By Weight
a) Abil WS 08	5.00
Abil K 4	8.00
Abil B 8839	5.00
b) Water, distilled	68.70
Phenonip	0.30
Glycerin	3.00
Glycoderm	10.00

Preparation:

Add b) to a) while stirring at room temperature at 1200 rpm for 5 minutes. Perfume, roll.

GLYCODERM: Formula No. 8045

HAND AND BODY EMULSION, HERB/VITAMIN CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Amphisol	3.0
Glyceryl monostearate	1.0
Adeps lanae	1.0
Satol	6.0
Silicone oil AK 500	5.0
Vitamin F Glyceryl Ester CLR	2.0
Avocado Oil CLR	5.0
Calendula Oil CLR	3.0
Preservative	q.s.
b) Water, distilled, preserved	69.0
Karion F liquid	5.0

Manufacture:

a) melt and bring to about 85C;

b) heat to about 85C and stir into a).

Continue stirring until the emulsion has cooled to about 35C.

Perfume, homogenize.

Liquid Preparation

Model formulations 3

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

FLUID EMULSION

RAW MATERIALS	% By Weight
I TEFOSE 2000	7,00
Stearic Acid	1,00
GELEOL	0,50
Mineral Oil	3,00
Apricot Kernel Oil	2,00
Wheat Germs Oil	2,00
D.P.P.G.	10,00
Silicone 200 (100 CS)	2,00
VEGETOL HUILEUX CALENDULA WL 1072	5,00
D.L. Alpha Tocopherol Acetate	0,05
Eusolex 4360	0,50
Antioxygen	Q.S.
II Demineralized Water	55,70
Carbopol 941	0,15
Propylene Glycol	5,00
Triethanolamine 99% (50% Sol.)	0,30
CEVENYL	0,50
NUCLEODERM (2% Sol.)	5,00
Preservative	Q.S.
Perfume	0,30

Preparation:

Disperse the Carbopol. Let stand.

Under stirring pour II heated up to 75C into I heated up to 75C.

Add the T.E.A. solution and the CEVENYL.

Cool down while stirring and around 30-35C, add the other components.

SOURCE: Gattefosse: Formula MM 2842/A

CREAM EMULSION

RAW MATERIALS	% By Weight
A. Petrolatum	20.0
Paraffin	5.0
MIGLYOL Gel B	30.0
Aluminum Distearate	2.0
Hostaphat KL 340 N	3.0
B. PEG 200	40.0
Preservative	q.s.
C. Fragrance	0.3

Preparation:

(A) is stirred together and heated up to about 80C. (B) is heated up to the same temperature and emulsified into (A). Fragrance is added at ca. 30C.

SOURCE: Huls America Inc.: Formula 1.2B

FOOT BALSAM

RAW MATERIALS	% By Weight
A. IMWITOR 960	7.0
Stearic Acid	5.0
Cetyl Alcohol	1.0
MIGLYOL 812	9.0
B. Sorbitol	5.0
Preservative	q.s.
Distilled Water	up to 100.0
C. Triethanolamine	0.9
D. Mountain Pine Oil	2.0
Menthol	0.5

Preparation:

(A) and (B) are heated separately to approximately 70C. (C) is added to (B) and the mixture of (C + B) is emulsified into (A). (D) is added at approximately 30C.

Formula 1.1.19

REMEDY FOR SKIN DISEASES

RAW MATERIALS	% By Weight
A. MIGLYOL GEL Type B	20.0
SOFTISAN 649	16.5
IMWITOR 780K	5.0
Petrolatum	20.0
Paraffin	8.5
B. Preservative	q.s.
Water	ad 100.0

Preparation:

(A) is mixed and heated to 75-80C. (B) is brought to the same temperature and is emulsified into (A).

Formula 1.2.12

SOURCE: Huls America Inc.: Formulas

FORMULA AY 43T

RAW MATERIALS	% By Weight
1. MACKADET 40K	35.0
2. MACKAMIDE S	4.0
3. Tetrasodium EDTA 40%	0.2
4. MACKAM 35	20.0
5. MACKAMIDE AME-75	1.5
6. MACKANATE DC-30	0.5
7. Sodium Chloride	1.0-2.0
8. MACKSTAT DM	Q.S.
9. Fragrance	Q.S.
10. Deionized Water	Q.S.
11. Diluted Hydrochloric Acid 20% to pH 8.8	

Procedure:

1. Heat water #10 to 140F (60C). Add #3, #1, #2, #4. Mix well until everything is completely dissolved.
2. Add #5, #6. Start cooling while mixing.
3. At 35C (95F) add fragrance #9, then add #8.
4. Mix, then check pH. Adjust down with small amounts of #11 and mix after each addition.
5. Once correct pH is obtained, start addition of #7 to obtain desired viscosity.

pH: 8.6-9.0

Viscosity: 700-1200 cps

50% SILICONE DC200/350 EMULSION

RAW MATERIALS	% By Weight
DC Silicone 200/350	50.00
MACKANATE DOS-70N	12.50
Polysorbate 80	12.50
Deionized Water	25.00

Procedure:

1. Blend #1, #2, #3 together at room temperature.
2. Warm to 30C. and slowly with mixing add #4 at same temperature.

The result is an almost transparent viscous gel which may separate on standing.

Formula AY161

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

GEL

RAW MATERIALS	% By Weight
a) Water, distilled	60.00
Phenonip	0.30
Carbopol 940	0.50
b) Tween 85	0.30
Arlacel 80	0.15
Myritol 318	2.50
Phenonip	0.30
c) Water, distilled	25.45
Triethanolamine	0.50
d) Proteodermin	10.00

Manufacture:

- a) disperse with rapid stirring until the solution is free from lumps,
 - b) mix and stir into a),
 - c) dissolve and slowly stir into a) and b).
 - d) stir in.
- Perfume

PROTEODERMIN: Formula

GEL

RAW MATERIALS	% By Weight
a) Hispagel 200	20.00
Kelzan, 1% solution	30.00
Water, distilled	35.70
Phenonip	0.30
Cetiol J 600	4.00
b) Glycoderm	10.00

Preparation:

- a) mix at room temperature in the order given;
 - b) stir slowly into a).
- Perfume

GLYCODERM: Formula No. 8041

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Formulas

GERMICIDAL HAND CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-Special	83.0
MACKAMIDE PKM	4.0
Choroxylenol	0.5
MACKERNIUM 007	0.8
MACKSTAT DM	Q.S.
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM and Choroxylenol to MACKANATE LO-Special and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation.

Formula BF-163

HAND SAFETY CLEANER

RAW MATERIALS	% By Weight
1. MACKADET SBC-8	40.00
2. Morton Thiokol #295	1.20
3. Sodium Chloride	0.75-1.00
4. Fragrance	Q.S.
5. MACKSTAT DM	Q.S.
6. Deionized Water	Q.S.
7. Color	Q.S.

pH: 6.5-7.0

Viscosity: 5000-10,000 cps

Procedures:

1. Dissolve #1 and #5 in 3/4 of the water (#6) with good mixing. Make sure everything is completely dissolved.
2. Dissolve #3 in part of the remaining water (#6) and mix everything well.
3. Separately blend #2 with the rest of the available water (#6) until completely in solution.
4. Add this solution very slowly to the tank while mixing.
5. Add #4 and finally #7, if required.
6. Adjust pH if necessary with citric acid or dilute sodium hydroxide solution and viscosity with salt solution.
7. Filter product if necessary.

Formula AY-131-1-1122

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HAND-CARE FOAM, VITAMIN/HERB CONTENT TYPE O/W

RAW MATERIALS	% By Weight
a) Amphisol	3.0
Stearin	1.5
Cetyl alcohol, extra	0.7
Isopropyl myristate	3.2
Diethylene glycol monostearate	1.0
Vitamin F Glyceryl Ester CLR	3.0
Calendula Oil CLR	4.0
Preservative	q.s.
b) Water, distilled, preserved	81.6
1,2-Propylene Glycol	1.5
c) Perfume oil	0.5

Manufacture:

a) melt and bring to about 85C;

b) heat to about 85C and stir into a).

Continue stirring until the emulsion has cooled to about 35C;

c) stir in.

Concentrate:

Product 88.0%

Propellant 12 12.0%

Valve: AR-74/Neo BL

Foam actuator: SF 66/6

SOURCE: CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH:
Model formulations 31

HAND SOAP

RAW MATERIALS	% By Weight
Ammonium Lauryl Sulfate (30%)	27.0
Sodium Laureth Sulfate (30%)	24.0
MACKAMIDE LLM	6.0
Glycerine	3.0
MACKALENE 426	3.0
MACKANATE RM	2.0
Tetrasodium EDTA	0.1
Irgasan DP 300	0.9
MACKSTAT DM	q.s.
Citric Acid to pH = 6.0-6.5	
Fragrance	q.s.
Water, FD & C Yellow 5 and Red 4 q.s. to	100.0

Procedure:

1. Dissolve Triclosan in MACKAMIDE LLM.

2. Add other components in water and heat to 45 degrees C.

3. Blend until clear and add amide blend.

4. Adjust pH and cool.

5. If needed increase viscosity with amide and decrease with MACKANATE RM. Viscosity should be 5 to 10 thousand cps.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

HIGH-WATER-CONTENT GEL

INGREDIENTS	% By Weight
Glycerin	20.00
Sorbitol (70% solids)	33.00
Distilled water	To 100.00
Hydrated silica abrasive Syldent 700	17.10
Hydrated silica thickener Syldent 15	1.37
PEG-12	3.00
CMC-7MXF	0.55
CMC-9M8XF	0.45
Sodium lauryl sulfate (SLS)	1.00
Sodium monofluorophosphate	0.76
Sodium benzoate	0.50
Flavor	0.50
FD&C Blue No. 1 (1.0 wt % solution)	0.023

Procedure:

1. Add the sodium benzoate and sodium monofluorophosphate to a portion of the distilled water, using the following weight ratio: 1 part salt to 10 parts water. Mix until dissolved.
2. Add the sodium lauryl sulfate to a portion of the sorbitol, using the following weight ratio: 1 part SLS to 4 parts sorbitol. Mix, using mild agitation. Heat to 60C to deaerate.
3. Slurry all the CMC in the glycerin. While mixing vigorously with an electric stirrer, add all the remaining distilled water, sorbitol, and PEG-12. Mix for 30 min or until the CMC is fully dissolved and no polymer gels remain.
4. Add the polymer mixture to the toothpaste mixer (Ross double planetary mixer, model 130 LDM-2). The temperature of the mixer jacket should have been preset to 20C.
5. Add the FD&C Blue No. 1 solution to the polymer mixture and mix until homogeneous.
6. Add the salt solution to the polymer mixture and mix until the salt is fully dissolved.
7. Add one-third of the hydrated silica. Mix at speed 2 (low) until just combined. Repeat until all the hydrated silica is added.
8. Increase to speed 6 (highest) and mix for 25 min at a vacuum of 27 to 28 in Hg or until homogeneous and deaerated.
9. Add the flavor and SLS solution. Mix at speed 1 at a vacuum of 27 to 28 in Hg for 5 min or until combined and homogeneous. Note: If refrigeration is not available, a temperature of 25C maximum is acceptable. Temperature control is desirable to: (1) avoid batch-to-batch variation, and (2) prevent loss of water and flavor during deaeration.

The typical silica gel formulations contain less than 20% water. This high-water-content gel contains just over 30% water. The CMC-7MXF is necessary to provide sufficient gel structure in the high-water formulation.

SOURCE: Aqualon Co.: AQUALON Cellulose Gum: Formula

HOMOPOLYMER GELS

RAW MATERIALS	Formulation	Wt. %
A-C 617	10 10 10 10 10 12 12 12	
Mineral Oil, 75 s.s.	90	
2-Ethyl Hexyl Stearate	90	
Isostearyl Alcohol	90	
Lanolin Alcohol	90	
Butyl Stearate	90	
Isopropyl Stearate		88
Isopropyl Palmitate		88
Isopropyl Myristate		88

Gel Stability: Excellent Compatibility, No Separation

A-C 617 MINERAL OIL GEL

RAW MATERIALS	% By Weight
1. A-C 617	10.0
2. Mineral Oil	90.0

Procedure:

With simple agitation, gradually heat the mixture above its cloud point (81C). If faster solvation is preferred, the mixture may be heated slightly above 102C until the wax is completely dissolved and a homogeneous solution is produced.

For stable gels, the solution is fast cooled with simple agitation or slowly cooled with good shear. Homomixer or colloid mill could be used to generate shear. Objective is to create a fine particle size gel where the fine polyethylene particles interlock to create this thixotropic body. At 10C below its cloud point, simple agitation is again used and the gel is agitated to a temperature where it is still packageable without causing air entrapment.

SOURCE: Allied-Signal Inc.: Prototype Formulations: Formulas

NAIL POLISH REMOVER WITH NATURAL LIPID CONDITIONER

RAW MATERIALS	% By Weight
Acetone	94.5
MACKALENE NLC	0.5
Deionized Water	5.0
Fragrance	qs

Procedure:

Add components together and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

BODY BUILDING CONDITIONER

INGREDIENTS	% By Weight
Water	90.10
TEGIN	3.00
EGMS-VA	1.00
Cetyl Alcohol	2.00
Propylene Glycol	3.00
ABIL Quat 3272	0.50
ABIL B-8851	0.40
Color, Preservatives, Fragrance	QS 100.00

Procedure:

1. Heat the water to 70-75C. Disperse the TEGIN, EGMS-VA, and Cetyl Alcohol. Mix well.
2. Begin cooling. Cool to 45-50C while mixing. Mix the Propylene Glycol and ABIL Quat 3272 together and add to the batch. Mix.
3. Switch to sweep mixer. Cool to 40-45C. Add the ABIL B-8851, Color, Preservatives and Fragrance. Mix.
4. Continue cooling. Fill.

SOURCE: Goldschmidt Chemical Corp.: Formula GCC 16-11

INVISIBLE GLOVE FORMULA

INGREDIENT	% By Weight
SILTECH FVC	4.0
Ninol 40-CO	75.0
Deionized Water	21.0

The product is a cold mix.

This formula is designed to be applied to the hands as a protective coating. It can be used for protection of the hands from the defatting action of surfactant systems such as shampoo. It is not designed for protection from harsh chemicals.

The product can be applied as a spray or as a liquid.

Formula #L-01161-A

SILTECH WAX - TITANIUM DIOXIDE STICK

INGREDIENTS	% By Weight
A) Micro TiO ₂ MT 150W	20.0
B) Siltech Wax	80.0

Procedure:

Heat B to 60-65 Deg C with mixing until completely melted. Disperse A into B with mixing. Pour into molds and cool.

Formula #2-95-1

SILTECH WAX - TITANIUM DIOXIDE STICK

INGREDIENTS	% By Weight
A) Micro TiO ₂ MT 100F	20.0
B) Siltech Wax	80.0

Procedure:

Heat B to 60-65 Deg C with mixing until completely melted. Disperse A into B with mixing. Pour into molds and cool.

Formula #2-97-1

SOURCE: TRI-K Industries, Inc.: Formulas

LIPOSOME GEL

RAW MATERIALS	% By Weight
I. Hostacerin PN (1%)	40,0
EUTANOL G	2,0
Glycerol 86%	3,0
Water demin.	50,0
II. LIPOCUTIN RB	5,0
pH-value: 6,7	
Viscosity in mPas: 4000	
Formula no. 90/246/1.1	

LIPOSOME GEL

RAW MATERIALS	% By Weight
I. Carbopol 950 (2%)	30,0
KOH (50%)	0,2
Texamid 778 (5%)	5,0
II. Water, demin. preservatives	59,8
III. LIPOCUTIN AQ	5,0
pH-Value: 5,5-6,5	
Viscosity in mPas: 12000	
Formula no. 90/325/1	

LIPOSOME GEL

RAW MATERIALS	% By Weight
I. Hostacerin PN 73	40,0
LAMESOFT 156	3,0
II. Glycerol 86%	3,0
Water, demin. preservatives	49,0
III. LIPOCUTIN AQ	5,0
pH-value: 5,5-6,5	
Viscosity in mPas: 15000	
Formula no. 90/325/3	

Preparation:

Stir phases I and II together at room temperature, then add LIPOCUTIN AQ.

SOURCE: Henkel: Cosmetics No. III/91: Formulas

LIQUID W/O EMULSION FOR USE AS FACIAL LOTION, MEDIUM FATTING EFFECT, "RICH"

RAW MATERIALS	% By Weight
Dehymuls HRE 7	7.0
Cetiol V	10.0
Sun flower oil	10.0
Mikrowachs 7694	1.0
Zincum N 29	1.0
Glycerin 86%	3.0
MgSO4-7H2O	0.5
Water, preservative	ad 100.0
Viscosity: ca. 16.000 mPas	
Formula no. 88/080/38	

LIQUID W/O: QUICKLY ABSORBED BY THE SKIN, SLIGHT FATTING EFFECT

RAW MATERIALS	% By Weight
Dehymuls HRE 7	7.0
Cetiol V	20.0
Mikrowachs 7694	1.0
Zincum N 29	1.0
Glycerin 86%	3.0
MgSO4-7H2O	0.5
Water, preservative	ad 100.0
Viscosity: ca. 10.000 mPas	
Formula no. 88/080/47	

SOURCE: Henkel: Cosmetics Nr. VIII/89/Lz: Formulas

EMOLLIENT TRANSPARENT GEL

INGREDIENTS:	% By Weight
Part A:	
EUMULGIN B-3	13.00
CETIOL HE	25.00
CETIOL V	5.00
Part B:	
Water, Deionized	56.75
Dyes	q.s.
Part C:	
Fragrance	q.s.
Preservative	q.s.
Procedure:	

Heat Part A to 70-75C. Heat Part B to 70-75C. Add Part B to Part A under agitation. Continue stirring and at 55-60C add individual components of Part C. Once the product is homogeneous, fill off.

Comments:

EUMULGIN B-3 is utilized in the manufacture of clear, transparent ringing gels. This microemulsion is an excellent emollient base. The ethoxylated cocoate and fatty acid ester provide protective dermal properties that may be useful for treatment products and makeup items where moisturization is required.

SOURCE: Henkel: Formula 4762

MESSAGE OIL

RAW MATERIALS	% By Weight
Solulan P B 5	3.0
Dow Corning Silicone #344	16.0
Emerest 2314	13.0
Drakol #9	31.0
Coconut Oil	31.0
Escalol 507	3.0
Ross Jojoba Oil	3.0
Perfume Nova Rome DE 51	q.s.

Procedure:

Load all ingredients into a vessel. Warm slightly until clear under agitation and package.

JOJOBA MESSAGE OIL

RAW MATERIALS	% By Weight
Mineral Oil	61.5
Isopropyl Palmitate	24.0
Coconut Oil #76	5.0
Jojoba Oil	2.0
Almond Oil Sweet	2.0
Acetulan	2.0
Glucam P-20	1.0
Dow Corning Silicone 344	2.0
Vitamin E	.5
Fragrance	q.s.

Procedure:

Load all ingredients in to a stainless steel kettle. Warm slightly until clear with agitation, add Fragrance and package.

SOURCE: Frank B. Ross Co., Inc.: Formulas

MESSAGE OIL

RAW MATERIALS	% By Weight
Mineral Oil	65.0
MIGLYOL 812	22.0
MIGLYOL 840	13.0
Antioxidants	q.s.
Perfume	q.s.

Preparation:

All the materials are simply stirred together at room temperature.

Note: This functional oil can also be made with 5.0% Biolipon.

SOURCE: Huls America Inc.: Formula 1.5.14

MILD HAND CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-Special	83.0
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.8
MACKSTAT DM	qs
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-Special and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Cool to 50 degrees C. with mild agitation.
6. Add MACKSTAT DM and fragrance and cool with continuous agitation.

PUMICE HAND CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-Special	78.0
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.5
Pumice (0 1/2 Grade)	6.0
MACKSTAT DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add amide to MACKANATE LO-Special and heat to 85 degrees C.
2. Disperse MACKERNIUM 007 in water and add to batch.
3. Cool to 65 degrees C. and slowly disperse pumice.
4. With continuous mixing add MACKSTAT DM and fragrance at 45 degrees C.
5. Continue to mix with cooling and fill at 35 degrees C.

PUMICE HAND CLEANSER

RAW MATERIALS	% By Weight
MACKANATE LO-Special	78.5
MACKAMIDE PKM	4.0
MACKERNIUM 007	0.8
Pumice (Grade 0 1/2)	6.0
MACKSTAT DM	Q.S.
Water, Fragrance qs to	100.0

Procedure:

1. Add MACKAMIDE PKM to MACKANATE LO-Special and heat to 70 degrees C.
2. Blend until homogenous.
3. Dissolve MACKERNIUM 007 in water and add to product.
4. Blend until completely homogenous.
5. Slowly add pumice until completely dispersed.
6. Cool to 50 degrees C. with mild agitation.
7. Add MACKSTAT DM and fragrance and cool with continuous agitation.

Formula BD-167

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

MOUTH-WASH-CONCENTRATE

RAW MATERIALS	% By Weight
A Bromochlorophene	0,50
Ethanol (96%)	25,00
Menthol cryst.	0,50
Tagat R 40	16,00
B Propanediol-1,2	10,00
Sodium cyclamate	2,00
Water, demineralized	46,00

Procedure:

Dissolve Bromochlorophene in Ethanol. Add the remaining ingredients of phase A and stir until clear. Mix phase B. Add phase B to phase A while stirring.

Note: pH 22C: 6,3

Formula 5-1/90

MOUTH-WASH-CONCENTRATE

RAW MATERIALS	% By Weight
Bromochlorophene	0,50
Ethanol (96%)	86,50
Lamacit KW 80-18	8,00
Flavour T 7354-1	5,00

Procedure:

Blend flavour with Lamacit KW 80-18. Add remaining ingredients. Stir until clear.

Note: pH 22C: 6,4

Formula 1-3/90

SOURCE: E. Merck, Darmstadt: Formulas

MUSCLE RUB "A"

RAW MATERIALS	% By Weight
A. Methyl Salicylate	5.0
Turpentine Oil	5.0
Cremophor EL	5.0
MIGLYOL 812	10.0
B. 1% Carbopol Gel	63.0
Water	7.0
Preparation of Carbopol Gel:	
Carbopol 940	1.0
Triethanolamine	0.6
Water	up to 100.0

The water is added in small amounts to the weighed Carbopol 940 and stirring is maintained until all lumps have dissolved. The triethanolamine is added and stirring continued until a clear gel is formed.

Preparation of the Lotion:

(A) and (B) are heated separately to 75-80C and (B) is emulsified into (A). The mass is then cooled while stirring.

Formula 1.5G

MUSCLE RUB "B"

RAW MATERIALS	% By Weight
A. Menthol	1.0
Camphor	1.5
Methyl Salicylate	0.4
Nicotinic acid benzylester	1.0
Eucalyptus oil	1.0
Pine needle oil	1.0
Lemon oil	0.3
SOFTISAN 601	20.0
IMWITOR 960	10.0
MIGLYOL GEL B	7.0
Cremophor A 25	5.0
B. Water	51.8

Preparation:

All ingredients in (A) are added together and heated up to 75C. Then (B) is added, and the mass is cooled under constant stirring.

Formula 1.5H

SOURCE: Huls America Inc.: Formulas

MUSCLE RUB "C"

RAW MATERIALS	% By Weight
A. Methyl Salicylate	5.0
Turpentine Oil	7.0
SOFTISAN 601	20.0
IMWITOR 960	10.0
MIGLYOL GEL B	8.0
Cremophor A 25	5.0
B. Water	45.0

Preparation:

All ingredients in (A) are added together and heated up to 75C. (B) is added, and the mass is cooled under constant stirring.

Formula 1.5I

RETONER

RAW MATERIALS	% By Weight
SOFTIGEN 767	3.0
Allantoin	0.2
Locron L	1.0
Ethanol 96% denatured	10.0
Water	up to 100.0

Preparation:

All ingredients are stirred together at room temperature.

Formula 1.5F

ANHYDROUS OINTMENT

RAW MATERIALS	% By Weight
SOFTISAN 378	29.0
SOFTISAN 601	43.0
MIGLYOL 812	18.0
Mineral Oil	10.0

Preparation:

All ingredients are mixed at about 45C.

Formula 1.5L

SOURCE: Huls America Inc.: Formulas

OIL/WATER EMULSION WITHOUT PG-3 BEESWAX

RAW MATERIALS	% By Weight
A) Ceteareth-25	3.0
Ceteareth-6	2.0
Cetyl alcohol	5.5
Propylene glycol dioctanoate	11.0
Dimethicone 200 cs	0.2
B) Preservative mixture	1.0
Water	67.0
Carbomer 940 (2% sol.)	5.0
C) Tris (hydroxymethyl) aminomethane (THAM)	0.2
Water	4.8
D) Fragrance	0.3

OIL/WATER EMULSION WITH PG-3 BEESWAX

RAW MATERIALS	% By Weight
A) Ceteareth-25	3.0
Ceteareth-6	2.0
Cetyl alcohol	5.5
PG-3 Beeswax	1.0
Propylene glycol dioctanoate	10.0
Dimethicone 200 cs	0.2
B) Preservative mixture	1.0
Water	67.0
Carbomer 940 (2% sol.)	5.0
C) Tris (hydroxymethyl) aminomethane (THAM)	0.2
Water	4.8
D) Fragrance	0.3

SOURCE: Angus Chemical Co.: Formulation PF-0166 suggested by
Koster Keunen Inc.

O/W EMULSION

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	10.0
Cutina E 24	3.0
Paraffin oil, subl.	8.0
Myritol 318	8.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0

Viscosity 24 hours after manufacture: 120000 mPas

Formula no. 89/213/32

O/W CREAM

RAW MATERIALS	% By Weight
I. Lamecreme DGE 18	7.0
Eumulgin B 1	1.4
Cetiol SN	10.0
II. Glycerol 86%	5.0
Deionized water, perfume, preservative	ad 100.0

Viscosity 24 hours after manufacture: 38000 mPas

Formula no. 89/213/59

The consistency of o/w emulsions can be adjusted at will over the whole spectrum from lotions to soft, pleasant creams by incorporating 7-10% Lamecreme DGE 18 in combination with 1-3% of a nonionic emulsifier. Suggested formulations for emulsions incorporating Lamecreme DGE 18 are given.

SOURCE: Henkel: Cosmetics No. XIV/90: Formulas

O/W EMULSION

RAW MATERIALS	% By Weight
Glycerin Monostearate	3.0
Stearic Acid	3.0
Neutrol TE, (10% Aqueous Solution)	3.0
Cremophor A 11	1.5
Liquid Paraffin	6.0
Glycerin	4.0
LUVITOL EHO	4.0
Perfume	q.s.
Preservative	q.s.
Water	75.5
pH: 7	

A mass fraction of approx. 40% more Neutrol TE than triethanolamine is required for adjusting the pH to 5, 6 or 7.

SOURCE: BASF Corp.: NEUTROL TE: Formula

O/W EMULSION OINTMENT

RAW MATERIALS	% By Weight
A. SOFTISAN 601	10.0
MIGLYOL 812	8.0
Paraffin	3.0
Cetyl Alcohol	2.5
B. Glycerin	5.0
Preservative	q.s.
Water	up to 100.0

Preparation:

(A) is heated to ca. 75C.; (B) is mixed together, and heated up to the same temperature and emulsified into (A).

Formula 1.1.12B

W/O EMULSION OINTMENT

RAW MATERIALS	% By Weight
A. Petrolatum	16.0
Paraffin	2.5
Alugel DF 30	1.0
B. IMWITOR 780K	5.0
SOFTISAN 100	5.0
Lanolin Alcohol	1.5
C. Magnesium Sulfate	1.0
Preservative	q.s.
Water	up to 100.0

Preparation:

At about 90C., (A) is heated until it is a gel. (B) is melted and slowly added to (A). (C) is brought to 75-80C. and emulsified into (A+B).

Formula 1.2E

SOURCE: Huls America Inc.: Formulas

QUICK EMULSIFYING BASE-A

RAW MATERIALS	% By Weight
ABIL B8852	10.0
TAGAT TO	18.0
Avocado Oil	20.0
Calendula Oil	10.0
Caprylic/Capric Triglycerides	42.0
Color, Fragrance	QS

QUICK EMULSIFYING BASE-B

RAW MATERIALS	% By Weight
ABIL B8852	10.0
TAGAT TO	13.0
Avocado Oil	20.0
Mineral Oil	50.0
Isopropyl Myristate	7.0
Color, Fragrance	QS

QUICK EMULSIFYING BASE-C

RAW MATERIALS	% By Weight
ABIL B8852	10.0
TAGAT TO	10.0
Avocado Oil	15.0
Mineral Oil	25.0
Isopropyl Myristate	30.0
Caprylic/Capric Triglycerides	10.0
Color, Fragrance	QS

Procedure:

Add the ingredients in order mixing well between additions. Bases are clear with a honey-like viscosity.

Uses:

Blooming bath oils, instant lotions for after bath. After sun emollient lotions.

When these formulas are added to water or to wet skin, emollient and nonsticky emulsions are formed.

SOURCE: Goldschmidt Chemical Co.: Formulas

SOFT SET CONDITIONING MOUSSE

RAW MATERIALS	% By Weight
A. Water	82.20
Stearamidopropyl PG-dimonium chloride Phosphate	3.00
B. Isopropyl Alcohol	10.00
ABIL S-201	0.50
Aminomethyl Propanol	0.30
Butyl Ester of PVM/MA copolymer	2.00
C. ABIL B 8851	2.00
D. Fragrance, Preservatives	QS
Fill:	
Concentrate	83.30
Isobutane	16.70

Mix (A). Heat to 65C and continue to mix until homogeneous. Cool to 40C. Separately mix (B) at 25C until homogeneous. Add (A) and (B) with stirring. Add (C)(D), mix until homogeneous. Add fragrance, coloring and preservative as required. Cool to 25C. Charge into aerosol container. Add propellant.

This conditioning mousse formulation provides for both a soft, nontacky hold to a hair set and a conditioning effect on the hair fibers. The Sodium Poly PG-propyl Dimethicone Thiosulfate contributes gloss and hydrophobicity to the hair.

CLEAR GEL ACTIVATOR/CONDITIONER

RAW MATERIALS	% By Weight
A Water	57.65
Carbomer 940	0.50
B Triethanolamine	2.25
Glycerine	32.20
Propylene Glycol	5.00
ABIL B 88183	1.00
C ABIL B 8851	1.00
ABIL Quat 3272	0.40
Color, Fragrance, Preservative	QS

Disperse the Carbomer into the water and mix until completely clear. Add the Triethanolamine and mix well. Mix phase B and add slowly to phase A while mixing. Add phase C while mixing.

This is a clear rinsing curl activator used to bring out the natural curl of the hair. It also contains humectants, detackifiers and conditioners.

SSOURCE: Goldschmidt Chemical Corp.: Formulas

SPORT BODY COOLER

INGREDIENTS	% By Weight
A Demineralized Water	82,900
Phenonip	0,500
Trilon B liquid	0,100
Tween 80	0,400
1,2-Propylene glycol	2,000
B Abil B 8839	6,000
Finsolv TN	2,000
Pemulen TR-1	0,300
Carbopol 954	0,100
C Triethanolamine	0,500
D Frescolat Type ML 620105	1,000
Perfume Oil	0,200
Isopropyl myristate	2,000
E Cremogen Hamamelis Water 739023	2,000

Manufacturing Process:

Part A: Weigh all ingredients.

Part B: Disperse Carbopol and Pemulen in the mixture of Abil and Finsolv very carefully with high speed agitation. Then add part B to part A while stirring. Stir 45 minutes.

Part C: Add triethanolamine while stirring.

Part D: Dissolve Frescolat and Fragrance in isopropyl myristate (if necessary heat to max. 40C). Then add part D to part A/B/C and stir.

Part E: Add the Cremogen and stir until homogenous.

The pH value of the finished emulsion should be approx. 7 and has to be controlled.

SOURCE: Haarman & Reimer GmbH: Formula K 8/1-51525 A/E

SUPER HOT OIL

RAW MATERIALS % By Weight

Part A:

1. MACKALENE 426	4.40
2. MACKAMIDE AME-75	4.40
3. Polyglycol 400	4.40
4. Polysorbate 80	1.76
5. Benzyl Alcohol	0.26
6. DC 193	0.22
7. Natrosol 250HHR	0.50
8. Tetrasodium EDTA 40%	0.15
9. Deionized Water	70.00

Part B:

10. MACKERNIUM SDC-25	6.0
11. Glycerin	3.6
12. Isopropyl Alcohol	1.5
13. Butoxyethanol	0.6

Part C:

14. MACKSTAT DM	qs
15. Fragrance	qs
16. Color	qs
17. Deionized Water	qs

Procedure:

Part A:

1. Disperse #7 into water #9.
2. Heat to 120 degrees F. (50 degrees C.) and add #1, #2, #3, #5, #6, #8. Blend together with appropriate mixing.

Part B:

1. In a separate vessel blend #10, #11, #12, #13, warm slightly (110 degrees F.) to dissolve completely and clearly.
2. Then add part B while mixing to the large manufacturing tank.

Part C:

1. Blend #4 with fragrance #15 and add to tank.
2. Then add #14, #16 and the remainder of water #17.

Appearance: Clear Liquid

pH (Adjust up with Triethanolamine): 4.4-4.8

Viscosity (cps): 60-240 cps

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Section XVI
Trade-Named and
Other Raw Materials
Descriptions

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil B AV-20	Phenyl trimethicone	Goldschmidt
Abil B8839	Decamethylcyclopentasiloxane	Goldschmidt
Abil B8851	Dimethicone copolyol	Goldschmidt
Abil B8852	Dimethicone copolyol	Goldschmidt
Abil B8863	Dimethicone copolyol	Goldschmidt
Abil B9950	Dimethicone propyl PG-betaine	Goldschmidt
Abil B88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil K4	Octamethylcyclotetrasiloxane	Goldschmidt
Abil OSW-12	Cyclomethicone and dimethicone and dimethiconol	Goldschmidt
Abil Quat 3270		Goldschmidt
Abil Quat 3272	Quaternium-80	Goldschmidt
Abil S201	Sodium poly PG-propyl dimethicone thiosulfate	Goldschmidt
Abil Wax 2434	Stearoxy dimethicone	Goldschmidt
Abil Wax 2440	Behenoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801	Cetyl Dimethicone	Goldschmidt
Abil Wax 9810	C24-28 Alkyl methicone	Goldschmidt
Abil WE-09	Cetyl dimethicone copolyol and polyglyceryl-4 isostearate and hexyl laurate	Goldschmidt
Abil WS-08	Cetyl dimethicone copolyol and cetyl dimethicone and polyglyceryl-3 oleate and hexyl laurate	Goldschmidt
Abil 100	Silicon oil	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil 350	Dimethicone	Goldschmidt
Abiol	Imidazolidinyl urea	Tri-K
A-C 9A	Polyethylene	Allied
A-C 405T	Polyethylene	Allied
A-C 430	Polyethylene	Allied
A-C 540	Polyethylene	Allied
A-C 540A	Polyethylene	Allied
A-C 580	Polyethylene	Allied
A-C 617	Polyethylene	Allied
A-C 617A	Polyethylene	Allied
A-C 617G	Polyethylene	Allied
Acetamide MEA	Acetamide MEA	Tri-K
Acetol 1706	Cetyl acetate and acetylated lanolin alcohol	Henkel
Acetulan	Acetylated lanolin alcohol	Amerchol
Acetylated Lanolin	Acetylated lanolin	Amerchol
Acetylated Lanolin Alcohol	Acetylated lanolin alcohol	Henkel
Acrysint 400	Carbomer 940	Tri-K
Acrysint MEA	Carbomer 940	Tri-K
Acrysol ICS-I	Acrylate/stearath-20/methacrylate copolymer	Rohm
Acumist A-12	Micronized polyethylene	Allied
Acumist A-18	Micronized polyethylene	Allied
Acumist B-6	Micronized polyethylene	Allied
Acumist B-12	Micronized polyethylene	Allied

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Acumist B-18	Micronized Polyethylene	Allied
Acuscrub 40	Low mol wt polyethylene	Allied
Acuscrub 44	Low mol wt polyethylene	Allied
Acuscrub 50	Low mol wt polyethylene	Allied
Acuscrub 51	Low mol wt polyethylene	Allied
Adogen 470	Quaternium-48	Sherex
Adol 52NF		Sherex
Adol 62	Stearyl alcohol	Sherex
Adol 66	Isostearyl alcohol	Sherex
Adol 1655	Stearic acid	Sherex
Aerosil 200	Silica	Degussa
Aerosil R812	Silica	Degussa
Aethoxal B	PPG-5-laureth-5	Henkel
AGI Talc	Talc	Whittaker
Airvol	Polyvinyl alcohol	Air Prod.
Ajidew N-50	Sodium PCA	Centerchem
Akucell AF L505		Enco
Akypo RLM 45N	Sodium salt of lauryl-(poly-1-oxapropane)-oxyethane-carboxylic acid	Chem-y
Akyposal EO 20 PA	Sodium lauryl ether sulfate	Chem-y
Alagcol Concentrate D-1		Meer
Albrite	Dicalcium phosphate anhydrous	Albright
Aldo MS	Glycerol fatty acid esters	Lonza
Aldo MSA	Glyceryl Stearate and PEG-100 Stearate	Lonza

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Aldo MSD	Glycerol fatty acid esters	Lonza
Aldo USA	Glycerol fatty acid esters	Lonza
Alfol 1216	C12-16 alcohols	Vista
Algipon 578L	Algin	Henkel
Allantoin	Allantoin	E. Merck
Allantoin	Allantoin	Hoechst
Allantoin	Allantoin	Sutton
Allatoin	5-Ureidehydantoin	Rona
Allerderm M-3012	Fragrance	Tri-K
Aloe-Con UP-40	Aloe gel	Florida Food
Aloe-Con WG-40	Aloe gel	Florida Food
Aloe-Con WG-200	Aloe gel	Florida Food
Aloe Extract HS	Aloe extract	Tri-K
Aloe Vera	Aloe	Dr. Madis
Aloe Vera Extract	Aloe vera	Cosmetochem
Aloe Vera Gel	Aloe vera gel	Lipo
Aloe Vera Gel H-200	Aloe vera gel	Meer
Aloe Vera Gel 1:1	Aloe vera gel	Bell Flavor
Aloe Vera Gel 1:1	Aloe vera gel	Tri-K
Aloe Vera Liquid	Aloe vera	Dr. Madis
Aloe Vera (Powdered)	Aloe vera gel	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Alugel DF30	Aluminum stearate	Monson
Aluminum Zirconium Tetrachlorohydrate-Gly		Reheis
Amerchol C	Petrolatum and lanolin and lanolin alcohol	Amerchol
Amerchol CAB	Petrolatum and lanolin alcohol	Amerchol
Amerchol H-9	Petrolatum and lanolin and lanolin alcohol	Amerchol
Amerchol L-101	Mineral oil and lanolin alcohol	Amerchol
Amerchol RC	Petrolatum and lanolin alcohol and stearyl alcohol and stearane	Amerchol
Amerchol 400		Amerchol
Amerlate LFA	Lanolin fatty acids	Amerchol
Amerlate P	Isopropyl lanolate	Amerchol
Ameroxol OE-2	Oleth-2	Amerchol
Ameroxol OE-20	Oleth-20	Amerchol
Amerscol U.S.P.	Octyl dimethyl PABA	Amerchol
Amercreen P		Amerchol
Amersette	Methacryloyl ethyl betaine/ Methacrylates copolymer	Amerchol
Amersil DMC-287	Dimethicone copolyol	Amerchol
Amersil DMC-357	Dimethicone copolyol	Amerchol
Amersil ME-358	Cyclomethicone and dimeth- icone copolyol	Amerchol
Amigel, 2% Aq.	Polyglucane	Tri-K
Aminodermin CLR	Sulphur-rich amino acid concentrate	CLR/Richter

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Aminofoam C	TEA-Lauroyl collagen amino acid	Croda
Aminomethylpropanol	Aminomethylpropanol	Angus
Aminomethylpropanol	Aminomethylpropanol	E. Merck
Aminoxid WS35	Cocamidopropylamine oxide	Goldschmidt
Ammoniumchlorid		E. Merck
Ammonium Thioglycolate, 60%		Grace
Ammonyx CDO	Cocamidopropylamine oxide	Stepan
Ammonyx CTAC	Cetrimonium chloride	Stepan
Ammonyx KP	Olealkonium chloride	Stepan
Ammonyx 4002	Stearalkonium chloride	Stepan
AMP	Aminomethyl propanol	Angus
AMP-95	Aminomethyl propanol (95%)	Angus
Amphisol	Alkyl phosphate-diethanolamine complex	Givaudan
Ampholyt JA 140	Sodium lauroamphoacetate	Huls
Ampholyt JB 130	Cocamidopropyl betaine	Huls
Amphomer		Nat. Starch
Amphomer LV-71	Octylacrylamide/acrylates/ butylaminoethyl methacrylate copolymer	Nat. Starch
Amphosol CA	Cocamidoproyl betaine	Stepan
Amphotensid B4	Fatty acid amidoalkyl betaine	Zschimmer
Anhydrous Lanolin HP-2050	Lanolin	Henkel
Anhydrous Lanoline		La Ceresine
Antaron V-220	Alkylated polyvinylpyrrolidone	GAF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Antiacne #315HS	Herbal blend	Tri-K
Antiacne #650LS	Herbal blend	Tri-K
Antil 141 Liquid	PEG-55 propylene glycol oleate and propylene glycol	Goldschmidt
Antistatique WL 879	Sorbitol fatty acid esters	Gattefosse
APG-600	Lauryl polyglucose	Henkel
APG-600SP	Lauryl polyglucose	Henkel
APG-625	Lauryl polyglucose	Henkel
Apifac	PEG-6 beeswax esters and PEG-6 stearate and polyglycerol-2 isostearate	Gattefosse
Apifil	PEG-8 beeswax esters	Gattefosse
Apricot Kernel Oil	Herbal blend	Tri-K
Aqualon CMC-9M31XF	Cellulose gum. Food grade.	Aqualon
Arianor Dye	Dye	Tri-K
Aristoflex A, 60%	Vinyl acetate/crotonic acid copolymer and isopropyl alcohol	Hoechst
Arkopal N 100	Noxoxynol-10	Hoechst
Arlacel 40	Sorbitan palmitate	ICI
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 80	Sorbitan monooleate	ICI
Arlacel 83	Sorbitan sesquioleate	ICI
Arlacel 165	Glyceryl stearate and PEG-100 stearate	ICI
Arlacel 186	Glyceryl oleate and propylene glycol	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arlacel 481	Glycerin sorbitan fatty acid ester	ICI
Arlacel 582	Emulsifier	ICI
Arlacel 989	Polyoxyethylene fatty acid ester	ICI
Arlamol E	PPG-15 stearylether	ICI
Arlamol EP	PPG-15 stearylether	ICI
Arlatone T	PEG-40 sorbitan peroleate	ICI
Arlatone 970	Blend of polysorbate 20 and PEG-25 hydroxyenated castor oil and propylene glycol	ICI
Arlatone 983S	PEG-5 glyceryl stearate	ICI
Arlypon F	Laureth-2	Henkel
Armeen DM18D	Dimethyl stearamine	Akzo
Armocare E/C 151	Dicocodimethylamine dimerate	Akzo
Armocare E/C 152	Lauryldimethylamine C21 dicarboxylate	Akzo
Armoteric CAB		Akzo
Arnica Extract 5:1PG		Lipo
Arnica LS	Arnica extract	Tri-K
Aromox DMCW	Cocamine oxide	Akzo
Arnica Oil CLR	Arnica extract and soybean oil and tocopherol	Henkel
Arnica Special		Dragoco
Arquad 16-29	Cetrimonium chloride	Akzo
Arquad 2C-75	Dicocodimonium chloride and isopropyl alcohol	Akzo
Arquad 2HT-75	Quaternium-18 and isopropyl alcohol	Akzo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arquad 18-50	Steartrimonium chloride and isopropyl alcohol	Akzo
Arquad 218-100-P	Distearyldimonium chloride	Akzo
Arquad T-27W	Tallowtrimonium chloride	Akzo
Atelogylicane	Soluble collagen mixed muco-polysaccharides	Gattefosse
Atlas G1096	PEG-6 sorbitan beeswax	ICI
Atlas G4280	PEG-80 sorbitan laurate	ICI
Avamid 150	Avocamide DEA and avocado oil	Mona
Avocado Oil CLR	Fatty oil of avocados, natural	CLR/Richter
AY-166	10 component concentrate	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Babyderme #265 HS	Herbal blend	Tri-K
Babyderme #665 LS	Herbal blend	Tri-K
Barlene 18S	Tertiary amines	Lonza
Barlox 12	Amine oxide	Lonza
Barquat AB-25	Quaternary ammonium compound	Lonza
Barquat CT429	Quaternary ammonium compound	Lonza
Base MM 2007	Beeswax and paraffin and petrolatum	Gattefosse
Base Pour Stick PL1916		Gattefosse
Baysilon M350		Bayer AG
Baysilone Fluid M10	Dimethicone	Bayer AG
Beeswax	Beeswax	La Ceresine
Beeswax 8100	Beeswax	Fa. Kahl
Belsil ADM 6041E	Amodimethicone emulsion	Wacker
Belsil ADM 6042E	Amodimethicone emulsion	Wacker
Belsil ADM 6056E	Amodimethicone emulsion	Wacker
Belsil ADM 6057E	Amodimethicone emulsion	Wacker
Belsil ADM 6059E	Amodimethicone emulsion	Wacker
Belsil BNP	Boron nitride	Wacker
Belsil CM 020	Cyclomethicone. Vis: 2.0	Wacker
Belsil CM 025	Cyclomethicone. Vis: 2.5	Wacker
Belsil CM 030	Cyclomethicone. Vis: 3.0	Wacker
Belsil CM 040	Cyclomethicone. Vis: 4.0	Wacker
Belsil CM 1000	Cyclomethicone and Dimethiconol	Wacker
Belsil DM 35	Dimethicone. Vis: 35	Wacker

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Belsil DM 100	Dimethicone. Vis: 100	Wacker
Belsil DM 350	Dimethicone. Vis: 350	Wacker
Belsil DM 100 000	Dimethicone. Vis: 100 000	Wacker
Belsil DMC 6031	Dimethicone copolyol. Vis: 1000	Wacker
Belsil DMC 6032	Dimethicone copolyol. Vis: 600	Wacker
Belsil DMC 6033	Dimethicone copolyol. Vis: 200	Wacker
Belsil DMC 6034	Dimethicone copolyol.	Wacker
Belsil DMC 6035	Dimethicone copolyol. Vis: 190	Wacker
Belsil PDM 20	Phenyldimethicone. Vis: 20	Wacker
Belsil PDM 200	Phenyldimethicone. Vis: 200	Wacker
Belsil PDM 1000	Phenyldimethicone. Vis: 1000	Wacker
Belsil SDM 6021	Stearoxydimethicone. Vis: >15	Wacker
Belsil SDM 6022	Stearoxydimethicone. Vis: >15	Wacker
Bentone EW	Rheological additive clay	Rheox
Bentone Gel IPM	Isopropyl myristate and stearylalkonium hectorite and propylene carbonate	Rheox
Bentone Gel SIL	Smectic clay.	Rheox
Bentone Gel VS-5/PC	Rheological additive	Rheox
Bentone 38	Quaternium-18 hectorite	Rheox
Bentone 38-Gel	10% Bentone 38 in lanolin oil	Rheox
Benzophenone-3	UV absorber	Tri-K
Bernel Ester DOM	Diocetyl maleate	Finetex
BioCare Polymer HA-24	Polyquaternium-24 and hyaluronic acid	Amerchol
BioCare SA	Albumin and hyaluronic acid and dextran sulfate	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Biolipon		Huls
Biomim Se/P/C	Selenium polypeptides	Brooks
Biopure 100	Imidazolidinyl urea	Nipa
Biosulphur Fluid	Hydro/alcohol-solubilized sulphur	CLR/Richter
Biosulphur Powder	Active sulphur with colloid	CLR/Richter
Bio-Terge AS-40	Sodium C14-C16 olefin sulfonate	Stepan
Biron Fines	BiOCl	Rona
Biron Silver Co	Bismuth oxychloride, castor oil	Rona
Bis-(hydroxyethyl)-aminopropyl-N-hydroxyethyl-octadecylamin-dihydrofluoride solution about 33% in propanediol-1,2		E. Merck
Blandol Mineral Oil	Mineral oil	Witco
Blanose CMC 7LFD	Sodium carboxymethyl cellulose	Aqualon
Blue Violet Extra	C.I. 60725	Dragoco
Brij 30	Laureth-4	ICI
Brij 35	Laureth-23	ICI
Brij 52	Ceteth-2	ICI
Brij 58	Ceteth-20	ICI
Brij 72	Steareth-2	ICI
Brij 76	Steareth-10	ICI
Brij 78	Steareth-20	ICI
Brij 721	Steareth-21	ICI
Brilliantlack B		BASF
Brilliant Blue FCF	FD&C Blue No. 1. C.I. 42090	Williams
Briphos 03D	Alkyl ethoxy phosphate ester	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
(-)-alpha-Bisabolol	Bisabolol	BASF
(+)-alpha-Bisabolol	Bisabolol	BASF
2-Bromo-2 Nitropropane 1,3 Diol (AMI)		Tri-K
Bromochlorophene		E. Merck
Brookswax D	Cetearyl alcohol and ceteareth 20	Brooks
Brown Iron Oxide A1160		Color Tech.
Brown Red Shade 1654		Kohnstamm
Brown Umber Shade 1985		Kohnstamm
Brox OL10	Oleth-10	Brooks
BTC-50	Benzalkonium chloride	Onyx
BTC-2125M	Quaternium-14 and myristalkon- ium chloride	Onyx
Burst RSD-10	Dimethicone silyate	Hydrolabs
Butchers Brown 5:1PG		Lipo
Butyl Cellosolve	Butoxyethanol	Union Carb

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Calbrite DM	Dicalcium phosphate dihydrate	Albright
Calbrite SM	Dicalcium phosphate dihydrate	Albright
Calcium D-pantothenate	Factor of vitamin B group	E. Merck
Calcium hydroxide		E. Merck
Calcium hydroxide		Rona
Calciumoxid		E. Merck
Calcium Thioglycolate		Grace
Calcium Thioglycolate		Rona
Calcium Thioglycolate Trihydrate		E. Merck
Calendula Extract 5:1PG		Lipo
Calendula Oil CLR	Extract of calendula blossoms	CLR/Richter
Calendula Oil	Extract of calendula florets	Henkel
Calendula Oil		Dragoco
Camellia Oil	Natural oil	Tri-K
Camomile Extract		Dragoco
Camphor		Hoechst
Candelilla		La Ceresine
Candelillawachs		Schlickum
Canola Oil	Natural oil	Tri-K
Capilotonique #245HS		Tri-K
Caprylic/Capric Triglyceride		Henkel
Carbopol 934	Carbomer 934P	Goodrich
Carbopol 936	Carbomer 936	Goodrich
Carbopol 940	Carbomer 940	Goodrich

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Carbopol 941	Carbomer 941	Goodrich
Carbopol 950	Carbomer 950	Goodrich
Carbopol 954	Carbomer 954	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carbowax 400	PEG-8	Union Carb.
Carbowax 1450	PEG-32	Union Carb.
Carnation	Mineral oil	Witco
Carnation 70	Mineral oil	Witco
Carnauba	Carnauba	La Ceresine
Carrot AMI oilsoluble	Carrot oil	Tri-K
Carrot Oil CLR	Soybean oil and carrot oil and carrot extract and carotene and tocopherol	Henkel
Carrot Oleoresin	Carrot extract	Tri-K
Carsquat CT-429	Cetrimonium chloride	Lonza
Carsquat SDQ-25	Stearalkonium chloride	Lonza
Carsquat SDQ-85	Stearalkonium chloride	Lonza
Cartaretin F-4	Adipic acid/dimethylamino-hydroxypropyl diethylene-triamine copolymer	Sandoz
Cartaretin F-23	Adipic acid/Dimethylamino-hydroxypropyl diethylene-triamine copolymer	Sandoz
Castorwax MP-80	Hydrogenated castor oil	CasChem
Categel		Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cedemide AX	Lauramide DEA	Miranol
Cedemide CX	Cocamide DEA	Miranol
Cedepal SN 303	Sodium laureth sulfate (3)	Miranol
Cedepal TD404M	Sodium trideceth (3) sulfate	Miranol
Cedepal TD407MF	Sodium trideceth (3) sulfate	Miranol
Cedepon LA30HV	Ammonium lauryl sulfate	Miranol
Cedepon LS30PM	Sodium lauryl sulfate	Miranol
Cedepon TL40	TEA lauryl sulfate	Miranol
Cegesoft C17		Henkel
Cellosize PCG-10	Hydroxyethylcellulose	Amerchol
Cellosize HEC QP-40	Hydroxyethylcellulose	Amerchol
Cellosize QP-3000	Hydroxyethylcellulose	Amerchol
Cellosize QP-4400	Hydroxyethylcellulose	Amerchol
Cellosize QP-4400H	Hydroxyethylcellulose	Amerchol
Cellosize QP-5200	Hydroxyethylcellulose	Amerchol
Cellosize QP-52,000H	Hydroxyethylcellulose	Amerchol
Cellulose Gum 7MF	Sodium carboxyethylcellulose	Aqualon
Celquat H-100	Polyquaternium-4	Nat. Starch
Celquat L-200	Polyquaternium-4	Nat. Starch
Celquat SC-240	Polyquaternium-10	Nat. Starch
Centella Asiatica HS	Hydrocetyl extract	Tri-K
Ceraphyl GA	Maleated soybean oil	Van Dyk
Ceraphyl ICA	Isocetyl alcohol	Van Dyk
Ceraphyl 28	Cetyl lactate	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ceraphyl 41	C12-15 alcohols lactate	Van Dyk
Ceraphyl 45	Diocetyl malate	Van Dyk
Ceraphyl 50S	Myristyl lactate	Van Dyk
Ceraphyl 55	Tridecyl neopentanoate	Van Dyk
Ceraphyl 230	Diisopropyl adipate	Van Dyk
Ceraphyl 368	Octyl palmitate	Van Dyk
Ceraphyl 375	Isostearyl neopentanoate	Van Dyk
Ceraphyl 424	Myristyl myristate	Van Dyk
Ceraphyl 847	Octyldodecyl stearyl stearate	Van Dyk
Cerasynt IP	Glycol stearate and other ingredients	Van Dyk
Cerasynt M	Glycol stearate	Van Dyk
Cerasynt MN	Glycol stearate SE	Van Dyk
Cerasynt PA	Propylene glycol stearate	Van Dyk
Cerasynt SD	Glyceryl stearate	Van Dyk
Cerasynt 840	PEG-20 stearate	Van Dyk
Cerasynt 945	Glyceryl stearate and laureth-23	Van Dyk
Cetal	Cetyl alcohol	Amerchol
Cetareth-6		Alcolac
Cetareth-25		BASF
Cetina	Cetyl esters and stearamide DEA	Robeco
Cetiol	Oleyl oleate	Henkel
Cetiol G-16S	Isocetyl stearate	Henkel
Cetiol G-20S	Octyldodecyl stearate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Oleyl erucate	Henkel
Cetiol LC	Coco-caprylate/caprata	Henkel
Cetiol MM	Myristyl myristate	Henkel
Cetiol S	Dioctylcyclohexane	Henkel
Cetiol SB45	Shea butter	Henkel
Cetiol SN	Cetearyl isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Octyl stearate	Henkel
Cetiol 1414E	Myreth-3 myristate	Henkel
Cetrol A	Hexyl laurate	Henkel
Cetyl Alcohol		E. Merck
Cetyl Alcohol		Michel
Cetyl Alcohol		Sherex
Cetyl Alcohol		Tri-K
Cetylamine hydrofluoride		E. Merck
Cevenyl	Borage oil	Gattefosse
Chamomile Extract		Haarman
Chelon	Tetrasodium EDTA 40%	Rhone
Chemical Base 6532	Stearamidoethyl Diethylamine	Sandoz
Chlorhexindigluconat		Firma Bufa
Chlorhydrol, 50%	Aluminum chlorhydrate, 50%	Reheis
Chroma-Lite Aqua	Mica and bismuth oxychloride and chromium hydroxide	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Chroma-Lite Black	Mica and bismuth oxychloride and iron oxides	Van Dyk
Chroma-Lite Brown	Mica and bismuth oxychloride and iron oxides	Van Dyk
Chroma-Lite Red	Mica and bismuth oxychloride and iron oxides	Van Dyk
Chroma-Lite Yellow	Mica and bismuth oxychloride and iron oxides	Van Dyk
Cholesterol USP XVI	Emulsifying aid	H.G.&C.Blau
Cirami	Beeswax and candelilla wax and shea butter	Tri-K
Cirami No. 1 AMI	Beeswax-candelilla wax and shea butter	Tri-K
Citric Acid		Tri-K
Citroflex 2	Triethyl citrate	Pfizer
Cloisonne Copper		Mearl
CMC-7LF	Cellulose gum	Aqualon
CMC-7MF	Cellulose gum	Aqualon
CMC-7MXF	Cellulose gum	Aqualon
CMC-9M8XF	Cellulose gum	Aqualon
CMF Complex	Chemical complex	Tri-K
Cocoa Butter U.S.P.	Cocoa butter	Tri-K
Collagen CLR	Carrier of native soluble collagen	CLR/Richter
Collapur	Native collagen	Henkel
Collapuro1	Collagen	Henkel
Collapuron DAK	Native collagen	Henkel
Collasol	Soluble collagen	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
2747 Colloidal Kaolin	Silica/aluminum oxide	Whittaker
Colophony Ester	Glyceric and methylic esters	La Ceresine
Color Lustre Pigment		Rona
Colorona Bronze	Pearl lustre pigment	Rona
Colorona Bronze Sparkle	Pearl pigment	Rona
Colorona Carmine Red	Pearl pigment	Rona
Colorona Copper	Pearl lustre pigment	Rona
Colorona Imperial Red	Pearl pigment	Rona
Colorona Oriental Beige	Pearl lustre pigment	Rona
Colorona Red Brown	Pearl pigment	Rona
Colorona Red Gold	Pearl pigment	Rona
Colorona Sienna	Pearl pigment	Rona
Colts Foot HS	Coltsfoot extract	Tri-K
Comfrey Extract		Tri-K
Comperlan KD	Cocamide DEA	Henkel
Comperlan KM		Henkel
Comperlan OD	Oleic acid diethanolamide	Henkel
Comperlan 100	Cocamide MEA	Henkel
Compound MS-1	Solution of six surfactants, plus a preservative	Miranol
Compound MS-2	Solution of six surfactants, plus a preservative	Miranol
Compound SBC	Composition for mild shampoo	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Compritol 888 ATO	Tribehenin	Gattefosse
Concentrate R	Animal tissue extract	Cosmetochem
Controx VP		Henkel
Copherol F1300	d-alpha-Tocopherol	Henkel
Copherol 1250	Natural source Vitamin E	Henkel
Copolymer 845	PVP/Dimethylamino-ethylmethacrylate copolymer	GAF
Cornflower HS	Cornflower extract	Tri-K
Corn Starch 78-1898	Specialty corn starch	Nat. Starch
Cosmedia Guar C261	Guar hydroxypropyl trimonium chloride	Henkel
Cosmedia Polymer HSP-1180	Polyacrylamidopropane sulfonic acid	Henkel
Cosmetic AA Lanolin	Lanolin	Amerchol
7061 Cosmetic Brown	Iron oxide	W.Jenkinson
7058 Cosmetic Brown	Iron oxide	W.Jenkinson
Cosmetic Iron Blue	Ferric Ammonium Ferrocyanide	W.Jenkinson
7054 Cosmetic Red	Iron oxide	W.Jenkinson
Cosmetic Sienna CS-10051		Whittaker
Cosmetic Umber BC7196	Iron oxide	W.Jenkinson
Cosmetic Yellows	Iron oxide	W.Jenkinson
Cosmowax J	Cetearyl alcohol and cetareth 20	Croda
Cosmowax K	Stearyl alcohol and cetareth 20	Croda
Covi-Ox T-50	Antioxidant	CLR/Richter

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Covitol 1100	Tocopherol acetate	Henkel
Cremogen Aloe Vera	Aloe vera	Haarman
Cremogen Birch Leaves		Haarman
Cremogen Camomile 739 012	Propylene glycol and ethoxy- diglycol and camomile extract	Haarman
Cremogen Camomile Forte 728 790	Matricaria extract and propyl- ene glycol and ethoxydiglycol	Haarman
Cremogen Camomile Special 739027	Propylene glycol and matric- aria extract	Haarman
Cremogen Hamamelis Dest.	Herbal distillate	Haarman
Cremogen Hamamelis Water	Witch hazel distilled	Haarman
Cremogen Hamamelis (Witch Hazel)	Propylene glycol and ethoxy- diglycol and witch hazel extract	Haarman
Cremogen M-82	Propylene glycol and ethoxy- diglycol and matric and nettle and balm mint and coltsfoot and horsetail and horse chestnut and rosemary and sage extract	Haarman
Cremogen Melissa (Balm) 739 013	Propylene glycol and ethoxydi- glycol and balm mint extract	Haarman
Cremogen Rosemary Forte 758 302	Rosemary extract and propylene glycol	Haarman
Cremogen Sage	Propylene glycol and ethoxydi- glycol and sage extract	Haarman
Cremogen Tormentil	Propylene glycol and ethoxydi- glycol and tormentil extract	Haarman
Cremophor A6	Ceteareth-6	BASF
Cremophor A11	Ceteareth-11	BASF
Cremophor A25	Ceteareth-25	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cremophor EL	PEG-36 Castor oil	BASF
Cremophor NP10	Nonoxynol-10	BASF
Cremophor NP14	Nonoxynol-14	BASF
Cremophor RH40	PEG-40 Hydrogenated castor oil	BASF
Cremophor RH60	PEG-60 Hydrogenated castor oil	BASF
Cremophor RH455	PEG-40 Hydrogenated castor oil	BASF
Cremophor S9	PEG-9 Stearate	BASF
Cremophor WO7	PEG-7 Hydrogenated castor oil	BASF
Crill 6	Sorbitan isostearate	Croda
Crillet 3	Polysorbate 60	Croda
Crodacel QS	Stearidimonium hydroxyethyl cellulose	Croda
Crodacol C-95	Cetyl alcohol	Croda
Crodafos SG	PPG-5-Ceteth-10 phosphate	Croda
Crodalan AWS	Polysorbate 80 and cetyl acetate and acetylated lanolin alcohol	Croda
Crodamol MM	Myristyl myristate	Croda
Crodamol PMP	PPG-2 Myristyl ether propionate	Croda
Crodamol PTIS	Pentaerythritol tetra iso-stearate	Croda
Crodamol SS	Cetyl esters	Croda
Crodapearl Liquid	Sodium laureth sulfate and hydroxyethyl stearamide MIPA	Croda
Crodawax GP200	Stearyl alcohol and PEG-Stearate	Croda
Crodesta SL-40	Sucrose Cocoate	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cromoist HYA	Hydrolyzed protein and hyaluronic acid	Croda
Croquat L	Laurdimonium hydrolyzed animal protein	Croda
Croquat S	Steardimonium hydrolyzed protein	Croda
Croquat WKP	Cocodimonium hydrolyzed animal keratin	Croda
Crosilk Liquid	Silk amino acids	Croda
Crosilkquat	Cocodimonium silk amino acids	Croda
Crosultaine C-50	Cocamidopropyl hydroxysultaine	Croda
Crosultaine E-30	Erucamidopropyl hydroxysultaine	Croda
Crosultaine T-30	Tallowamidopropyl hydroxysultaine	Croda
Crotein A	Protein derivative	Croda
Crotein AD Anh.	Protein derivative	Croda
Crotein O	Protein derivative	Croda
Crotein SPC	Hydrolysed animal protein	Croda
Crothix	Polyol alkoxy ester	Croda
Crovol A-40	PEG-20 Almond glycerides	Croda
Crovol A-70	PEG-60 Almond glycerides	Croda
Crovol M40	PEG-20 Corn glycerides	Croda
Crovol M70	PEG-60 Corn glycerides	Croda
Crovol PK-70	PEG-45 Palm kernel glycerides	Croda
Crystal O	Castor oil	CasChem
Cutavit Richter	Multivitamin complex	CLR/Richter
Cutina AGS	Glycol distearate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cutina BW	Glyceryl hydroxystearate and cetyl palmitate and micro-crystalline wax and trihydroxystearin	Henkel
Cutina CBS	Glyceryl stearate and cetearyl alcohol and cetyl palmitate and cocoglyceride	Henkel
Cutina CP	Cetyl palmitate	Henkel
Cutina E-24	PEG-40 glyceryl stearate	Henkel
Cutina EGMS		Henkel
Cutina FS25	Stearic/palmitic acid	Henkel
Cutina FS45	Eutectical fatty acid mixture	Henkel
Cutina GMS	Glyceryl monostearate	Henkel
Cutina KD-16	Glyceryl stearate S.E.	Henkel
Cutina KS-18		Henkel
Cutina LE	Glyceryl stearate and sodium cetearyl sulfate	Henkel
Cutina LM		Henkel
Cutina LM4		Henkel
Cutina LS18		Henkel
Cutina MD	Glyceryl stearate	Henkel
Cutina MD-A	Mixture of mono- and di-glycerides of palmitic and stearic acids	Henkel
Cyclomethicone		Union Carb.

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
DC-190 Silicone	Dimethicone copolyol	Dow Corning
DC-193 Silicone	Dimethicone copolyol	Dow Corning
DC-556 Silicone	Phenyl dimethicone	Dow Corning
DC Emulsion 929	Amodimethicone and nonoxynol-10 and tallow-trimonium chloride	Dow Corning
D&C Red #7 Ca Lake	D&C Red lake	Thomasset
DEA Oleth-3 Phosphate		Heterene
d-delta Rich Tocopherols Concentrate		Tri-K
Dehydag Wax N	Emulsifier based on fatty alcohols	Henkel
Dehydag Wax 16	Cetyl alcohol	Henkel
Dehydrol LS3	Laureth-3	Henkel
Dehymuls HRE7	PEG-7 Hydrogenated castor oil	Henkel
Dehymuls K	Mixture of higher molecular weight esters with mineral fats	Henkel
Dehyquart A	Cetyltrimethylammonium chloride	Henkel
Dehyquart E	Hydroxycetyl hydroxyethyl dimonium chloride	Henkel
Dehyquart SP	Quaternium 52	Henkel
Dehyton AB30	Coco-Betaine	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Delsette-101	Adipic acid/Epoxypropyl diethylene triamine copolymer	Hercules
Demaquillant 687LS	Pellitory of the wall extract and kidney bean extract and ivy extract and sunflower extract	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
DeMide ML-100	Lauramide DEA	DeForest
Dentphos K	Dicalcium phosphate dihydrate	BK-Laden.
Deodorant Richter/K	Tetrabromo-o-cresol	CLR/Richter
Dermacryl-79	Carboxylated acrylic copolymer	Nat. Starch
Dermasome E	Lecithin and tocopheryl acetate	ChemMark
Dermasome RP	Vitamin A liposome	ChemMark
Dermasome SOD	Lecithin and superoxide dismutase	ChemMark
Dermasome TRF	Biodynes TRF liposome	ChemMark
Dermatein GSL	Glycosphingolipids	Hormel
Dermatein MPS	Hydrolyzed mucopolysaccharides	Hormel
DeSulf ES-301	Sodium laureth sulfate	DeForest
DeSulf ES-302	Sodium lauryl ether sulfate	DeForest
Detaine PB	Cetyl betaine	Tri-K
Diammonium Dithioglycolate, 40%		Grace
Diatami 60-200 Microns	Diatomaceous earth	Tri-K
Dichroma YG	Pearl pigment	Rona
Diethylene Glycol Monostearate		Givaudan
Dimethicone Copolyol Resin Modifier		Union Carb.
Dimethicone 200 cs		Dow Corning
Dipsal	PPG-2 Salicylate	Scher
Disodium EDTA		Grace
DME	Dimethyl ether	DuPont
Dow Corning 200 Fluid Dimethicone (10cs) (100cs) (350cs)		Dow Corning

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dow Corning 344 Fluid	Cyclomethicone	Dow Corning
Dow Corning 345 Fluid	Silicone	Dow Corning
Dow Corning 3225C	Cyclomethicone and Dimethicone Copolyol	Dow Corning
Dow Corning 929 Emulsion	Silicone	Dow Corning
Dow Corning Q2-1401	Cyclomethicone	Dow Corning
Dow Fluid 556	Phenyl dimethicone	Dow Corning
Dowicil 200	Quaternium-15	Dow
D.P.P.G.	Propylene glycol dipelargonate	Gattefosse
Dracorin 100SE	Glyceryl stearate and PEG 100 stearate	Dragoco
Dragophos	Hydroxyalkylphosphoric acid ester	Dragoco
Dragosantol	Bisabolol	Dragoco
Drakol #7	Mineral oil	Penreco
Drakol #9	Light mineral oil	Penreco
Drakol #10	Mineral oil	Penreco
Dry Flo-C	Aluminum starch octenylsuccinate	Nat. Starch
Duveen Toilet Soap Base		Duveen
Dynacerin 660	Oleyl erucate	Huls
Dynasan 110	Tricaprin	Huls
Dynasan 114	Trimyristin	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Edenor C18/98	Stearic acid	Henkel
Egg Yolk, Liquid, Techn.		Zschimmer
Ekaline G	Cetolet-24	Henkel
Elacid Richter	Cationic hair conditioner	CLR/Richter
Elastein 5000	Hydrolyzed elastin	Hormel
Elastin CLR	Elastin partial hydrolysate	CLR/Richter
Elfacos GT282S	Talloweth-60 myristyl glycol	Akzo
Elfacos O/W 100	Polymer for cosmetics	Akzo
Elfacos ST9	PEG-45 dodecyl glycol copolymer	Akzo
Elfacos ST37	Polyalkylene glycol	Akzo
Elfan NS243S	Sodium lauryl ether sulfate	Akzo
Elfaplant Burdock		Flachsmann
Emeressence 1160	Preservative	Henkel
Emerest 2314	Isopropyl myristate	Henkel
Emerest 2316	Isopropyl palmitate	Henkel
Emerest 2388	Propylene glycol dipelargonate	Henkel
Emerest 2400	Glyceryl stearate	Henkel
Emersol 132	Stearic acid	Henkel
Emery 622	Coconut acid	Henkel
Emery 916 Glycerine	Glycerine	Henkel
Emery 1660	Anhydrous lanolin	Henkel
Emery 1723		Henkel
Emid 6515	Cocamide DEA	Henkel
Empicol AL30/T	Ammonium lauryl sulfate	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Empicol BSD	Sodium/magnesium lauryl ethoxy sulfate	Albright
Empicol EAA70	Ammonium lauryl ethoxy sulfate	Albright
Empicol ESB3	Sodium lauryl ethoxy sulfate	Albright
Empicol ESB50	Sodium lauryl ethoxy sulfate	Albright
Empicol ESB70	Sodium lauryl ethoxy sulfate	Albright
Empicol ESC3	Sodium lauryl ethoxy sulfate	Albright
Empicol ESC70	Sodium lauryl ethoxy sulfate	Albright
Empicol LM45	Sodium lauryl sulfate-needles	Albright
Empicol LQ33/T	Monoethanolamine lauryl sulfate	Albright
Empicol LX28	Sodium lauryl sulfate-needles	Albright
Empicol LZ	Sodium lauryl sulfate-powder	Albright
Empicol LZV	Sodium lauryl sulfate-needles	Albright
Empicol MD	Sodium lauryl ethoxy sulfate	Albright
Empicol SDD	Disodium lauryl ethoxy sulphosuccinate	Albright
Empicol SEE	Disodium undecylenic monoethanolamide sulphosuccinate	Albright
Empicol SGG	Disodium cocomonoeethanolamide ethoxy sulphosuccinate	Albright
Empicol TL40/T	Triethanolamine lauryl sulfate	Albright
Empicol TLP/T	Built triethanolamine lauryl sulfate	Albright
Empicol XC35	Pearly shampoo concentrate	Albright
Empicol 0627	Pearling agent	Albright
Empicryl APD/B	Dispersing agent	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Empigen BB	Lauryl dimethyl betaine	Albright
Empigen BCM75	Hydrogenated tallow dimethyl benzyl ammonium chloride	Albright
Empigen BS	Coco amido propyl dimethyl betaine	Albright
Empigen CDR10	Coconut imidazoline amphoteric	Albright
Empigen CDR30	Coconut imidazoline amphoteric	Albright
Empigen CM	Cetylstearyl trimethyl ammonium methosulphate	Albright
Empigen CSC	Alkyl amido propyl trimethyl ammonium chloride	Albright
Empigen OS/A	Alkyl amido propyl dimethyl amine oxide	Albright
Empigen OY	Lauryl ethoxy dimethyl amine oxide	Albright
Empigen XDR121	Imidazoline amphoteric/sodium lauryl ethoxy sulphate blend	Albright
Empigen XDR123	Imidazoline amphoteric/sodium lauryl ethoxy sulphate blend	Albright
Empilan CDE	Coconut diethanolamide	Albright
Empilan CME	Coconut monoethanolamide	Albright
Empilan EGMS	Ethylene glycol monostearate	Albright
Empilan GMS/NSE40	Glycerol monostearate	Albright
Empilan GMS/SE40	Glycerol monostearate	Albright
Empilan KB2	Lauryl ethoxylate (2EO)	Albright
Empilan KB3	Lauryl ethoxylate (3EO)	Albright
Empilan KB12	Lauryl ethoxylate (12EO)	Albright
Empilan KM50	Cetyl stearyl ethoxylate (50EO)	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Empilan LDE	Lauric diethanolamide	Albright
Empilan LIS	Lauric isopropanolamide	Albright
Empilan MAA	Coconut monoethanolamide ethoxylate	Albright
Empilan 2125	Linoleic diethanolamide	Albright
Empilan 2502	Coconut diethanolamide	Albright
Empiwax SK	Self emulsifying wax	Albright
Emulan OG	Highly oxyethylated fatty alcohol	BASF
Emulcire 61 WL 2659	Cetyl alcohol and ceteareth 20	Gattefosse
Emulgade CBN	Cream base, self-emulsifying	Henkel
Emulgade F	Cetearyl alcohol and PEG-40 castor oil and sodium cetearyl sulfate	Henkel
Emulgade F Special	Nonionic O/W base	Henkel
Emulgade SE		Henkel
Emulgade 1000NI	Cetearyl alcohol and ceteareth- 20	Henkel
Emulgator E2149	Stearyl alcohol and steareth-7	Goldschmidt
Emulgator E2155	Stearyl alcohol and steareth and steareth-10	Goldschmidt
Emulgator G1086	Polyoxyethylene sorbitol hexaoleate	ICI
Emulgin B-1	Ceteareth-12	Henkel
Emulgin B-2	Ceteareth-20	Henkel
Emulgin B-3	Ceteareth-30	Henkel
Emulphor ON-870	Oleth-20	GAF
Emulsifier K-700		Grace

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emulvis	PEG-150 Distearate	CP Hall
Epidermin in Oil	Animal tissue extract	CLR/Richter
Epidermin Water-Soluble	Polyvalent tissue complex	CLR/Richter
Epigran	Water-soluble embryonic extract	Henkel
Escalol 507	Octyl dimethyl PABA	Van Dyk
Escalol 557	Octyl methoxycinnamate	Van Dyk
Escalol 567	Benzophenone-3	Van Dyk
Estol GTCC 1527	Fatty acid ester	Unichema
Estol EHP 1543	Octyl palmitate	Unichema
Estol 1462	Glyceryl stearate SE	Unichema
Estol 1473	Glyceryl stearate	Unichema
Estol 1526	Propylene glycol dicaprylate/ dicapratae	Unichema
Ethomeen 18/25	Ethoxylated aliphatic amine	Akzo
Ethoquad 18/25	PEG-15 Stearmonium chloride	Akzo
Ethoxyol 24		Henkel
Ethylene Glycol Monostearate		Scher
Eucalyptus HS	Eucalyptus extract	Tri-K
Euperlan PK771	Sodium laureth sulfate and glycol distearate and coca- mide MEA	Henkel
Euperlan PK789	Sodium laureth sulfate and glycol distearate and coca- mide MEA	Henkel
Euperlan PK810	Glycol distearate and sodium laureth sulfate and cocamide MEA and laureth-9	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Euperlan PK3000	Liquid pearlshine concentrate	Henkel
Eusolex 232	2-Phenyl-benzimidazole-5-sulphonic acid	E. Merck
Eusolex 0007	p-Dimethylaminobenzoic acid isooctyl ester	E. Merck
Eusolex 4360	Benzophenone-3	E. Merck
Eusolex 6007	2-Ethylhexyl-N,N-dimethyl-4 amino benzoate	E. Merck
Eusolex 6300	3-(4-Methylbenzylidene)-camphor	E. Merck
Eusolex 8021	Eutectic mixture of Eusolex 6300 and Eusolex 8020	E. Merck
Eutanol G	Octyl dodecanol	Henkel
Eutanol G-16	Hexyl decanol	Henkel
Eutanol HD	Oleyl alcohol	Henkel
Euxyl K400	Methyldibromoglutaronitrile	Schulke
Evanol		Grace
Ewalan ODE50	Octyldodecyl lanolate, solid	H. Wagner
Extrakt 52	MIPA-lauryl-sulfate and disodium-monolaureth-sulfosuccinate and amphoteric-2 and linoleamide DEA and laureth-13	Zschimmer
Extrapone Arkin Special	Ethoxydiglycol and propylene glycol and butylene glycol and matricaria extract and nettle extract and birch sap and arnica extract and cinchona extract and birch leaf extract	Dragoco
Extrapone Biopollin Special	Complex chemical	Dragoco
Extrapone Birch Special		Dragoco
Extrapone Bouleau Special		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Extrapone Chamomile Special	Ethoxydiglycol and propylene glycol and butylene glycol and matricaria extract	Dragoco
Extrapone Hamamelis Extract Colorless Special	Propylene glycol and witch hazel extract	Dragoco
Extrapon Phytozell-Special	Chemical complex	Dragoco
Extrapone 1 Special	Ethoxydiglycol and propylene glycol and butylene glycol and sage extract and hypericum extract and matricaria extract and coltsfoot extract and althea extract and yarrow extract	Dragoco
Farnesol		Dragoco
Ferric Oxide PC1136	Iron oxide	BASF
Finsolv SB	Isostearyl benzoate	Finetex
Finsolv TN	C12-15 Alcohol benzoate	Finetex
Flexan 130	Sodium polystyrene sulfonate	Nat.Starch
Fluid AP		Union Carb.
Fluilan	Lanolin oil	Croda
Foam-Coll C	Potassium coco-hydrolyzed animal protein	Brooks

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrances		Alpine
Fragrances		Creations
Fragrances		Huls
Fragrances		Novarome
Fragrances		Quest
Fragrances		Robertet
Fragrances		Shaw Mudge
Fragrances		Tri-K
Fragrances		Universal
Frescolat, Type ML	Menthyl lactate	Haarman
G 1702	Beeswax derivative	ICI
G 4909	Lanolin substitute	ICI
Gafquat 734	Quaternary polyvinylpyrrolidone copolymer	GAF
Gafquat 755N	Polyquaternium-10	GAF
Ganex V-216	PVP/Eicosene copolymer	GAF
Ganex V-220	PVP/Eicosene copolymer	GAF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Gantrez ES225	Ethyl ester of PVM/MA copolymer	GAF
Gantrez ES425	Butyl ester of PVM/MA copolymer	GAF
Geleol	Glyceryl stearate	Gattefosse
Gelitta Sol. C.C. 35% IG		Gel.-Fabrik
Gelwhite GP	Rheological control additive	South. Clay
Genagen CA 050		Hoechst
Genapol AMG		Hoechst
Genapol ARO Liquid		Hoechst
Genapol CRT40	DEA lauryl sulfate	Hoechst
Genapol LRO Liquid	Sodium lauryl ether sulphate	Hoechst
Generol 122	Soya sterol	Henkel
Generol 122E-10	PEG-10 soya sterol	Henkel
Generol 122E-16	PEG-16 soya sterol	Henkel
Germaben IIE	Propylene glycol and diazolid- inyl urea and methylparaben and propylparaben	Sutton
Germall 115	Imidazolidinyl urea	Sutton
Gingko Biloba HS	Gingko extract	Tri-K
Gingko Biloba Phytosome		Lipo
Ginseng Extract		Cosmetochem
Gludin AGP	Wheat protein hydrolysate	Henkel
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam E-20 Distearate	Methyl gluceth-20 distearate	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Glucam P-10	PPG-10 Methyl glucose ether	Amerchol
Glucam P-20	PPG-20 Methyl glucose ether	Amerchol
Glucam P-20 Distearate	PPG-20 Methyl glucose ether distearate	Amerchol
Glucamate DOE-120	PEG-120 Methyl glucose dioleate	Amerchol
Glucamate SSE-20	Methyl gluceth-20 sesquistearate	Amerchol
Glucate DO	Methyl glucose dioleate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glucose Tyrosinate	Glucose tyrosinate	Tri-K
Glucquat 100	Lauryl methyl gluceth-10 hydroxypropyl dimonium chloride	Amerchol
Glycereth 26		Heterene
Glycerine 96%	Glycerine	Lipo
Glyceryl Monostearate	Glycerol stearate	Givaudan
Glyceryl Monostearate	Glycerol stearate	Scher
Glyceryl Thioglycolate		Grace
GlycoCer HA	Sodium hyaluronate and glyco-ceramide	Tri-K
GlycoCer HALA	Glycoceramide	Tri-K
Glycoderm	Liposomal active ingredient combining lipids with glycosaminoglycans as water binding polysaccharides	CLR/Richter
Glydant	DMDM hydantoin	Glyco
GMS SE		Stepan
Green Clay		Tri-K
Ground Ivy Glycolic 5:1PG		Lipo
GS Ointment Wax H-43	Emulsifying aid	Schutz
Guar C-261	Guar hydroxypropyl trimonium Cl	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hair Complex Aquosum	Herb/vitamin combination	CLR/Richter
Hair Complex FCa	Complex of a weakly oestrogenic compound and vitamin F	CLR/Richter
Hair Complex 20/70N	Placenta/vitamin/amino acid combination	CLR/Richter
Hairspray Additive S	Rosin acrylate	BASF
Hamamelis Extract	Witch hazel	Dragoco
Hamamelis Special	Witch hazel	Dragoco
Hamp-ene Na2	Disodium EDTA	Grace
Hamp-ene Na4	Tetrasodium EDTA	Grace
Hamp-ex 80	Pentasodium pentetate	Grace
Hamp-ol 120		Grace
Hamposyl C	Cocoyl sarcosine	Grace
Hamposyl L-30	Sodium lauroyl sarcosinate	Grace
Hartolan Super	Lanolin alcohol	Croda
Hayflower Extract 5:1PG		Lipo
Hazelnut Oil	Hazelnut oil	Tri-K
HDK H15	Fumed silica. Surface area: 120	Wacker
HDK H20	Fumed silica. Surface area: 170	Wacker
HDK N20	Fumed silica. Surface area: 200	Wacker
HDK N20P	Fumed silica. Surface area: 200	Wacker
HDK P170	Fumed silica.	Wacker
HDK T30	Fumed silica. Surface area: 300	Wacker
HDK V15	Fumed silica. Surface area: 150	Wacker
Herbasol Extract Apricot		Cosmetochem

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Herbasol Extract Balm Mint		Cosmetochem
Herbasol Extract Cucumber		Cosmetochem
Herbasol Extract Geranium		Cosmetochem
Herbasol Extract Pansy		Cosmetochem
Herbasol Extract Wheat Germ		Cosmetochem
Herbasol Extracts	(Burdock, marigold, birch, wheat germ)	Cosmetochem
Hexaplant Richter	Polyvalent herbal extracts	CLR/Richter
Hispagel 200	Glycerine polyacrylate	Hispano
Hi-Tek Polymer H79		Interchem
Hoe S3267	Cocamidopropyl betaine	Hoechst
Horse Chestnut 5:1PG		Lipo
Hostacerin CG	Trilaneeth-4-phosphate and cetearyl alcohol and PEG-6 oleamide and sodium C14-C17 alkyl sec sulfonate	Hoechst
Hostacerin DGS	Fatty acid polyglycerine ester	Hoechst
Hostacerin PN73	Acrylamide/sodium acrylate copolymer	Hoechst
Hostaphat KL340N	Trilaureth-4 phosphate	Huls
Hostapon CT Paste	Sodium salt of the condensation product of medium chain-length fatty acids and methyl taurine	Hoechst
Hostapon KTW nen	Sodium cocoyl taurate	Hoechst
Hyamine 1622	Benzethonium chloride	Lonza
Hydrocortisone acetate		E. Merck
Hydrolactin 2500	Hydrolyzed milk protein	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hydrolactol 70	Glyceryl stearate and propylene glycol stearate and glyceryl isostearate and propylene glycol isostearate and oleth-25 and ceteth-25	Gattefosse
Hydrophilol Iso-stearique	Propylene glycol isostearate	Gattefosse
Hydrotriticum	Hydrolyzed whole wheat protein	Croda
Hydrotriticum 2000	Hydrolyzed whole wheat protein	Croda
Hydroviton	Chemical complex	Dragoco
Hydroxyol		Henkel
Hydroplex HHG	Collagen	CLR/Richter
Hylucare 1%		Lipo
Hypan QT100		Lipo
Hypan SA100H		Lipo
Hystar CG	Hydrogenated starch hydrolysate	Lonza
Imwitor 191	Glyceryl stearate	Huls
Imwitor 308	Glyceryl caprylate	Huls
Imwitor 310	Glyceryl caprate	Huls
Imwitor 312	Glyceryl laurate	Huls
Imwitor 370	Glyceryl stearate citrate	Huls
Inwitor 375	Glyceryl citrate/lactate/linoleate/oleate	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Imwitor 742	Caprylic/capric glycerides	Huls
Imwitor 780	Isostearyl/diglyceryl succinate	Huls
Imwitor 900	Glyceryl stearate	Huls
Imwitor 908	Glyceryl caprylate	Huls
Imwitor 910	Glyceryl caprate	Huls
Imwitor 940	Palm oil glycerides	Huls
Imwitor 960	Glyceryl stearate SE	Huls
Imwitor 965	Palm oil glycerides and potassium stearate	Huls
Incrodet TD7-C	Trideceth-7 carboxylic acid	Croda
Incromectant AQ	Acetamidopropyl trimonium chloride	Croda
Incromectant Lamea	Acetamide MEA and lactamide MEA	Croda
Incromectant LQ	Lactamidopropyl trimonium chloride	Croda
Incromide CAC	Cocamide DEA cocyl sarcosinate	Croda
Incromide LR	Lauramide DEA	Croda
Incromine Oxide BA	Babassamidopropylamine oxide	Croda
Incromine Oxide C	Cocamidopropylamine oxide	Croda
Incromine Oxide WG	Wheat germamidopropylamine oxide	Croda
Incronam WG-30	Wheat germamidopropyl betaine	Croda
Incronam 30	Cocamidopropyl betaine	Croda
Incropol CS-50	Ceteareth-50	Croda
Incropol L-23	Laureth-23	Croda
Incroquat BA-85	Babassamidopropalkonium chloride	Croda
Incroquat Behenyl TMS	Behenyl trimonium methosulfate and cetearyl alcohol	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Incroquat Mink-85	Minkamidopropalkonium chloride	Croda
Incroquat SDQ-25	Stearalkonium chloride	Croda
Incrosul LTS	Disodium laureth sulfosuccinate	Croda
Incrosul OMS	Disodium oleamido MEA sulfo- succinate	Croda
Incrosul OTS	Disodium oleth-3 sulfosucc- inate	Croda
Inositol	Hexahydroxycyclohexane, meso	E. Merck
Irgasan DP300	Triclosan	Ciba
Iriodin Ti 100	Pearling pigment	E. Merck
Iron Oxide Brown PC1218	Iron oxide	BASF
Iron Oxide Brown 7061	Iron oxide	Whittaker
Iron Oxide PC1136	Iron oxide (European origin)	BASF
Iron Oxide Sienna CS-10051	Iron oxide	Whittaker
Iso-Adipate	Diisopropyl adipate	Dragoco
Isopropyl myristate	Isopropyl myristate	Henkel
Isostearate D'Isostearyle	Isostearyl isostearate	Gattefosse
Ivarlan AWS	PPG-12 PEG-65 lanolin oil	Brooks
Ivarlan 3401	PEG 75 lanolin	Brooks
Jaguar C14	Guar hydroxypropyl trimonium chloride	Hoechst
Jojoba Oil	Jojoba oil	Ross
Jojoba Oil	Jojoba oil	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Kaolin Speswhite	Kaolin	ECC
Karion F	Sorbitol (hexavalent sugar)	E.Merck
Karion F liquid	70% aqueous sol'n of sorbitol	E.Merck
Kathon CG	Isothiazole microbiocide	Rohm
Kelate Cu	For light blue color	Tri-K
Kelate 220	Tetrasodium EDTA	Tri-K
Kelgin HV	Sodium alginate	Kelco
Kelgin MV	Sodium alginate	Kelco
Keltrol	Xanthan gum	Kelco
Keltrol F	Xanthan gum	Kelco
Keltrol T	Xanthan gum	Kelco
Kelzan	Xanthan gum	Kelco
Kerasol	Soluble Animal Keratin	Croda
Kessco Ethylene Glycol Distearate		Akzo
Kessco Glycerol Monostearate S.E.		Akzo
Kessco GMS-24SE	Glycerol Stearate SE	Akzo
Kessco PEG 6000 Distearate		Akzo
Kiwi HS		Tri-K
Klucel EF	Hydroxypropylcellulose	Aqualon
Kytamer PC	Chitosan PCA	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
L-45 Silicone	Dimethylpolysiloxane	Union Carb.
Labrafac Lipo WL1349	Caprylic/capric triglycerides	Gattefosse
Labrafil Isostearique	Triisostearin PEG-6 esters	Gattefosse
Lactic Acid	Lactic Acid	Tri-K
Lactoferrin	Lactoferrin	Tri-K
Lactoperoxidase	Lactoperoxidase	Tri-K
Lafil	Polyglycerol isostearate	Gattefosse
Lamecreme DGE18	Diglyceryl-4 stearate	Henkel
Lamecreme IR1	Combination of emulsifiers	Fabrik Grun
Lamecreme KSM	Glyceryl stearate se	Fabrik Grun
Lamepon 4SK	Potassium coco-hydrolyzed animal protein	Henkel
Lamequat L	Lauryldimonium hydroxypropyl hydrolyzed animal protein	Henkel
Lameform TGI	Polyglyceryl-3-Di-isostearate	Henkel
Lamepon S	Potassium coco-hydrolyzed animal protein	Henkel
Lamepon UD		Henkel
Lanapene	Isopropyl lanolate and lecithin	Lanaetex
Lanette C	Cetyl alcohol	Henkel
Lanette E	Sodium cetearyl sulfate	Henkel
Lanette N	Cetearyl alcohol and sodium cetearyl sulfate	Henkel
Lanette O	Cetearyl alcohol	Henkel
Lanette SX	Cetearyl alcohol and sodium lauryl sulfate	Henkel
Lanette Wax O	Cetearyl alcohol	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lanette 16	Cetyl alcohol	Henkel
Lanette 18	Stearyl alcohol	Henkel
Lanexol AWS	PPG-12-PEG-50 lanolin	Croda
Lanfrax	Lanolin wax	Henkel
Lanogene	Lanolin oil	Amerchol
Lanoil AWS	PPG-12-PEG-50 lanolin	Lanaetex
Lanolin	Lanolin	Amerchol
Lanolin-Acetylated	Lanolin-acetylated	Amerchol
Lanolin AC	Acetylated lanolin	Lanaetex
Lantox 55	PEG-75 lanolin	Lanaetex
Lantrol	Liquid lanolin	Malmstrom
Lantrol AWS	PPE-12-PEG-65 lanolin oil	Henkel
Lantrol AWS1692	PPG-12-PEG-lanolin	Henkel
Lantrol HP-2073	Lanolin oil	Henkel
Laurex CS	Cetyl stearyl alcohol	Albright
Lauridit OD	Oleic acid diethanolamide	Akzo
Lavender AMI	Lavender extract	Tri-K
L-Blue Z5000	Coloring matter	Siegle
Lecithin Water-Dispersible	Hydrophilized soya lecithin	CLR/Richter
Lexaine C	Cocamidopropyl betaine	Inolex
Lexaine X350	Amphoteric surfactant	Inolex
Lexamine L-13	Lauramidopropyl dimethylamine	Inolex
Lexamul EGDS	Glycol distearate	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lexate CRC	Stearamidopropyl dimethylamine and glycol stearate and ceteth-2	Inolex
Lexein A-210	Myristoyl hydrolyzed animal protein	Inolex
Lexein X250	Hydrolyzed animal protein	Inolex
Lexein X350	Hydrolyzed animal protein	Inolex
Lexemul AR	Glyceryl stearate and stear-amidoethyl diethylamine	Inolex
Lexemul 515	Glyceryl stearate	Inolex
Lexquat AMG-M	Lauramidopropyl dihydroxypropyl dimonium chloride	Inolex
Light Mineral Oil	Mineral oil	Witco
Lipacide CCO	Caprylol collagenic acid	Lipo
Lipacide PCO	Palmitoyl hydrolyzed animal protein	Lipo
Lipacide UCO	Undecylenyl collagenic acid	Lipo
Lipamide DBS		Lipo
Lipamide LMWC		Lipo
Lipamide MEAA		Lipo
Lipamide SM	Stearamide MEA	Lipo
Lipamine SPA		Lipo
Lipitein P	Porcine skin lipids	Lipo
Lipobee 102	Synthetic beeswax	Lipo
Lipocire A	Semi-synthetic glycerides	Gattefosse
Lipocol C	Polyoxyethylene fatty ether	Lipo
Lipocol C-2	Polyoxyethylene fatty ether	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipocol L-4	Laureth-4	Lipo
Lipocol L-23		Lipo
Lipocol L-23 Special		Lipo
Lipocol O-2		Lipo
Lipocol S	Polyoxyethylene fatty ether	Lipo
Lipocol S-20	Steareth-20	Lipo
Lipocol SC-15	Ceteareth-15	Lipo
Lipocutin	Liposomes	Henkel
Lipocutin AQ	Liposomes	Henkel
Lipocutin RB	Liposomes	Henkel
Lipocutin VE	Liposomes	Henkel
Lipo GMS-450		Lipo
Lipo GMS-470		Lipo
Lipoprotel LCO		Vanderbilt
Lipo SS		Lipo
Lipolan		Lipo
Lipolan R		Lipo
Lipolan 31	PEG-24 Hydrogenated lanolin	Lipo
Lipolan 98		Lipo
Lipo Lecithin		Lipo
Lipo Lecithin WS		Lipo
Lipomulse 165		Lipo
Liponate CRM		Lipo
Liponate GC		Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Liponate IPM		Lipo
Liponate IPP	Isopropyl palmitate	Lipo
Liponate MM	Myristyl myristate	Lipo
Liponate NPGC-2	Neopentylglycol dicaprylate/ dicaprinate	Lipo
Liponate PC	Propylene glycol dicaprylate/ dicaprinate	Lipo
Liponate SPS	Cetyl esters	Lipo
Liponate TDS	Tridecyl stearate	Lipo
Liponate 2-DH		Lipo
Liponic EG-1	Glycereth-26	Lipo
Liponic NC-70		Lipo
Lipo PE Base EG-557		Lipo
Lipo PE Base PG-29		Lipo
Lipo PGMS		Lipo
Lipopeg 2-DL		Lipo
Lipopeg 2-L		Lipo
Lipopeg 39-S		Lipo
Lipopeg 6000-DS		Lipo
Lipophos TA	Phosphate ester	Lipo
Lipo Polyol NC		Lipo
Lipoquat R	Fatty acid amide ethosulfate	Lipo
Liposorb O	Sorbitan oleate	Lipo
Liposorb S	Sorbitan stearate	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Liposorb S-20		Lipo
Liposorb SQO	Sorbitan sesquioleate	Lipo
Liposorb TO		Lipo
Liposorb TS		Lipo
Lipotel LCO		Lipo
Lipovol A		Lipo
Lipovol A-S		Lipo
Lipovol ALM	Sweet almond oil	Lipo
Lipovol G		Lipo
Lipovol J	Natural vegetable oil	Lipo
Lipovol MOS-70		Lipo
Lipovol MOS-350		Lipo
Lipovol SES	Sesame oil	Lipo
Lipovol SES-S		Lipo
Lipovol SOY		Lipo
Lipovol SUN	Sunflower seed oil	Lipo
Lipovol VGA		Lipo
Lipovol WGO		Lipo
Lipowax D	Cetearyl alcohol and ceteareth-20	Lipo
Lipowax P		Lipo
Liquid Base Type T	Mineral oil and lanolin alcohol	Croda
Liquid Coconut Soap	Potassium cocoate	Laurel
Liquid Amniotique Bovin	Amniotic fluid and glycerin and propylene glycol	Gattefosse
Locron L	Aluminum chlorohydrate	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Locron P	Aluminum chlorhydroxide	Hoechst
7147 Lo-Micron Brown	Iron oxide	W.Jenkinson
Lo-Micron Brown BC 7158	Iron oxide	W.Jenkinson
Lo-Micron Pink BC7139	Iron oxide	W.Jenkinson
Lo-Micron Sienna BC 7166	Iron oxide	W.Jenkinson
Lonzaine CS	Cocamidopropyl sultaine	Lonza
Lunacera Alba	Beeswax	Fuller
Lunacera LB	Lipstick-base	Fuller
Lunacera M	Microwax	Fuller
Lunacera MW	Microwax	Fuller
Lunacera PA 5473	Mineral oil/polyethylene	Fuller
Lunacera PE-P	Polyethylene wax in mineral oil	Fuller
Lunacera 256	Petrolatum	Fuller
Lutensit AS2230	Sodium laureth sulfate	BASF
Lutensit TC-KD	Cocamide DEA	BASF
Lutrol E400	PEG 8	BASF
Luviquat FC370	Polyquaternium-16	BASF
Luviquat FC905	Polyquaternium-16	BASF
Luviquat Mono CP	Hydroxyethyl cetyldimonium phosphate	BASF
Luviset CA66	Vinyl acetate/crotonic acid copolymer	BASF
Luviset CAP	Vinyl acetate/crotonic acid/ vinyl propionate copolymer	BASF
Luviskol K30	Polyvinylpyrrolidone	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Luviskol K30 Powder	Polyvinylpyrrolidone	BASF
Luviskol VA37	Polyvinylpyrrolidone/polyvinyl acetate	BASF
Luviskol VA64	Vinylpyrrolidone-vinyl acetate copolymer	BASF
Luvitol EHO	Cetearyl octanoate	BASF
Lyogen P	Sulfated castor oil	Sandoz
Mackadet BSC	Baby shampoo concentrate	McIntyre
Mackadet CA	Mild blend	McIntyre
Mackadet CBC	Hair conditioner concentrate	McIntyre
Mackadet CBS	Mild blend	McIntyre
Mackadet LCB	Liquid conditioner concentrate	McIntyre
Mackadet SBC-8	Mild blend	McIntyre
Mackadet WGS		McIntyre
Mackadet 40K	Potassium coconut soap	McIntyre
Mackalene NLC	Olealamidopropyl dimethylamine lactate and palmitamidopropyl dimethylamine lactate and palmitoleamidopropyl dimethylamine lactate	McIntyre
Mackalene 116	Cocamidopropyl dimethylamine lactate	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackalene 117	Cocamidopropyl dimethylamine lactate	McIntyre
Mackalene 316	Stearamidopropyl dimethylamine lactate	McIntyre
Mackalene 326	Stearamidopropyl morpholine lactate	McIntyre
Mackalene 426	Isostearamidopropyl morpholine lactate	McIntyre
Mackalene 716	Wheat germamidopropyl dimethylamine lactate	McIntyre
Mackam CAP	Cocamidopropyl dimethylamino-propionate	McIntyre
Mackam CB-35	Coco betaine	McIntyre
Mackam HV	Oleamidopropyl betaine	McIntyre
Mackam J	Cocamidopropyl betaine	McIntyre
Mackam MLT	Lauroamphoacetate and sodium trideceth sulfate	McIntyre
Mackam NLP	Oleamidopropyl dimethylamino-propionate and palmitamido-propyl dimethylamino propionate and palmitoleamidopropyl dimethylaminopropionate	McIntyre
Mackam OB-30	Oleyl betaine	McIntyre
Mackam TM	Dihydroxyethyl tallow glycinat	McIntyre
Mackam WGB	Wheat germamidopropyl betaine	McIntyre
Mackam 2C	Cocodiamphodiacetate	McIntyre
Mackam 2C75	Cocodiacetate	McIntyre
Mackam 35	Cocamidopropyl betaine	McIntyre
Mackam 35HP	Cocamidopropyl betaine	McIntyre
Mackamide AME-75	Acetamide MEA (75%)	Mcintyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackamide AME-100	Acetamide MEA	McIntyre
Mackamide C	Cocamide DEA (1:1)	McIntyre
Mackamide CMA	Cocamide MEA	McIntyre
Mackamide CS	Cocamide DEA	McIntyre
Mackamide LLM	Lauramide DEA	McIntyre
Mackamide LMD	Lauramide DEA	McIntyre
Mackamide ODM	Oleamide DEA Modified	McIntyre
Mackamide PK	Palmkernelamide DEA	McIntyre
Mackamide PKM	Palmkernelamide MEA	McIntyre
Mackamide S	Soyamide DEA (1:1)	McIntyre
Mackamide Std	Alkanolamide surfactant	McIntyre
Mackamine CAO	Cocamidopropylamine oxide	McIntyre
Mackamine WGO	Wheat germamidopropylamine oxide	McIntyre
Mackanate CP	Disodium cocamido MIPA sulfosuccinate	McIntyre
Mackanate DC-30	Disodium dimethicone copolyol sulfosuccinate	McIntyre
Mackanate DOS-70N	Diethyl sodium sulfosuccinate	McIntyre
Mackanate DOS-70PG	Diethyl sodium sulfosuccinate	McIntyre
Mackanate EL	Disodium laureth sulfosuccinate	McIntyre
Mackanate LO-Special	Disodium lauryl sulfosuccinate	McIntyre
Mackanate NLD	Disodium oleamide PEG-2 sulfosuccinate and disodium palmamide PEG-2 sulfosuccinate and disodium palmitolamido PEG-2 sulfosuccinate	McIntyre
Mackanate OM	Disodium oleamido MEA sulfosuccinate	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackanate OP	Disodium oleamido MIPA sulfo-succinate	McIntyre
Mackanate UM	Disodium undecylenamido MEA sulfosuccinate	McIntyre
Mackanate WGD	Disodium wheatgermamido PEG-2 sulfosuccinate	McIntyre
Mackernium SDC-25	Stearalkonium chloride	McIntyre
Mackernium SDC-85	Stearalkonium chloride	McIntyre
Mackernium 007	Polyquaternium 7	McIntyre
Mackester EGMS	Ethylene glycol monostearate	McIntyre
Mackester IDO	Isodecyl oleate	McIntyre
Mackester SP	Glycol stearate modified	McIntyre
Mackester TD-88	Triethylene glycol dioctoate	McIntyre
Mackester TDO	Triethylene glycol ethyl hexoate	McIntyre
Mackine 301	Stearamidopropyl dimethylamine	McIntyre
Mackol 16	Cetyl alcohol	McIntyre
Mackol 1618	Cetearyl alcohol	McIntyre
Mackpearl LV	Pearl agent	McIntyre
Mackpro KLP	Oleyl/palmityl/palmitoyl/keratin hydroxypropyl/dimonium chloride/lactate	McIntyre
Mackpro NLP	Quaternium-79 hydrolyzed animal protein	McIntyre
Mackpro NSP	Quaternized silk protein oleyl/palmityl/palmitolamidopropyl/silk hydroxypropyl dimonium chloride	McIntyre
Mackpro WWP	Wheat germamidopropyl/dimethylamine hydrolyzed wheat protein	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackstat DM	DMDM hydantoin	McIntyre
Magnesium sulfate	Magnesium sulfate	Allied
Mallow HS	Mallow extract	Tri-K
Maprofix LES-60A	Ammonium laureth sulfate	Stepan
Maprosyl 30	Sodium lauryl sarcosinate	Onyx
Marcol 130	Mineral oil	Exxon
Marlamid D1885	Condensation product	Huls
Marlinat 242/28	Sodium laureth sulfate	Huls
Marlipal ML	Fatty alcohol polyglycol ether	Huls
Marlon A375	Sodium dodecylbenzene sul- phonate	Huls
Marlopon AT50	TEA-Dodecylbenzenesulfonate	Huls
Marlowet TA25	Ceteareth-25	Huls
Masil SFV	Silicone fluid	Mazer
Mearlmaid	Natural pearl essence	Mearl
Medialan KF	Condensation product of fatty acids and sarcosine	Hoechst
Medialan LD	Sodium lauroyl sarcosinate	Hoechst
Merquat S	Polyquaternium 7	E.Merck
Methocel E4M Premium	Hydroxypropyl methylcellulose	Dow
Methocel F4M	Hydroxypropyl methylcellulose	Dow
Methyl Gluceth-20		Amerchol
Methyl Paraben	Methyl paraben	Van Dyk
Methyl Paraben	Methyl paraben	Tri-K
Methyl Parasept	Methyl paraben	Kalama

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mica M	Mica <15 um	Rona
Microthene MN 722-00	Low density polyethylene powder	Quantum
Microwax 7694	Wax	Kahl
Miglyol Gel Type B	Caprylic/capric triglycerides and stearalkonium hectorite (bentone) and propylene carbonate	Huls
Miglyol 812	Caprylic/capric triglyceride	Huls
Miglyol 818	Caprylic/capric/linoleic triglyceride	Huls
Miglyol 829	Caprylic/capric/diglyceryl succinate	Huls
Miglyol 840	Propylene glycol dicaprylate/dicaprate	Huls
Miglyol 840 Gel Type B	Propylene glycol dicaprylate/dicaprate and stearalkonium hectorite and propylene carbonate	Huls
Mineral Oil	Mineral oil	Penreco
Miranate LEC	Sodium laureth-13 carboxylate	Miranol
Miranate LSS	Disodium lauryl sulfosuccinate	Miranol
Miranate SSB	Surfactant	Miranol
Miranol BM Conc.	Lauroamphodiacetate	Miranol
Miranol BT	Lauroamphodiacetate and sodium trideceth sulfate	Miranol
Miranol CM Conc.N.P.	Cocoamphoacetate	Miranol
Miranol CM-SF Conc.	Cocoamphopropioanate	Miranol
Miranol C2M Conc.N.P.	Cocoamphodiacetate	Miranol
Miranol C2M-SF Conc.	Cocoamphodipropionate	Miranol
Miranol Ester PO-LM4	Polypentaerythrityl tetralaurate	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Miranol H2M Conc.	Lauroamphodiacetate	Miranol
Miranol MHT	Lauroamphoacetate and sodium trideceth sulfate	Miranol
Miranol SM Conc.	Caproamphoacetate	Miranol
Miranol 2MCA-ESF	Cocoamphodipropionate and sodium lauryl sulfate	Miranol
Miranol 2MCA Modified	Cocoamphodiacetate and sodium lauryl sulfate and hexylene glycol	Miranol
Miranol 2MCAS Mod.	Cocoamphodiacetate and sodium lauryl sulfate and sodium laureth sulfate and propylene glycol	Miranol
Mirapol A-15	Polyquaternium-2	Miranol
Mirapol AD-1	Polyquaternium-17	Miranol
Mirapol AZ-1	Polyquaternium-18	Miranol
Mirapol 9	Polyquaternium-27	Miranol
Mirapol 95	Polyquaternium-27	Miranol
Mirapol 175	Polyquaternium-27	Miranol
Mirataine BB	Lauramidopropyl Betaine	Miranol
Mirataine CB	Cocamidopropyl betaine	Miranol
Mirataine CBC	Cocamidopropyl betaine	Miranol
Mirataine CBS	Cocamidopropyl hydroxysultaine	Miranol
Mirataine COB	Coco/oleamidopropyl betaine	Miranol
Mirataine ODMB-35	Oleyl betaine	Miranol
Mirataine TM	Dihydroxyethyl tallow glycinate	Miranol
Mirataine XL	DEA-Lauryl sulfate and DEA-lauraminopropionate and sodium lauraminopropionate and propylene glycol	Miranol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
M.O.D.	Octyldodecyl myristate	Gattefosse
M.O.D. WL2949	Octyldodecyl myristate	Gattefosse
Modulan	Acetylyzed USP lanolin	Amerchol
Monamate C-1142	Disodium Cocamido MIPA sulfosuccinate	Mona
Monamate CAA-40%	Disodium Cocamido MIPA sulfosuccinate	Mona
Monamate LA-100	Disodium lauryl sulfosuccinate	Mona
Monamate LNT-40	Ammonium lauryl sulfosuccinate	Mona
Monamate OPA-30	Disodium oleamido PEG-2 sulfosuccinate	Mona
Monamid CMA	1:1 FA-Monoethanolamide-Coconut	Mona
Monamid S	1:1 FA-Monoethanolamide-Stearic	Mona
Monamid 716	1:1 FA-Diethanolamide-Modified lauric	Mona
Monamid 718	1:1 FA-Diethanolamide-Stearic	Mona
Monamid 1007	1:1 Mixed fatty acid diethanolamide	Mona
Monamid 1089	Lauramide DEA	Mona
Monaquat ISIES	Liquid quaternary compound	Mona
Monaquat PT-C	Cocamidopropyl PG-Dimonium chloride phosphate	Mona
Monaquat TG	Bishydroxyethyl dihydroxyethyl stearammonium chloride	Mona
Monaterge 1164	Sodium lauryl sulfate and disodium lauryl sulfosuccinate	Mona
Monateric CA-35%	Cocamphopropionate	Mona
Monateric CAB	Cocamidopropyl betaine	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monateric CAB-LC	Cocoamidopropyl betaine	Mona
Monateric CSH-32	Cocoamphocarboxyglycinate	Mona
Monateric ISA-35	Isostearamphopropionate	Mona
Monateric LMAB	Lauramidopropyl betaine	Mona
Monateric 951A	Lauroamphocarboxyglycinate	Mona
Monateric 985A	Lauroamphoacetate	Mona
Monateric 1188M	Disodium lauryl B-iminodipropionate	Mona
Monateric 1202	Dihydroxyethyl tallow glycinate	Mona
Monateric 1203	Sodium hydrogenated tallow dimethyl glycinate	Mona
Monomuls 90L12	Lauric acid monoglyceride	Henkel
Monomuls 90-018	Oleic acid monoglyceride	Henkel
Mowiol 10-98	Polyvinyl alcohol	Huls
Mulsifan RT7	Ethoxylated triglyceride	Zschimmer
Mulsifan RT203/80	Pareth-25-12	Zschimmer
Myritol 318	Caprylic/capric triglyceride	Henkel
Myrj 52	PEG-40 stearate	ICI
Myrj 52S	PEG-40 stearate	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nail Bioregenerator	Myrrh extract and polysorbate-20 and laneth-10 acetate and panthenol	Tri-K
Natriumhydroxid	Sodium hydroxide	E.Merck
Natriumchlorid	Sodium chloride	E.Merck
Natriumstearat	Sodium stearate	E.Merck
Natrosol 250HHR	Hydroxyethylcellulose	Aqualon
Natrosol 250HHX	Hydroxyethylcellulose	Aqualon
Natrosol 250HR	Hydroxyethylcellulose	Aqualon
Natrosol Plus, CS Grade	Hydrophobically modified hydroxyethyl cellulose (HMHEC)	Aqualon
Natural Shampoo Base	Panama wood and soapwort extract	Tri-K
Naturechem GMHS	Glyceryl hydroxystearate	CasChem
Neobee M-20	Propylene glycol dicaprylate/dicaprate	PVO
Neo-Fat 18-55	Stearic acid	Armak
Neo-Heliopan AV	Octyl methoxycinnamate	Haarman
Neo-Heliopan E1000	Isopropyl methoxycinnamate and ethyl diisopropylcinnamate	Haarman
Neo-Heliopan H&R	Mixture of substituted cinnamic acid esters	Haarman
Neo-Heliopan Hydro 30% TEA Salt	Phenylbenzimidazole sulfonic acid	Haarman
Neo-Heliopan MA	Menthyl Anthranilate	Haarman
Neo-Heliopan OS	Octyl salicylate	Haarman
Neo-Heliopan Type BB	Benzophenone-3	Haarman
Neo-PCL Selbstemulgierend	Fatty acid polyglycol ester	Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Neutrol TE	Tetrahydroxipropyl ethylen-diamine	BASF
Nimcolan T		Henkel
Nimlesterol D	Mineral oil and lanolin alcohol	Malmstrom
Ninol 40-CO	Cocamide DEA	Stepan
Ninol 4821	Lauramide DEA	Stepan
Nodorlan		Henkel
Norda DG-10	Fragrance	Norda
Nucleoderm	Zinc D.N.A.	Gattefosse
Nutrilan Elastin E20	Protein hydrolysate	Henkel
Nutrilan Elastin P	Elastin hydrolysate (powder)	Henkel
Nutrilan I	Hydrolyzed animal protein	Henkel
Nutrilan I-50	Hydrolyzed protein	Henkel
Nutrilan Keratin W	Protein hydrolysate	Henkel
Nutrilan L	Protein hydrolysate	Henkel
Oat Milk	Oat extract	Tri-K
Oat Pro	Oat flour	QO
Octyl Dimethyl PABA	Sunscreen	Nat.Starch
Octyldodecyl Myristate		CasChem
Octyl Methoxyl Cinnamate		Tri-K
Octyl Salicylate	Sunscreen	Nat.Starch
OHlan	Hydroxylated lanolin	Amerchol
Oleth-5 Special		Heterene

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Olive Oil Water Sol.	PEG-10 olive oil	Scher
Onyx-ol		Onyx
Orgasol 2002D	Nylon	Sandoz
Oxybenzone	Benzophenone-3	Tri-K
Oxynex 2004	BHT	E.Merck
Ozokerite Wax 170MF	Mineral wax	Strahl
Palatinol A	Dimethyl phthalate	BASF
Palmitate de Cetyle	Cetyl palmitate	Gattefosse
Palmitinsaure		E.Merck
Panalane L14	Hydrogenated polyisobutylene	Amoco
Pancogene S	Soluble animal collagen	Gattefosse
D-Panthenol	Panthenol	BASF
Panthenol	Panthenol	Hoffman
Paraffinol	Mineral oil	E.Merck
Paraffinwachs	Wax	E.Merck
Paragon	Propylene glycol and DMDM hydantoin and methyl paraben	McIntyre
Parsol MCX	Octyl methoxycinnamate	Givaudan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Parsol 1789	Butyl methoxydibenzoylmethane	Givaudan
Passion Fruit Oil		Tri-K
PCL Liquid	Cetearyl octanoate	Dragoco
Peach AMI Watersol.	Peach extract	Tri-K
Pearling Agent MS	Fatty acid glycol ester	Hoechst
Pearl Pigment	Colorona Carmine Red Colorona Imperial Red Colorona Sienna Timiron Super Color Timiron Silver Pigment	Rona
Pearl Pigments	Soloron Silver Colorona Red Gold Sienna Bronze Light Blue Majestic Green Imperial Red Timiron Super Interference Types	Rona
Peceol Isostearique	Glyceryl isostearate	Gattefosse
Pecogel GC-310	PVP/Dimethylaminoethyl-methacrylate polycarbamal polycarbamal polyglycol ester	Phoenix
PEG-8	Polyglycol 400	
PEG-12	Polyglycol 600	
PEG-75 Lanolin		Henkel
PEG-120 Methyl Glucose Dioleate		Amerchol
PEG-200 Dilaurate	PEG-4 Dilurate	Scher
PEG-400 Distearate	PEG-8 Diisostearate	Scher
PEG-400 Monolaurate	PEG-8 Laurate	Scher
PEG 6000 Distearate	PEG 150 Distearate	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pemulen TR-1	Acrylates/C10-30 alkyl acrylate cross polymer	Goodrich
Pemulen TR-2	Acrylates/C10-30 alkyl acrylate cross polymer	Goodrich
Peppermint HS	Peppermint extract	Tri-K
Peppermint oil	Peppermint oil	ICI
Peptein AH	Hydrolyzed collagen	Hormel
Peptein CAA	Collagen amino acids	Hormel
Peptein 2000	Collagen amino acids	Hormel
Perfecta 239A	Petrolatum	Witco
Perfume oils	Perfume	Many
Permulgin 3220	Microcrystalline wax	Nachfolger
Peroestron in Oil	Solution of Triphenylbromo-ethylene in vegetable oil	CLR/Richter
Petrolatum	Petrolatum	Witco
Petrolatum USP White	Petrolatum	Penreco
PG-3 Beeswax	Beeswax	Kennen
Phenonip	Preservative	Nipa
Phenoxyethanol	Phenoxyethanol	Tri-K
Phoskadent Na 211		Hoechst
Phoskadent Pyro	Tetrasodium pyrophosphate	Hoechst
Phospholipid EFA	Linoleamidopropyl PG-Dimonium chloride phosphate	Mona
Phospholipid PTS	Synthetic phospholipid	Mona
Phospholipid SV	Synthetic phospholipid complex	Mona
Phosphosomes Cevenyl 11.G	Lecithin and borage oil	Gattefosse

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polypro 5000	Hydrolyzed animal protein	Hormel
Polypro 15000	Hydrolyzed collagen	Hormel
Polyquart H	PEG-15 Tallow polyamine	Henkel
Polyquart KC		Henkel
Polysorbate 20	Polysorbate 20	Henkel
Polysynlane	Squalane substitute	Polyester
Polytex 10	Stearamide DIBA-stearate	Knapp
Polyviol W25/140	Polyvinyl alcohol	Wacker
Pot Marigold HS	Calendula extract	Tri-K
PPG-10 Methyl Glucose Ether		Amerchol
Precirol ATO 5	Glyceryl palmito stearate	Gattefosse
Pricerine 9083	Glycerine	Unichema
Prifac 5901	Coconut acid	Unichema
Primal ICS	Acrylate/PEG 20 methacrylate	Seppic
Pristerine 4904	Stearic acid	Unichema
Product GM4055	MIPA-pareth-25 sulfate and glyceryl stearate	Zschimmer
Promulgen D	Cetearyl alcohol and cetear-eth-20	Amerchol
Promulgen G	Stearyl alcohol and cetear-eth-20	Amerchol
Promyr	Isopropyl myristate	Amerchol
Promyristyl PM3	PPG-3 myristyl ether	Croda
Pronectin	Fibronectin and procollagen	Tri-K
Propal	Isopropyl palmitate	Amerchol
Propellant A46	Propellant	Phillips

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Propylene Glycol Dioctanoate		Henkel
Propylene Glycol Monolaurate		Akzo
Propyl Paraben	Propylparaben	Protameen
Propyl Paraben	Propylparaben	Tri-K
Propyl Paraben	Propylparaben	Van Dyk
Propyl Parasept	Propylparaben	Kalama
Prosolal S9	Bornelone	Dragoco
Protectein	Propyltrimonium hydrolyzed collagen	Hormel
Protegin	W/O emulsifier	Goldschmidt
Protegin II	Nonionic emulsifiers with sterols, aliphatic alcohols and hydrocarbons	Goldschmidt
Protegin X	Mineral oil and petrolatum and ozokerite and glyceryl oleate and lanolin alcohol	Goldschmidt
Protein WSP X-250		Wilson
Proteodermin	Proteoglycans	CLR/Richter
Protopet	Petrolatum (USP)	Witco
Prottox T-25	Tallow amine POE-25	Protameen
Provol 50	PPG-50 Oleyl ether	Croda
Purcellin Liquid		Dragoco
Purcellin Oil	Cetearyl octanoate	Dragoco
Purcellin Solid	Stearyl heptanoate	Dragoco
Pure Oxy Sienna 3179	European origin	Thomasset
Purified Black Oxide #7133	Iron oxides	Clark

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pur. Navy Blue #7110		Whittaker
Pur Oxy Brown 3180	Iron oxide	Whittaker
Purton CFD	Diethanolamide fatty acid amides	Zschimmer
Purton OFD	Oleic acid diethanolamide	Zschimmer
Purton SFD	Diethanolamide fatty acid amides	Zschimmer
PVP/K-30	PVP	GAF
PVP/VA E335	PVP/VA copolymer	GAF
PVP/VA E735	PVP/VA copolymer	GAF
Quantum #2410	Glyceryl isostearate	Henkel
Quaternium-18	Quaternium-18	Akzo
Quatrisoft Polymer LM-200	Polyquaternium-24	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Raluben TL	3,4,5,6-Tetrabromo ortho-cresol	H.Hall
Resyn 26-1314		Nat.Starch
Resyn 28-1310	Vinyl acetate/crotonic acid copolymer	Nat.Starch
Resyn 28-2930	Carboxylated vinyl acetate terpolymer	Nat.Starch
Rewo-Amid DC 212/S	Cocamide DEA	Sherex
Rewo-Amid DL 203/S	Lauramide DEA	Sherex
Rewo-Amid DO 280/SE	Oleamide DEA	Sherex
Rewolan AWS	PEG-75 Lanolin oil	Sherex
Rewolan 5	Lanolinsuphosuccinate	Sherex
Rewomid IPP 240	Palmiteric acid mono-isopropanol amide	Sherex
Rewopol CLN 100	Sodium laureth-11-carboxylate	Sherex
Rewopol HM 14	Sodium lauryl sulfate and disodium PEG-4 cocamido MIPA sulfosuccinate and cocamidopropyl betaine	Sherex
Rewopol NL 3	Sodium laureth sulfate	Sherex
Rewopol PEG 6000 DS	PEG-150 Distearate	Sherex
Rewopol PIB	Polyisobutylene/polyisobutene	Sherex
Rewopol PIB 100	Polyisobutene	Sherex
Rewopol PIB 1000	Polyisobutene	Sherex
Rewopol SBFA 30	Disodium laureth sulfosuccinate	Sherex
Rewopol TLS	TEA-Laurylsulfate	Sherex
Rewopol TLS 40	TEA-Laurylsulfate	Sherex
Rewoteric AM-B 13	Cocamidopropyl betaine	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rewoteric AM-CA	Lauroamphoglycinate and sodium laureth sulfate	Sherex
Rewoteric AM-2L	Lauroamphocarboxy-glycinate	Sherex
Rezal 36G	Aluminum zirconium tetrachlorohydrate GLY, 30% soln.	Reheis
Rhodigel	Xanthan gum	Rhone
Rhodorsil 700 45V2	Cyclomethicone	Rhone
Richamide Liquid		
Rilanit GMRO	Glycerine mono ricinoleate	Henkel
Ritachol	Mineral oil and lanolin alcohol	RITA
Ritachol 1000	Polysorbate 60 and PEG-150 stearate and steareth-20	RITA
Ritachol 2000	Cetearyl alcohol and polysorbate 60	RITA
Ritaderm	Petrolatum and lanolin and sodium PCA and polysorbate 85 and water	RITA
Robane	Squalane NF	Robeco
Rose Extract	Rose extract	Cosmetochem
Rose Hip Oil		Tri-K
Ross Base Oil 2539		Ross
Ross Beeswax Substitute 628-5	White. MP: 140-150	Ross
Ross Ceresine Wax 1160/7	Ceresine wax	Ross
Ross Fully Refined Paraffin Wax 150/160		Ross
Ross Jojoba Oil	Jojoba oil	Ross
Ross Lotion Oil 2745	Lotion oil	Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ross Ozokerite Wax 77W	Ozokerite wax	Ross
Ross Powdered Jojoba Meal		Ross
Ross Pure #1 Yellow Carnauba Wax		Ross
Ross Refined Canedlilla Light Flakes		Ross
Ross Refined Candelilla Wax		Ross
Ross Refined #1 Yellow Carnauba Wax		Ross
Ross Refined Paraffin Wax 130/135 AMP		Ross
Ross Spermaceti Wax Substitute 573.	MP: 107.6-122F	Ross
Ross Synthetic Candelilla Wax.	MP: 155-165F	Ross
Ross Wax 15-1182	Wax	Ross
Ross Wax 26-1152	Wax	Ross
Ross Wax 60-0254	Wax	Ross
Ross Wax 63-0212	Wax	Ross
Ross Wax 63-0412	Wax	Ross
Ross Wax 573	Wax	Ross
Ross Wax 1275W	Microcrystalline wax. MP: 175F	Ross
Ross Wax 1641	Wax	Ross
Ross Wax 1824	Wax	Ross
Ross Wax 2540	Wax	Ross
Ross Wax 2639	Wax	Ross
Ross Wax 2640	Wax	Ross
Ross Wax 2641	Wax	Ross
Ross White Beeswax	White Bleached-NF	Ross
Ross White Ozokerite Wax 77W		Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
S.A.B.	Serum albumin	Gattefosse
Sandobet SC	Cocamidopropyl hydroxy sultaine	Sandoz
Sandopan DTC Acid	C12-15 Pareth-6-carboxylic acid	Sandoz
Sandopan KST	Sodium ceteth-13-carboxylate	Sandoz
Sandopan LS-24	Sodium laureth-13-carboxylate	Sandoz
Sandoteric TFL	Oleamidophydroxypropyl sulfonate	Sandoz
Sandoxylate SX-424	PPG-2-isodeceth-12	Sandoz
Sandoz Amide PE	Lauramide DEA	Sandoz
Sandoz Sulfate TL	Triethanolamine lauryl sulfate	Sandoz
Sandoz Sulfate 218	Sodium myreth sulfate	Sandoz
Saponaire HS (AMI)	Saponaria extract	Tri-K
Sarkosine KF	TEA-Palm kernel sarcosinate	Hoechst
Sarkosyl NL-30		Ciba
Satol	Oleyl alcohol	Givaudan
Schercamox C-AA (30%)	Cocamidopropylamine oxide	Scher
Schercemol CO	Cetyl octanoate	Scher
Schercemol CS	Cetyl stearate	Scher
Schercemol DIA	Diisopropyl adipate	Scher
Schercemol DICA	Diisocetyl adipate	Scher
Schercemol DID	Diisopropyl dimerate	Scher
Schercemol DISD	Diisostearyl dimerate	Scher
Schercemol GMS	Glyceryl monostearate	Scher
Schercemol MEL-9	Myreth-9 laurate	Scher
Schercemol MM	Myristyl myristate	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Schercemol NGDC	Neopentyl glycol dicaprato	Scher
Schercemol PEG 400 DS	PEG 8 Distearate	Scher
Schercemol PGMS	Propylene glycol stearate	Scher
Schercemol TISC	Triisostearyl citrate	Scher
Schercemol TIST	Triissostearyl trimerate	Scher
Schercemol 318	Isopropyl isostearate	Scher
Schercomid AME-70	Acetamide MEA	Scher
Schercomid AME-100	Acetamide MEA	Scher
Schercomid SAP	Apricot kernel DAP	Scher
Schercomid SCO-EX	Cocamide DEA	Scher
Schercomid SL-ML	Lauramide DEA	Scher
Schercomid SLM-LC	Lauramide DEA	Scher
Schercomid SWG	Wheat germ diethanolamide	Scher
Schercophos NR-9	Nonoxynol-9 phosphate	Scher
Schercopol OMES-Na	Disodium oleamido PEG-2 sulfo- succinate	Scher
Schercopol OMES-Na	Disodium monooleamidoeth MEA sulfosuccinate	Scher
Schercopol OMS-Na 35%	Disodium oleamido MEA sulfo- succinate	Scher
Schercoquat ALA	Di-Lauryl acetyl diammonium chloride	Scher
Schercoquat APAS	Apricotamidopropyl/ethyl-dimon- ium ethosulfate	Scher
Schercoquat DAS	Quaternium-61	Scher
Schercoquat IAS	Isostearamidopropyl/ethyl-dimon- ium ethosulfate	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Schercoquat IEP	Quaternium 62	Scher
Schercoquat IAS-LC	Isostearamidopropyl ethyl dimonium ether sulfate	Scher
Schercoquat IIS	Isostearyl ethyl imidonium ethosulfate	Scher
Schercoquat WOAS	Wheat germ amidopropyl ethyl-dimonium ethosulfate	Scher
Schercotaine APAB	Apricotamidopropyl betaine	Scher
Schercotaine CAB-A	Cocamidopropyl dimethyl betaine ammonium salt	Scher
Schercotaine CAB-G	Cocamidopropyl betaine	Scher
Schercotaine CAB-Z	Cocamidopropyl betaine-zinc	Scher
Schercotaine CAB 45%	Cocamidopropyl betaine	Scher
Schercotaine WOAB	Wheat germ amidopropyl betaine	Scher
Schercowet DOS-85	Dioctyl sodium sulfosuccinate	Scher
SDA-40B	Specially denatured alcohol	Quantum
Seaweed HS	Algae extract	Tri-K
Sebase	Lanolin derivative	
Sebum Controlled Factor	PEG-6 Isolauryl Thioether	Cosmetochem
Sedaplant Richter	Multivitamin/herb complex	CLR/Richter
Sequex-120	Trisodium Hedita	Sequa
Setacin 103 Special	Sodium-laurylpolyglycoether-sulfosuccinate	Zschimmer
SF-1202 Silicone	Silicone	GE
Shea Butter	Shea butter	Tri-K
Sicomet Colors		BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sident 9	Synthetic silica	Degussa
Sident 12	Synthetic silica	Degussa
Sident 12/12	Synthetic silica	Degussa
Sident 15	Synthetic silica	Degussa
Sident 18	Synthetic silica	Degussa
Sident 22S	Synthetic silica	Degussa
Silhydrate C	Methylsilanol PCA	Tri-K
Silicon SF 18 (350cs)	Dimethicone	GE
Silicone 200 Fluid	Dimethicone	Dow Corning
Silicone 344 Fluid	Cyclomethicone	Dow Corning
Silicone F754	Silicone	Wacker
Silicone Fluid SF96-50	Silicone fluid	GE
Silicone L-45	Silicone	Union Carb.
Silicone Oil AK500	Dimethylpolysiloxane	Wacker
Silicone Oil AR200	Phenyl methyl polysiloxane	Wacker
Silicone Oil LO3	Copolymer of dimethylsiloxane and polyglycol	Wacker
Silicone Oil VP 1661	Copolymer of dimethylsiloxane and polyglycol	Wacker
Siliconol Bayer M500	Silicone oil, 680 cSt	Bayer
Siltech E-2145G	Amodimethicone and tallow tri- monium chloride and nonoxynol- 10	Tri-K
Siltech F-5	Dimethicone	Tri-K
Siltech F-350	Dimethicone	Tri-K
Siltech F-1000	Dimethicone	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Siltech F-10,000	Dimethicone	Tri-K
Siltech F-60,000	Dimethicone	Tri-K
Siltech FVC	Cyclomethicone	Tri-K
Siltech HGC-5000	Dimethiconol and cyclomethicone	Tri-K
Siltech MFF 5010-70	Silicone copolyol	Tri-K
Siltech PF	Phenyldimethicone	Tri-K
Simethicone-Emulsion		Union Carb.
Sipernat 22S	Spray-dried silca	Degussa
Sipon ES-2	Sodium laureth sulfate	Alcolac
Sipon ESY	Sodium laureth sulfate	Alcolac
Sipon GPA		Alcolac
Sipon LSB	Sodium lauryl sulfate	Alcolac
Siponic E-3	Ceteareth-6	Alcolac
Slimming Complex G-491	Complex chemical	Tri-K
Soapwort HS	Saponaria extract	Tri-K
S.O.D. AMI	Superoxide dismutase	Tri-K
Softigen 701	Glyceryl ricinoleate	Huls
Softigen 767	PEG-6 Caprylic/capric glycer- ides	Huls
Softisan Gel	Isostearyl diglyceryl adipate and stearalkonium hectorite and propylene carbonate	Huls
Softisan 100	Hydrogenated coco-glycerides	Huls
Softisan 378	Caprylic/capric/stearic tri- glyceride	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Softisan 601	Glyceryl cocoate and hydro- genated coconut oil and cetareth-25	Huls
Softisan 645	Adipic/isostearic triglyceride	Huls
Softisan 649	Caprylic/capric/isostearic/ adipic/triglyceride	Huls
Solar Chem O		CasChem
Solbrol M	Methylparaben	Bayer
Solbrol P	Propylparaben	Bayer
Sollagen	Soluble animal collagen	Hormel
Soltrol 100	Isododecane	Phillips
Soltrol 130	Isododecane	Phillips
Solubilisant Gamma 2420	Octoxynol 11 and polysorbate 20	Gattefosse
Solubilisant S12		Givaudan
Solulan C-24	Choleth-24 and ceteth-24	Amerchol
Solulan L-575	PEG-75 lanolin	Amerchol
Solulan PB-2	PPG-2 Lanolin alcohol ether	Amerchol
Solulan PB-5	PPG-5 Lanolin alcohol ether	Amerchol
Solulan 5	Laneth-5 and ceteth-5 and oleth-5 and steareth-5	Amerchol
Solulan 16	Laneth-16 and ceteth-16 and oleth-16 and steareth-16	Amerchol
Solulan 25	Laneth-25 and ceteth-25 and oleth-25 and steareth-25	Amerchol
Solulan 98	Laneth-10 acetate	Amerchol
Soluvit	Vitamin complex	CLR/Richter
Sorbistat-K	Potassium sorbate	Pfizer

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sorbitol	Sorbitol	Rona
Sorbitol 70% Soln.	Sorbitol	ICI
Sorbo	70% sorbitol solution	ICI
Span 20	Sorbitan laurate	ICI
Span 60	Sorbitan monostearate ester	ICI
Special Oil 619	Triisostearin	Huls
Spectrasorb UV-9	Benzophenone-3	Tri-K
Spermwax	Cetyl esters	Tri-K
Squalane	Squalane	Robeco
Squalane	Squalane	Tri-K
St. John's Wort Oil	Fatty oil extract of St. John's wort blossoms	CLR/Richter
Standamide KD	Cocamide DEA	Henkel
Standamide LDO	Lauramide DEA	Henkel
Standamide LDS	Lauramide DEA	Henkel
Standamide SD	Cocoamide DEA	Henkel
Standamide SM	Cocamide MEA	Henkel
Standamox CAW	Cocamidopropylamine oxide	Henkel
Standamox LAO-30	Lauramine oxide	Henkel
Standamul CTA	Hexyl laurate	Henkel
Standapol EA-1	Ammonium laureth sulfate	Henkel
Standapol ES-1	Sodium laureth sulfate	Henkel
Standapol ES-2	Sodium laureth sulfate	Henkel
Standapol ES-3	Sodium laureth sulfate	Henkel
Standapol ES 40 Conc.	Sodium myreth sulfate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Superpolystate	PEG-6 Stearate	Gattefosse
Super Refined Apricot Kernel Oil	Apricot kernel oil	Croda
Super Refined Babassu Oil	Babassu oil	Croda
Super Refined Sesame Oil NF	Sesame oil	Croda
Super Sat AWS-4	PEG-20 Hydrogenated lanolin	RITA
Super Sterol Ester	C10-30 Carboxylic acid sterol ester	Croda
Supraene	Squalane	Tri-K
Surfactol 365	PEG-40 Castor oil	CasChem
Sweet Almond Oil	Sweet almond oil	Tri-K
Syloid 244	Hydrated silica	Davison
Syncrowax AW1-C	C18-36 Acid	Croda
Syncrowax BB4	Synthetic beeswax	Croda
Syncrowax HGLC	C18-36 acid triglyceride	Croda
Syncrowax HRC	Glyceryl tribehenate	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tagat S	Polyoxyethylene glyceryl mono-stearate	Goldschmidt
Tagat S2	Polyoxyethylene fatty acid ester	Goldschmidt
Tagat TO	PEG-25 Glyceryl trioleate	Goldschmidt
Talc BC141	Silica/magnesium oxide	Whittaker
T Base	Mineral oil and PEG-30 lanolin and cetyl alcohol	Tri-K
Tea Tree Oil	Melaleuca alternifolia extract	Tri-K
Tefose 1500	PEG 6-32 Stearate	Gattefosse
Tefose 2000	PEG-6 Stearate and ceteth 20	Gattefosse
Tegamine 18	Stearamidopropyl dimethylamine	Goldschmidt
Tegiloxan 100	Dimethicone	Goldschmidt
Tegin	Glyceryl stearate S.E.	Goldschmidt
Tegin M	Glyceryl mondistearate	Goldschmidt
Tegin P		Goldschmidt
Tegin 515	Glyceryl stearate	Goldschmidt
Tegin 4011	Glycerine monostearate	Goldschmidt
Teginacid	Glyceryl stearate and cetareth-20	Goldschmidt
Tego-Betaine L-7	Cocamidopropyl betaine	Goldschmidt
Tego-Betaine S		Goldschmidt
Tego Care 150	Glyceryl stearate and steareth-25 and ceteth-30 and stearyl alcohol	Goldschmidt
Tegosoft 189	Isostearyl isononoate	Goldschmidt
Tensami 3/06	Milk protein and xanthan gum	Tri-K
Tensami 8/09	Egg yolk oily extract	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tergitol 15-S-12	Nonionic surfactant	Union Carb.
Texamid 578L	Sodium salt of alginic acid	Henkel
Texamid 775	Sodium alginate	Henkel
Texapon ALS	Ammonium lauryl sulfate	Henkel
Texapon ASV	Mixture of special fatty alcohol ether sulphates	Henkel
Texapon BS	Sodium lauryl ether sulphate with pearly lustre additives	Henkel
Texapon EVR	Combination of surfactants with special additives	Henkel
Texapon K14S Special	Sodium myreth sulfate	Henkel
Texapon K1296	Sodium lauryl sulfate	Henkel
Texapon L100	Sodium lauryl sulfate	Henkel
Texapon MLS	MEA lauryl sulfate	Henkel
Texapon N25	Sodium laureth sulfate	Henkel
Texapon N40	Sodium laureth sulfate	Henkel
Texapon N70	Sodium laureth sulfate	Henkel
Texapon NA	Ammonium laureth sulfate	Henkel
Texapon NSO	Sodium laureth sulfate	Henkel
Texapon SBN	Fatty alcohol ether sulfate/sulfosuccinate	Henkel
Texapon SB3	Disodium laureth sulfosuccinate	Henkel
Texapon SG	Sodium laureth sulfate and cocamide MEA and glycol distearate	Henkel
Texapon ST40	Alkyl sulfate	Henkel
Texapon TH	Triethanolamine lauryl sulfate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Texapon WW	Alkyl ether sulphate + non-ionic fatty acid	Henkel
Texapon WW99	MIPA-Laureth sulfate and cocamide DEA	Henkel
THAM	Tris (hydroxymethyl) amino-methane	Angus
Theophyllisilane	Methylsilanol carboxymethyl theophylline	Tri-K
Timiron MP-10	Pearl pigment	Rona
Timiron MP-115	Pearl lustre pigment	Rona
Timiron MP-149	Pearl pigment	Rona
Timiron MP-1001	Mica and titanium dioxide	Rona
Timiron MP-1005	Titanium dioxide, mica	Rona
Timiron Starlight Colors	Pearl pigment	Rona
Timiron Starluster MP-115	Mica and titanium dioxide	Rona
Timiron Supersilk MP1005	Mica and titanium dioxide	Rona
Timiron Super Violet	Pearl pigment	Rona
Titanium Dioxide 3328	Titanium dioxide. 0.3 microns	Whittaker
Titriplex 111	Disodium EDTA	E. Merck
Tocopherol Oil CLR	Vitamin E-enriched soya oil	CLR/Richter
Tri-Allantoin	Allantoin	Tri-K
Tri-K HKP	Hydrolyzed hair keratin	Tri-K
Tri-K HMF Complex	Chemical complex	Tri-K
Tri-K HMP	Hydrolyzed mucopolysaccharides	Tri-K
Trilane	Squalane	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tri-Lastin 10F	Hydrolyzed elastin	Tri-K
Trilon B Liquid	Tetrasodium EDTA	BASF
Trisept M	Methylparaben	Tri-K
Trisept P	Propylparaben	Tri-K
Tri-Sil FVC	Cyclomethicone	Tri-K
Tri-Sil HGC-5000	Dimethiconol and cyclomethicone	Tri-K
Tri-Sil PF	Phenyl dimethicone	Tri-K
Tristat IU	Imidazolidinyl urea	Tri-K
Tritaine PB	Cetyl betaine	Tri-K
Tritein CAA	Collagen amino acids	Tri-K
Tritein Milk Poly-peptide	Hydrolyzed casein	Tri-K
Tritein Milk PP	Hydrolyzed milk protein	Tri-K
Tritein Silk AA	Silk amino acids	Tri-K
Triton X-100	Octoxynol-9	Rohm
Trivent NP-13	Tridecyl neopentanoate	Trivent
Trivent OC-16	Cetyl octanoate	Trivent
T-Wax	Emulsifying wax NF	Tri-K
Tween 20	Polysorbate 20	ICI
Tween 60	Polysorbate 60	ICI
Tween 80	Polysorbate 80	ICI
Tween 85	Polysorbate 85	ICI
Tylose CB 200	Sodium carboxymethyl cellulose	Hoechst
Tylose CB 30 000	Sodium carboxymethyl cellulose	Hoechst
Tylose H20	Hydroxyethyl cellulose	Hoechst
Tylose H4000P	Hydroxyethyl cellulose	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ucare Polymer JR-30M	Polyquaternium-10	Amerchol
Ucare Polymer JR-125	Polyquaternium-10	Amerchol
Ucare Polymer JR-400	Polyquaternium-10	Amerchol
Ucare Polymer LR-30M	Polyquaternium-10	Amerchol
Ucare Polymer LR-400	Polyquaternium-10	Amerchol
Ucare Polymer SR-10	Polyquaternium-10	Amerchol
Ucon LB-1715	PEG-40 Butyl ether	Union Carb.
Ucon Propellant 12	Propellant	Union Carb.
Ultra Anhydrous Lanolin HP-2060	Lanolin	Henkel
Ultra Lantrol HP-2074	Lanolin oil	Henkel
Ultra White	Petrolatum	Penreco
Uvinul D50	Benzophenone-2	BASF
Uvinul M40	Benzophenone-3	BASF
Uvinul MS40	Benzophenone-4	BASF
Uvinul T150	Octyl triazone	BASF
Vanox PCX	BHT	Vanderbilt
Vanseal CS	Cocoylsarcosine and potassium cocoate	Vanderbilt
Vanseal NACS-30	Sodium cocoylsarcosinate	Vanderbilt
Vanseal NALS-30	Sodium lauroyl sarcosinate	Vanderbilt
Vaseline	Petrolatum white	Wintershall
Veegum	Magnesium aluminum silicate	Vanderbilt
Veegum F	Magnesium aluminum silicate	Vanderbilt
Veegum HV	Magnesium aluminum silicate	Vanderbilt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Veegum Pro	Magnesium aluminum silicate	Vanderbilt
Veegum R	Magnesium aluminum silicate	Vanderbilt
Veegum Ultra	Magnesium aluminum silicate	Vanderbilt
Vegetol Huileux Cal- endula WL 1072	Mineral oil and apricot kernel oil and calendula extract	Gattefosse
Vegetol Hydro Bardane MCF 77	Propylene glycol and water and burdock root extract	Gattefosse
Vegetol Hydro Matri- care MCF 793	Propylene glycol and water and matricaria extract	Gattefosse
Velsan D8P3	Isopropyl PPG-2 isodeceth-7- carboxylate	Sandoz
Velsan P8-3	Isopropyl C12-15 pareth-9 carboxylate	Sandoz
Velsan P8-16	Cetyl C12-15 pareth-9 carboxy- late	Sandoz
Velvetex AB45	Coco betaine	Henkel
Velvetex BA-35	Cocamidopropyl betaine	Henkel
Velvetex BK-35	Cocamidopropyl betaine	Henkel
Velvetex CDC	Cocoamphodiacetate	Henkel
Veragel Liquid	Aloe vera gel	Dr. Madis
Vernalane AFC		McIntyre
Vernam 35		McIntyre
Vernate OP		McIntyre
Versatyl-42	Octylacrylamide/acrylates copolymer	Nat. Starch
Versene Na2	Disodium EDTA	Dow
Vinol	Polyvinyl alcohol resin	Air Prod.
Viscontran HEC (30,000 PR)	Hydroxy ethyl cellulose	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Vitamin A Palmitate	Retinyl palmitate	Hoffman
Vitamin (A+D3) Conc.	Molecular distillate of cod-liver oil	CLR/Richter
Vitamin B Complex	Yeast extract with natural B-vitamins	CLR/Richter
Vitamin CLR Oil-Soluble	Animal skin/herb combination	CLR/Richter
Vitamin D	Ergocalciferol	Tri-K
Vitamin E	Tocopherol	Hoffman
Vitamin E Acetate	Tocopherol acetate	BASF
Vitamin E Acetate	Tocopherol acetate	Tri-K
Vitamin F Alcohol-Soluble	Complex of essential free fatty acids	CLR/Richter
Vitamin F Ethyl Ester CLR	Complex of essential esterified fatty acids	CLR/Richter
Vitamin F Forte CLR	Complex of essential free fatty acids	CLR/Richter
Vitamin F Glyceryl Ester CLR	Complex of essential esterified fatty acids	CLR/Richter
Vitamin F Water-Soluble CLR	Complex of essential free fatty acids	CLR/Richter
Vitamin H	p-aminobenzoic acid	E.Merck
Vitaplant CLR Oil-Soluble	Animal skin/herb combination	CLR/Richter
Vitaplant CLR	Herb combination	CLR/Richter
Volatile Silicone 344	Cyclomethicone	Dow Corning
Volpo S-2	Steareth-2	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Waxenol 821 S.B.	Synthetic beeswax	Wickhen
Wheat Germ Oil CLR	Fatty oil of wheat germs	CLR/Richter
White Perfecta	Petrolatum	Witco
White Protopet #1S	Petrolatum	Witco
Wickenol 171	Octyl hydroxystearate	CasChem
Witcamide 511	Oleamide DEA	Witco
Witcolate SL-1	Sodium laureth sulfate	Witco
Witconate AOS	Sodium C14-16 olefin sulfonate	Witco
Witconol SE-40	Sorbeth-40	Witco
Witconol 14	Polyglyceryl-4 oleate	Witco
Yeast Extract AMI	Yeast extract	Tri-K
Yellow Iron Oxide		Color Tech.
Zetesol SE35 Conc.	Fatty alcohol ether sulphate	Zschimmer
Zetesol NV	Sodium lauryl ether sulphate	Zschimmer
Zetesol 856T	Fatty alcohol ether sulphate	Zschimmer
Zinc Omadine	Zinc pyrithione, 48% dispersion	Olin
Zincum N29		Fabrik Mu

Section XVII

Suppliers' Addresses

Air Products and Chemicals
Box 2662
Allentown, PA 18001
(800)-345-3148

Akzo Chemicals Inc.
300 S. Riverside Plaza
Chicago, IL 60606
(312)-906-7500/(800)-828-7929

Albright & Wilson Americas
P.O. Box 26229
Richmond, VA 23260
(804)-752-6100/(800)-446-3700

Alcolac, Inc.
1099 Winterson Rd.
Linthicum, MD 21090
(301)-859-4900/(800)-252-6522

Allied-Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-455-2155/(800)-222-0094

Alpine Aromatics International
51 Ethel Rd. West
Piscataway, NJ 08854
(908)-572-5600/(800)-631-5389

Amerchol Corp.
136 Talmadge Rd.
P.O. Box 4051
Edison, NJ 08818
(201)-248-6000
(800)-FOR-ELEGANCE

Angus Chemical Co.
2211 Sanders Rd.
Northbrook, IL 60062
(708)-498-6700/(800)-323-6209

Aqualon
P.O. Box 15417
2711 Centreville Rd.
Wilmington, DE 19850
(302)-996-2000/(800)-345-8104

BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072

Bayer AG
Geschäftsbereich Organica
Vertrieb M
D-5090 Leverkusen-Bayerwerk, FRG

BK-Ladenburg Corp.
50 Spring St.
Cresskill, NJ 07626
(201)-567-9100/(800)-526-2688

H.G. & C. Blau
Glockengiesserwall 26
D-2000 Hamburg
West Germany

Brooks Industries
70 Tyler Place
South Plainfield, NJ 07080

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem Inc.
660 White Plains Rd.
Tarrytown, NY 10591
(914)-631-7007

ChemMark Development, Inc.
South Plainfield, NJ 07080

Chem-y GmbH
Postfach 1165
D-4240 Emmerich
West Germany

Ciba-Geigy Corp.
7 Skyline Drive
Hawthorne, NY 10532
(914)-347-4700/(800)-431-1900

- CLR/Chemisches Laboratorium Dr. Kurt Richter GmbH
Bennigenstrasse 25
D-1000 Berlin 41 (West)
Postfach 410480
Telefon (030) 852 7075
- Croda, Inc.
183 Madison Ave.
New York, NY 10016
(212)-683-3089
- Davison Chemical Div.
W. R. Grace & Co.
P.O. Box 2117
Baltimore, MD 21203
(301)-659-9000
- Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660
(201)-641-6100
- Dow Chemical USA
2020 Willard H. Dow Center
Midland, MI 48674
(800)-258-CHEM/(800)-232-CHEM
- Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000
- Dragoco, Inc.
Gordon Drive
P.O. Box 261
Totowa, NJ 07511
(201)-256-3850/(212)-736-7730
- DuPont Co.
1007 Market St.
Wilmington, DE 19898
(800)-441-7515
- Duveen Soap Co.
Brooklyn, NY
- Eastman Chemical Products, Inc.
P.O. Box 431
Kingsport, TN 36662
(800)-EASTMAN
- EM Industries, Inc.
5 Skyline Dr.
Hawthorne, NY 10532
(914)-592-4660
- Exxon Chemical Americas
13510 Katy Freeway
Houston, TX 77079
(713)-870-6000/(800)-231-6633
- Fabrik Grunau GmbH
Postfach 120
D-7918 Illertissen
West Germany
- Felton World Wide
599 Johnson Ave.
Brooklyn, NY 11237
- Finetex Inc.
P.O. Box 216
Elmwood Park, NJ 07407
(201)-797-4686
- Florida Food Products, Inc.
P.O. Box 1300 - W. Hwy 44
Eustis, FL 32727
(904)-357-4141/(800)-874-2331
- H.B. Fuller Co.
3530 N. Lexington Ave.
St. Paul, MN 55126
(612)-481-1588/(800)-468-6358
- GAF Chemicals Corp.
1361 Alps Rd.
Wayne, NJ 07470
(201)-628-3000
- Gattefosse s.a.
Siege social et Usine
36, chemin de Genas
B.P. 603
F 69804 Saint-Priest Cedex
France
- GE Co.
GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Givaudan Corp.
100 Delawanna Ave.
Clifton, NJ 07014
(201)-365-8000

Glyco, Inc.
Greenwich, CT 06830

Goldschmidt Chemical Corp.
P.O. Box 1299
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-446-1809

B.F. Goodrich Co.
9911 Brecksville Rd.
Brecksville, OH 44141
(216)-447-5000/(800)-331-1144

W.R. Grace & Co.-Conn.
55 Hayden Ave.
Lexington, MA 02173
(617)-861-6600

Haarman & Reimer Corp.
P.O. Box 175
70 Diamond Rd.
Springfield, NJ 07081
(201)-467-5600/(800)-422-1559

C.P. Hall Co.
4460 Hudson Drive
Stow, OH 44224
(216)-929-8311/(800)-321-8242

Howard Hall Int'l
223 E. Putnam Ave.
P.O. Box 199
Cos Cob, CT 06807
(203)-869-4504

Henkel Corp.
300 Brookside Ave.
Ambler, PA 19002
(215)-628-1476/(800)-531-0815

Henkel Corp.
Emery Group
11501 Northlake Dr.
Cincinnati, OH 45249
(513)-530-7300/(800)-543-7370

Hercules Inc.
Hercules Plaza
Wilmington, DE 19894
(800)-247-4372

Heterene Chemical Co., Inc.
295 Vreeland Ave.
P.O. Box 247
Paterson, NJ 07543

Hoechst Celanese Corp.
801 Water St.
Portsmouth, VA 23704
(804)-393-3334/(800)-367-8142

Hoffman-LaRoche Inc.
340 Kingsland St.
Nutley, NJ 07110
(201)-235-8080/(800)-526-0189

Geo. A. Hormel & Co.
P.O. Box 800
Austin, MN 55912
(507)-437-5609

Huls America Inc.
80 Centennial Ave.
P.O. Box 456
Piscataway, NJ 08855
(201)-980-6800/(800)-526-0339

Hydrolabs, Inc.
27 E. 33 St.
Paterson, NJ 07514
(201)-345-5100

ICI Americas, Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897
(302)-886-3000/(800)-634-8307

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148
(215)-271-0800/(800)-521-9891

Interchem Corp.
120 Rt. 17N
Paramus, NJ 07652
(201)-261-7333

Kalama Chemical Inc.
Bank of California Center
Suite 1110
Seattle, WA 98164
(206)-682-7890/(800)-233-7799

Kelco Division
Merck & Co., Inc.
8355 Aero Dr.
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Koster Kennen, Inc.
P.O. Box 447
90 Bourne Blvd.
Sayville, NY 11782
(516)-589-0456

Knapp Products, Inc.
Lodi, NJ 07644

V & E Kohnstamm, Inc.
Bush Terminal
3 Ave. & 33 St.
Brooklyn, NY 11232
(718)-788-6320

La Ceresine
S.A. am capital de 810000 Fr.
B.P. 72
13368 Marseille Cedex 11

Lanaetex Products, Inc.
151 Third Ave.
Elizabeth, NJ 07206
(201)-351-9700

Laurel Industries, Inc.
29525 Chagrin Blvd.
Suite 206
Cleveland, OH 44122
(216)-831-5747/(800)-221-1304

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504
(201)-345-8600

Lonza Inc.
1717 Rte 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-777-1875

Dr. Madis Labs Inc.
375 Huyler St.
South Hackensack, NJ 07606
(201)-440-5000

Malmstrom Chemical Corp.
P.O. Box 587
Linden, NJ 07036

Mazer Chemicals
3938 Porett Dr.
Gurnee, IL 60048
(312)-244-3410/(800)-323-0856

McIntyre Group Ltd.
1000 Governors Highway
University Park, IL 60466
(708)-534-6200

Mearl Chemical Corp.
224 W. Westfield Ave.
Roselle Park, NJ 07204
(201)-245-9500

Meer Corp.
9500 Railroad Ave.
North Bergen, NJ 07047
(201)-861-9500/(212)-586-0900

E. Merck
Postfach 4119
D-6100 Darmstadt
Represented in the US by:
EM Industries, Inc.
Hawthorne, NY 10532

M. Michel & Co., Inc.
90 Broad St.
New York, NY 10004
(212)-344-3878

Miranol Inc.
68 Culver Rd.
P.O. Box 436
Dayton, NJ 08810
(201)-329-3900

Mona Industries, Inc.
76 E. 24th St.
P.O. Box 425
Paterson, NJ 07544
(201)-345-8220

August Schmidt Nachfolger
Wachsblesleiche und
Wachswarenfabrik
Postfach 6
Speicherstrasse 25
3100 Celle, West Germany
Tel: 05141/6068

National Starch and Chemical
Finderne Ave.
Bridgewater, NJ 08807
(201)-685-5000/(800)-532-1115

Nipa Laboratories, Inc.
104 Hagley Bldg.
3411 Silverside Rd.
Wilmington, DE 19810
(302)-478-1522

Norda, Inc.
140 Route 10
East Hanover, NJ 07936

Olin Chemicals
120 Long Ridge Rd.
P.O. Box 1355
Stamford, CT 06904
(203)-356-3000/(800)-243-9171

Onyx Chemical Co.
14000 South Seeley Ave.
Blue Island, IL 60406

Penreco Div.
106 S. Main St.
Butler, PA 16001
(412)-283-5600/(800)-245-3952

Pfizer Inc.
Chemical Div.
235 E. 42 St.
New York, NY 10017
(212)-573-2762/(800)-231-1590

Phillips 66 Co.
344 Adams Bldg.
Bartlesville, OK 74004
(806)-274-5236/(800)-858-4327

Phoenix Research Corp.
8075 Alvarado Rd.
La Mesa, CA 92042

Polyester Corp.
P.O. Drawer 5076
Southampton, NY 11969
(516)-283-4400

Protameen Chemicals, Inc.
375 Minnisink Rd.
P.O. Box 166
Totowa, NJ 07511
(201)-256-4374

QO Chemicals
P.O. Box 2500
West Lafayette, IN 47906
(317)-497-6300/(800)-621-9521

Quest International Fragrances
400 Int'l Dr.
Mount Olive, NJ 07828
(201)-691-7100

Reheis, Inc.
235 Snyder Ave.
Berkeley Heights, NJ 07922
(201)-464-1500

Rheox, Inc.
P.O. Box 700
Hightstown, NJ 08520
(609)-443-2500

Rhone-Poulenc Inc.
One Corporate Dr.
Shelton, CT 06484
(203)-925-3300/(800)-642-4200

RITA Corp.
P.O. Box 585
Woodstock, IL 60098
(815)-337-2500/(800)-426-7759

Robeco Chemicals, Inc.
99 Park Ave.
New York, NY 10016
(212)-986-6410

Robertet, Inc.
125 Bauer Dr.
P.O. Box 660
Oakland, NJ 07436
(201)-337-7100

Rohm & Haas Co.
Independence Mall West
Philadelphia, PA 19105
(215)-592-3000

Rona
EM Pigments Division
5 Skyline Drive
Hawthorne, NY 10532
(914)-592-4660

Frank B. Ross Co., Inc.
22 Halladay St.
P.O. Box 4085
Jersey City, NJ 07304
(201)-433-4512

Sandoz Chemicals Corp.
4000 Monroe Rd.
Charlotte, NC 28205
(704)-372-0210/(800)-631-8077

Scher Chemicals, Inc.
Industrial W cor Styertowne Rd.
Clifton, NJ 07012
(201)-471-1300

Schulke & Mayr GmbH
Robert-Koch-Strasse 2
2000 Norderstedt
Telephone: (040) 52100-0

Georg Schutz GmbH
P.O. Box 630230
D-2000 Hamburg 63, FRG

Sequa Chemicals
1 Sequa Dr.
Chester, SC 29706
(803)-385-5181

Shaw Mudge & Co.
P.O. Box 1375
Stamford, CT 06904
(203)-327-3132

Sherex Chemical Co., Inc.
5777 Frantz Rd.
P.O. Box 646
Dublin, OH 43017
(614)-765-6500/(800)-366-6500

Siegle Farben
Stuttgart

Southern Clay Products
P.O. Box 44
Gonzales, TX 78629
(512)-672-2891/(800)-531-5338

Stepan Co.
22 W. Frontage Rd.
Northfield, IL 60093
(312)-446-7500

Strahl & Pitsch, Inc.
230 Great E. Neck Rd.
W. Babylon, NY 11704
(516)-587-9000

Sutton Laboratories, Inc.
116 Summit Ave.
Chatham, NJ 07928
(201)-635-1551

Tri-K Industries, Inc.
27 Bland St.
P.O. Box 312
Emerson, NJ 07630
(201)-261-2800/(800)-526-0372

Unichema Chemicals, Inc.
4650 S. Racine Ave.
Chicago, IL 60609
(312)-376-9000/(800)-833-2864

Union Carbide Corp.
39 Old Ridgebury Rd.
Danbury, CT 06817
(203)-794-5300

Universal Laboratories, Inc.
2 Terminal Rd.
New Brunswick, NJ 08901
(201)-545-3130/(800)-0101

R.T. Vanderbilt Co., Inc.
30 Winfield St.
P.O. Box 5150
Norwalk, CT 06856
(203)-853-1400

Van Dyk
Main & William Sts.
Belleville, NJ 07109
(201)-759-3225

Vista Chemical Co.
P.O. Box 19029
900 Threadneedle
Houston, TX 77224
(713)-558-3200/(800)-231-3216

Wacker Silicones Corp.
3301 Sutton Rd.
Adrian, MI 49221
(517)-264-8500/(800)-248-0063

H. Erhard Wagner
Bremen, W. Germany

Warner Jenkinson Co.
2526 Baldwin St.
St. Louis, MO 63106
(314)-658-7469/(800)-824-7022

Whittaker, Clark & Daniels, Inc.
1000 Coolidge St.
South Plainfield, NJ 07080
(201)-561-6100

Wickhen Products, Inc.
Big Pond Rd.
Huguenot, NY 12746

Williams (Hounslow) Ltd.
Hounslow Middlesex
Greville House
Hibernia Road TW3 3RX, UK

Witco Corp.
520 Madison Ave.
New York, NY 10022
(212)-605-3941/(800)-634-4010

Zschimmer & Schwarz
D-5420 Lahnstein, FRG

COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 3

by

Ernest W. Flick



NOYES PUBLICATIONS
Park Ridge, New Jersey, U.S.A.

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Library of Congress Catalog Card Number 89-39099

ISBN 0-8155-1367

Printed in the United States

Published in the United States of America by

Noyes Publications

Mill Road, Park Ridge, New Jersey 07656

Library of Congress Cataloging-in-Publication Data

(Revised for vol. 3)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55 1989 668'.55 89-39099

ISBN 0-8155-1218-X (v. 1)

ISBN 0-8155-1306-2 (v. 2)

ISBN 0-8155-1367-4 (v. 3)

COSMETIC AND TOILETRY FORMULATIONS

Second Edition — Volume 2

by

Ernest W. Flick

More than 1900 cosmetic and toiletry formulations are detailed in this volume, based on information received from numerous industrial companies and other organizations. This is Volume 2 of the Second Edition of this popular work, Volume 1 having been published in 1989. No formulations have been repeated.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances.

The 1989 market for cosmetic and toiletry raw materials was \$1.6 billion. That market is projected to increase to about \$1.8 billion by 1994, thus making the information in the book particularly interesting to anyone considering

new products or process variations.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula.

The formulations in the book are divided into fifteen categories as shown below. In addition, a valuable section on **Trade-Named Raw Materials** is included, which lists trade-names, a brief chemical description, and the supplier's name. The final section contains **Suppliers' Addresses** and will no doubt be a useful tool to the reader.

Section titles are listed below. Parenthetic numbers indicate the number of formulations per topic.

- 1. Antiperspirants and Deodorants (53)**
- 2. Baby Products (52)**
- 3. Bath and Shower Products (136)**
- 4. Beauty Aids (205)**
- 5. Creams (315)**
- 6. Fragrances and Perfumes (7)**
- 7. Hair Care Products (302)**
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- 17. Suppliers' Addresses**

COSMETIC AND TOILETRY FORMULATIONS

Second Edition — Volume 1

by

Ernest W. Flick

More than 1800 cosmetic and toiletry formulations are described in the Second Edition of this well-received and useful book. The book is based on information obtained from industrial companies and other organizations. The data represent selections from manufacturers' descriptions, in their own words, made at no cost to, nor influence from, the makers or distributors of these materials.

Only the most recent formulas have been included. It is believed that all of the trade-named raw materials listed are currently available, which will be of utmost interest to readers concerned with raw material discontinuances.

Spurred by a strong economy, cosmetic and toiletry sales, a multibillion dollar market, have been increasing at 6 to 7% annually, thus making the information in the book particularly interesting to anyone considering new products

or process variations.

Each formulation in the book is categorized by a description of its end use. The formulations include the following: a list of each suggested raw material; the percent by weight of each raw material; a recommended formulation procedure; and the formula source, which is the company or organization that supplied the formula.

The formulations in the book are divided into fourteen categories as shown below. In addition a valuable section on **Trade-Named Raw Materials** is included, which lists trade-names, a brief chemical description, and the supplier's name. The final section contains **Suppliers' Addresses** and will no doubt be a useful tool to the reader.

Section titles are listed below. Parenthetical numbers indicate the number of formulations per topic.

1. **Antiperspirants and Deodorants (44)**
2. **Baby Products (64)**
3. **Bath and Shower Products (138)**
4. **Beauty Aids (189)**
5. **Creams (230)**
6. **Fragrances and Perfumes (12)**
7. **Hair Care Products (381)**
8. **Insect Repellents (11)**
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Preface

This book contains 775 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 3 of the Second Edition of this work; Volume 1 was published in 1989. Volume 2 was published in 1992. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances.

The 1989 market for cosmetic and toiletry raw materials was \$1.6 billion. That market is projected to increase to close to \$2.0 billion by 1995, thus making the information in the book particularly interesting to anyone considering new products or process variations.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 13 sections:

- I. Antiperspirants and Deodorants
- II. Baby Products
- III. Bath and Shower Products
- IV. Beauty Aids
- V. Creams
- VI. Hair Care Products
- VII. Insect Repellents
- VIII. Lotions
- IX. Shampoos
- X. Shaving Products
- XI. Soaps and Hand Cleaners
- XII. Sun Care Products
- XIII. Miscellaneous

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

- XIV. **Traded–Named Raw Materials.** Each raw material is listed with a brief chemical description and the name of the raw material supplier.
- XV. **Suppliers' Addresses.** Addresses of suppliers of trade–named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade–Named Raw Materials section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

September 1994

Ernest W. Flick

Notice

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

Section I

Antiperspirants and Deodorants

Antiperspirant Lotion

This formulation is designed for "roll-on" containers.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+ -42.50
2. Veegum	1.25
3. Ritapro 165	7.50
4. Ritachol	2.00
5. Laneto 100	1.00
6. Propylene Glycol	3.75
7. Ritachlor (50%)	42.00
8. Fragrance	QS

Compounding Procedure:

Weigh and add item 1 into a container and begin stirring. A variable speed propeller-type stirrer is recommended. Add item 2 and stir until dispersion is complete. Weigh and add items 3, 4 and 5 into another container. Begin stirring and heating this blend to 70-73C. Heat the water-containing blend to 70-73C. When both blends are at 70-73C, add the Laneto 100-containing blend to the water blend. Continue stirring with an agitator similar to the one described above. When all the Laneto 100-containing blend has been added begin cooling the batch. Cool to 40-43C and add the remaining ingredients. Package at 25-30C.
Formulation HB-89-L-30

Roll-On Antiperspirant

<u>Ingredients:</u>	<u>% W/W</u>
1. Hydroxypropyl Methylcellulose	0.65
2. SD Alcohol 40	20.00
3. Laneto 50	4.00
4. Pationic ISL	2.00
5. Distilled Water	+ -53.35
6. Ritachlor	20.00
7. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse item 1 into 2; add item 4. Combine items 3 and 5. Add the alcohol solution to the water solution slowly with gentle stirring. Add remaining ingredients slowly with gentle stirring.

Formulation HB-89-L-31

SOURCE; R.I.T.A. Corp.; Suggested Formulations

Antiperspirant Stick

<u>Ingredient:</u>		<u>Wt. %</u>
Methyl Stearoxy Dimethicone	Masilwax 135	3.0
Cyclomethicone	Masil SF-V	45.5
POE 6000 Distearate	Mapeg 6000DS	3.0
PEG-32	Macol E1450	2.0
Stearyl Alcohol	CO-1895	24.0
Talc	Supra	2.0
Al Zr Tetrachlorhydrex Gly	Rezal 36GP	20.0
Fragrance		0.5

Appearance: White, uniform stick. Excellent application properties.

Melt Point: 52C

Observation: Significantly less syneresis vs. similar sticks without Masilwax.

Procedure:

Heat Masilwax, Masil SF-V, Macol E1450 and Mapeg 6000DS to 65C (150F). Keep batch covered to avoid Silicone loss. Add Stearyl Alcohol. When uniform, add talc and Rezal 36GP. Mix with good shear until the solids are uniformly dispersed. Cool to 55C (130F), add fragrance, and fill. Chill sticks at 5C (40-45F) to speed solidification.

SOURCE: PPG Industries, Inc.: Formulation Q-101

Antiperspirant Gel

This product in gel form will serve as a moisturizer for the skin with effective antiperspirant action. It will help to ensure that the active ingredient stays in uniform suspension during processing and cooling.

	<u>% (w/w)</u>
Lexquat AMG-0	35.00
Lipocol O-20	35.00
AZG-368 Solution	30.00

Procedure:

Charge batch vessel with Lexquat AMG-0. Begin mixing and heating to 65C. Slowly add the AZG-368 with slow mixing. When completely mixed, add the Lipocol O-20 (previously melted). Mix until uniform. Cool to 40C. Pour into container and cool to 25C.

SOURCE: Inolex Chemical Co.: Formulation AD-100

Clear Roll-On Antiperspirant

This aqueous system contains sufficient ethanol to dry quickly on the skin; once dry, it is non-tacky. The use of Laneto 100 reduces the usual tackiness of the aluminum antiperspirant active ingredients.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Cellosize QP 4400	0.20
2. Distilled Water	29.70
Part B:	
3. Benzethonium chloride	0.10
4. Distilled Water	8.00
5. Alcohol SD 40	20.00
6. Laneto 50	7.00
Part C:	
7. Ritachlor 50%	35.00

Compounding Procedures:

Prepare Part A in advance, to allow the gum to hydrate fully before incorporation into the product. Slowly add Part B to Part A at room temperature with high speed propeller agitation. Finally, slowly add Phase C with high speed stirring. Perfume, if any, is added to Part B.

Formulation 101-132/HB-89-1-19

Antiperspirant Lotion

The lotion antiperspirant has been an attractive formula over the years, due to its versatility and various applications.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritapro 200	4.60
2. Laneto 50	8.80
3. Mineral Oil (65/75 Viscosity)	9.00
4. Ritachlor 50%	40.00
5. Distilled Water	37.60

Compounding Procedures:

Melt Ritapro 200 and mineral oil at 75C. Add preheated water and Laneto 50 and mix to form emulsion. When cool, add Ritachlor 50% slowly. Continue mixing until complete.

Formulation 101-131/HB-89-L-20

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Deodorant Cologne

<u>Ingredients:</u>	<u>% W/W</u>
1. SD Alcohol 40	60.00
2. Propylene Glycol	3.00
3. Laneto 50	2.00
4. Grillocin HY-77	3.00
5. Methylparaben	0.15
6. Perfume	QS
7. Distilled Water	31.85

Compounding Procedure:

Weigh and add the Alcohol into a container and begin stirring and warming. Warm the Alcohol to 50-55C and add all of the ingredients WITH THE EXCEPTION OF THE PERFUME. Stir until a homogeneous blend results. Begin cooling the blend, while stirring continuously. Cool to 40-43C and add the remaining ingredients. Cool to 25-30C while stirring continuously. Package fill into suitable containers.

NOTE: Explosion proof mixing and handling equipment should be used.

Formulation H-89-G-4

Deodorant Spray (Pump Dispensing)

This formulation combines deodorant, anti-microbial effects and a pleasant fragrance. Grillocin HY-77 has good deodorant properties that eliminate the presence and perception of unpleasant odor. This product is designed for packaging into a container fitted with a pump.

<u>Ingredients:</u>	<u>% W/W</u>
1. SD Alcohol 40	92.90
2. Grillocin HY-77	5.00
3. Laneto 50	2.00
4. Triclosan	0.10
5. Fragrance	QS
6. Color	QS

Compounding Procedure:

Weigh and add all ingredients into a suitable container. All mixing equipment should be equipped so that it is "explosion proof". Stir until a uniform dispersion results. Package fill into suitable containers.

Formulation H-89-G-5

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Deodorant Stick Without Alcohol

A stick formula which combats odor and inhibits odor development.

<u>Ingredients:</u>	<u>% W/W</u>
1. Disorbene	2.50
2. Dehydrol LS 3	4.00
3. PEG 200	20.00
4. Dipropyleneglycol	50.00
5. 1,2 Propyleneglycol	10.00
6. Grillocin CW 90	1.50
7. FD&C Blue #1 (1% in H ₂ O)	0.05
8. Perfume	QS
9. Distilled Water	11.95

Compounding Procedures:

Dissolve Disorbene in PEG 200, Dipropyleneglycol and Propyleneglycol by heating and mixing (about 85C). Add Grillocin CW 90 and Dehydrol LS 3. Stop heating. Add water and cool to about 70C. Add perfume and coloring agent. Pour in final packaging and cool down until room temperature.

SOURCE: R.I.T.A. Corp.: Formulation 111-185

Antiperspirant Cream

Mineral oil)	10.0%
Ionol C.P. antioxidant) Part A	0.1%
Monamid 150-IS)	2.0%
Chlorhydrol 50%)	40.0%
Monawet SNO-35) Part B	1.4%
Water, deionized)	46.5%

Mix Part A and Part B separately, in the order listed, then add Part B to Part A with rapid mechanical stirring. This cream is a heavy, water-in-oil emulsion which has excellent stability.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Antiperspirant Gel

This product in gel form will serve as a moisturizer for the skin with effective antiperspirant action. It will help to ensure that the active ingredient stays in uniform suspension during processing and cooling.

	<u>% (w/w)</u>
Lexquat AMG-0	35.0
Lipocol O-20	35.0
AZG-368 Solution	30.0

Procedure:

Charge batch vessel with Lexquat AMG-0. Begin mixing and heating to 65C. Slowly add the AZG-368 with slow mixing. When completely mixed, add the Lipocol O-20 (previously melted). Mix until uniform. Cool to 40C. Pour into container and cool to 25C.

SOURCE: Inolex Chemical Co.: Formulation AD-100

Deodorant Stick

The deodorant stick is designed to be dispensed by pushing up a movable bottom plate or by rotating a screw-like mechanism. The formulation which can be pleasantly scented, creates a cooling sensation due to the evaporation of volatile solvent.

<u>Ingredients:</u>	<u>% W/W</u>
1. SD Alcohol 40	62.25
2. Propylene Glycol	15.00
3. Grillocin HY-77	3.00
4. Pationic ISL	1.75
5. Sodium Stearate C-7	8.00
6. Distilled Water	10.00
7. Color, Fragrance	QS

Compounding Procedure:

Combine ingredients 1,2,4 and 5; then heat to 70C. Add ingredients 6 and 3. Mix until uniform. Cool to 60C. Add remaining ingredients. Fill at 55C.

Formulation H-89-G-8

Deodorant Cream

Grillocin PY-88 has good deodorant properties that eliminate the presence and perception of unpleasant odors.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Rita GMS	4.00
2. Isopropyl Myristate	4.00
3. Rita CA	2.70
4. Ritacet-20	2.00
5. Grillocin PY 88 Pellets	2.00
6. Beeswax	1.00
Part B:	
7. Distilled Water (90C)	83.75
Part C:	
8. Patlac LA	0.20
9. Perfume	0.20
10. Euxyl K 400	0.15

Compounding Procedures:

Heat Part A up to 80C. Stir hot water into Part A. Add the other ingredients at 35C.

Formulation 111-162

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Deodorant Stick

This product is a solid stick deodorant for use in a cylindrical dispensing container. It applies easily and smoothly, dries quickly and offers excellent deodorant characteristics. Grillocin HY-77 has been included because of its unique odor-removing ability.

<u>Ingredients:</u>	<u>% W/W</u>
1. SD Alcohol 40	70.90
2. PEG-8	10.00
3. Triclosan	0.10
4. Grillocin HY-77	3.50
5. Sodium Stearate C-7	7.50
6. Distilled Water	8.00
7. Color	QS
8. Fragrance	QS

Compounding Procedure:

Weigh and add ingredient 1 into a container and begin stirring and heating. All heating and stirring equipment should be equipped so that it is "explosion proof." A variable speed agitator equipped with a propeller-type stirrer is recommended. Weigh and add ingredient 5 (Sodium Stearate C-7), stirring continuously while continuing to heat. Weigh and add ingredients 2, 3, 4 and 6 and continue stirring and heating. Heat to approximately 55-60C until all the Sodium Stearate C-7 is melted. After the Stearate is melted and the product is uniform, begin cooling the batch. Cool to about 55-60C. Package into suitable containers. The containers will have to be placed in molds to accommodate sufficient stick mass to allow for shrinkage.

Formulation H-89-G-6

Glycerin-Based Deodorant Gel

<u>Ingredients:</u>	<u>% W/W</u>
1. Pationic SSL	10.00
2. Glycerin	73.10
3. Grillocin HY-77	0.80
4. Stearic Acid	+8.40
5. Sodium Hydroxide (18% Solution)	+ -1.20
6. Distilled Water	6.50
7. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Combine ingredients 1 and 2 and heat with mixing to 65C; add ingredient 3. Heat to 65C. Add ingredient 4. Maintain 65C. Combine both phases with mixing. Cool with stirring to 50C and add remaining ingredients. Fill into proper containers. Mix while filling.

Formulation H-89-G-7

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Liquid Antiperspirant Emulsion

Liquid antiperspirants have been attractive formulas over the years, due to their versatility and various applications.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritapro 165	13.00
Part B:	
2. Laneto 50	4.00
3. Ritachlor 50%	40.00
4. Distilled Water	43.00
Part C:	
5. Perfume	QS

Compounding Procedures:

Heat Part A to 70C. Heat Part B to 72C. With mixing, slowly add water phase to oil phase. Cool to 45C. Add perfume.

Formulation 101-133

Stick Deodorant

A sodium stearate stick which combats odor and inhibits odor development with propylene glycol, Grillocin and perfume.

<u>Ingredients:</u>	<u>% W/W</u>
1. Stearic Acid XXX	7.00
2. SD Alcohol 40	41.00
3. Sodium Hydroxide USP (20% solution in distilled water)	15.00
4. Propylene Glycol	35.00
5. Grillocin HY-77	2.00
6. Perfume	QS

Compounding Procedure:

Weigh and add ingredients 1-2 into a container and begin stirring and heating. Heat to 75-78C. Weigh and add ingredients 4 and 5 into another container and begin stirring and heating. Heat the blend of ingredients 4 and 5 to 75-78C. When the 1-2 ingredient blend and the 4 and 5 ingredient blend are both at 75-78C, add the 4 and 5 ingredient blend to the 1-2 ingredient blend. Add ingredient 3. Mix until uniform. Begin cooling while stirring continuously. At 60C, add ingredient 6. Package at approximately 55C.

Note: Explosive proof mixing and handling equipment should be used.

Formulation H-89-G-3

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Dry Roll-On Antiperspirant-A

<u>Ingredients:</u>	<u>% W/W</u>
Phase A:	
Cetyl Dimethicone (Abil Wax 9801)	0.50
Isopropyl Myristate (Tegosoft M)	5.00
Cyclomethicone (Abil B 8839/DC 344)	40.00
Quaternium 18 Hectorite (Bentone 38 Powder)	2.00
Ethanol - 200 proof or Ethanol - 190 proof	2.00
Phase B:	
Isopropyl Myristate (Tegosoft M)	5.00
Cyclomethicone (Abil B 8839/DC 344)	20.50
Phase C:	
Aluminum Chlorohydrate	25.00
Phase D:	
Perfume	QS

Dry Roll-On Antiperspirant-B

<u>Ingredients:</u>	<u>% W/W</u>
Phase A:	
Cetyl Dimethicone (Abil Wax 9801)	0.50
Isopropyl Myristate (Tegosoft M)	5.00
Cyclomethicone (Abil B 8839/DC 344)	40.00
Quaternium 18 Hectorite (Bentone 38 powder)	2.00
Ethanol - 200 proof or Ethanol - 190 proof	2.00
Phase B:	
Hexyl Laurate (Henkel - Standamul CTA or Cetrol A)	3.00
Cyclomethicone (Abil B 8839/DC 344)	22.50
Phase C:	
Aluminum Chlorohydrate	25.00
Phase D:	
Perfume	Q.S.

Procedure:

- Blend Abil Wax 9801, Abil B 8839 and Isopropyl Myristate. Sprinkle in Bentone 38 powder, avoiding lumps, while using a high speed mixer.
- Add Ethanol. 190 proof is preferred. Mix. Process through homogenizer with shear until a clear soft gel or clear medium viscosity liquid is formed.
- Mix Phase B. Add Aluminum Chlorohydrate. Mix until uniform. Add to Phase A gel. Mix/homogenize until well dispersed.
- Add perfume. Mix.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Nonwhitening Antiperspirant Solid

A cyclomethicone/stearyl alcohol suspensoid solid with nonoily application and nonwhitening properties provided by Masil 756.

<u>Part:</u>	<u>Ingredients:</u>		<u>Wt. %</u>
A	Stearyl Alcohol	CO-1895	22.0
	Hydrogenated Castor Oil	Castorwax	1.0
	Glyceryl Stearate (and)		
	PEG-100 Stearate	Mazol 165C	1.0
	Tetrabutoxypropyl Methicone	Masil 756	5.0
B	Al Zr Tetrachlorhydrax Gly	Rezal 36GP	20.0
	Talc	Olympic Talc	2.0
C	Cyclomethicone	Masil SF-V	49.0
	Fragrance		Q.S.

Procedure:

Blend and heat the part A ingredients to 65C. When molten and uniform, add the part B ingredients with good agitation to disperse. Add the cyclomethicone, maintaining the temperature at 60-65C. When uniform, cool to 55C and add fragrance if desired, and fill. Chill the sticks at approximately 5C to speed solidification.

Formulation Q-102

Nonwhitening Antiperspirant Solid

A firm, uniform suspensoid solid with smooth application, nongreasy afterfeel, and less white residue.

<u>Part:</u>	<u>Ingredient:</u>		<u>Wt.</u>
A	Cyclomethicone	Masil SF-V	43.0
	PPG-10 Butanediol	Macol 57	12.0
	Benzyl Laurate	Mazon EE-1	3.0
B	Stearyl Alcohol	CO-1895	20.0
	Hydrogenated Castor Oil	Castorwax	2.0
C	Al Zr Tetrachlorhydrax GLY	Rezal 36GP	20.0
	Fragrance		QS

Procedure:

Blend and heat the part A ingredients to 65C. When molten and uniform, add the part B ingredients, maintaining the temperature and mixing until dissolved. Add the antiperspirant salt with good mixing to wet out and suspend the powder. Cool to 55C, add fragrance if desired, and fill. Chill the sticks at 5C to speed solidification.

Formulation Q-103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Nonwhitening Antiperspirant Solid

A firm, uniform suspensoid solid with smooth application, nongreasy afterfeel, and less white residue.

<u>Part:</u>	<u>Ingredient:</u>		<u>Wt.%</u>
A	Cyclomethicone	Masil SF-V	43.0
	PPG-10 Butanediol	Macol 57	12.0
	Benzyl Laurate	Mazon EE-1	3.0
B	Stearyl Alcohol	CO-1895	20.0
	Hydrogenated Castor Oil	Castorwax	2.0
C	Al Zr Tetrachlorohydrax GLY	Rezal 36GP	20.0
	Fragrance		QS

Procedure:

Blend and heat the part A ingredients to 65C. When molten and uniform, add the part B ingredients, maintaining the temperature and mixing until dissolved. Add the antiperspirant salt with good mixing to wet out and suspend the powder. Cool to 55C, add fragrance if desired, and fill. Chill the sticks at 5C to speed solidification.

SOURCE: PPG Industries, Inc.: Formulation Q-103

Antiperspirant Solid

<u>Materials:</u>	<u>Part/Wt(%)</u>
SF-1202	45.0
SF-96-100	5.0
Stearyl Alcohol	19.0
Castor Wax 70	3.0
Talc	4.0
Arlacel 165	2.0
Aluminum Zirconium Tetrachlorohydrax-Gly (ZAG)	22.0

Procedure:

- 1) Mix SF1202 and stearyl alcohol.
- 2) Add ZAG, talc and Arlacel 165.
- 3) Heat to 75C and stir with moderate agitation until all wax is melted.
- 4) Pre-melt caster wax and add to mixture as a liquid and stir for 15 minutes.
- 5) Cool mixture to 55C with continued mixing and pour into container. Cool (avoid air entrapment due to excessive mixing speeds).

SOURCE: GE Silicones: Formulation AP100A

"Roll-On" Deodorant Antiperspirant

A roll-on formula which does not dry tacky and does not contain gums.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol 1000	5.00
2. Isopropyl Myristate	5.00
3. Grillocin HY-77	1.00
4. Ritachlor (Aluminum Chlorohydrate 50%)	50.00
5. Sorbitol	5.00
6. Distilled Water	34.00
7. Perfume	QS

Compounding Procedure:

Weigh and add ingredients 1-3 into a container. Begin stirring and heating the blend. Heat to 70-73C. Weigh and add ingredients 4-6 into another container and begin stirring and heating. Heat the 4-6 ingredient blend to 70-73C. Add the 4-6 ingredient blend to the 1-3 ingredient blend while continuously stirring to ensure good emulsification. Cool to 30-35C and add ingredient 7. Package at 25-28C.

Formulation H-89-G-1

Deodorant Antiperspirant Stick

A tri-function product which utilizes sodium stearate made in situ. Prevents perspiration, delivers fragrance, controls objectionable odor.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grillocin HY-77	2.00
2. Ritachlor (Aluminum Chlorohydrate 50%)	50.00
3. Stearic Acid XXX	7.00
4. Propylene Glycol	24.00
5. Distilled Water	5.00
6. Sodium Hydroxide USP (15% solution in distilled water)	12.00
7. Perfume	QS

Compounding Procedure:

Weigh and add ingredients 4, 5 and 6 into a container. Commence stirring and heating this blend. Heat the blend to 70-73C and maintain this temperature. Combine 1-3, mix thoroughly and add this to the batch. Continue stirring and maintaining the temperature at 70-73C. Cool to 55-60C. Add perfume and package.

Formulation H-89-G2

SOURCE R.I.T.A. Corp.: Suggested Formulations

Solid Stick Antiperspirant-A

<u>Ingredients:</u>	<u>% w/w</u>
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone (Abil B 8839)	51.50
Cetyl Dimethicone (Abil Wax 9801)	0.50
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

Solid Stick Antiperspirant-B

<u>Ingredients:</u>	<u>% w/w</u>
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone (Abil B 8839)	51.50
Stearoxy Dimethicone (Abil Wax 2434)	0.50
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

Solid Stick Antiperspirant-C

<u>Ingredient:</u>	<u>% w/w</u>
Lanette 18 DEO	15.00
Castorwax MP-80	4.00
Fluid AP	1.50
Cyclomethicone (Abil B 8839)	51.50
Cetyl Dimethicone (Abil B 9801)	0.25
Stearoxy Dimethicone (Abil Wax 2434)	0.25
Talc	5.00
Aluminum Zirconium Tetrachlorohydrate-Gly	22.00
Fragrance	0.50

Procedure:

1. Add the Cyclomethicone to a covered mixing tank equipped with a turbine propeller. Begin heating.
2. Add the Fluid AP, Lanette, Castorwax and Abil waxes. Bring temperature to 85-87C. Hold 30 minutes at temperature while mixing.
3. Add the Talc. Do not allow the temperature to drop below 75C during addition. Maintain temperature at 80-85C while mixing for 10-15 minutes.
4. Add the Aluminum-Zirconium Complex. Do not allow the temperature to drop below 70C during addition. Mix for 15-20 minutes at 175-180C.
5. Cool while mixing to 60-62C. Add fragrance.
6. Dispense to containers at 58-61C.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Section II

Baby Products

Baby Bath

<u>Part:</u>	<u>Ingredient:</u>		<u>Wt. %</u>
A	Deionized Water		50.0
	Lauramine Oxide	Mazox LDA	1.5
	Na4EDTA		0.2
	Methyl Paraben		0.2
	Sodium Cocoyl Isethionate	Jordapon CI Dispersion	11.0
B	Cocamidopropyl Hydroxysultaine	Mafo CSB-50	12.0
	Cocamidopropyl Betaine	Mafo CAB	5.7
	Deionized Water		19.3
	Fragrance		0.1
	Citric Acid		Q.S.

pH: 6.0-6.5

Viscosity: 9,800 cps

Appearance: Clear, straw-colored liquid

Procedure:

Mix Part A ingredients together and heat to 45C (110F). When uniform, add the Part B ingredients in the given order, cooling the batch. Adjust the pH.

Formulation F-102

Baby Bath

A clear, mild, quick-foaming system

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		63.63
Ammonium Lauryl Sulfate	Sipon L-22	16.50
Sodium C12-15 Pareth-15 Sulfonate	Avanel S-150	8.00
Sodium Cocoyl Isethionate	Jordapon CI Prill	2.40
PEG 150 Distearate	Mapeg 6000DS	1.00
Cocamidopropyl Hydroxysultaine	Mafo CSB-50	6.00
Cocamide DEA	Mazamide JT-128	2.00
Fragrance, Preservative		0.40
Citric Acid		0.07

pH: 6.0-6.5

Viscosity: 4600 cps

Appearance: Clear, very light straw-colored liquid

Procedure:

Blend the first five ingredients, heating to 65C (150F). When uniform, add the Mafo CSB and Mazamide JT-128, cooling to 45C (110F). Add the fragrance, preservative, and citric acid.

Formulation F-103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Baby Lotion

The lotion is a smooth, creamy textured oil/water emulsion with a somewhat acidic pH.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol 1000	3.30
2. Ritalan C	1.00
3. Propylparaben	0.10
4. BHA	0.10
5. Mineral Oil (65/75 saybolt)	4.00
6. Ritachol	2.00
7. Sorbic Acid	0.10
8. Distilled Water	84.00
9. Acritamer 941	0.10
10. Triethanolamine (50%)	0.20
11. Propylene Glycol	5.00
12. Methylparaben	0.10
13. Color, Fragrance	QS

Weigh and add items 1 through 7 ("oil" phase) into a container and begin heating and stirring. Heat while stirring continuously, to 78-80C. Weigh and add item 8 into another container with stirring. Use a variable speed agitator equipped with a stirrer capable of imparting relatively high shearing stress (propeller type). Slowly sprinkle in item 9 and stir until the Acritamer 941 is completely dispersed and no lumps can be seen or felt. Add items 10, 11 and 12 and begin heating. Continue stirring and heat the water containing blend to 78-80C. When the "oil" phase and the water containing blend are both at 78-80C, add the water containing blend to the "oil" phase. Begin cooling, after completing the addition; cool to 40-43C and add the remaining ingredients. Cool to 25-30C and package fill into suitable containers.

Baby Lotion

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Distilled Water	30.00
2. Pationic CSL	7.00
3. Patlac IL	1.00
4. Ritahydrox	0.50
5. Propylparaben	0.05
6. Ritalan	1.00
<u>Part B:</u>	
7. Distilled Water	53.60
8. Pationic 122A	2.50
9. Propylene Glycol	3.00
10. Patlac NAL	1.00
11. Methylparaben	0.10
12. Patlac LA (44% Solution)	0.25

Heat Part A and Part B to 165F. Add Part A to Part B with agitation. Maintain heat 10 minutes. Cool to room temperature. Adjust pH to 5.5-6.5 with Patlac LA (44% solution).

Note: It is recommended that the required amount of Patlac LA solution be determined in advance and incorporated into the batch as part of Phase B.

SOURCE: R.I.T.A. Corp.: Formulations H-89-A-2 & 103-122

Baby Lotion Mousse with Panthenol, Vitamin E and Sunscreens

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	63.40
Glycerin, USP	5.00
Sequestrene Na2	0.20
Methyl Parasept	0.20
Part II:	
Ceraphyl 140-A	5.00
Cerasynt D	2.00
Parsol 1789	1.50
Parsol MCX	1.00
Emulsynt 1055	0.50
Stearic Acid	5.00
Mineral Oil	3.00
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Part III:	
Triethanolamine, 98%	1.50
Part IV:	
Aloe Vera Liquid 1:1	10.00
Part V:	
di-Panthenol, Cosmetic Grade (Code 63920)	1.00
Part IV:	
Perfume Oil	0.20

Procedure:

Heat Part I and Part II to 75C with mixing. Add Part I to Part II and mix thoroughly. Follow with addition of Part III and mix. Cool to 50C. Add Part IV and mix. Cool to room temperature until a smooth cream is obtained. Add Part V and mix. Add Part VI and mix. Fill and pressurize.

Aerosol Fill:	% by Wt.
Concentrate	93.00
Propellant A-46	7.00

Components:

Container: 2 oz. boxal, organosol lined
 Valve: Precision
 Stem: .018"
 Body: .018" x .080"
 Actuator: Foam Spout

**SOURCE: Roche Chemical Division: Vitamins for Cosmetics:
 Formula MU 502**

Baby Products**Baby Skin Lotion(514116)**

Part A:	
Drakeol 7, Light Mineral Oil USP	35.00wt%
Penreco Snow, White Petrolatum USP	4.20
Sucrose stearate (and) sucrose distearate	3.00
Lanolin alcohol	1.25
Cetyl alcohol	0.25
Stearyl alcohol	0.25
Part B:	
Deionized water	54.80
Glycerin	1.00
Methylparaben	0.15
Propylparaben	0.15

In separate containers, heat Parts A and B to 75C. Add Part B to Part A slowly with stirring. Stir the mixture until it has cooled to room temperature. If desired, fragrance should be added at 45C.

Baby Cream(514125)

Part A:	
Penreco Mineral Jelly No. 15	25.00wt%
Drakeol 21, Mineral Oil USP	15.00
Glyceryl Stearate	10.00
Lanolin	5.00
White Beeswax	5.00
Preservatives	0.15
Part B:	
Deionized water	39.70
Preservatives	0.15

In separate containers, heat each part to 70C. Add Part B to Part A with stirring. With constant stirring, cool blend to room temperature. Fragrance may be added at 40C.

SOURCE: Penreco: Penreco Cosmetic Formulary

Baby Oil

Ritalan C and Patlac IL add lubricity and emollience to baby products. This baby oil formulation makes use of Ritalan C's inherent attributes to provide an oil gentle to the skin with excellent cleansing and lubricating properties. Patlac IL improves the emollience and makes the product less oily.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	96.90
2. Ritalan C	1.00
3. Patlac IL	2.00
4. Fragrance	QS
5. Propylparaben	0.10

Compounding Procedure:

Weigh and add item 1 into a container and begin stirring. Add remaining ingredients and mix until a homogeneous dispersion occurs. Filter, if necessary, and package fill into suitable containers.

Formulation HB-89-L-4

Baby Oil

This preparation provides excellent emollience for the infant's tender skin, leaving the skin soft and smooth. Ritalan imparts lubricity, and Ritacetyl provides conditioning and moisturizing benefits.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil (65/75) saybolt	92.40
2. Ritalan	5.00
3. Ritacetyl	2.50
4. Propylparaben	0.10
5. Fragrance	QS

Compounding Procedure:

Weigh and add ingredients 1-4 into a container and begin stirring while warming, until all ingredients are liquid (approximately 55C). Stir until completely homogeneous and begin cooling. Stir continuously. At 43C add perfume. Continue stirring and cooling. Cool to 25C and allow to remain undisturbed for 24 hours. Filter.

Formulation HB-89-L-5

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Baby Shampoo

	<u>%(w/w)</u>
Deionized Water	65.80
Sodium Laureth Sulfate (30%)	25.00
Lexaine CSB-50	6.00
PEG-150 Distearate	2.00
Polysorbate 20	1.00
Lexgard M	0.15
Lexgard P	0.05
Boric Acid (to desired pH)	q.s.

Procedure:

Blend ingredients together at 70C. Cool and fill.

Observations:

pH (direct): 7.0

viscosity: 725 cps

Formulation SP-87

Protein Baby Shampoo

	<u>%(w/w)</u>
Deionized Water	49.50
Sodium Laureth Sulfate (30%)	24.00
Maypon 4C	20.00
Lexaine CSB-50	5.80
PEG-150 Distearate (or q.s. to desired viscosity)	0.50
Lexgard M	0.15
Lexgard P	0.05
Citric Acid (to desired pH)	q.s.

Procedure:

Heat water to 70C. Add ingredients and blend until clear.
Adjust final pH and fill.

Observations:

pH (direct): 6.5

viscosity: 30 cps

Formulation SP-93

SOURCE: Inolex Chemical Co.: Suggested Formulations

Baby Shampoo-Regular

<u>Ingredients:</u>	<u>% w/w</u>
Water	53.2
Tetrasodium EDTA	0.1
Ammonium Laureth Sulfate (1M. E.O.) or Sodium Trideceth Sulfate	35.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.5
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Dimethicone Copolyol (Abil B 88183)	0.2
Citric Acid	to pH 6.5
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Ammonium Chloride or Sodium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with salt as needed.

Baby Shampoo-Soft Conditioning

<u>Ingredients:</u>	<u>% w/w</u>
Water	52.1
Tetrasodium EDTA	0.1
Ammonium Laureth Sulfate (1M. E.O.) or Sodium Trideceth Sulfate	35.0
Cocamidopropyl Betaine (Tego Betaine L-7)	8.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Dimethicone Propyl PG-Betaine (Abil B 9950)	0.5
Citric Acid	to pH 6.5
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Ammonium Chloride or Sodium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with salt as needed.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Baby Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Water	60.9
Tetrasodium EDTA	0.1
Sodium Laureth Sulfate (2M. E.O.)	20.0
Cocamidopropyl Betaine (Tego Betaine L-7)	15.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Citric Acid	to pH 6.5
Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Sodium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with salt as needed.

Diaper Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	4.5
Dimethicone (Abil 500)	3.0
Cetyl Dimethicone (Abil Wax 9801)	1.5
Octyl Stearate (Tegosoft OS)	5.0
Mineral Oil	4.0
Polyglyceryl-4 Isostearate (Isolan GI-34)	0.5
Hydrogenated Castor Oil	0.8
Synthetic Wax	1.2
Phase B:	
Water	76.9
Sodium Chloride	0.6
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Baby Skin Treatment Ointment

This preparation for infants has good water resistance, excellent moisturizing and lubricating attributes. It applies smoothly and does not aggravate existing skin irritation. Ritaderm is included to impart lipids, as well as natural moisturizing factor properties that aid in protecting and moisturizing the baby's tender skin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritaderm	10.00
2. Imidazolidinyl Urea	0.10
3. Distilled Water	2.50
4. Petrolatum	72.15
5. Ozokerite	15.00
6. Allantoin	0.25

Compounding Procedure:

Weigh and add the distilled water into an auxiliary tank and begin heating and stirring. Heat to 70-73C and add the Allantoin and Imidazolidinyl Urea. Stir until these materials have completely dispersed. In a mixing tank weigh and add the remaining ingredients and begin heating and stirring. Heat to 78-80C while stirring continuously. When the blend containing the Ritaderm is at 78-80C, and the water-containing blend is at 70-73C, add the water-containing blend to the Ritaderm-containing blend. When all the water-containing blend has been added, begin cooling the batch. Cool to 45-50C, and package fill into suitable containers.

Formulation HB-89-L-6

Pearlized Baby Wash Emulsion

A gentle, viscous lotion cleanser with reduced defatting.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 65K Soft	5.00
2. Distilled Water	50.80
3. Ritasynt IP	2.00
4. Sodium Laureth Sulfate	20.00
5. Sodium Laureth Sulfate (and) Disodium Laureth Sulfosuccinate	20.00
6. PEG 55 Propylene Glycol Oleate	1.00
7. Disodium EDTA	0.20
8. Sodium Chloride (25% solution)	1.00
9. Preservative, Perfume	QS

Compounding Procedures:

Combine ingredients 1, 2, 4, and 5 in a main mixing tank. Begin heating to 170F with agitation. At 170F, add Ritasynt IP. Mix until Ritasynt IP is melted and the batch is uniform. Add PEG 55 Propylene Glycol Oleate and EDTA. Maintain temperature. Mix until uniform. Begin cooling. Cool to 120F. Add perfume and preservative. Cool to 95F with mixing. Adjust viscosity with sodium chloride solution. Fill.

Formulation 110-130

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Mild Baby Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepan-Mild SL3	19.0
Steol CS-330	17.5
Amphosol CG	16.5
Kessco PEG 6000 Distearate	2.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add the first three components to D.I. water with mixing and heat to 50-60C. Add PEG-6000 Distearate and mix until all solids have melted. Cool to 35C and adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear, yellow liquid
 Passed freeze/thaw and elevated heat study
 pH (as is): 6.0-7.0
 Viscosity Profile:
 0% sodium chloride: 55 cps
 0.5% sodium chloride: 198 cps
 1.0% sodium chloride: 1664 cps
 2.0% sodium chloride: 16,600 cps

SOURCE: Stepan Co.: Formulation No. 145

Low Cost Baby Shampoo

<u>Ingredients:</u>	<u>% W/W</u>
Water	61.7
Tetrasodium EDTA	0.1
Sodium Laureth Sulfate (2M. E.O.)	25.0
Cocamidopropyl Betaine (Tego Betaine L-7)	12.0
Dimethicone Copolyol (Abil B 88183)	0.2
Color	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.5
Fragrance	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Sodium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with salt as needed.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Skin Cream for Babies

This oil/water emulsion type skin cream for infants rubs in quickly and leaves the baby's skin soft and smooth to the touch without a greasy, oily after-feel. Ritachol and Ritalan "C" impart these attributes, and the Ritachol also imparts emulsion stabilizing properties improving the shelf life of the product. Ritalan C imparts moisturization and emollient benefits. Ritachol 1000, a non-ionic emulsifier, serves as the primary means of assuring stability.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	58.90
2. Acritamer 941	0.10
3. Glycerin	5.00
4. Methylparaben	0.10
5. Ritachol 1000	12.50
6. Mineral Oil (65/75 saybolt)	18.00
7. Ritalan C	2.50
8. Ritachol	2.50
9. Propylparaben	0.10
10. Morpholine	0.10
11. Imidazolidinyl Urea	0.20
12. Fragrance	QS

Compounding Procedure:

Weigh and add the water into a container and begin stirring. Stir by means of a variable speed agitator equipped with a stirrer (propeller type) capable of imparting relatively high shear. Add items 2, 3, and 4. When all the Acritamer has been thoroughly dispersed and no lumps can be seen nor felt, add the Glycerin and Methylparaben. Add the remaining ingredients with the exception of the imidazolidinyl urea, morpholine and perfume into another container and begin heating and stirring. Heat the water-containing blend while stirring continuously to 70-73C. Heat the Ritachol 1000 blend while stirring continuously to 70-73C. When both blends are at 70-73C, add the water containing blend to that containing the Ritachol 1000. When all the water-containing blend has been added, begin cooling. Cool to 25-30C and add items 10, 11 and 12 with mixing between additions. Mix 30 minutes after the last addition. Package fill into suitable containers.

SOURCE: R.I.T.A. Corp.; Formulation H-89-A-3

Skin Cream for Babies

This oil/water emulsion type skin cream for infants rubs in quickly and leaves the baby's skin soft and smooth without a greasy, oily after-feel. Ritachol and Ritalan C impart these attributes, and Ritachol also imparts emulsion stabilizing properties, resulting in good shelf life for the product. Ritalan C imparts moisturizing as well as emollience.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	58.80
2. Acritamer 941	0.10
3. Glycerin	5.00
4. Methylparaben	0.10
5. Ritachol 1000	12.50
6. Mineral Oil (90 saybolt)	18.00
7. Ritalan C	2.50
8. Ritachol	2.50
8. Propylparaben	0.10
9. Triethanolamine (50%)	0.20
10. Imidazoliny] Urea	0.20
12. Fragrance	QS

Compounding Procedure:

Weigh and add the water into an auxiliary tank and begin stirring. Stir by means of a variable speed agitator (propeller type) capable of imparting relatively high shearing stress. Add items 2, 3, and 4. When all the Acritamer has been thoroughly dispersed and no lumps can be seen or felt, add the Glycerin and Methylparaben. Add the remaining ingredients with the exception of the Triethanolamine 50% and Perfume into the main mixing tank and begin heating and stirring. Heat the water phase while stirring continuously to 70-73C. Heat the Ritachol 1000 phase while stirring continuously to 70-73C. When both phases are at 70-73C, add the water phase to that containing the Ritachol 1000. When all the water phase has been added, begin cooling. Cool to 55-60C and add the Triethanolamine. Cool to 25-30C and add the Imidazolidiny] Urea and Perfume. Mix 30 minutes. Package fill into suitable containers.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-L-7

Section III

**Bath and
Shower Products**

After Bath Freshener

This clear gel freshener liquefies rapidly upon application, leaving the skin cool, refreshed and tingling. It removes residues such as dust, dirt, oil and makeup from facial areas either by itself or in conjunction with a cleansing lotion. This product is also beneficial when applied after bathing to the hands, legs and other body areas, helping to soften, smooth and condition the skin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	70.19
2. Acritamer 941	0.15
3. Methylparaben	0.10
4. Propylene Glycol	5.00
5. Quaternium-15	0.10
6. SD Alcohol-40	23.00
7. Laneto 50	1.00
8. Color, Fragrance	QS
9. Triethanolamine (50%)	0.30
10. EDTA	0.08
11. Benzophenone-2	0.08

Compounding Procedure:

Weight item 1 into a container and start the mixer. A stirrer capable of imparting high shear is recommended. Add item 2 and stir until the Acritamer is thoroughly dispersed and hydrated (no visible lumps should be present). Add items 3-11. Stir until resultant Gel is clear and smooth.

Formulation H-89-A-4

After Bath Splash

An emollient, non-drying, after bath splash which refreshes while it moisturizes. Pationic ISL supplies excellent after-feel and perfume solubilization.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Alcohol SD 40	70.00
2. Patlac NAL	5.00
3. Patlac IL	3.00
4. Perfume	2.70
5. Pationic ISL	2.00
<u>Part B:</u>	
6. Distilled Water	17.30

Compounding Procedure:

Combine Part A and mix until clear. Slowly add Part B with agitation. Filter if desired.

Formulation 109-43

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Bath Gel

This clear gel leaves a smooth conditioned feeling on the skin. Lexquat AMG-IS conditions the skin leaving it smooth, soft and satiny.

	<u>% (w/w)</u>
Deionized Water	50.50
TEA Lauryl Sulfate	30.00
Lexaine LM (Lauramidopropyl Betaine)	15.00
Lexquat AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	2.00
Glycerine	2.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid (pH=7.0+-0.2)	

Procedure:

Combine ingredients with mixing. Gentle heat may be used to facilitate mixing. Adjust pH.

Observations:

pH (direct): 6.9+-0.2
Viscosity: 3,000 cps

Formulation BT-103

Bath Gel

Alpha olefin sulfonate (40%)	4.0
Lexate BPQ (Lauramidopropyl Betaine (and) TEA-COCO-Hydrolyzed Animal Protein (and) Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	25.0
Glycerin	3.0
Deionized water	31.6
Lexgard M (Methylparaben)	0.3
Lexgard P (Propylparaben)	0.1
Citric acid	to pH 7.0+-0.2

Procedure:

Combine ingredients with mixing. Adjust pH.

SOURCE: Inolex Chemical Co.: Suggested Formulations

Bath Gel

This clear gel leaves a smooth conditioned feeling on the skin

	<u>% (w/w)</u>
Deionized water	50.50
TEA Lauryl Sulfate	30.00
Lexaine LM (Lauramidopropyl Betaine)	15.00
Lexquat AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	2.00
Glycerine	2.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid (pH=7.0+/-0.2)	

Procedure:

Combine ingredients with mixing. Gentle heat may be used to facilitate mixing. Adjust pH.

Observation:

pH (direct): 6.9+/-0.2

Viscosity: 3,000 cps

Formulation BT-103

Bath Gel

	<u>%(w/w)</u>
Sodium Lauryl Sulfate	30.00
Lexaine LM (Lauramidopropyl Betaine)	20.00
Lexquat AMG-O (Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	5.00
Glycerine	2.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Deionized Water	42.50
Citric Acid	qs to pH
Fragrance	0.20

Procedure:

Combine ingredients with mixing (gentle heat may be used to facilitate mixing). Adjust pH.

Adjusted pH (direct): 7.0+/-0.2

Formulation BT-100

SOURCE: Inolex Chemical Co.: Suggested Formulations

Bath Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-230	75.0
Amphosol CA	11.0
Ninol 55-LL	2.5
Polysorbate 20	1.0
Propylene Glycol	0.5
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first five components to D.I. water and mix until homogeneous. Adjust pH to 6.5-7.5 with citric acid. Add fragrance, dye and preservative, if desired.

Physical Properties:

Clear, yellow gel

pH (as is): 6.5-7.5

Viscosity: gel

Passed freeze thaw

Passed three weeks of heat stability at 50C.

Formulation No. 391

Mild Bubble Bath

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	20.0
Alpha-Step MC-48	5.0
Ninol LMP	3.0
Tetrasodium EDTA	0.2
Citric acid	Q.S.
Sodium Chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Heat water to 50-60C. Add first two components and EDTA, mixing well after each addition. Add LMP, mixing until clear. Cool to 25C. Adjust pH to 6.0-7.0 with Citric Acid. Add fragrance, dye and preservative as desired. Adjust to desired viscosity with Sodium Chloride.

Typical Properties:

Appearance: clear, liquid

Viscosity: 200 cps @ 1.5% sodium chloride

1100 cps @ 2.0% sodium chloride

Comment:

Stable for 3 weeks at 42C, 2 months at 25C, and through 3 freeze/thaw cycles.

Formulation No. 583

SOURCE: Stepan Co.: Suggested Formulations

Blooming Bath Oil

This bath oil will prevent dry skin. Added unique moisturizing and skin conditioning effect is due to the Pationic ISL. Patlac IL gives extra smoothness to the product. Both the Patlac IL and Pationic ISL make this product feel non-greasy. Does not leave a bathtub residue.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil (light)	+69.50
2. PEG-8 Laurate	16.00
3. Pationic ISL	7.00
4. Patlac IL	4.00
5. Ritoleth 2	2.50
6. Sorbitan Sesquioleate	1.00
7. Color, Fragrance, Preservative	QS

Compounding Procedure:

Combine ingredients and stir until clear. No heat needed.
Formulation H-89-P-3

Blooming Bath Oil

This bath oil contains a high level of mineral oil but because of the use of Ritawax ALA, Patlac IL, and Pationic ISL, the product does not feel greasy. The Pationic ISL will give long lasting substantive moisturization and soft feel to the skin. This product will also reduce the winter drying of the skin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil 70 (Carnation)	+76.00
2. Pationic ISL	5.00
3. Ritoleth 2	10.00
4. Ritawax ALA	5.00
5. Patlac IL	4.00
6. Color, Fragrance, Preservative	QS

Compounding Procedure:

Combine with mixing until clear. No heat needed.
Formulation H-89-P-6

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Blooming Bath Oil

This bath oil is fast blooming with a non-greasy feel and an emollient after-feel. It leaves no residue. Leaves the skin silky smooth due to the Pationic ISL and Pationic CSL.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	67.35
2. PEG 8 Monolaurate	16.00
3. Pationic ISL	9.50
4. Pationic CSL	4.00
5. Triethanolamine (99% Solution)	0.60
6. Propylparaben	0.05
Part B:	
7. Perfume	2.50

Compounding Procedure:

Heat Part A to 165F, mix. Cool to 120F. Add B, cool to room temperature.

Formulation 109-45

Floating Bath Oil

The Pationic ISL reduces the greasiness of the mineral oil and leaves a talc-like feel on the skin. The Pationic ISL is substantive to the skin and will help moisturize the skin. Ritawax ALA and Ritachol will add elegance to the finished product.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	78.00
2. Ritachol	5.00
3. Pationic ISL	4.00
4. Ritawax ALA	5.00
5. Patlac IL	7.00
6. Fragrance	1.00

Compounding Procedure:

Prewrite chemicals and blend until clear.

Formulation 109-42

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Blooming Emollient Bath Oil

This is a quick blooming bath oil that will accept a high fragrance loading. The Dimethicone Copolyol and PEG-25 Glyceryl Trioleate contribute substantially to the emolliency and are major factors in blooming effect.

<u>Ingredients:</u>	<u>% w/w</u>
Dimethicone Copolyol (Abil B 8852)	10.00
PEG-25 Glyceryl Trioleate (Tagat T0)	13.00
Avocado Oil	20.00
Mineral Oil	40.00
Caprylic/Capric Triglycerides (Tegosoft CT)	10.00
Isopropyl Myristate (Tegosoft M)	7.00

Procedure:

Add the ingredients in order. Mix well between additions.

Low Foaming Bath Oil

<u>Ingredients:</u>	<u>% w/w</u>
Cetearyl Octanoate (Tegosoft Liquid)	15.00
Caprylic/Capric Triglyceride (Tegosoft CT)	14.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	37.00
PEG-40 Hydrogenated Castor Oil (Tagat R-40)	12.00
Panthenol	0.20
Propylene Glycol	2.00
Dimethicone Copolyol (Abil B 8852)	0.50
Water	19-30
Fragrance	Q.S.
Preservatives	Q.S.
Color	Q.S.

Procedure:

Combine all ingredients - mix until homogeneous.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Blooming Bath Oil with Shebu

A non-greasy blooming bath oil with Shebu brand shea butter as one of the emollients. Added unique moisturizing and skin conditioning effect is due to the Pationic ISL. Patlac IL gives extra smoothness to the product. Leaves skin conditioned without an oily feel. Eliminates oily residue in the tub.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	70.00
2. PEG 8 Laurate	14.00
3. Shebu	2.00
4. Pationic ISL	6.50
5. Patlac IL	4.00
6. Ritoleth 5	2.50
7. Sorbitan Sesquioleate	1.00
8. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Combine items 1 and 7 and heat to 50C. Mix until clear, cool to 40C and add remaining ingredients. Cool to 25C. Package.
Formulation HB-89-S-10

Blooming Bath Oil

This bath oil will prevent dry skin. Added unique moisturizing and skin conditioning effect is due to the Pationic ISL. Patlac IL gives extra smoothness to the product. Both the Patlac IL and Patlac ISL make this product feel non-greasy. Does not leave a bathtub residue.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Mineral Oil	65.15
2. PEG 8 Monolaurate	16.00
3. Pationic ISL	9.50
4. Patlac IL	4.00
5. Pationic CSL	2.50
6. Triethanolamine (99%)	0.30
7. Propylparaben	0.05
<u>Part B:</u>	
8. Perfume	2.50

Compounding Procedure:

Heat Part A to 165F, mix. Cool to 120F. Add B, cool to room temperature.

Formulation 103-184

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Blooming Bath Oil

This clear formula blooms into a white cloud upon addition to the bath, and provides all-over moisturization. The Mazon EE-1 reduces the greasiness of the mineral oil to give a silky, nonoily feel. The formula is a water in oil microemulsion, which means that production and filling equipment need not be perfectly dry. The system will remain transparent even with the addition of incidental moisture.

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		1.0
Polysorbate 80		7.0
Sorbitan Laurate	S-Maz 80	7.0
Benzyl Laurate	Mazon EE-1	20.0
Fragrance		Q.S.
Mineral Oil	Drakeol 9	65.0
Appearance: Clear, vary pale yellow liquid		

Procedure:

Blend all ingredients except the mineral oil. When uniform, add the mineral oil with mixing. The batch will become clear at about the halfway point of the addition.

Formulation G-103

Mild Bath Foam

Water	58.4
Jordapon CI Dispersion	10.0
Sodium Lauryl Ether Sulfate 60%	15.0
Cocamidopropyl Hydroxysultaine	12.0
Cocamide DEA	3.0
Preservative, EDTA	0.6
Fragrance	1.0

Procedure:

Blend the water, Jordapon CI Dispersion, sodium lauryl ether sulfate, preservative, and EDTA, and heat to 45C. Add the Mafo CSB-50 and Mazamide 80, cooling the batch to 35C. Blend in the fragrance, and adjust the pH to 6.5-7.0 with citric acid.

Final Viscosity: 3,200 cps.

SOURCE: PPG Industries, Inc.: Suggested Formulations

Body Shampoo

<u>Ingredients:</u>	<u>% by Wt.</u>
Water, D.I.	23.27
Bio-Terge AS-40	15.54
Sodium chloride	0.66
Kessco EGMS	1.00
Ninol 50-LL	2.48
Sodium chloride	0.66
Steol CS-460	10.36
Water, D.I.	45.33
Formalin	0.20
Ammonium chloride	0.50

Mixing Procedure:

Blend ingredients in order given. Adjust pH with 50% citric acid before ammonium chloride addition. Ammonium chloride requirements may vary, add it carefully. Target viscosity is 1050 cps or above.

Properties:

Appearance: White, pearled liquid
 pH, as is: 6.0-6.5
 Viscosity @ 25C, cps: 1000-2000
 Solids, %: 16.0-18.0
 Density, lbs/gal: 8.46-8.59
 Formalin: Positive

Use Instructions:

Can be used as is or perfumes and/or dyes may be added.

Performance:

Good foaming characteristics and foam stability.

SOURCE: Stepan Co.: Formulation No. 307

Body Shampoo

Jordapon CI Dispersion	16.0%
Sodium Lauryl Sulfate(1)	31.0
Cocamidopropyl Betaine(2)	7.0
Cocamide DEA(3)	6.0
Preservative, EDTA, Fragrance, Citric Acid	0.8
Water	39.2

- (1) Sipon LSB, Alcolac
- (2) Mafo CAB, PPG/Mazer
- (3) Mazamide 80, PPG/Mazer

Procedure:

Blend the water, Jordapon CI Dispersion, sodium lauryl sulfate, preservative, and EDTA, and heat to 45C. When uniform, add the Mafo CAB and Mazamide 80, cooling the batch to 35C. Add the fragrance, and adjust the pH with citric acid to 6.0-6.5. Final viscosity; 10,000 cps (with 0.5% NaCl).

SOURCE: PPG Chemicals, Inc: Formulation 7003-48

Body Shampoo

<u>Ingredient:</u>		<u>Wt. %</u>
Sodium Cocoyl Isethionate	Jordapon CI Dispersion	16.0
Sodium Lauryl Sulfate	Mazon SL-300	31.0
Cocamidopropyl Sulfate	Mafo CAB	7.0
Cocamide DEA	Mazamide JT-128	6.0
Preservative, EDTA, Fragrance, Citric Acid		1.0
Deionized Water		39.0

pH: 6.5-7.0

Viscosity: 6500-11,000 cps (with 0 to 0.6% NaCl)

Appearance: Clear, straw-colored liquid

Foaming: Flash: 14 sec.

Half-life: 6 min.

Density: 36.7 gm/liter

Procedure:

Blend all ingredients except fragrance, citric acid, and Cocamide DEA. Heat to 45C (115F) with mixing. When uniform, add remaining ingredients and allow to cool.

Note:

A pearlescent product will result if 0.75-1.5% Ethylene Glycol Monostearate or Ethylene Glycol Distearate (Mapeg EGMS, Mapeg EGDS) is added with the initial ingredients. Heat the batch to 60-65C (140-150F) to ensure complete dissolution of the pearl agent.

Formulation F-101

Refreshing Body Splash

<u>Ingredient:</u>		<u>Wt. %</u>
SD Alcohol 40B		25.0
PPG-9	Macol P-500	3.0
Dimethicone Copolyol	Masil 1066C	0.5
Fragrance		0.5
Deionized Water		71.0
Citric Acid		Q.S.

pH: 6.0-6.5

Appearance: Clear, water-white

Performance: A cooling, refreshing body splash which also provides light, non-oily mositurization

Procedure:

Blend the alcohol, Macol P-500, and Masil 1066C. Add the fragrance. When uniform, add the deionized water and adjust the pH with citric acid.

Formulation H-101

SOURCE: PPG Industries, Inc.: Suggested Formulations

Bubble Bath Powder

When added to the bath water, this formulation offers excellent foaming and cleansing attributes. Ritalan has been included to impart emolliency and lubricating properties...helps to keep the skin soft and smooth. This formulation has chelating qualities that help prevent so-called "hard water scum" from forming on the bath tub surface. Sodium Bicarbonate has been included because of its soothing qualities in various dermatological-related conditions. Sodium Bicarbonate also has deodorant properties.

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium Lauryl Sulfate (powder)	18.00
2. Sodium Bicarbonate	20.00
3. Sodium Sesquicarbonate	46.00
4. Methylparaben	0.20
5. Tetra Sodium EDTA	1.50
6. Ritalan	4.00
7. Quaternium-15	0.30
8. Sodium Lauryl Sulfoacetate	10.00
9. Fragrance	QS

Compounding Procedure:

Weigh and add all ingredients (except perfume) in order into a suitable blender equipped with an intensifier and mix until the powder is completely homogeneous. Add perfume using suitable atomizer device. Mix until uniform. Fill into suitable containers
Formulation HB-89-L-9

Bubble Bath Powder

This high-foaming bath product has a luxurious after-feel and long lasting foam. It is formulated without harsh ingredients.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Sodium Lauryl Sulfate (dry)	18.00
2. Sodium Bicarbonate	20.00
3. Sodium Sesquicarbonate	42.85
4. Sodium Lauryl Sulfoacetate	10.00
5. Pationic SSL	5.00
6. Propylparaben	0.15
<u>Part B:</u>	
7. Laneto AWS	3.00
8. Fragrance	1.00

Compounding Procedure:

Combine Part A in a blender and mix until uniform. Mix Part B in a suitable container until uniform. Slowly add Part B to Part A and mix after each addition. An atomizer or intensifier device is suggested for the addition of Part B.

Formulation 109-87

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Deodorant Foaming Bath Oil

A bubbling product for the bath with Grillothen to reduce irritation and de-fatting and Grillocin HY-77 to combat odor.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grillocin HY-77	2.00
2. Ritamid C	2.00
3. PEG-8	2.00
4. Sodium Laureth Sulfate	88.00
5. Trilaureth-4 Phosphate	4.50
6. Grillothen LSE 87 K	1.50
7. Perfume	QS
8. Preservative	QS

Compounding Procedure:

Weigh and add ingredient 4 into a container and begin stirring and heating. Heat to 70-73C and add all the ingredients with the exception of perfume and preservative. Be careful to avoid air entrapment while stirring the batch. Cool to 40-43C and add perfume and preservative. Continue cooling to 25-30C and package.

Formulation H-89-G-10

Foam Bath

A viscous bath foam product which moisturizes and leaves a good after feel. Grillothen is used to prevent drying. Pationic ISL and Panthenol are used for moisturization and after feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grillothen LSE 87 Soft	4.00
2. Distilled Water	40.50
3. dl-Panthenol	1.00
4. Sodium Laureth Sulfate (2 Mole)	46.00
5. Pationic ISL	3.50
6. Euperlan PK 900	3.00
7. Sodium Chloride (25% solution)	+2.00
8. Preservative, Perfume	QS

Compounding Procedure:

Stir items 1 and 2 thoroughly. Add other ingredients through item 6 in given order, stirring after each addition. After addition of item 6, mix until uniform. Add perfume and preservative. Mix until uniform. Add salt solution to thicken.

Formulation HB-89-PA-20

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Emollient Foaming Bath Gel

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Sodium Laureth Sulfate	40.0
Lauramidopropyl Betaine (Tego-Betaine L-90)	4.0
Cocamidopropyl Betaine (Tego-Betaine L-7)	4.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Acrylates Stearate-50 Acrylate Copolymer (Antil 208)	0.8
Dimethicone Copolyol (Abil B 88183)	1.0
Phase B:	
Water	41.2
Preservative	Q.S.
Color	Q.S.
Citric Acid	to pH 6.0
Fragrance	Q.S.
Sodium Chloride	Q.S.

Procedure:

1. Combine the ingredients of Phase A in order, mixing well between additions. Make sure each ingredient is fully dispersed.
2. Add the water. Mix. Add preservatives, color and adjust pH.
3. Add Fragrance.
4. Adjust viscosity with the Sodium Chloride. Note: A 25% solution may be used for ease of mixing.

European Style Bath Gel

<u>Ingredients:</u>	<u>% w/w</u>
Water	54.9
Tetrasodium EDTA	0.1
Sodium Laureth Sulfate	25.0
Cocamidopropylamine Oxide (Tegamine Oxide WS-35)	8.0
Cocamidopropyl Betaine (Tego Betaine L-7)	9.0
Jjoba Oil	0.2
PEG-20 Glyceryl Stearate (Tagat S2)	1.0
Citric Acid	to pH 6.0
Natural Extracts	0.5
Fragrance	Q.S.
Preservative	Q.S.
Color	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.3
Sodium Chloride (25% Solution)	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Sodium Chloride.

Note:

For a pearliezed formula substitute the following for part of the water:

Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (TEGO Pearl B-48) 3.00%

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Enriched Bath/Shower Gel

<u>Ingredients:</u>	<u>% w/w</u>
Water	47.80
Tetrasodium EDTA	0.10
Ammonium Lauryl Sulfate	10.00
Ammonium Laureth Sulfate	30.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.30
Cocamidopropyl Betaine (Tego Betaine L-7)	5.00
Preservative	Q.S.
Color	Q.S.
Fragrance	Q.S.
Citric Acid (25% Solution)	to pH 6.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	3.80
Ammonium Chloride (25% Solution)	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note:

For a pearlized formula substitute the following for part of the water:

Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48) 3.00%

SOURCE: Goldschmidt Chemical Corp.: Suggested Formula

High Foaming Shower Gel

	<u>% Weight</u>
Sodium Laureth Sulfate (Standapol ES-3)	20.00
Trideceth-7 Carboxylic Acid (Incrodet TD-7C)	7.00
Cocamidopropyl Hydroxysultaine (Crosultaine C-50)	20.00
Polyol Alkoxy Ester (Crothix)	1.00
PEG-60 Almond Glycerides (Crovol A-70)	2.00
BHT	0.10
Disodium EDTA	0.10
Perfume	0.50
Germaben II	1.00
Water	48.30

Procedure:

Combine the Standapol ES-3, Incrodet TD-7C, Crosultaine C-50, Disodium EDTA, Germaben II and water with mixing. Combine the Crothix, Crovol A-70 and BHT with mixing and heat to 65-70C. Continue mixing the Crothix premix and cool to 50C. Add the perfume to the Crothix phase and mix until uniform. When clear, add Crothix phase to the surfactant phase with mixing. Adjust pH to 6.0-6.5 with NaOH solution.

SOURCE: Sutton Laboratories: Suggested Formulation

Liquid Bubble Bath

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	10.0
Bio-Terge AS-40	5.0
Ninol 30-LL	2.0
Ninol 55-LL	2.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first four components to D.I. water and mix until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Yellow, clear liquid

pH (as is): 6.0-7.0

Passed freeze thaw study

Stable for two weeks at 50C & six months at room temp.

Viscosity Profile: as is: 5 cps

1.0% sodium chloride: 2,210 cps

2.0% sodium chloride: 2,600 cps

3.0% sodium chloride: 5,800 cps

SOURCE: Stepan Co.: Formulation No. 480

Bubble Bath

This is an elegant bubble bath giving long-lasting bubbles. This clear bubble bath cleanses with good foaming and skin conditioning and leaves an excellent afterfeel.

	<u>%. (w/w)</u>
Deionized water	49.50
Biaterge AS-40 (Sodium C14-16 Olefin Sulfonate)	20.00
Sodium Laureth Sulfate	15.00
Lexaine LM (Lauramidopropyl Betaine)	15.00
Lexquat AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	5.00
Lexgard M (Methylparaben)	0.20
Fragrance	0.30

Procedure:

Combine ingredients with mixing.

Observation:

pH (direct): 7.0+-0.2

SOURCE: Inolex Chemical Co.: Formulation BT-102

Liquid Bubble Bath

A high foaming, moderate cost bubble bath which is non-drying and will leave the skin soft and silky. This formula does not contain harsh detergents.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+48.00
2. Sodium C14-16 Olefin Sulfonate	40.00
3. Pationic ISL	3.00
4. Lauramide DEA	5.00
5. Laneto 50	4.00
6. Fragrance, Color, Preservatives	QS
7. Patlac LA (44%)	QS

Compounding Procedure:

Add perfume to the Lauramide DEA. Add Pationic ISL to the pre-mix. Mix until uniform. Combine water and sodium olefin sulfonate. Add lauramide pre-mix to water-olefin sulfonate mix. Mix until uniform. Add Laneto 50. Mix until uniform. Adjust pH to 6.5-8.0 as desired with Patlac LA.

SOURCE: R.I.T.A. Corp.: Formulation H-89-P-4

Shower Gel with Emollient

A crystal-clear, viscous formula which flash foams into rich, soft bubbles.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>	
A	Deionized Water	57.5	
	Tetrasodium EDTA	0.2	
	Imidazolidinyl Urea	Germa11 115	0.2
	Methyl Paraben		0.2
	Ammonium Laureth Sulfate, 60%	Alfonic 1412-A	22.5
B	Cocamidopropyl Hydroxysultaine	Mafo CSB-50	17.0
	Benzyl Laurate	Mazon EE-1	0.5
	Fragrance		0.7
C	Cocamide DEA	Mazamide JT-128	1.0
	Citric Acid, 10%		0.2

pH: 5.5-6.0

Viscosity: 16,000-18,000 cps

Appearance: Clear, pale yellow viscous liquid

Procedure:

Blend the Part A ingredients at 40-45C until dissolved. Discontinue heating, and add the part B ingredients in order, mixing until dissolved. Add the Mazamide JT-128 and adjust the pH.

SOURCE: PPG Industries, Inc.: Formulation F-106

Moisturizing Bath Foam

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		54.7
Cocamidopropyl Hydroxysultaine	Mafo CSB-50	12.0
Sodium Lauryl Ether Sulfate	Mazon ES-60	20.0
Sodium Cocoyl Isethionate	Jordapon CI Dispersion	8.0
PEG 7 Glyceryl Cocoate	Mazol 159	1.0
Methyl Paraben		0.2
EDTA		0.2
Cocamide DEA	Mazamide JT-128	1.5
Cocamide MEA	Mazamide CMEA	1.5
Fragrance		0.7
Citric Acid		0.2

pH: 6.0-6.5

Viscosity: 4,000 cps

Appearance: Clear, straw-colored liquid

Procedure:

Blend the first seven ingredients and heat to 50C (120F). Add the Mazamide 80 and CMEA. Cool to 40C (105F) and add fragrance. Adjust pH with citric acid.

Formulation E-101

Floating Bath Oil

<u>Ingredient:</u>		<u>Wt. %</u>
Isopropyl Palmitate	Propal	39.0
Oleth-2	Macol OA-2	1.0
Capric/Caprylic Triglyceride	Mazol 1400	15.0
Fragrance		1.0
Mineral Oil	Drakeol 9	44.0

Appearance: Clear, water-white oil

Performance: Spreads spontaneously on warm (105F) water.

Leaves a light, non-greasy, non-tacky film on the skin

Procedure:

Blend all ingredients except the mineral oil. When uniform, add the mineral oil.

Formulation G-101

SOURCE: PPG Industries, Inc.: Suggested Formulations

Pearlized Head to Toe Cleanser

	<u>%(w/w)</u>
Deionized Water	45.20
Ammonium Lauryl Sulfate	42.00
Lexaine IS	12.00
Lexemul EGDS	0.50
Lexgard M	0.20
Lexgard P	0.10
Dye	q.s.
Fragrance	q.s.

Procedure:

Charge water and ammonium lauryl sulfate into vessel and heat to 70C with mixing. Add all ingredients except dye and fragrance and agitate until dissolved. Adjust pH. Cool batch to 40C and add dye and fragrance. Fill at 35C.

Pearl will develop on standing.

Observations:

adjusted pH (direct): 6.9 with citric acid

viscosity: 5,000 cps

Formulation SP-109

After-Bath Splash

This product is hydroalcoholic after-bath freshener and skin conditioner which leaves a smooth, silky afterfeel on the skin.

	<u>%(w/w)</u>
Deionized water	1.00
SDA-40B Alcohol	81.00
Glycerine	3.00
Lexol PG-900	7.00
Lexquat AMG-IS	5.00
Fragrance	3.00

Procedure:

Combine ingredients with mixing.

Observation:

pH (direct): 7.0+-0.2

Formulation BT-104

SOURCE: Inolex Chemical Co.: Suggested Formulations

Premium Bubble Bath

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	45.0
Ninol 55-LL	5.0
Amphosol CA	5.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Steol CS-330, Ninol 55-L, and Amphosol CA to D.I. water with mixing until homogeneous. Adjust pH to 6.0-6.5 with citric acid. Add fragrance, dye and preservative, if desired.

Physical Properties:

Yellow, clear liquid

pH (as is): 6.0-6.5

Freeze thaw stable

Stable for two weeks at 50C

Viscosity Profile: as is: 200 cps

0.5% sodium chloride: 2,400 cps

1.0% sodium chloride: 9,100 cps

2.0% sodium chloride: 20,700 cps

SOURCE: Stepan Co.: Formulation No. 341

Silky Bubble Bath

This clear, viscous liquid develops high, stable foam even in hard water.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>	
A	Demineralized Water	55.6	
	Na4EDTA	0.2	
	Imidazolidinyl Urea	Germall 115	0.2
	Ammonium Cocoyl Isethionate	Jordaon ACI-30	11.7
	Methyl Paraben		0.2
B	Ammonium Laureth Sulfate	Alfonic 1412-A	25.8
	Cocamide DEA	Mazamide 80	3.0
	Cocamide MEA	Mazamide CMEA	1.0
C	Fragrance		1.0
	Citric Acid		0.1
	Ammonium Chloride		1.2

pH: 6.5-7.0

Viscosity: 4500-5000 cps

Appearance: Clear, straw-colored liquid

Procedure:

Mix the part A ingredients in the main vessel. In a separate vessel premix part B, warming to 40C to dissolve the Mazamide CMEA. Add B to A, mixing until clear and uniform. Adjust pH and viscosity.

SOURCE: PPG Industries, Inc.: Formulation E-102

Shower Bath "A"

A viscous shower product without gums. Does not dry the skin and leaves a smooth feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 87	2.50
2. Grilloten LSE 87K	0.50
3. Glycol Distearate	0.50
4. Pationic 138C	2.50
5. PEG-55 Propylene Glycol Oleate	1.00
6. Distilled Water	35.30
7. Sodium Laureth Sulfate	51.00
8. Potassium Coco-Hydrolyzed Animal Protein	6.50
9. Citric Acid (25% Solution)	0.20

Compounding Procedure:

Combine ingredients 1,2,4,6,7, and 8. Mix and begin heating to 160F. Combine ingredients 3 and 5. Heat to 160F and add to batch. Cool to 95F. Adjust pH to 6.0 to 6.5 with Citric Acid solution. Package.

Formulation H-89-G-13

Shower Bath "B"

A viscous shower cleanser. Contains no gums. Cleans without stripping and leaves a smooth feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 65K	2.00
2. Pationic 138C	1.80
3. Distilled Water	10.00
4. Sodium Laureth Sulfate	45.00
5. Cocamidopropyl Betaine	8.00
6. Distilled Water	31.20
7. Sodium Chloride (25% Solution)	2.00

Compounding Procedure:

Combine ingredients 1,2 and 3. Mix until uniform (gentle warming will facilitate solution). Combine ingredients 4,5 and 6. Mix until uniform. Add Grilloten premix (ingredients 1,2 and 3) to Lauryl Ether Sulfate premix. Mix until uniform. Adjust viscosity with Sodium Chloride solution.

Formulation H-89-G-14

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shower Bath "C"

A viscous shower bath cleanser without gums. Leaves a smooth feel. Grillotens assist in the prevention of irritation.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 87	2.00
2. Grilloten LSE 87K	2.00
3. PEG-55 Propylene Glycol Oleate	2.00
4. Distilled Water	10.00
5. Sodium Laureth Sulfate	57.96
6. Distilled Water	25.84
7. Citric Acid (25% Solution)	0.20

Compounding Procedure:

Combine ingredients 1,2,3, and 4 and mix until uniform. Combine ingredients 5 and 6. Mix until uniform. Add ingredients 1,2,3 and 4; premix to Ether Sulfate premix. Mix until uniform. Add Citric Acid as 25% solution to adjust pH (6.0 to 6.5 is recommended).

Formulation H-89-G-15

Shower Bath

A viscous shower product which leaves a smooth feel and does not dry the skin.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Grilloten LSE 87 Soft	2.00
2. Grilloten LSE 87K Soft	2.00
3. Distilled Water	10.00
Part B:	
4. Sodium Laureth Sulfate-40 Mole	44.00
5. Cocamphoglycinate	8.00
6. PEG-55 Propylene Glycol Oleate	1.50
7. Ritasynt IP	3.00
8. Citric Acid (25% Solution)	0.20
9. Distilled Water	29.30
Part C:	
10. Perfume, Preservative	QS

Compounding Procedure:

Combine ingredients in Part A. Mix and begin heating. Heat to 175F. Combine ingredients in Part B (except Citric Acid). Mix and begin heating. Heat to 175F. Add Part A to Part B while mixing. Begin cooling. Cool to 120F. Add perfume and preservative. Cool to 95F. Add Citric Acid solution to adjust pH to 5.5 to 6.0.

Formulation H-89-G-16

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Shower Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	41.0
Steol CS-460	27.3
Ninol 40-CO	13.0
Ninol 96-SL	6.5
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first four components to D.I. Water and heat to 40-50C with mixing until clear. Cool to 30C and adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Thick, yellow gel

Viscosity is greater than 100,000 cps

pH (as is): 6.0-7.0

Passed freeze thaw and elevated temperature study.

Formulation No. 416

Shower Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	42.0
Amphosol CA	12.0
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add Stepanol AM-V and Amphosol CA to D.I. Water and heat to 45C. Blend until clear and homogeneous. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Typical Properties:

Light yellow gel

Viscosity: 180,000 cps

Passed freeze thaw and elevated temperature study

Comment:

Well suited to tube packaging for use as a body cleanser

Formulation No. 435

SOURCE: Stepan Co.: Suggested Formulations

Shower Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	40.0
Ninol 30-LL	3.0
Ammonyx SO	2.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add first three components to D.I. water and mix until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

Clear yellow gel

Passed three freeze-thaw cycles

Passed two weeks at 50C

pH (as is): 6.0-7.0

Viscosity: 0.5% sodium chloride: 32,850 cps

1.0% sodium chloride: 35,000 cps

Formulation No. 481

Shower Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	30.00
Stepanol AM	20.00
Ninol 40-CO	4.00
Kessco EGDS	0.75
Polyquaternium-7	0.50
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Combine the first five components in D.I. water and heat to 70C. Mix until all of the EGDS is completely dispersed. Cool to 35C with mixing. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Light yellow pearly liquid

pH (as is): 6.0-7.0

Viscosity Profile: as is: 50 cps

0.5% sodium chloride: 180 cps

1.0% sodium chloride: 840 cps

2.0% sodium chloride: 7050 cps

Formulation is heat stable, but does not reconstitute after freezing.

Formulation No. 414

SOURCE: Stepan Co.: Suggested Formulations

Silky Bubble Bath

Phase A:	<u>% Weight</u>
Disodium Oleamido MEA-Sulfosuccinate (Incosul OMS)	35.00
Cocamidopropylamine Oxide (Incromime Oxide C)	3.50
Lauramide DEA (Incromide LR)	2.00
PEG-45 Palm Kernel Glycerides (Crovol PK-70)	5.00
Germaben II	1.00
Sodium Chloride	1.25
Water	48.75

Phase B:	
Sodium Laureth Sulphate (and) Hydroxyethyl Stearamide-MIPA (Crodapearl Liquid)	3.00
Silk Amino Acids (Crosilk Liquid)	0.50

Procedure:

Combine Phase A ingredients with slight heating to 65C. When clear, stop heating, continue mixing and cool to 45C. At 45C add Phase B. Continue cooling to room temperature and adjust the pH with citric acid to 6.0.

SOURCE: Sutton Laboratories; Suggested Formulation

Bubble Bath

	<u>% by Weight</u>
Monamate LA-100	15.0%
Sodium Lauryl Sulfate (28%)	35.0%
Monamid 1089	5.0%
Water	45.0%
Adjust pH to 6.0	

Mix with heat until clear. Cool. Adjust pH.

Low Cost Bubble Bath

	<u>% by Weight</u>
Water and Preservative	69.5
Sodium Chloride	0.5
Monamine 779	15.0
Sulframin AOS C14-16	15.0

Procedure:

Add ingredients in order listed and mix until dissolved. Warming of water will shorten mixing time. Adjust pH to level desired. At pH 7.0 viscosity is approximately 700 cps.

SOURCE: Mona Industries, Inc.; Suggested Formulations

Skin Conditioning Bath Gelee

This bath gelee provides the smooth unique feel and moisturizing effect of the substantive ingredient, Pationic ISL, not the oil stripped effect from regular bath gelees. Ritawax 15 is used as a skin conditioner. The product functions well as a body scrub or a bubble bath.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Sodium Laureth Sulfate (2 Mole)	53.00
2. Distilled Water	33.15
3. Ritamid C	4.00
4. Ritawax 15	3.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	0.50
7. Methylparaben	0.15
Part B:	
8. Fragrance	1.00
9. Kathon CG	0.50
10. Sodium Chloride (25% Solution)	1.00
11. Patlac LA (44%)	0.70

Compounding Procedure:

Heat Part A to 165F with agitation. Cool to 120F with mixing and add fragrance and Kathon CG. Cool to room temperature. Adjust pH to 6.0-6.5 using Patlac LA. Adjust to desired viscosity with Sodium Chloride.

Formulation 109-44

Skin Conditioner Bath Gelee

This bath gelee provides the smooth unique feel and moisturizing effect of Pationic ISL, not the oil stripped effect from regular bath gelees. Ritawax 15 is used as a skin conditioner. The product functions well as a body scrub or a bubble bath.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Sodium Laureth Sulfate (2 Mole)	53.00
2. Distilled Water	21.62
3. Ritamid C	4.00
4. Ritawax 15	3.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	0.50
7. Methylparaben	0.15
8. Laneto 100	2.00
9. Ritaloe 1X	10.00
Part B:	
11. Fragrance	1.00
12. Kathon CG	0.03
13. Sodium Chloride (25% Solution)	1.00
14. Patlac LA (44%)	0.70

Compounding Procedures:

Heat Part A to 165F with agitation. Mix until uniform. Cool to 120F with mixing and add fragrance and Kathon CG. Cool to room temperature. Adjust pH to 6.0- 6.5 using Patlac LA. Adjust to desired viscosity with Sodium Chloride.

Formulation 112-54

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Skin Softening Bath Oil

<u>Ingredients:</u>	<u>% by Weight</u>
PPG-14 Butyl Ether	74.50
Neobee M-5	23.50
PPG-20 Methyl glucose ether	1.65
Propyl paraben	0.24
Vitamin E	0.06
Almond oil extract	0.05

To a suitable mixing vessel add PPG-14 Butyl Ether. Heat to 55C and add the remaining ingredients, minus the fragrance. Cool to 40C. Add fragrance.

Typical Properties:

Appearance: Clear liquid
 Viscosity: 25 cps @ 25C
 Freeze thaw stable
 Stable at 50C for two weeks

Formulation No. 600

Soothing Bath Oil

<u>Ingredients:</u>	<u>% by Weight</u>
PPG-14 Butyl ether	71.50
Neobee M-5	21.50
Safflower oil	6.67
Propyl paraben	0.25
Butyl hydroxy toluene	0.075
Avocado oil extract	0.05
Fragrance	Q.S.

To a suitable mixing vessel add PPG-14 Butyl Ether. Heat to 55C and add the remaining ingredients, minus the fragrance. Cool to 40C. Add fragrance. Cool to 25C.

Typical Properties:

Appearance: Clear liquid
 Viscosity: 25 cps @ 25C
 Freeze/thaw stable
 Stable for two weeks at 50C

Formulation No. 601

SOURCE: Stepan Co.: Suggested Formulations

Skin Treatment Bath Oil

This spreading bath oil, when added to bath water, imparts excellent skin lubricating and emollient qualities, and does not deposit a residual ring on the tub surface. Ritalan C has been added for skin moisturizing and conditioning effects. Ritachol has been incorporated to improve the spreading properties of this bath oil, as well as impart moisturizing benefits.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	69.80
2. PEG-8 Dilaurate	6.50
3. Cottonseed Oil	3.50
4. Wheat Germ Oil	5.00
5. Ritalan C	5.00
6. Ritachol	10.00
7. Propylparaben	0.10
8. BHA	0.10
9. Fragrance	QS

Compounding Procedure:

Weigh item 2 into a container and begin heating and stirring. Add the Propylparaben and BHA into ingredient 2 and continue heating and stirring to about 55C. Mix until both have dissolved. Add the remaining ingredients in order and stir until homogeneous. Cool to 25-30C.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-L-2

Spreading Bath Oil with Vitamin E

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Klearol Mineral Oil	16.93
Lantrol	5.00
Delytl Extra	40.00
Delytl Prime	20.00
Vitamin E Acetate, USP-FCC (Code 60526)	2.00
Ascorbyl Palmitate (Code 60412)	0.02
Vitamin E, USP-FCC (Code 60524)	0.05
Part II:	
Lipopeg 200 DL	13.00
Perfume Oil	3.00

Procedure:

Mix ingredients in Part I. The order of addition is given above. Add premixed Part II to Part I and mix until uniform.

To insure clarity, allow to age at least 48 hours and filter with an absorbent filter aid.

SOURCE: Roche Chemical Division: Formulation SC 413

Section IV

Beauty Aids

Active Cleanser

A gentle cleanser for the removal of grayish skin cells for both face and body.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Sodium Laureth Sulfate ES-3	53.00
2. Distilled Water	28.70
3. Ritamide C	4.00
4. Pationic ISL	3.00
5. Ritapeg 150 DS	0.50
6. Sodium Chloride	0.10
Part B:	
7. Polyethylene Beads 8A	10.00
Part C:	
8. Patlac LA (44%)	+0.10
9. Glydant 40-700	0.20
10. Perfume	0.30
11. Color (D&C Brown #1 Repl)	0.10

Compounding Procedure:

Heat Part A to 150F. Agitate and add Part B. Mix and cool to 120F, add Part C. Cool to room temperature. Adjust pH with Patlac LA to 6.0.

Formulation 103-177

Cleanser

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Sodium Laureth Sulfate ES-3	53.00
2. Distilled Water	38.80
3. Ritamid C	4.00
4. Pationic ISL	3.00
5. Ritapeg 150 DS	0.50
6. Sodium Chloride	0.10
Part B:	
7. Patlac LA (44%)	+0.10
8. Glydant (40-700)	0.20
9. Perfume	0.20
10. Color (D&C Brown #1)	0.10

Compounding Procedure:

Heat Part A to 65C with agitation. Mix and cool to 40C. Add Part B. Mix and cool to room temperature. Adjust pH to 6.0 with Patlac LA.

Specifications:

Viscosity after 24 hours: 8,000-10,000 cps.*

* The viscosity will equilibrate to approximately 18,000 cps within 2 or 3 weeks

Formulation 103-175

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Alcoholic Splash Toner

<u>Ingredients:</u>	<u>Percent by Weight</u>
Deionized water	71.60
Isopropyl alcohol	20.00
Propylene glycol	2.00
Methylparaben	0.15
Ginseng extract	2.00
Horse chestnut extract	2.00
Methocel 40-202	0.20
Sodium PCA	1.00
Procetyl AWS	0.10
Dowicil 200 preservative	0.05
Polysorbate 20	1.00
Perfume oil (floral)	0.10
D&C red 40	q.s.

Procedure:

1. Add deionized water and alcohol to a vessel and begin mixing.
2. Dissolve methylparaben in warm propylene glycol--add to batch.
3. Add remaining ingredients one at a time mixing well between each addition.
4. Add perfume oil to the Polysorbate 20 and warm while mixing to dissolve perfume--add to batch.
5. Add color and mix well.

Some ideas you can try:

1. Consider substituting other natural herbal ingredients for the Ginseng extract or the Horse chestnut extract.
2. To reduce the alcohol odor, substitute ethyl alcohol for the isopropyl alcohol.

Non-Alcoholic Splash Toner

<u>Ingredients:</u>	<u>Percent by Weight</u>
Deionized water	91.35
Propylene glycol	2.00
Methylparaben	0.15
Ginseng extract	2.00
Horse chestnut extract	2.00
Methocel 40-202	0.20
NaPCA	1.00
Procetyl AWS	0.10
Dowicil 200 preservative	0.10
Polysorbate 20	1.00
Perfume oil (floral)	0.10

Procedure:

1. Meter deionized water into a mixing vessel.
2. Dissolve methylparaben in warm propylene glycol--add to batch.
3. Add remaining ingredients one at a time mixing well between each addition.
4. Add perfume oil to Polysorbate 20 and warm while mixing to dissolve perfume--add to batch.

Some ideas you can try:

1. Try replacing the Ginseng extract or Horse chestnut extract with other herbal extracts.
2. Consider expanding the marketing potential of this product by including an ingredient for those sensitive skin, such as aloe vera gel.

SOURCE: Dow Chemical Co.: Suggested Formulations

Agua Gel

	<u>% Weight</u>
Phase A:	
Water	92.68
Allantoin	0.20
Trisodium EDTA	0.10
Carbomer-940 (Carbopol 940)	0.40
Germaben II	0.60
Triethanolamine, 99%	0.75
Phase B:	
PEG-60 Almond Glycerides (Crovol A-70)	1.00
Retinyl Palmitate (Vitamin A Palmitate)	0.10
Dow Corning 190 Surfactant	0.40
Glycereth-26	0.60
Cholesterol (Cholesterol NF)	0.10
Phase C:	
Acetamide MEA (and) Lactamide MEA (Incromectant LAMEA)	2.00
Hydrolyzed Animal Protein (and) Hyaluronic Acid (Cromoist HYA)	1.00
D&C Violet #2, 0.2% Solution	0.03
D&C Green #5, 1.0% Solution in 20% ETOH, 80% Water	0.04

Procedure:

Charge vessel with water, Allantoin and EDTA and start mixing. Sprinkle in Carbopol 940 with good agitation. Mix until Carbopol 940 is completely dispersed. Heat to 60C and add Germaben II followed by triethanolamine. Premix and heat Phase B ingredients to 60C. Add Phase B to the batch with mixing. Cool batch to 40C and add Phase C ingredients in given order. Cool to room temperature with mixing.

Velvety Dusting Powder

	<u>% Weight</u>
Phase A:	
Talc (Talc 5251)	77.40
Aluminum Starch Octenyl Succinate (Dry Flo)	20.00
Zinc Stearate	2.00
Methylparaben	0.10
Propylparaben	0.10
Germall II	0.20
Phase B:	
Fragrance	0.20

Procedure:

Combine Phase A ingredients and mix for 10-15 minutes using P-K liquid solid blender. Spray Phase B into Phase A. Mix thoroughly and package.

SOURCE: Sutton Laboratories: Suggested Formulations

Body Powder Mousse with Panthenol & Vitamin E

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	35.05
Cerasynt 840	0.50
Part II:	
Alcohol SDA 40, 95%	35.00
Cetal	0.50
Ceraphal 65	2.00
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Part III:	
Lo-Micron Talc #1	25.00
Aerosil 200	0.25
Part IV:	
Perfume Oil	0.20

Procedure:

Mix ingredients in Part I. Heat to 50C. Mix ingredients in Part II until thoroughly dissolved. Add Part II to Part I and mix thoroughly. Mix ingredients in Part III and add to mixture slowly with mixing until thoroughly dispersed. Add Part IV and mix. Fill and pressurize.

<u>Aerosol Fill:</u>	<u>% by Wt.</u>
Concentrate	95.00
Propellant A-46	5.00

Components:

Container: 2 oz. Boxal, organosol lined
 Valve: Precision
 Stem: 2 x 0.020"
 Body: Inverted with tailpiece
 Actuator: Foam Spout
 Formulation MU 503

Nail Conditioner with Panthenol

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	50.00
Carbopol 934	0.15
Part II:	
Deionized Water	27.15
Triethanolamine, 98%	0.05
1,3-Butylene Glycol	2.50
Part III:	
d1-Panthenol, Cosmetic Grade (Code 63920)	5.00
SD Alcohol #40, 95%	15.00
Triton N-101	0.10
Perfume Oil	0.05

Procedure:

Sift the Carbopol into the water with rapid agitation. Heat to 75C and mix until all the Carbopol has dissolved. Add premixed Part II. Cool to room temperature, then add premixed Part III.
 Formulation NC 701

SOURCE: Roche Chemical Division: Suggested Formulations

Concealer

A highly opaque cream concealer suitable for use under the eye or anywhere on the face. The Mearlmica CF aids in a smooth after-feel while maintaining a desirable matte effect.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Water (q.s. to 100%)	53.50
	Magnesium Aluminum Silicate (Veegum)	2.00
B.	Propylene Glycol	8.00
	Triethanolamine (TEA 99%)	1.50
	Cellulose Gum (CMC-7LF)	1.00
	Antimicrobial (water soluble)	q.s.
C.	Titanium Dioxide	12.00
	Iron Oxide (C33-8073 Cosmetic Yellow)	1.00
	Iron Oxide (C33-8075 Cosmetic Russet)	0.50
	Iron Oxide (C33-115 Cosmetic Brown)	0.50
D.	Mearlmica CF	6.00
	Boron Nitride	5.00
E.	Stearic Acid (Emersol 120)	3.00
	Glyceryl Stearate S.E. (Aldo MSD)	2.00
	Mineral Oil (Carnation)	2.00
	Isopropyl Lanolate (Amerlate P)	1.50
	Isostearic Acid (Emersol 871)	0.50
	Antimicrobial (oil soluble)	q.s.

Procedure:

- I. Disperse Veegum into water using high shear mixing until smooth. II. Add Phase B slurry to Phase A and mix until smooth. III. Pulverize Phase C and add to Phase A-B using high shear mixing until smooth. IV. Add Phase D to Phase A-B-C while heating to 75+-5C and mix until smooth.
- V. In a support vessel heat Phase E ingredients to 75+-5C.
- VI. Add Phase E to Phase A-B-C-D with gentle agitation, maintaining temperature at 75+-5C.
- VII. Maintain constant agitation and cool batch to 35+-5C; store or fill into appropriate containers.

Face Bronzer Pressed Powder

This pressed powder formulation imparts a warm glow to the skin. It can be used to mimic a suntan or enhance it.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Talc (q.s. to 100%)	38.70
	Zinc Stearate	6.00
	Iron Oxides (C33-8074 Cosmetic Russet)	8.80
	Iron Oxides (C33-5136 Cosmetic Brown)	6.50
	Iron Oxides (C33-8073 Cosmetic Yellow)	3.50
	Iron Oxides (C33-134 Cosmetic Black)	0.90
	Iron Oxides (C33-5138 Cosmetic Russet)	0.90
	Cloisonne' Super Gold 232Z	1.00
	Flamenco Velvet 120V	6.50
	Shinju 100T	21.20
	Antimicrobials	q.s.
B.	Fragrance	q.s.
	Antioxidant	q.s.
	Mineral Oil	3.50
	Octyl Methoxycinnamate (Parsol MCX)	2.50

SOURCE: The Mearl Corp.: Formulations CLE-910982 & CLF-921235

Conditioning Skin Mousse

An emollient moisturizing skin cream with Panthenol.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Polyquaternium 4	0.50
2. Distilled Water	88.00
3. Propylene Glycol	2.00
4. Triethanolamine (50%)	1.00
5. Preservative	QS
6. Ritapan DL	0.50
Part B:	
7. Mineral Oil	2.00
8. Ritawax ALA	0.50
9. Ritachol	1.50
10. Glyceryl Stearate S.E.	0.75
11. Rita CA	0.25
12. Stearic Acid	1.00
13. Isopropyl Myristate	2.00
Part C:	
14. Fragrance	QS

Compounding Procedure:

Dissolve Polyquaternium 4 in water. Add remaining ingredients of Part A while mixing. Heat to 75C. Prepare Part B and heat to 75C. When each is uniform, add Part B to Part A. Cool. Add Part C when 25C. Fill.

Formulation HB-89-PA-6

Penetrating Moisturizer (Pump)

A liquid moisturizer suitable for use with a pump. May be used as an after sun or during exposure moisturizer.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	80.90
2. Glycerin	10.00
3. Propylene Glycol	5.00
4. Hydrolyzed Animal Protein	1.00
5. dl-Panthenol	1.00
6. Laneto 50	1.00
7. Quaternium 18	0.70
8. Methylparaben	0.15
9. Propylparaben	0.05
10. Imidazolidinyl Urea	0.20
11. Color and Fragrance	QS

Compounding Procedure:

Combine all ingredients, mix until uniform.

Formulation HB-89-PA-1

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Crayon Eyeshadow

This formulation is non-greasy, glides on evenly and easily, and gives lustrous highlights.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Castor Oil (q.s. to 100%)	31.50
	Beeswax (White Bleached Beeswax)	4.50
	Candelilla Wax (Candelilla Wax Refined Flakes)	4.50
	Myristyl Myristate (Crodamol MM)	4.50
	Octyl Palmitate	4.50
	Isopropyl Palmitate (and) Lanolin Oil (Isopropylan 33)	4.50
	Ozokerite Wax (Ozokerite Wax 77W)	5.00
	Shea Butter (Shebu Refined)	6.00
	Isopropyl Myristate	3.00
	Antioxidant	q.s.
	Antimicrobial	q.s.
B.	Gemtone Sapphire G0011	32.00

Procedure:

1. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 85+-3C, stirring until melted and uniform. II. Add in phase B and mix until all the pearl pigment is well dispersed. III. Pour at 75+-5C

Note: If iron oxide or organic pigments are used, they should first be dispersed in castor oil; this mixture should then be milled in either a colloid or roller mill.

Typical Properties:

Droop Point (44C): Passes
Capillary Point: 50C+-3C
Formulation CLE-92009

Emulsion Cream Eyeshadow

This product is a rich cream with coconut oil emollient, which is customarily packaged in an automatic dispenser. It displays excellent application, coverage and luster characteristics.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Sucrose Distearate (Crodesta F-10)	1.10
	Glycerol Monostearate (Pure)	5.30
	Hydrogenated Coconut Oil	5.30
	PPG-5 Lanolin Wax (Propoxyol-5)	1.40
	Oleth-20 (Brij 98)	1.40
	Antimicrobial (oil soluble)	q.s.
B.	Methyl Gluceth-20 (Glucam E-20)	3.50
	Lauramine Oxide (Ammonyx LO)	0.70
	Distilled Water (qs to 100%)	51.30
	Antimicrobial (water soluble)	q.s.
	Cloisonne' Rouge Flambe' 440X	15.00
	Duochrome YR (Gold/Red) 422C	15.00

Procedure:

- I. Add Phase B ingredients to a heated vessel and stir bringing temperature to 75+-3C. II. Add Phase A ingredient to the primary vessel and heat to 75+-3C, mixing until uniform. III. Add Phase B to Phase A with constant sweep agitation. IV. Cool gradually to 35+-5C and fill.

Source: The Mearl Corp.: Formulation CLE-920011

Cream Eye Shadow

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Stearic acid	3.00
	Lexemul 515	2.00
	Promulgen D	1.00
	Candelilla wax	1.00
	Cerephyl 424	1.00
	DC 200 fluid	0.50
	Propylparaben	0.10
2	Deionized water	34.30
	Ultramarine blue	6.00
	TiO ₂	1.50
3	Timica pearlwhite	5.00
4	Deionized water	30.00
	PVP	4.00
5	Propylene glycol	5.00
	Methocel 40-202	0.20
	Veegum	0.50
6	Deionized water	2.00
	TEA	1.20
	Phenoxyethanol	0.50
	Versene 100 (EDTA)	0.10
	Antifoam AF emulsion	0.05
7	Deionized water	1.00
	Dowicil 200 preservative	0.05

Procedure:

1. Weigh ingredients in oil phase (Phase 1) into a clean auxiliary compounding kettle equipped with a mixer. Heat to 82C.
2. Weigh water (Phase 2) into main compounding kettle equipped with a colloid mill. Slowly add pigments and mill until all pigments are completely dispersed.
3. Add Phase 5 (which has been previously blended) and mill until smooth.
4. Add Phase 6 and previously dispersed Phase 4. Mill for 5 minutes and turn off mill. Heat water phase to 80C with mixing.
5. With water phase at 80C, add oil phase at 82C and mix 10 minutes. Start to cool batch.
6. When batch reaches 60C, slowly add Phase 3 (Timica Pearlwhite). Continue mixing.
7. When batch reaches 45C, add Phase 7 (dissolved Dowicil 200). Continue mixing batch to room temperature. Allow batch to reach proper viscosity by sitting several hours before filling.

SOURCE: Dow Chemical Co.: Suggested Formulation

Cream Eyeshadow

A cream eyeshadow formula that goes on smooth, sets quickly, and delivers long-wearing performance.

Phase:	Ingredients:	%wt.
A.	Water (q.s. to 100%)	63.9
	Magnesium Aluminium Silicate (Veegum)	1.5
B.	Cloisonne' Green 828C	12.5
	Cloisonne' Nu-Antique Green 828CB	2.0
	Mearlmica SVA	5.5
C.	Propylene Glycol	8.0
	Cellulose Gum (CMC-7LF)	1.0
D.	Triethanolamine (TEA 99%)	0.8
	Antimicrobial (water soluble)	q.s.
E.	Stearic Acid	3.5
	Glyceryl Stearate (Aldo MSC)	0.8
	Oleyl Alcohol (Novol)	0.5
	Antimicrobial (oil soluble)	q.s.

Procedure:

- I. Disperse Veegum into Water using high shear mixing until smooth.
- II. Blend Phase B and add to Phase A, mixing until thoroughly dispersed.
- III. Add Phase C slurry to Phase A-B and mix until smooth.
- IV. Add Phase D to Phase A-B-C with gentle agitation and heat to 75+-5C.
- V. In a support vessel heat Phase E ingredients to 75+-5C with gentle agitation.
- VI. Add Phase E to Phase A-B-C-D with gentle agitation, maintaining temperature at 75+-5C.
- VII. Maintain constant agitation and cool batch to 35+-5C; store or fill into appropriate containers.

Typical Properties:

Identity: Oil/Water Emulsion
 Viscosity: 5100+-500 cps
 pH: 7.30+-0.5
 Formulation CLE-920003

Velvety Pressed Powder Eyeshadow

Pressed powder eyeshadow formulation having a smooth feel and a velvety look when applied to the skin.

Phase:	Ingredients:	%wt.
A.	Talc (qs. to 100%)	32.00
	Zinc Stearate	3.00
	Chromium Oxide Green (C61-1245 Cosmetic Green)	3.00
	Timica Sparkle 110P	11.20
	Antimicrobial	q.s.
	Mearlmica SVA	38.80
B.	Antioxidant	q.s.
	Squalane	5.00
	Mineral oil	7.00

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending until uniform. IV. Pulverize and press.

SOURCE: The Mearl Corp.: Formulation CLE-911038

Cream Make-up

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Stearic acid	3.50
	Lexemul P	2.00
	Promulgen D	1.00
	Cerephyl 424	1.50
	Carnation oil	10.00
	Dow Corning 200	0.50
	Cetyl alcohol	0.50
2	Deionized water	59.15
	Titanium dioxide	9.00
	Mapico yellow	1.60
	Red 3098	0.60
	Blade iron oxide	0.30
3	Propylene glycol	5.00
	Methylparaben	0.20
	Ethylparaben	0.10
	Veegum	0.50
	Methocel 40-202	0.20
4	Deionized water	2.00
	Triethanolamine	1.20
	Dow Corning antifoam AF emulsion	0.05
5	Deionized water	1.00
	Dowicil 200 preservative	0.05
	Versene 100 (EDTA)	0.05

Procedure:

1. Weigh all materials in Phase 1 into a clean auxiliary compounding kettle equipped with mixer. Heat to 82C with mixing.
2. Weigh water in Phase 2 into main compounding kettle equipped with a colloid mill. Slowly add pigments and mill until completely dispersed.
3. Blend the ingredients in Phase 3 completely. Add Phase 3 to the dispersed pigment phase (Phase 2) and mix until smooth. Add Phase 4 and mix until smooth. Mill for 5 minutes.
4. Heat aqueous phase to 80C with mixing.
5. When water phase reaches 80C, start adding oil at 82C slowly to water phase. When all the oil phase has been added to water phase, continue mixing maintaining 80C temperature. Mix ten minutes.
6. Begin to cool batch.
7. At 45C add Phase 5 which has been previously blended.
8. Cool batch to room temperature with mixing. Allow batch to sit several hours to reach proper viscosity before filling.

SOURCE: Dow Chemical Co.: Suggested Formulation

Creamy Blusher

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Stearic acid	3.00
	Lexemul P	2.00
	Lexemul 515	1.50
	Candelilla wax	1.00
	Ozokerite	1.00
	Beeswax	1.00
	Dow Corning 200	0.50
	Carnation oil	6.00
	Myristyl Myristate	2.00
	Propylparaben	0.10
2	Deionized water	63.35
	Titanium dioxide	5.00
	Mapico yellow	2.00
	Red iron oxide 3098	1.50
3	Deionized water	2.00
	Triethanolamine	1.50
	Versene 100 (EDTA)	0.10
	Antifoam AF emulsion	0.05
4	Propylene glycol	5.00
	Methocel 40-202	0.20
	Veegum	0.50
	Phenoxyethanol	0.50
	Methylparaben	0.20

Procedure:

1. Weigh all materials in Phase 1 into a clean auxiliary compounding kettle equipped with a mixer. Heat to 82C with mixing.
2. Weigh water (Phase 2) into main compounding kettle equipped with a colloid mill. Slowly add pigments, milling until completely dispersed. Start adding Phase 4 dispersion which has been previously mixed. Mill until smooth. Add Phase 3 mixture and mill for 5 minutes. Turn off mill and drain into batch.
3. Start heating milled water phase to 80C. With oil phase at 82C and water phase at 80C, slowly add oil to water with moderate mixing.
4. Mix batch at 80C until a homogeneous emulsion is formed. Mix ten minutes more then start to cool.
5. Mix to room temperature.

Note:

When mixing frosted shades, add Phase 5 (Timica Pearlwhite) to batch during cooling phase in step 3 when batch is between 60-65C.

SOURCE: Dow Chemical Co.: Suggested Formulation

Creamy Pearl Blush

This formulation yields a smooth, creamy product that is easy to apply and allows sufficient "play time" for blending, yet shows excellent wear ability with good luster/non-greasy feel

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt</u>
A.	Laneth-16 (and) Ceteth-16 (and) Oleth 16 (and) Steareth 16 (Solulan 98) Isopropyl Myristate Beeswax (synthetic) Sorbitan Monostearate (Arlacel 60) Distilled Lanolin Alcohol (Super Hartolan) Glyceryl Tribehenate (Synchrowax HR-C) Paraffin (Paraffin Wax Fully Refined 130) Antimicrobial (oil soluble) Antioxidant	2.20 2.70 2.70 5.50 5.30 3.90 4.40 q.s. q.s.
B.	Propylene Glycol Polyoxyethylene (20) Sorbitan Monostearate (Polysorbate 60) Demineralized Water (qs. to 100%) Antimicrobials (water soluble)	5.40 2.60 45.40 q.s.
C.	Cloisssonne' Super Red 434Z Cloisssonne' Rouge Flambe 440X Flamenco Superpearl 120C	6.70 6.60 6.60
D.	Fragrance	q.s.

- I. Heat Phase A to 85+-3C with stirring until all ingredients are melted. II. In a separate vessel heat Phase B to 85+-3C with stirring until fully dispersed. III. Add Phase C to Phase B with stirring until fully dispersed and uniform. IV. Add Phase A to combined Phase B-C with stirring and remove from heat. V. Add Phase D with stirring at 43+-3C. VI. Drop batch below 30C and fill at room temperature. Formulation CLF-921236

Shimmering Pearl Pressed Powder Blush

This formulation provides a lustrous, pressed powder blush cake which is easily applied with a brush or applicator. It blends well, is long-wearing, and resists breakage.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Talc (qs. to 100%) Zinc Stearate Shinju 100T Mearlite GBU Cloisssonne' Cerise Flambe 550Z D&C Red #7 (C19-011 Rubine Lake) Antimicrobials	25.20 11.00 11.00 5.00 32.00 0.80 q.s.
B.	Fragrance Antioxidant Mineral Oil (Ervol) Sorbitan Diisostearate (Emsorb 2518)	q.s. q.s. 2.50 2.50
C.	Timica Golden Bronze 240A	10.00

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending. IV. Pulverize and return to blender. V. Add Phase C to Phase A-B and mix until uniform.

SOURCE: The Mearl Corp.; Formulation CLF-910155

Cuticle Conditioner

This cuticle conditioner leaves the cuticle soft and smooth to the touch. Ritachol and Ritalan have been added for lanolin-related skin conditioning attributes. The emulsion is oil/water and smooth-textured. It applies easily and resists removal by water.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Rita GMS	2.00
2. Stearic Acid	2.00
3. Ritachol 1000	5.00
4. Ritachol	3.00
5. Ritalan	2.00
6. Dimethicone	1.00
7. Propylparaben	0.15
8. Rita CA	4.00
9. Mineral Oil	2.00
Part B:	
10. Distilled Water	69.20
11. Propylene Glycol	3.00
12. Methylparaben	0.05
13. Sodium Lauryl Sulfate	1.25
14. Acrylic/Acrylate Copolymer	5.00
15. Fragrance	QS
16. Imidazolidinyl Urea	0.35

Add item 14 into item 10 and stir until thoroughly dispersed, then add items 11, 12, 13 and 16. Weigh Part A into another container and begin stirring and heating. Begin heating Part B. When Part A and B are at 70-73C, add Part A to Part B and continue stirring. When all of Part B has been added, begin cooling. Cool the batch to 40-43C and add the fragrance, Cool to 25-30C and package into suitable containers.

Formula HB-89-R-35

Cuticle Conditioner

This is a cuticle conditioner which leaves the cuticle soft and smooth to the touch. Ritachol and Ritaderm have been added for lanolin-related skin conditioning and natural moisturizing factor properties. The Pationic ISL conditions and moisturizes the skin. The emulsion is oil/water and smooth-textured to the touch. It applies easily and resists removal by water.

<u>Ingredients:</u>	<u>% W/W</u>
1. Glyceryl Stearate	2.00
2. Stearic Acid	2.00
3. Ritachol 1000	6.00
4. Ritachol	3.00
5. Ritaderm	2.00
6. Dimethicone	1.00
7. Pationic ISL	2.50
8. Distilled Water	76.50
9. Propylene Glycol	5.00
10. Color, Fragrance and Preservatives	QS

Combine items 1-7 and heat to 70-75C. Combine items 8 and 9 and heat to 70-75C. Combine both phases, cool with stirring to 45C. Add remaining ingredients.

Source: R.I.T.A. Corp.: Formulation HB-89-R-36

Dark Beige Liquid Makeup

	<u>% Weight</u>
Phase A:	
Water	48.880
Cellulose Gum	0.150
Magnesium Aluminum Silicate (Veegum R)	0.500
Propylene Glycol	5.000
Lecithin	1.000
Allantoin	0.050
Methylparaben	0.200
Triethanolamine, 85%	1.620
Phase B:	
Titanium Dioxide	9.660
Kaolin	2.250
Talc	1.026
Iron Oxide (Brown Oxide 7061)	0.360
Iron Oxide (Red Oxide 7067)	0.300
Iron Oxide (Red Oxide 7060)	0.684
Iron Oxide (Yellow Oxide 7055)	0.600
Ultramarine Blue	0.120
Phase C:	
Lanolin Alcohol	1.500
Glyceryl Stearate	0.800
Isopropyl Palmitate	4.000
Stearic Acid	0.500
Caprylic/Capric Triglyceride	6.000
Isoeicosane (and) Isohexacontane (Permethyl 102A, 75% (and) Permethyl 104A, 25%)	12.000
Isostearic Acid (Emersol 871)	2.400
Propylparaben	0.100
Phase D:	
Gerhall 115	0.200
Phase E:	
Fragrance	0.100

Procedure:

In a suitable kettle equipped with a Lightnin-type mixer, charge water, and slowly sprinkle in Veegum R. Hydrate well. Sprinkle in cellulose gum and mix for 15-20 minutes, depending upon the size of the batch and equipment used. Start heating kettle to 65-70C and add balance of Phase A excluding triethanolamine. Bring temperature up to 70-72C and add Phase B in order given. Pass entire batch through homomixer, or if possible, use homomixer in tank and circulate batch through colloid mill (in line). Check pigment dispersion and continue mixing until no visible color streaks show on draw down.

In a separate vessel equipped with a Lightnin-type agitation, combine Phase C and heat until a clear, uniform solution is achieved. Maintain temperature at 72-75C. When both phases are at proper temperature, add the triethanolamine to batch. Add Phase C to batch. Mix slowly to avoid aeration. After mixing for 15-20 minutes, cool batch to 50C and add Phase D, then add Phase E. Continue cooling to 40C. Submit sample to lab for color evaluation. Adjust batch with small portions and grind pigment well. After color is approved, cool to room temperature and pour.

SOURCE: Sutton Laboratories; **Suggested Formulation**

Dual Face Powder

A face powder formulation designed for dual application, wet or dry. This product will impart a transparent foundation finish upon wet application; whereas, upon dry application will impart a soft velvety look.

<u>Ingredients:</u>	<u>%wt.</u>
A. Mearltalc TCA	70.50
Mearlmica SVA	19.50
Zinc Oxide (Zinc Oxide USP)	2.00
Iron Oxide (Yellow Iron Oxide C33-8073)	0.70
Iron Oxide (Brown Iron Oxide C33-115)	0.70
Iron Oxide (Red Iron Oxide A6205)	0.30
Iron Oxide (Brown Iron Oxide C33-5136)	0.30
Antimicrobials	q.s.
B. Fragrance	q.s.
Antioxidant	q.s.
Squalane (Fitoderm)	2.00
Dimethicone (Dow Corning 200 Fluid)	0.50
Mineral Oil	3.50

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment.
 - II. Spray Phase B into premixed Phase A and continue blending.
 - III. Pulverize and press.
- Formulation CLF-910189E

Silky Face Powder

An ultra-luxurious pressed powder formulation using creamy textured Mealmica SVA. This product provides glide on application, smooth silky feel and long lasting cling.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Talc (q.s. to 100%)	55.10
	Mearlmica SVA	15.00
	Boron Nitride	10.00
	Titanium Dioxide (C47-056)	8.50
	Silica (Spherica P-1500)	2.30
	Iron Oxide (C33-8073 Cosmetic Yellow)	1.50
	Iron Oxide (C33-115 Cosmetic Brown)	1.00
	Iron Oxide (62050 Red Iron Oxide)	0.60
	Antimicrobials	q.s.
B.	Fragrance	q.s.
	Antioxidant	q.s.
	Isopropyl Palmitate (and) Lanolin Oil (Isopropylan 36)	4.50
	Mineral Oil	1.50

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment.
- II. Spray premixed Phase B into premixed Phase A and continue blending.
- III. Pulverize and press.

Formulation CLF-910959

SOURCE: The Mearl Corp.: Suggested Formulations

Emulsion Cream Mascara

This product is a pearly cream, which builds thicker and longer-looking lashes. It can be easily removed with soap and water.

Phase:	Ingredients:	%wt.
A.	Demineralized Water (qs. to 100%)	47.50
	Triethanolamine (TEA 99%)	2.00
	Propylene Glycol	15.00
B.	Flamenco Twilight Gold 230ZB	12.00
C.	Candelilla Wax (Refined, Candelilla Wax)	12.00
	Stearic Acid (Emersol 120)	4.50
	Isostearic Acid (Emersol 871)	4.50
	Antimicrobials (oil soluble)	q.s.
D.	Demineralized Water	2.50
	Antimicrobials (water soluble)	q.s.

Procedure:

- I. Add Phase A ingredients to the main vessel.
- II. Add Phase B to Phase A with agitation, and raise the temperature to 75+-3C.
- III. Add Phase C to the support vessel and mix while raising temperature to 80+-3C.
- IV. When the water and oil phases are both at 75+-3C, add Phase C to Phase A-B and maintain sweep agitation.
- V. With constant agitation cool batch to 50C and add pre-mixed Phase D solution to Phase A-B-C.
- VI. Continue stirring and cooling to 40C; batch may be filled below this temperature.

Formulation CLE-920012

Waterproof Mascara

This formulation offers a high viscosity waterproof mascara, suitable for use while swimming. It is extremely long-wearing and can be removed with baby oil.

Phase:	Ingredients:	%wt.
A.	C11-12 Isoparaffin (Isopar H) (q.s. to 100%)	45.70
	Petroleum Distillate (Shell-Sol-71)	10.00
	Tall Oil Glycerides (Zonester 85)	10.00
	Carnauba Wax (#1 Yellow Carnauba Wax)	3.00
	Polyethylene (A-C Polyethylene)	2.00
B.	Talc	3.00
	Kaolin	3.00
	Flamenco Twilight Blue 620CB	10.00
	Antimicrobials	q.s.
C.	Quaternium-18 Hectorite (Bentonite 38)	10.00
D.	Propylene Carbonate	3.30

Procedure:

- I. Add Phase A ingredients to a vessel equipped with a high shear agitator; heat to 95+-2C with gentle agitation until a clear solution is obtained. II. Add Phase B to Phase A and mix until uniform. Note: Care should be taken to avoid loss of volatile solvents. III. Add Phase C to Phase A-B and mix vigorously until smooth. IV. Add Phase D to Phase A-B-C with slow agitation; a heavy gel will form. V. Cool batch to 60C and fill or pump into storage drums.

SOURCE: The Mearl Corp.; Formulation CLE-910110

Facial Cleanser

This cleansing formulation is light, non-greasy and water-rinsable. It provides thorough cleansing without drying the skin.

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	89.55
Cocoamphodiacetate	1.00
Quaternium-15	0.10
Methylparaben	0.10
Propylparaben	0.05
Part B:	
Isostearyl Benzoate	4.00
Dioctyl Maleate	2.00
Caprylic/Capric Triglyceride	1.00
Octyl Hydroxystearate	1.00
Pemulen TR-2	0.20
Carbopol 980	0.60
Part C:	
AMP-95	0.40

Formulation PF-0164 suggested by B.F. Goodrich Chemical Group

Face Gel with Sulfur
(for use on oily skin)

<u>Ingredients:</u>	<u>% by weight</u>
A. Ethanol, 96%	
Water, distilled	30.0
Carbomer 980	50.1
	4.0
B. Glycerol	
Sulfur	4.0
	1.0
C. Water, distilled	
Tris Amino	12.7
Vitamin B Complex CLR	0.8
	0.5

Procedure:

- Part A: Mix the alcohol and water. Disperse the Carbomer 980 in this mixture.
- Part B: Grind sulfur with glycerol (possibly in a salve mill). Stir A slowly into B.
- Part C: Dissolve Tris Amino in the water and stir into A + B. Work vitamin B complex into the finished gel.

Formulation PF-0190E

SOURCE: Angus Chemical Co.: Suggested Formulations

Facial Cleanser

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	89.55
Cocoamphodiacetate	1.00
Quaternium-15	0.10
Methylparaben	0.10
Propylparaben	0.05
Part B:	
Isostearyl Benzoate	4.00
Dioctyl Maleate	2.00
Caprylic/Capric Triglyceride	1.00
Octyl Hydroxystearate	1.00
Pemulen TR-2	0.20
Carbopol 980	0.60
Part C:	
AMP-95	0.40

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. Mix to dissolve parabens. Combine B ingredients in a separate vessel. Mix to disrupt any soft lumps of Pemulen and Carbopol. With moderate agitation, add the B slurry to A. Mix for 10-20 minutes to allow resins to swell. Add C and mix vigorously to produce a smooth, white cream.

Formulation PF-0226 suggested by B.F. Goodrich

Nail Strengthening Composition

<u>Ingredients:</u>	<u>% by weight</u>
Mimosa extract	0.5
Sodium lauroyl sarcosinate	1.6
Sodium polyacrylate	1.0
Bronopol	0.1
Water	q.s. to 100.00
Sodium hydroxide - adjust pH to 8.0	

This preparation for strengthening the fingernails is described in German Patent DE 3,403,476. The patent claims that the strength of the fingernails may be improved by treating them with Quebracho extract (especially Schinopsis balansae and S. lorentzii) and/or Mimosa extract (Acacia mearnsii). These extracts contain condensed and hydrolyzable tannins that are said to be bound rapidly to nail keratins.

Formulation PF-0124 from Cosmetics and Toiletries, Vol. 101, January 1986

SOURCE: Angus Chemical Co.: Suggested Formulations

Facial Cleanser

A clear facial cleanser which has good cleaning properties, yet is proven to have no irritation.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	63.33
2. Sodium Laureth Sulfate (2 Mole)	16.67
3. Pationic 138C	10.00
4. Ritamid C	4.00
5. Methylparaben	0.10
Part B:	
6. Triethanolamine (50%)	2.00
Part C:	
7. Perfume	0.20
8. Glydant 40-700	0.20
Part D:	
9. Sodium Chloride (25% Solution)	3.50

Compounding Procedure:

Heat Part A to 165F. While mixing, neutralize to 7.5 with Part B. Cool to 120F. Add Part C. Adjust viscosity with Sodium Chloride (25% solution).

Initial pH: 7.0 - adjusted to 7.5. After 24 hours: 7.8
Formulation 102-13

Temporary Wrinkle Remover

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 941	0.20
2. Distilled Water	73.15
3. Glycerin	4.00
4. Methylparaben	0.10
Part B:	
5. Ritachol	2.50
6. Ritawax ALA	1.00
7. Glyceryl Stearate	1.00
8. Stearic Acid	2.00
9. Ritalan	4.50
10. Propylparaben	0.05
Part C:	
11. Triethanolamine (50% Solution)	2.00
Part D:	
12. Bovinal 30	7.50
Part E:	
13. 2-Phenoxyethanol	1.00
14. Benzyl Alcohol	1.00

Compounding Procedure:

Disperse Acritamer in water and glycerin with rapid agitation. When uniform, heat to 75C. Combine part B and heat to 75C. Add part B to part A with agitation, avoid aeration. Mix until uniform. Add part C and mix until uniform. Cool to 30C. Add part D and mix until uniform. Add part E.

Formulation 108-3D

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Foot Cooling Gel

An easily applied gel which soothes and cools feet.

<u>Ingredients:</u>	% W/W
Part A:	
1. Distilled Water	45.85
2. Glycerin	1.50
3. Ucon 50 HB-660	1.00
Part B:	
4. Isopropyl Alcohol	50.00
5. Acritamer 940	1.00
6. Menthol	0.15
Part C:	
7. Isopropylamine/Distilled Water	+ -0.50

Compounding Procedure:

Combine materials in Part A with agitation and mix until uniform. In Part B add Menthol to the Isopropyl Alcohol. Mix until uniform, sprinkle in Acritamer and mix until a thin, cloudy dispersion without lumps is attained. Prepare Part C and mix.

Slowly add Part A to Part B with moderate agitation. Continue mixing for 30 minutes to ensure a uniform solution. Slowly add Part C with agitation until the pH of the solution is 6.0 to 6.2 and a clear gel is formed. (Sweep agitation is recommended).

Properties:

Initial Viscosity: Brookfield: 40,000 cps.

48 Hour pH: 6.0 48 Hour Viscosity: Brookfield: 57,000 cps

Formulation: H-89-A-10

Foot Cooling Gel

An easily applied gel which soothes and cools feet.

<u>Ingredients:</u>	% W/W
Part A:	
1. Distilled Water	45.85
2. Glycerin	1.50
3. Ucon 50 HB-660	1.00
Part B:	
4. Alcohol SD40	50.00
5. Acritamer 940	1.00
6. Menthol	0.15
Part C:	
7. Isopropanolamine/Distilled Water (50/50)	0.50

Compounding Procedure:

Part A: Combine materials with agitation until thoroughly mixed. Part B: Add Menthol to the Alcohol SD40 and mix until dissolved. Sift Acritamer 940 into the Alcohol SD40 with rapid agitation and mix until a thin, cloudy dispersion without lumps is attained. Part C: Combine isopropanolamine and distilled water and mix until thoroughly blended.

Slowly add Part A to Part B with moderate agitation. Continue mixing for 30 minutes to insure a uniform solution. Slowly add Part C with agitation until the pH of the solution is 6.0 to 6.2 and a clear gel is formed. (Sweep agitation is preferred).

Initial Viscosity: Brookfield: 60,500 cps Initial pH: 5.9

SOURCE: R.I.T.A. Corp.; Formulation 101-184B

Gel-Blush Frost

This easy to prepare luxurious gel blush possesses a remarkable velvety feel, excellent spreadability, and a warm frost glow

Phase:	Ingredients:	%wt.
A.	Ethylene/Vinyl Acetate Copolymer (A-C Copolymer 400)	9.50
	Acetylated Lanolin Alcohols (Acetulan)	10.00
	Mineral Oil (Light) 125/135 SUS	10.60
	Lanolin Oil (Lanogene)	2.50
	Cyclomethicone (Silicone Fluid 344)	5.00
	Cyclomethicone (Silicone Fluid 345)	2.50
	Isopropyl Lanolate (Amerlate P)	4.50
	Ozokerite 170-D	2.00
	Beeswax (Synthetic)	2.00
	Isopropyl Myristate	13.10
	Lanolin Alcohol (Super Anatol)	8.00
	Antioxidant	q.s.
	B.	Gemtone Tan Opal G005
Gemtone Ruby G0010		10.00
Gemtone Garnet G009		15.00
C.	Antimicrobials	q.s.
	Fragrance	q.s.

Procedure:

- I. Heat combined Phase A to 83+-3C with stirring until a clear solution is obtained. II. Add Phase B to Phase A and stir until uniform. III. Cool to 62+-3C and add Phase C. IV. Continue mixing and fill at 50+-5C.
Formulation CLF-920023

Blush Stick

An easy to prepare stick blusher formulation which gives a natural radiance to the cheeks.

Phase:	Ingredients:	%wt.
A.	Isostearyl Neopentanoate (Schercemol 185)	33.70
	Talc (Cyprus Supra - qs. to 100%)	15.30
	Ozokerite Wax	13.00
	Castor Oil	11.00
	Candelilla Wax	4.00
	Octyl Methoxycinnamate (Parsol MCX)	3.00
	Antioxidant	q.s.
	Antimicrobial	q.s.
B.	Duochrome RY (Red/Gold) 224C	15.00
	Mattina Red 424F	5.00
C.	Fragrance	q.s.

Procedure:

- I. Weigh all the ingredients in Phase A into a heated vessel. Heat and stir until melted and uniform (75+-3C). II. Add Phase B maintaining temperature at 75+-3C and mix until all the pigment is well dispersed. III. Add Phase C and mix with constant stirring. IV. Mold into sticks. Note: If iron oxide or organic pigments are used, they should first be dispersed in castor oil; this mixture should then be milled in either a colloid or roller mill.
Formulation CLF-920024

SOURCE: The Mearl Corp.; Suggested Formulations

Gentle Beauty Wash

<u>Ingredients:</u>	<u>% by weight</u>
Deionized Water	46.20
Propylene Glycol	8.00
50% Sodium Hydroxide	0.60
Bentone EW	0.40
Stearic Acid, Triple Pressed	8.00
Igepon AC78	11.00
Sipon ESY	11.00
Siponate DDB-40	5.00
Alconate SBR-3	2.50
Sodium Isethionate 55	6.50
Oxaban-A Preservative	0.05
Fragrance KU 70	0.75

Procedure:

Disperse the Bentone EW in the deionized water, sodium hydroxide and propylene glycol with rapid agitation. Start heating. Decrease agitation and add the stearic acid and Igepon AC78. Continue heating until the Igepon AC78 has dissolved (70C). Add the Sipon ESY, Siponate DDB-40, Alconate SBR-3 and Sodium Isethionate 55. Start cooling. Add the preservative and fragrance at 35C. The viscosity and pearl will develop upon standing.

Formulation PF-0170 from Personal Care Perspectives, Rhone-Poulenc, Vol. 1, Issue 2 August 1991

Moisturizing Gel

<u>Ingredients:</u>	<u>% by weight</u>
A. Water	89.20
Glycerin	7.00
Sorbitol (70%)	3.00
Oxaban-A	0.10
B. Carbomer 980	0.50
C. AMP-95	0.20

Procedure:

1. Combine the A ingredients and, with rapid agitation, slowly add Carbomer 980. Mix until a uniform dispersion is obtained—usually about 20 minutes.
2. Add AMP.

Formulation PF-0188

SOURCE: Angus Chemical Co.: Suggested Formulations

Glossy Lipstick

This "glossy" pearl lipstick formulation provides very high luster, even before flaming. In addition, halogenated fluoresceins (e.g. D&C Red #27) can be added to the formula to obtain a more long lasting effect.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Candelilla Wax	8.00
	Ozokerite Wax	1.60
	Microcrystalline Wax (Multiwax 180W)	1.60
	Octyl Palmitate (Wickenol 155)	6.00
	Cetyl Palmitate (Cutina CP)	3.00
	Lanolin Oil (Lanogene)	18.00
	Shea Butter (Shebu Butter)	2.50
	Castor Oil (q.s. to 100%)	44.30
	Antioxidant	q.s.
	Antimicrobials	q.s.
B.	Cloisonne' Super Red 434Z	5.00
	Gemtone Sunstone G0012	10.00
C.	Fragrance	q.s.

Procedure:

- I. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 85+3C, stirring until melted and uniform
 - II. Add in Phase B and mix until all the pearl pigment is well dispersed. III. Add in Phase C and mix with constant stirring.
 - IV. Pour at 75+5C. V. Mold, cool and flame the lipsticks. Note: If iron oxide or organic pigments are used, they should first be dispersed in Castor oil, this mixture should then be milled in either a colloid or roller mill.
- Formulation CLL-921944

Soft Lipstick

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Carnauba Wax	12.00
	Hydrogenated Lanolin (Lipolan)	13.00
	Stearyl Heptanoate (Crodamol W)	15.00
	Lauryl Lactate (Schercemol LL)	16.00
	Decyl Oleate (Cetiol V)	15.00
	Butyl Stearate	14.00
	Antioxidant	q.s.
B.	Antimicrobial	q.s.
	Flamenco Super Red 430Z	7.00
	Gemtone Garnet G009	2.00
C.	Gemtone Tan Opal G005	6.00
	Fragrance	q.s.

Procedure:

- I. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 85+3C, stirring until melted and uniform
 - II. Add in Phase B and mix until all the pearl pigment is well dispersed. III. Add in Phase C and mix with constant stirring.
 - IV. Pour at 75+5C. V. Mold, cool and flame the lipsticks.
- Formulation CLL-921968

SOURCE: The Mearl Corp.: Suggested Formulations

Ice Gel

<u>Ingredients:</u>	<u>% by weight</u>
A. Carbopol 1382	1.00
Water, Distilled	50.00
EDTA Acid	0.10
B. Tris Amino	1.20
Water, distilled	10.00
C. Menthol	0.05
Perfume oil	2.00
Cremophor RH 40	3.00
Ethanol	25.00
Water, distilled	to 100.00

Procedure:

Part A: Disperse Carbomer 980 and EDTA homogeneously in water.

Part B: Dissolve Tris Amino in water.

Part C: Dissolve menthol in ethanol and add the mixture of perfume oil and Cremophor. Mix C thoroughly with part A. Add part B.

Preservation: 0.1% Euxyl K 400

Protection against light: Uvino1 400

Formulation PF-0193E

Liposome Gel

<u>Ingredients:</u>	<u>% by weight</u>
A. Epikuron SH 200	0.5
Phosphate buffer	38.0
B. Carbomer 980	0.5
Tris Amino	0.5
EDTA	0.1
Water	80.4

Procedure:

Part A: Combine Epikuron and phosphate buffer, mix slowly at 70C for 30 minutes (Stephan Mixer UMC, 300 rpm), homogenize at high speed (1500 rpm) for 30 minutes and then cool to -25C while stirring for 5 minutes at 1500 rpm. Stir under vacuum (about 0.2 bar).

Part B: Disperse Carbomer 980 into water. Add EDTA. Add Tris Amino and continue to stir for 5 minutes. Stir under vacuum (about 0.2 bar) until homogeneous.

Part C: Mix A and B for 5 minutes at 300 rpm. Stir under vacuum (0.2 bar).

Formulation PF-0195E

SOURCE: Angus Chemical Corp.: Suggested Formulations

Lip Balm I (514122)

Drakeol 7, Light Mineral Oil USP	41.0 wt%
Ozokerite Wax	20.0
White Beeswax	15.9
Cetyl Alcohol	9.2
Candelilla Wax	7.2
Penreco Ultima, White Petrolatum USP	3.8
Butyl Stearate	2.9

Heat ingredients at 70C until completely melted, with stirring, to ensure homogeneity. Pour into molds and cool. BHT also may be added to the hot mixture if desired.

Lip Balm II (514133)

Penreco Ultima, White Petrolatum USP	48.99 wt%
Yellow Beeswax	10.05
Isopropyl Palmitate	9.00
Castor Oil	8.70
Candelilla Wax	6.00
Stearyl Alcohol	4.75
Ozokerite Wax	4.10
Carnauba Wax	4.10
Isopropyl Lanolate	3.20
Dimethicone	1.10
Vitamin E Acetate	0.01

Heat all ingredients together at 70C until melted. When the blend is completely uniform, pour into molds and cool. If desired, fragrance may be added just above the solidification point, prior to molding.

Creamy Lipstick Base (514157)

Castor Oil	40.0 wt%
Drakeol 7, Light Mineral Oil USP	17.0
Penreco Snow, White Petrolatum USP	8.0
Yellow Beeswax	7.0
Candelilla Wax	7.0
Isopropyl Myristate	5.0
Carnauba Wax	3.0
Ozokerite Wax	3.0

Heat all ingredients together with gentle stirring until melted. Once the blend is homogeneous, pour into molds and cool. Fragrance and antioxidants may be added just above the solidification point, prior to molding. Some of the castor oil may be substituted with a castor oil dispersion of lipstick pigments to give a final product.

SOURCE: Penreco: Penreco Cosmetic Formulary

Lip Glaze

A lip gloss formulation imparting excellent sheen and emollience to the lips. Can be applied by itself or over lipstick to enhance luster. Suitable for filling into tubes or automatic type containers.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Acetylated Lanolin (Modulan)	20.60
	Mineral Oil (Carnation White Mineral Oil)	6.00
	Silica (Cab-O-Sil M-5)	2.00
	Kaolin	5.00
	D&C Red #6 (Ca Lake C19-022)	2.10
	D&C Red #30 (Talc Lake C37-5290)	0.40
	Antimicrobials	q.s.
	Antioxidant	q.s.
B.	Polybutene (Indopol H-100)	35.00
	Acetylated Lanolin (Modulan)	18.60
	Mineral Oil (Carnation White Mineral Oil)	6.00
	Ozokerite Wax (Ozokerite Wax White 77W)	2.00
C.	Cloisonne' Monarch Gold 233X	2.30
D.	Fragrance	q.s.

- I. Add Phase A ingredients to a heated vessel equipped with a homogenizer. II. Raise temperature to 75+-5C and homogenize Phase A for 30 minutes until smooth. III. Add Phase B ingredients to Phase A, maintaining temperature at 75+-5C and agitating with a marine type mixer. IV. When the Ozokerite Wax has melted and product is uniform, add Phase C ingredients and mix an additional 15 minutes. V. Add Phase D and mix with constant stirring. VI. Cool to 40+-5C and fill into containers. Note: If iron oxide or organic pigments are used, they should first be dispersed in mineral oil; the mixture should then be milled in either a colloid or roller mill.

Formulation CLL-920052

Medium Lipstick

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Carnauba Wax	13.70
	Beeswax	8.50
	Isopropyl Myristate	30.00
	Castor Oil (q.s. to 100%)	32.80
	Antioxidant	q.s.
	Antimicrobials	q.s.
B.	Gemtone Garnet G009	10.50
	Gemtone Goldstone G0014	4.50
C.	Fragrance	q.s.

- I. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 85+-3C, stirring until melted and uniform. II. Add in Phase B and mix until all the pearl pigment is well dispersed. III. Add in Phase C and mix with constant stirring. IV. Pour at 75+-5C. V. Mold, cool and flame the lipsticks.

Note: If iron oxide or organic pigments are used, they should first be dispersed in Castor oil; this mixture should then be milled in either a colloid or roller mill.

SOURCE: The Mearl Corp.: Formulation CLL-921945

Lip Gloss

This lip gloss imparts a rich, supple and moist appearance to the lips. Ritalan C contributes excellent lubricating and emollient qualities, as well as facilitating pigment dispersion.

<u>Ingredients:</u>	<u>% W/W</u>
1. Lanolin	46.60
2. Distilled Water	20.00
3. Ritalan C	10.00
4. Ozokerite	+4.00
5. Pigment	2.00
6. Propylparaben	0.10
7. Methylparaben	0.10
8. Allantoin	0.20
9. Pearl	12.00
10. Octyl Palmitate	5.00
11. Fragrance	QS

Compounding Procedure:

Add item 1 into a container and heat to 70-75C. Begin stirring and add item 2. Mix until the water is thoroughly dispersed and add the remaining ingredients with the exception of the fragrance, while stirring continuously. Maintain the temperature at 70-75C until the blend is completely homogeneous. Cool to 50-55C and add the fragrance. Package fill into suitable containers while stirring continuously.

Formulation HB-89-L-22

Lip Balm with Shebu

This formulation applies smoothly and evenly, without leaving a greasy residual feel. Shebu has been included for its natural factor-related lubricating and conditioning properties. The formulation assists in the alleviation of rough, dry, chapped lips.

<u>Ingredients:</u>	<u>% W/W</u>
1. Petrolatum	67.00
2. Mineral Oil	10.00
3. Paraffin Wax	5.00
4. Carnauba Wax	9.00
5. Ritaderm	4.00
6. Shebu	5.00
7. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Combine items 1-6 and heat to 83C. Mix until uniform. Cool to 45C and add remaining ingredients.

Formulation HB-89-S-7

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Lip Pot

This formulation applies smoothly and evenly and imparts a rich, supple and moist appearance to the lips.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. White Petrolatum	86.00
2. Lanolin, Extra Deodorized	3.50
3. Pationic CSL	3.50
4. Lecithin (refined, cosmetic)	1.00
Part B:	
5. Distilled Water	5.70
6. d-Panthenol	0.30
Part C:	
7. Camphor	QS

Compounding Procedures:

Heat Part A and Part B to 165F. Add Part B to Part A with agitation. Maintain temperature for 10 minutes. Cool to 140F. Add Part C, if desired. Cool to 130F. Pour into containers.
Formulation 103-80

Lip Pot

This formulation applies smoothly and evenly and imparts a rich, supple and moist appearance to the lips.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. White Petrolatum	83.00
2. Lanolin, Extra Deodorized	3.50
3. Pationic CSL	3.50
4. Lecithin (Refined, cosmetic)	1.00
5. Patlac IL	1.00
Part B:	
6. Distilled Water	5.70
7. d-Panthenol	0.30
Part C:	
8. Camphor	1.00
9. Aloe Vera Extract	1.00

Compounding Procedures:

Heat Part A and Part B to 165F. Add Part B to Part A with agitation. Maintain temperature for 10 minutes. Cool to 140F. Add Part C and cool to 120F, pour into containers.
Formulation 103-82

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Liposome Eye Treatment

<u>Ingredients:</u>	<u>% by weight</u>
Dermasome RP (Vitamin A liposome)	3.00
Dermasome TRF (Biodynes TRF liposome)	3.00
Carbopol 1342	0.50
Finsolv TN (C12-C15 Benzoate)	2.00
Glycerine	2.00
Brookswax D	1.00
AMP-95	0.40
Germaben 2	1.00
Fragrance	0.10
Water	87.00

Procedure:

Disperse Carbopol. Heat to 70C, add Brookswax and Finsolv, Glycerine, Germaben. Neutralize. Cool to 40C. Add fragrances and Dermasomes with gentle agitation.

Formulation PF-0154 suggested by ChemMark Development, Inc.

Detergent Cleansing Gel

<u>Ingredients:</u>	<u>% by weight</u>
Carbomer 1342	2.00
Homogeneous 30 (cocoamidoproyl betaine)	20.00
Coconut diethanolamide	2.00
Crovol PK70 (palm kernel oil PEG-45 complex)	2.00
Tris Amino [Tris(hydroxymethyl)aminomethane]	to pH 6.0
Water, deionized	to 100.00
Preservatives, perfume, color	q.s.

Procedure:

Hydrate Carbopol in hot water (65-70C). Neutralize pH to 6.0. Add remaining ingredients (perfume predissolved in Crovol) and stir until homogeneous.

Formulation PF-0155 suggested by B.F. Goodrich

SOURCE: Angus Chemical Co.: Suggested Formulations

Lipstick

This smooth, creamy-textured lipstick applies easily and uniformly, providing excellent coverage. It helps to keep the lips lubricated and supple.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ozokerite	4.00
2. Carnauba Wax	3.70
3. Candelilla Wax	4.80
4. Shebu	8.00
5. Ritalan	35.00
6. Propylparaben	0.05
7. Supersat	10.00
8. BHA	0.10
9. Forlan L	2.00
10. Ritaderm	1.00
11. Color Pigments	2.50
12. Titanium Dioxide	0.50
13. Castor Oil	17.35
14. Ritasol	2.00
15. Pearl	9.00

Compounding Procedure:

Weigh and add items 1-10 into a container and begin stirring and heating the blend to 75-78C while continuing to stir. (An agitator equipped with a stirrer capable of imparting relatively high shear stress is recommended.) In another container weigh and add items 11-14. Pass the blend twice through a 3 roll mill and add to the Forlan L - Ritaderm - containing mixture. Bring temperature to 75-78C, and add the remaining ingredients. Cool to 68-70C while stirring continuously. Pour into suitable molds.

Formulation HB-89-S-4

Lip Moisturizer Stick

This formulation applies easily and smoothly and leaves the lips soft, smooth and supple. Ritaderm has been added for its lipid layer and natural moisturizing factor contributions.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ozokerite	4.50
2. Carnauba Wax	9.50
3. Shebu	9.00
4. Ritalan	30.00
5. Ritaderm	10.00
6. Octyl Palmitate	14.55
7. Castor Oil	10.00
8. Supersat	10.00
9. Fragrance	2.30
10. Propylparaben	0.10
11. BHA	0.05
12. Color	QS

Compounding Procedure:

Weigh all ingredients into a suitable container, omitting the fragrance, and heat while stirring to approximately 85C. When all ingredients have melted, begin cooling the batch. Cool to approximately 55C, add the fragrance, stir continuously and pour into suitable molds.

Formulation HB-89-S-3

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Lipstick "E lance" With Sunscreen

This lipstick formulation is suitable for use in a slender-swivel up case. The lipstick has a chisel shape and allows fine outlining of the lips as well as coating of the entire lip.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Candelilla Wax	8.90
	Beeswax	12.40
	Diisopropyl Adipate (Schercemol DIA)	13.50
	Isopropyl Lanolate (Amerlate P)	13.50
	Isostearyl Alcohol (Adol 66)	14.00
	Castor Oil (q.s. to 100%)	14.73
	Octyl Methoxycinnamate (Parsol MCX)	3.00
	Ozokerite Wax	5.10
	Iron Oxide (Brown C33-115)	0.37
	Antioxidant	q.s.
	Antimicrobials	q.s.
B.	Cloissone' Super Copper 350Z	8.00
	Gemtone Tan Opal G005	6.50
C.	Fragrance	q.s.

Procedure:

I. Weigh all the ingredients in Phase A into heated vessel. Heat to 85+-5C and stir until melted and uniform. II. Stir in Phase B and mix slowly until all the pearl pigment is well dispersed and no air bubbles form on the surface. III. Add Phase C and mix with constant stirring. IV. Mold, cool and flame the lipsticks.

Note: If iron oxide or organic pigments are used, they should first be dispersed in Castor oil; this mixture should then be milled in either a colloid or roller mill.

Formulation CLL-910152

Firm Lipstick

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt</u>
A.	Candelilla Wax	11.50
	Beeswax	15.00
	Isopropyl Lanolate (Amerlate P)	15.00
	Isostearyl Alcohol (Adol 66)	14.00
	Diisopropyl Adipate (Schercemol DIA)	13.50
	Castor Oil (q.s. to 100%)	16.00
	Antioxidant	q.s.
	Antimicrobials	q.s.
B.	Cloisone' Super Copper 350Z	6.00
	Cloisone' Cerise Flambe' 550Z	9.00
C.	Fragrance	q.s.

Procedure:

I. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 85+-3C, stirring until melted and uniform. II. Add in Phase B and mix until all the pearl pigment is well dispersed. III. Add in Phase C and mix with constant stirring. IV. Pour at 75+-5C. V. Mold, cool and flame the lipsticks. Note: If iron oxide or organic pigments are used, they should first be dispersed in Castor oil; this mixture should then be milled in either a colloid or roller mill.

Formulation CLL-921943

SOURCE: The Mearl Corp.: Suggested Formulations

Liquid Eye Liner

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Oleic acid	1.25
	Stearic acid	1.25
	Tween 20	0.20
	Arlacel 20	0.20
	Lexemul P	2.50
2	Lexemul 515	2.50
	Deionized water	36.65
	Antifoam AF emulsion	0.05
	Methylparaben	0.20
	Ethylparaben	0.15
3	Phanoxlyethanol	0.50
	Versene 100 (EDTA)	0.10
	Deionized water	29.00
	PVP	4.00
	4	Propylene glycol
5	Veegum	0.50
	Methocel 40-202	0.20
5	Ultramarine blue	10.00
6	Deionized water	1.00
	TEA	0.70
7	Timica pearlwhite	3.00
8	Deionized water	1.00
	Dowicil 200 preservative	0.05

Procedure:

1. Weigh ingredients in oil phase (Phase 1) into a clean auxiliary compounding kettle equipped with a mixer. Heat to 82C.
2. Weigh water (Phase 2) into main compounding kettle equipped with a colloid mill. Slowly add pigment (Phase 5) and mill until all pigments are completely dispersed.
3. Add Phase 4 (which has been previously dispersed) and mill until smooth.
4. Add Phase 6 and previously dispersed Phase 3. Mill for 5 minutes and turn off mill. Heat water phase to 80C with mixing.
5. With water phase at 80C, add oil phase at 82C and mix 10 minutes. Start to cool.
6. When batch reaches 60C, slowly add Phase 7 and continue mixing.
7. When batch reaches 45C, add Phase 8 and mix batch to room temperature.

SOURCE: Dow Chemical Co.: Suggested Formulation

Liquid Eyeliner

This fluid emulsion eyeliner uses Mearl's Flamenco Twilight Green to impart a subtle, smokey effect to the eyelid. It is suitable for filling into automatic containers.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Water (q.s. to 100%)	65.20
	Magnesium Aluminum Silicate (Veegum)	1.00
B.	Triethanolamine (TEA 99%)	1.40
	Propylene Glycol	8.00
C.	Xanthan Gum (Keltrol T)	0.30
	Antimicrobial (water soluble)	q.s.
D.	Flamenco Twilight Green 820CB	15.00
	Mearlmica CF	5.00
E.	Stearic Acid	2.80
	Glyceryl Stearate (Aldo MSC)	0.80
	Oleyl Alcohol (Novol)	0.50
	Antimicrobial (oil soluble)	q.s.
I.	Disperse Veegum into Water using high shear mixing until smooth. II. Add Phase B to Phase A, mixing until thoroughly dispersed. III. Add Phase C to Phase A-B and mix until smooth.	
IV.	Blend Phase D and add to Phase A-B-C with gentle agitation and heat to 75+-5C. V. In a support vessel heat Phase E ingredients to 75+-5C with gentle agitation. VI. Add Phase E to Phase A-B-C-D with gentle agitation, maintaining temperature at 75+-5C. VII. Maintain constant agitation and cool to 35+-5C; store or fill into appropriate containers.	
	Formulation CLR-92119	

Sheer Satin Pressed Powder Eyeshadow

An eye shadow of exceptional softness and subtle iridescence.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Mearltalc TCA (q.s. to 100%)	18.00
	Mearlmica SVA	20.00
	Magnesium Myristate	5.00
	Silica (Spherica P-1500)	2.00
	Cloisonne' Super Red 434Z	20.00
	Cloisonne' Violet 525C	13.00
	Cloisonne' Nu-Antique Blue 626CB	2.00
	Cloisonne' Cerise Flambe' 550Z	2.00
	Antimicrobials	q.s.
B.	Octyl Palmitate (Ceraphyl 368)	7.00
	Isostearyl Neopentanoate (Ceraphyl 375)	1.00
	Antioxidant	q.s.
C.	Cloisonne' Super Red 434Z	5.00
	Cloisonne' Violet 525C	5.00
I.	Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending. IV. Pulverize and return to blender. V. Add Phase C to Phase A-B and mix until uniform.	
	Formulation CLE-92276	

SOURCE: The Mearl Corp.: Suggested Formulations

Liquid Frosted Blusher

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Stearic acid	3.00
	Lexemul P	2.00
	Lexemul 515	1.00
	Candelilla wax	1.00
	Dow Corning 200	0.50
	Carnation oil	6.00
	Myristyl Myristate	2.00
	Propylparaben	0.10
2	Deionized water	62.05
	Titanium dioxide	6.00
	Red iron oxide 3098	1.30
3	Deionized water	2.00
	Triethanolamine	1.50
	Versene 100 (EDTA)	0.10
	Antifoam AF emulsion	0.05
4	Propylene glycol	5.00
	Methocel 40-202	0.20
	Veegum	0.50
	Phenoxyethanol	0.50
	Methylparaben	0.20
5	Timica Pearlwhite	5.00

Procedure:

1. Weigh all materials in Phase 1 into a clean auxiliary compounding kettle equipped with a mixer. Heat to 82C with mixing.
2. Weigh water (Phase 2) into main compounding kettle equipped with a colloid mill. Slowly add pigments, milling until completely dispersed. Start adding Phase 4 dispersion which has been previously mixed. Mill until smooth. Add Phase 3 mixture and mill for 5 minutes. Turn off mill and drain into batch.
3. Start heating milled water phase to 80C. With oil phase at 82C and water phase at 80C, slowly add oil to water with moderate mixing.
4. Mix batch at 80C until a homogeneous emulsion is formed. Mix ten minutes more then start to cool.
5. Mix to room temperature.

Note:

When mixing frosted shades, add Phase 5 (Timica Pearlwhite) to batch during cooling phase in step 3 when batch is between 60-65C.

SOURCE: Dow Chemical Co.: Suggested Formulations

Liquid Make-Up

<u>Phase</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Stearic acid	2.50
	Lexemul P	2.00
	Cerephyl 424	1.00
	Dow Corning 200	0.50
	Mineral oil	10.00
2	Deionized water	61.70
	Titanium dioxide	10.50
	Mapico yellow	1.70
	Red iron oxide 3098	0.70
	Blade iron oxide	0.30
3	Propylene glycol	5.00
	Veegum	0.50
	Methylparaben	0.20
	Ethylparaben	0.10
	Methocel 40-202	0.20
4	Deionized water	1.00
	Triethanolamine	1.00
5	Deionized water	1.00
	Dowicil 200 preservative	0.05
	Versene 100 (EDTA)	0.05

Procedure:

1. Weigh all materials in Phase 1 into a clean auxiliary compounding kettle equipped with mixer. Heat to 82C with mixing.
2. Weigh water in Phase 2 into main compounding kettle equipped with a colloid mill. Slowly add pigments and mill until completely dispersed.
3. Blend the ingredients in Phase 3 completely. Add Phase 3 to the dispersed pigment phase (Phase 2) and mix until smooth. Add Phase 4 and mix until smooth. Mill for 5 minutes.
4. Heat aqueous phase to 80C with mixing.
5. When water phase reaches 80C, start adding oil at 82C slowly to water phase. When all the oil phase has been added to water phase, continue mixing maintaining 80C temperature. Mix ten minutes.
6. Begin to cool batch.
7. At 45C add Phase 5 which has been previously blended.
8. Cool batch to room temperature with mixing. Allow batch to sit several hours to reach proper viscosity before filling.

SOURCE: Dow Chemical Co.: Suggested Formulation

Liquid Make-up

A light, sheer foundation with excellent "play-time" and smooth after-feel. The Mearlmaid AA imparts a subtle opalescent look to both skin and bottle tones.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Mineral Oil (Carnation White Mineral Oil)	4.50
	Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.50
	Stearic Acid (Emersol 120)	2.20
	Glyceryl Stearate (Arlacel 129)	1.80
	Isopropyl Lanolate (Amerlate P)	0.90
	Isostearic Acid (Emersol 871)	0.50
	Antimicrobial (oil soluble)	q.s.
B.	Water (q.s. to 100%)	50.20
	Propylene Glycol	4.50
	Triethanolamine (TEA 99%)	0.90
	Antimicrobial (water soluble)	q.s.
C.	Titanium Dioxide	2.00
	Iron Oxide (C33-115 Cosmetic Brown)	0.20
	Talc (Supra A Talc)	7.80
D.	Mearlmaid AA	10.00
	Water	10.00

Procedure:

- I. Heat Phase A to 85C+-3C while mixing until completely uniform.
 - II. Heat Phase B to 85C+-3C while mixing. III. Pulverize Phase C and add to Phase B using high shear mixing until smooth.
 - IV. Add Phase C-B to Phase A maintaining constant agitation and cool batch to 35+-5C. V. Add pre-mixed Phase D to Phase A-B-C with gentle agitation while mixing until completely uniform. VI. Store or fill into appropriate containers.
- Formulation CLF-921084

Earthtone Make-up Powder

This reddish-brown "earthtone" powder has a subtle luster, smooth feel, good coverage, and is intended for a wide variety of make-up applications.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Talc (Cyprus Supra) (q.s. to 100%)	27.30
	Iron Oxide (C33-5138 Cosmetic Russet)	27.30
	Antimicrobial	q.s.
	Shinju White 100T	27.30
	Cloisonne' Imperial Gold 222X	9.10
B.	Mineral Oil (Ervol-125/135 SUS)	4.50
	Isopropyl Myristate	4.50
	Fragrance	q.s.

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Blend Phase B ingredients until uniform. III. Spray Phase B into pre-mixed Phase A and continue blending. IV. Pulverize and store.
- Formulation CLF-920026

SOURCE: The Mearl Corp.: Suggested Formulations

Long Wearing Creamy Lipstick

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Castor Oil	50.05
Octyl Stearate (Tegosoft OS)	3.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Mineral Oil	9.00
Candelilla Wax	4.35
Carnauba Wax	3.00
Ozokerite	3.00
C24-28 Alkyl Methicone (Abil Wax 9810)	3.15
Behenoxy Dimethicone (Abil Wax 2440)	2.00
Lanolin Alcohol	3.00
BHA	0.05
Phase B:	
Pigments	3.00
Cetyl Dimethicone (Abil Wax 9801)	0.40
Castor Oil	4.00
Phase C:	
Titanium Dioxide (and) Mica	11.00
Phase D:	
Fragrance	Q.S.

Procedure:

Melt part A together at 80C. Mix. Grind the pigments of Phase B into the oils and waxes of Phase B using a triple roll mill. Add to Phase A. Mix at 80C. Add Phase C. Cool to 55C. Add fragrance. Mold.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Lipstick Base

<u>Ingredient:</u>		<u>Wt.%</u>
Methyl Stearoyl Dimethicone	Masilwax 135	4.75
Candelilla Wax	Synthetic Candelilla	11.80
Beeswax	White Beeswax, NF	3.60
Ozokerite	White Ozokerite Wax 77W	2.80
Paraffin	Refined Paraffin 130/135	2.20
Carnauba Wax	#1 Yellow Carnauba	1.00
Isopropyl Myristate	Lexol IPM	10.30
Lanolin	Deodorized AAA Lanolin	4.80
Castor Oil	AA USP	58.60
Propyl Paraben		0.10
BHT		0.05

Procedure:

With gentle mixing, heat the above mixture to 80C. When uniform, fill into preheated molds.

Note: Pigments should be thoroughly milled into castor oil prior to blending the final lipstick.

SOURCE: PPG Industries, Inc.: Formulation S-101

Long Wearing Pressed Eyeshadow

The long wearing properties of this eye shadow are enhanced by the pigment dispersion.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Talc, USP	48.50
Mica	15.00
Sericite	15.00
Zinc Stearate	1.50
Pigments (FD&C, D&C, Iron Oxides, Ultramarines, Titanium Dioxide)	15.00
Phase B:	
Cetearyl Isononanoate (Tegosoft CI)	0.40
Cetyl Dimethicone (Abil Wax 9801)	0.30
Stearoxy Dimethicone (Abil Wax 2434)	0.30
Mineral Oil	4.00
Fragrance, Preservatives	Q.S.

Procedure:

Mix all ingredients of Phase A in a blender. Combine the ingredients of Phase B and spray or slowly add to Phase A using a blender. Pulverize through a screen. Press into godets.

Gel Eye Makeup Remover

Firmer or softer gels can be made by adjusting the level of polyethylene.

<u>Ingredients:</u>	<u>% w/w</u>
Mineral Oil	82.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
C24-28 Alkyl Methicone (Abil Wax 9810)	10.0
Polyethylene	6.0

Procedure:

Heat the Mineral Oil and Polyethylene to 70C. Mix until uniform. Add the Cetyl Dimethicone and C24-28 Alkyl Methicone. Cool to 50-55C and dispense into tubes or jars. Oil soluble colors can be added if desired.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Low Alcohol Moisturizing Lotion

A moisturizing, low-alcohol, opaque lotion aftershave, which has a cooling, soothing skin-tightening feel with a substantive after-feel from the Patlac IL and Pationic ISL.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 941 (2% Solution)	37.50
2. Distilled Water	44.86
Part B:	
3. Patlac IL	1.00
4. Ritapro 165	0.50
5. Pationic ISL	1.00
6. Cetyl Alcohol	0.50
7. Myristyl Lactate	1.00
Part C:	
8. Triethanolamine (50%)	0.64
9. Alcohol SD 40	12.00
Part D:	
10. Perfume, A.S. Type	1.00

Compounding Procedure:

NOTE: A sweep agitator is recommended for this product.

Weigh ingredients of Part A and Part B and heat to 165F.

Slowly add Part B to Part A, taking care not to entrap air.

Cool to 140F. Add Part C. Cool to 110F and add Part D. Adjust

pH to 5.3. Pour into containers.

Viscosity: Brookfield RVF Heliopath TA @ 10 rpm @ 27C:6460 cps

Formulation H-89-P-21

Shave Gel

This viscous shave gel has good foam, with low irritancy characteristics.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	63.68
2. Sodium Laureth Sulfate	16.67
3. Pationic 138C	10.00
4. Ritamid C	4.00
5. Ritapeg 150 DS	2.00
6. Titanium Dioxide	0.50
7. Polyox WSR 10	0.15
8. Methylparaben	0.10
Part B:	
9. Perfume	0.20
10. Glydant 40-700	0.20
Part C:	
11. Triethanolamine 50%	+2.00
12. Sodium Chloride (25% solution)	+0.50

Compounding Procedures:

Heat Part A to 165F while mixing. Neutralize to pH 7.5 with Triethanolamine. Cool to 120F, add Part B. Adjust viscosity with Sodium Chloride solution.

Formulation 103-176

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Make-up Base

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Lanaetex 75	3.00
Myristyl Myristate	2.20
Dioctyl Sebacate	2.00
Dispersen G	2.00
Brij 56	0.10
Butyl Paraben	0.10
Part B:	
Water	68.25
Veegum HV	0.50
Keltrol	0.15
Glycerin	3.00
Citric Acid	0.30
Germaben II	0.60
Methyl Paraben	0.10
Part C:	
SS4267	3.00
SF1214	1.00
Talc	5.00
Titanium Dioxide	5.00
Iron Oxide	3.70

Procedure:

- 1) Heat Part A and Part B to 75C.
- 2) Add Part B to Part A with high shear mixing.
- 3) Cool to 55C and add Part C with good mixing.
- 4) Continue mixing until cooled to 25C.

Formulation CC100

Glitter Gel

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	(1) (2)
Klucel HF	2.0 2.0
SF1188	2.0 ---
SF-96-5	--- 5.0
SD Alcohol 40B (200Pr)	94.0 90.0
Pale Gold Glitter (.004x.004x.001)	2.0 3.0

Procedure:

- 1) Add SD alcohol to tank, add Klucel HF and hydrate with mixing for one hour.
- 2) Set overnight for complete hydration.
- 3) Add remaining ingredients in order listed.

Comments:

Meadowbrok has a variety of textures of glitter.

For slower drying time, replace 10% of the SD alcohol with SF1202.

SOURCE: GE Silicones: Formulation SP105

"Matte-Finished" Make-Up

	<u>% Weight</u>
Phase A:	
Cetyl Octanoate (Schercemol CO)	7.00
Diisopropyl Dimerate (Schercemol DID)	1.00
Sorbitan Stearate (Arlacel 60)	3.00
Methyl Gluceth-20 Sesquistearate (Glucamate SSE 20)	3.00
Glyceryl Stearate (Schercemol GMS)	0.50
Dimethicone, 350 cps. (Dow Corning 200 Fluid)	1.00
Octyl Dimethyl PABA (Escalol 507)	1.00
Phase B:	
Magnesium Aluminum Silicate (Veegum Regular)	15.00
Water	55.00
Glycerin	2.00
Phase C:	
Pigments:	
Talc 141 BC	2.10
Titanium Dioxide 328	6.40
7055 Iron Oxide Yellow	0.45
7061 Iron Oxide Brown	0.80
7054 Iron Oxide Red	0.25
Phase D:	
Cucumber Extract	0.50
Germaben II	1.00

Procedure:

Disperse Veegum slurry in water and uniform. Add rest of water phase mixing well. Mix Phase C. Add Phase C to Phase B and mix for 5 minutes or until fully dispersed. In main beaker mix ingredients of Phase A. Heat both Phase A and Phases B & C to 70C. Add Phase B & C to Phase A with moderate agitation. Cool batch to room temperature with continuous mixing, then add Phase D..

Deep-Penetrating, Conditioning Mascara

	<u>% Weight</u>
Water	87.95
Acrylates/C 10-30 Alkyl Acrylate Crosspolymer (Carbopol 1342)	1.00
Aminomethylpropanol	1.00
Quaternized Acetamide MEA (Quamectant AM-50)	2.50
Germaben II	1.00
Hydrolyzed Animal Protein (Hydrocoll EN-55)	1.00
Fragrance	0.05
Polysorbate-20	0.50
Panthenol (and) Soy Lecithin	5.00

Procedure:

Disperse the Carbopol in 80% of batch water at room temperature. Neutralize with aminomethylpropanol. Dissolve Quamectant in remainder of water and add slowly to batch with slow sweeping agitation to avoid aeration. Add the Germaben and Hydrocoll with slow agitation. Pre-blend the fragrance and polysorbate-20 and add to batch. With slowest agitation, add the panthenol (and) soy lecithin.

SOURCE: Sutton Laboratories: Suggested Formulations

Moisturizer

This light, elegant moisturizer applies with a rich lubriciousness and dries to a soft, smooth, nontacky feel. Lexquat AMG-0 is the primary cationic emulsifier with the added benefit of emolliency. This product may be used as a day moisturizer, a hand and body cream, or a baby cream.

	<u>% (w/w)</u>
Phase A:	
Deionized water	66.30
Cellosez QP-15000H	0.90
Glycerine	3.00
Propylene Glycol USP	2.00
Lexgard M	0.20
Lexgard AMG-0	6.30
Phase B:	
Lexol PG-900	15.00
Lexemul 55G	2.00
Myristyl Myristate	1.00
Stearyl Alcohol	2.00
Cetyl Alcohol	1.00
Lexgard P	0.10
Phase C:	
Fragrance	0.20

Procedure:

Charge batch vessel with water and begin mixing and heating to 78C+2C. Dust in cellosize. When completely hydrated add remainder of phase A materials. Combine phase B and heat to 78C+2C. When uniform slowly add phase B to phase A maintaining mixing and temperature. Allow to mix 15 min. at 78C. Cool to 40C and add phase C to batch. Cool to room temperature.

Observations:

pH (direct): 3.2-3.8
Viscosity @ 25C: 30,000 cps

SOURCE: Inolex Chemical Co.: Formulation SK-100

Moisturizing Gel

<u>Ingredients:</u>	<u>% by weight</u>
A. Water	89.20
Glycerin	7.00
Sorbitol, 70%	3.00
Oxaban-A	0.10
B. Carbomer 980 (Carbopol 980)	0.50
C. AMP-95	0.20

Procedure:

Combine A. With rapid agitation, slowly add B. Mix until a uniform dispersion is obtained - usually about 20 minutes. Add C.

SOURCE: Angus Chemical Co.: Formulation PF-0220

Moisturizer with Sun Screen

This general-purpose skin care product is for daily use.

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Petrolatum	0.88
Cetyl Alcohol	0.88
Stearic Acid	0.88
PEG-8 Stearate	0.88
Arlacel 165	0.44
SF-96-100	0.29
Finesolv TN	1.54
Lecithin	0.88
Tenox-6	Q.S.
Part B:	
Water	82.42
Carbopol 940	0.23
Disodium EDTA	0.05
Methyl Paraben	0.22
Part C:	
Octyl Methoxy Cinnamate	3.60
SS4267	2.22
SF1204	4.50
Part D:	
Sodium Hydroxide	0.09

Procedure:

- 1) Heat Part A and Part B to 80C.
- 2) Add Part A to Part B with mixing.
- 3) Continue to agitate while cooling to 50C.
- 4) In a separate vessel, slurry Part C.
- 5) Add Part C to the main batch.
- 6) Homogenize in a colloid mill or homogenizer at 5000 psi.
Cool to 30C with agitation.
- 7) Add Part D to adjust pH (target pH 5.3) and homogenize.
Force cool if needed to 25C.

Comments:

Part D may be added at 60C or below before the addition of Part C.

If the SPF is increased with benzophenone-3, slurry it separately with SS4267. This procedure increases the water resistance of the sunscreen in the formulation.

Preservative effect may be increased by using 0.8% Germaben II-E (and target pH at 4.9)

SOURCE: GE Silicones: Formulation SP103

Multi-Protective Skin Moisturizer (Cationic)

	<u>% Weight</u>
Phase A:	
Cetyl Alcohol	2.00
Mineral Oil (Drakeol 7)	3.00
Petrolatum	1.00
Tridecyl Neopentanoate (Trivent NP-13)	2.50
Dimethicone Copolyol (Abil B8852)	1.00
Glyceryl Stearate (and) Laureth-23 (Cerasynt 945)	1.00
Dimethicone, 350 cps. (Dow Corning 200 Fluid)	0.20
Tocopheryl Acetate (Vitamin E Acetate)	0.20
Steareth-21 (Brij 721)	1.00
Phase B:	
Water	70.90
Stearamidopropyl PG-Dimonium Chloride Phosphate (Monoquat P-TS)	2.00
Allantoin	0.50
Aloe Vera Gel 1:1	5.00
Polyquaternium-10 (Celquat SC-240)	0.50
Propylene Glycol	4.00
Aluminum Starch Octenylsuccinate (Dry Flo-C)	4.00
Phase C:	
Germaben II-E	1.00
Phase D:	
Fragrance	0.20

Procedure:

Heat water, Monoquat and Allantoin to 50C. Add Celquat SC-240, disperse thoroughly and heat to 80C. Prepare propylene glycol and Dry Flo-C slurry and add to water phase. Mix Phase B and heat to 80C. Add Phase B to Phase A at 80C and mix for 15 minutes. Cool to 35C and add Phase C and Phase D to it. Cool to room temperature and homogenize.

Conditioning Facial Cleanser

	<u>% Weight</u>
Water	43.50
Citric Acid, 50% Solution	0.30
Sodium Laureth Sulfate (1 Mole, 25%)	35.00
Diammonium Lauryl Sulfosuccinate (Monamate LNT-40)	5.00
Trisodium Lauroampho PG Acetate Phosphate Chloride (Phosphoteric QL-38)	8.00
Cocamphopropyl Betaine (Monamate CAB-LC)	8.00
Germaben II	0.20

Procedure:

Blend ingredients in order listed, readjusting pH if necessary to 5.5-6.0.

SOURCE: Sutton Laboratories; Suggested Formulations

Natural Cleanser

An all natural, low foaming cleanser with excellent after-feel

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	75.70
2. Patlac NAL	0.50
3. Pationic 138C	8.00
4. Pationic 122A	2.00
5. Corn Oil	8.00
6. Ritapag 150 DS	0.50
7. Rita EGDS	3.00
8. Methylparaben	0.20
9. Propylparaben	0.10
10. Supersat AWS 4	2.00
Part B:	
11. Perfume	QS
12. Parlac LA (44%)	QS
13. Sodium Chloride (25% Solution)	QS

Compounding Procedure:

Heat Part A to 165F with mixing. Mix until uniform. Begin cooling. Cool to 120F. Add perfume. Mix until uniform, avoid aeration. Cool to 90F. Adjust pH with Patlac LA (44%) to 5.70+/-0.2. Adjust viscosity with sodium chloride 25% solution. Formulation 105-46

Water-in-Oil Emulsion Base

This water-in-oil emulsion is smooth and non-greasy.

<u>Ingredients:</u>	<u>% W/W</u>
Part A-Oil Phase:	
1. Mineral Oil 80/90	21.00
2. Pationic CSL	7.20
3. Pationic ISL	0.80
4. Ritahydrox	0.50
5. Methylparaben	0.10
6. Propylparaben	0.05
7. Kathon CG	0.05
Part B-Water Phase:	
8. Glycerin	5.00
9. Distilled Water	65.30

Compounding Procedures:

Combine ingredients of Part A and heat to 72C. Combine ingredients of Part B, heating to 72C. Add Part B to Part A while stirring. Continue to stir to room temperature.

Formulation 103-166

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Nongreasy Body Oil

A light, nongreasy, yet very effective body oil for very dry skin. It spreads easily, and absorbs quickly, leaving skin smooth and soft.

<u>Ingredient:</u>		<u>Wt. %</u>
Tetrabutoxypropyl Methicone	Masil 756	4.0
PPG-10 Butanediol	Macol 57	6.0
Cyclomethicone	Masil SF-V	80.0
SD Alcohol 40B		10.0
Fragrance		Q.S.

Appearance: Clear, water-white fluid

Properties:

Blend all ingredients together at room temperature.

Formulation L-103

Emollient Body Oil

<u>Ingredient:</u>		<u>Wt. %</u>
Isopropyl Palmitate	Propal	45.0
Cyclomethicone	Masil SF-V	5.0
PEG 7 Glyceryl Cocoate	Macol 159	25.0
SD Alcohol 40B		24.5
Fragrance		0.5

Appearance: Clear, straw-colored liquid

Performance: A light, quick-spreading emollient which leaves a smooth, non-greasy skin after-feel.

Procedure:

Blend all ingredients at room temperature.

Formulation L-101

SOURCE: PPG Industries, Inc.: Suggested Formulations

Perfume Gel

<u>Ingredients:</u>	<u>% by weight</u>
A. Carbomer 980	1.00
Water, distilled	51.00
B. Tris Amino	1.40
Water, distilled	12.55
Disodium EDTA	0.05
C. Cremophor RH 40	5.00
Perfume oil	4.00
Ethanol 96%	25.00

Procedure:

Part A: Disperse Carbomer 980 in water.

Part B: Dissolve Tris Amino and EDTA in water.

Part C: Dissolve Cremophor and perfume oil in ethanol. Add C to A. Add B to C and A.

Formulation PF-0192E

Placenta Gel

(For use on aging skin)

<u>Ingredients:</u>	<u>% by weight</u>
A. Ethanol, 96%	15.00
Water, distilled	50.00
Carbomer 1382	1.00
B. Water, distilled	18.15
Glycerol or 1,2-propylene glycol	10.00
Tris Amino	0.80
Disodium EDTA	0.05
C. Placenta liquid	5.00
Perfume oil	q.s.

Procedure:

Part A: Disperse Carbomer 1382 in water. Add the alcohol.

Part B: Dissolve Tris Amino and EDTA in water and mix with glycerol. Stir B slowly into A.

Part C: Stir placenta liquid slowly into the finished gel. Add fragrance.

Formulation PF-0191E

SOURCE: Angus Chemical Co.: Suggested Formulations

Poured Eyeshadow

A hot pour eye shadow formulation suitable for direct filling into compacts. The product has a unique powdery feel when applied on the skin.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>	
A.	Isopropyl Myristate (q.s. to 100%)	20.40	
	Mineral Oil (Carnation)	10.00	
	Lauryl Lactate	10.00	
	Ozokerite Wax	8.00	
	Carnauba Wax	4.00	
	Dimethicone (Dow Corning 200 Fluid-350 cs.)	4.00	
	Antimicrobials	q.s.	
	Antioxidants	q.s.	
	B.	Mearlmica SVA	14.60
		Timica Silkwhite 110W	2.00
Cloisonne' Supergreen 827C		6.00	
Silica (Spherica P-1500)		15.00	
Corn Starch		2.00	
Ferric Ammonium Ferrocyanide (C38-5410 Cosmetic Blue F)		2.70	
Iron Oxide (C33-5410 Cosmetic Yellow)		1.30	

Procedure:

- I. Add Phase A ingredients to a heated vessel and stir bringing temperature to 80+-3C.
- II. Pulverize Phase B ingredients and add to Phase A with thorough agitation.
- III. Pour into holding kettles or appropriate compacts.

Typical Properties:

Color: Green to match standard
 Appearance: Pearly to match standard
 Capillary Point: 67+-3C
 Formulation CLE-911016B

Frosted Pressed Powder Eyeshadow

This formulation provides a pressed powder eyeshadow that has a very smooth feel, excellent pay-off and wear, and is quite resistant to breakage.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Talc (q.s. to 100%)	17.00
	Zinc Stearate	8.00
	Kaolin	8.00
	Gemtone Tan Opal G005	10.00
	Timica Sparkle 110P	30.00
	Antimicrobials	q.s.
B.	Antioxidants	q.s.
	Mineral Oil (Ervol)	7.00
C.	Gemtone Tan Opal G005	20.00

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending. IV. Pulverize and return to blender. V. Add Phase C to Phase A-B and mix until uniform.

SOURCE: The Mearl Corp.: Formulation CLE-911036

Pressed Lip Powder

This formulation produces a lip powder cake which applies easily, blends well and has excellent luster and wear characteristics. No drying out of the lips was experienced in normal use.

Phase:	Ingredients:	%wt.
A.	Talc (q.s. to 100%)	34.30-44.30
	D & C Red #30, Al Lake (C37-038 Permanent Pink)	2.17
	Titanium Dioxide (Cosmetic White C47-056)	2.17
	Nylon-12 (Orgasol 2002 Natural Cos)	0.50
	Antimicrobials	q.s.
	Fragrance	q.s.
B.	Duochrome RY (Red/Gold) 224C	15.00
	Flamenco Ultra Silk	10.55
	Cloisonne' Monarch Gold 233X	5.43
C.	Liquid Binder*	20.00-30.00

*Liquid Binder:

Hydrogenated Lanolin (Ohlan)	21.00
Isopropyl Myristate	21.00
Petrolatum (Penreco Snow White)	20.90
Isopropyl Lanolate (Amerlate P)	20.90
Dimethicone (Dow Corning 200 Fluid)	2.70
Octyl Stearate	8.50
Octyldodecanol (Standamul G)	5.00
Antioxidant	q.s.

- I. Blend ingredients in Phase A, pulverize and return to blender. II. Add ingredients in Phase B to Phase A and blend until uniform. III. Melt, add and disperse pre-mixed Phase C to pre-mixed Phase A-B. IV. Pulverize entire batch without screen and store.
Formulation CLL-921971

Lip Gloss with Sunscreen

This highly pigmented lip gloss yields a shiny, smooth, creamy product that is easy to apply, wears well and helps protect the lips.

Phase:	Ingredients:	% wt.
A.	Castor oil (q.s. to 100%)	64.80
	C18-36 Acid Glycol Ester (Syncrowax ERLC)	3.70
	Cetyl Alcohol (Adol 52)	1.60
	Octyl Methoxycinnamate (Parsol MCX)	3.00
	D&C Red #30 (Al Lake C37-038)	1.20
	Iron Oxide (C33-8073 Cosmetic Yellow)	0.30
	Antioxidant	q.s.
	Antimicrobials	q.s.
B.	Flamenco Ultra Silk	10.40
	Flamenco Super Red 430Z	15.00
C.	Fragrance	q.s.

I. Weigh all the ingredients in Phase A into a heated vessel and raise temperature to 75+-5C, stirring until melted and uniform
II. Add Phase B ingredients to Phase A maintaining temperature at 75+-5C. III. Add Phase C and mix with constant stirring.
Note: If iron oxide or organic pigments are used, they should first be dispersed in castor oil; this mixture should then be milled in either a colloid or roller mill.

SOURCE: The Mearl Corp.: Formulation CLL-921972

Shebu Lip Moisturizer

The formulation given here is in the form of a solid "stick". The product applies easily and smoothly, leaving the lips soft, smooth and supple.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ozokerite	6.00
2. Carnauba Wax	10.00
3. Shebu	9.00
4. Ritalan	55.00
5. Ritaderm	10.00
6. Supersat	10.00
7. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Weigh all ingredients into a suitable container, omitting the perfume and heat, while stirring, to approximately 83C. Stir until all ingredients which are solids melt. When all ingredients have melted, begin cooling the batch. Cool to approximately 55C, add the perfume. Stir continuously and pour into suitable molds.

Formulation HB-89-S-8

Moisturizing Lip Pot

This formulation applies smoothly and evenly and imparts a rich, supple and moist appearance to the lips.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. White Petrolatum	73.80
2. Lanolin, Extra Deodorized	9.20
3. Pationic CSL	7.00
<u>Part B:</u>	
4. Distilled Water	10.00
5. Preservatives	QS

Compounding Procedure:

Heat Petrolatum and Lanolin to 180F. Add CSL with mixing. Add water at 180F. Mix until uniform. Cool to 160F. Fill.

Formulation 103-66

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Sheer Leg Make-up

An attractive pearlescent cream, this formulation offers a product which is both rub resistant and water resistant.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Petroleum Distillate (and) Quaternium-18 Hectorite (and) Propylene Carbonate (Bentone Gel SS-71) (q.s. to 100%)	41.50
B.	C9-11 Isoparaffin (Soltrol 100) Cyclomethicone (SF 1173)	3.00 3.00
C.	Beeswax (White, Bleached Beeswax) PVP/Eicosene Copolymer (Ganex V220) Stearyl Alcohol (Adol 64) Isopropyl Lanolate (Amerlate P) Stearic Acid (Emerso) 120) Silica Triethanolamine Antimicrobials	10.00 5.00 3.00 2.00 1.00 0.80 0.50 q.s.
D.	Gemtone Tan Opal G005 Flamenco Pearl 110C Mearlmica SVA	10.00 15.00 4.90
I.	Add Phase A ingredient to a vessel equipped with a side sweep agitator.	
II.	Mix in Phase B with gentle agitation until smooth.	
III.	Add all ingredients in Phase C while heating to 90+-3C.	
IV.	Disperse pigment (Phase D) into hot base. Mix until completely uniform.	
V.	Cool and pour into appropriate packaging. Note: Care should be taken to avoid loss of volatile solvents.	
Formulation CLB-920046		

Sparkling Ruby Nail Enamel

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Suspending Lacquer SLF-2 Biju Ultra UXD Timica Extra Large Sparkle 110S D&C Red #6, Ba Lake (7.9% Dispersion in Nitrocellulose Base, CB-70) D&C Red #7, Ca Lake (7.9% Dispersion in Nitrocellulose Base, CB-11) D&C Red #34, Ca Lake (7.9% Dispersion in Nitrocellulose Base, CB-91) Dimethicone (Dow Corning 200 50 cs. - 1% in Butyl Acetate) Tosylamide/Epoxy Resin (Lustabrite S-70)	80.00 2.00 1.00 6.00 2.00 0.75 1.00 4.00
B.	Thinners* * Thinners: Butyl Acetate (Urethane Grade) Ethyl Acetate (Urethane Grade) Toluene	3.25 36.00 13.00 51.00
I.	Combine Phase A ingredients in a vessel fitted with a propellor type mixer and stir until uniform. II. Combine Phase B ingredients (thinners) in a secondary vessel and mix well until uniform. III. Add Phase B to Phase A while stirring until uniform. Note: The quality of Phase B may be varied to compensate for evaporation or viscosity adjustment.	
Formulation CLN-922853A		

SOURCE: The Mearl Corp.: Suggested Formulations

Silky Pressed Powder Eyeshadow

A silky pressed powder eyeshadow formulation using creamy textured Mearlmica SVA. This product has good pay-off, smooth silky feel and excellent wear characteristics.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Talc (q.s. to 100%)	22.20
	Zinc Stearate	4.00
	Polymethyl Methacrylate (Microspheres M-100)	2.00
	Cloisone' Super Blue 636Z	15.68
	Cloisone' Violet 525C	10.12
B.	Mearlmica SVA	10.00
	Antimicrobial	q.s.
	Dimethicone (Dow Corning 200 Fluid)	9.00
	Diisostearyl Malate (Cosmol 222)	3.00
	Sesame Seed Oil (Sesame Seed Oil Super Refined)	3.00
C.	Sorbitan Isostearate (Crill 6)	2.50
	Hydrogenated Polybutene (Panalane)	1.50
	Antioxidant	q.s.
	Cloisone' Super Blue 636Z	10.00
	Cloisone' Violet 525C	7.00

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending. IV. Pulverize and return to blender. V. Add Phase C to Phase A-B and mix until uniform.
- Formulation CLE-921234

"Touch of Velvet" Eye Shadow

A low luster eye shadow possessing an unusual degree of transparency and luminosity. The Mearltalc TCA and Mearlmica SVA also contribute to the uniform application and long wear of this formulation.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Mearltalc TCA (q.s. to 100%)	39.50
	Mearlmica SVA	25.00
	Manganese Violet (C43-001 Mango Violet)	15.00
	Calcium Stearate (Calcium Stearate Regular)	5.00
	Mearlite LBU	5.00
	Nylon-12 (Orgasol 2002D Natural Extra Cos)	2.50
	Ultramarine Blue (C43-1810 Cosmetic Blue)	2.00
	Iron Oxide (C33-134 Cosmetic Black)	1.50
	Iron Oxide (C33-5138 Cosmetic Russet)	1.50
	Antimicrobials	q.s.
B.	Cetyl Octanoate (Bernel Ester CO)	1.50
	Polydecene (Ethylflo 366 NF)	1.50
	Antioxidant	q.s.

Procedure:

- I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Add Phase B ingredients into a support vessel. Heat and mix until uniform. III. Spray Phase B into premixed Phase A and continue blending. IV. Pulverize and return to blender. V. Add Phase C to Phase A-B and mix until uniform.

SOURCE: The Mearl Corp.: Formulation CLE-922277

Skin Conditioning Mousse

	<u>%(w/w)</u>
Deionized Water	91.00
PEG-75 Lanolin	1.00
Lexgard M	0.20
Lexquat AMG-WC	5.80
Propylene Glycol USP	2.00

Procedure:

Combine ingredients with mild heat. Cool to room temperature, fill and charge.

Charge: 90% concentrate/10% propellant A46

SOURCE: Inolex Chemical Co.: Formulation SK-101

Make-up Remover

<u>Ingredient:</u>		<u>Wt.%</u>
Capric/Caprylic Triglyceride	Mazol 1400	12.0
PEG 400 Dilaurate	Mapeg 400 DL	6.0
Mineral Oil	Drakeol 7	82.0

Appearance: Clear, water-white

Performance: A light oil with good solvency. Rinses off with water, leaving a light emollient after-feeling.

Procedure:

Blend all ingredients at room temperature.

SOURCE: PPG Industries, Inc.: Formulation U-101

Skin Guardian

	<u>% Weight</u>
Phase A:	
Water	77.50
Carbomer-941 (Carbopol 941)	0.30
Trisodium EDTA (Hampene Na3T)	0.30
Triethanolamine, 99%	0.50
Phase B:	
PEG-75 (Carbowax 3350)	2.00
Glycereth-26 (Liponic EG-1)	1.50
Oleth-20 (Volpo 20)	3.50
PEG-6 Almond Glycerides (Crovol A-70)	0.50
Sucrose Stearate (Crodesta F-160)	1.30
Allantoin	0.50
Germaben II	1.00
Phase C:	
Dimethicone Copolyol (Dow Corning 190)	2.00
Butylene Glycol	2.00
Panthenol (Dexpanthenol)	0.10
Retinyl Palmitate (Vitamin A Palmitate)	0.10
Squalane	0.20
BHT	0.20
Oleth-10 (Volpo 10)	2.00
Octyl Methoxycinnamate	0.10
Glycoceramides (and) Phospholipids (and) Cholesterol (Glycosomes)	0.10
Phase D:	
Hydrolyzed Animal Protein (and) Hyaluronic Acid (Cromoist HYA)	1.00
Hydrolyzed Animal Protein (Crotein SPA)	3.00
Phase E:	
Triethanolamine, 99%	0.25
Phase F:	
FD&C Red #4, 1% Solution	0.025
FD&C Yellow #5, 1% Solution	0.025

Procedure:

Dust Carbopol 941 into cold water under moderate agitation. Let mix until completely hydrated (30 minutes). Add Hampene Na3T. Mix until clear. Neutralize Carbopol with triethanolamine. Add the ingredients from Phase B to Phase A in the order listed, mixing after each addition until the batch is uniform. Warm batch to 60C to mix in Crodesta F-160, Allantoin, and Germaben II. Maintain 60C for addition of Phase C. While warming Phase B, prepare Phase C in a separate vessel. Add ingredients sequentially, mixing after each addition and warm mixture to 63C. When clear and at 63C, add Phase C to batch slowly with mixing. Mix until uniform. Let cool with mixing to 40C. Add Phase D ingredients sequentially. Add Phase E and Phase F at room temperature. Adjust pH to 7.2.

SOURCE: Sutton Laboratories: Suggested Formulation

Skin Mousse with Shebu for Dry Skin

This mousse will moisturize and condition the skin and leave a smooth after feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Almond Oil	0.20
2. Coconut Oil	0.20
3. Shebu	2.00
4. Ritawax ALA	1.00
5. Ritachol 2000	1.50
6. Ritachol	5.00
7. Mineral Oil	2.00
8. Stearic Acid	1.50
9. Dimethicone	0.25
10. Pationic ISL	2.00
11. Distilled Water	79.15
12. Propylene Glycol	3.50
13. Hydroxyethylcellulose	0.20
14. Laneto 50	0.50
15. Triethanolamine (50%)	1.00
16. Color, Preservatives and Fragrance	QS

Compounding Procedure:

Combine items 1-10 and heat to 70C. Combine items 11-15 and heat to 70C. Combine both phases, mix well, and cool with stirring to 40C. Add remaining ingredients and package.

Formulation HB-89-S-6

**Skin Smoother and Moisturizer
With Shea Butter and Collagen**

Moisturizing is realized from Glycerin, Pationic SSL, Grillo-ten and Panthenol. Emollience is contributed by the Shebu and there is a temporary smoothing of the skin by the Ritacollagen.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	84.00
2. Glycerin	5.00
3. Shebu	3.00
4. Pationic SSL	3.00
5. Grillo-ten LSE 87K	1.00
6. Rita GMS	2.00
7. Ritapan DL	1.00
8. Ritacollagen BA-1	1.00
9. Color, Fragrance and Preservative	QS

Compounding Procedure:

Combine items 1 and 2 and heat to 70C. Combine items 3-6 and heat to 70C. Combine both phases, cool with mixing to 45C, add remaining ingredients. Cool to 35C. Package.

Formulation HB-89-S-9

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Skin Toner

This skin toner refreshingly tightens the skin and leaves a smooth after-feel. Contains substantive moisturizing, due to the Pationic ISL, Patlac NAL and Patlac IL.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Alcohol SD 40	70.00
2. Patlac NAL	5.00
3. Patlac IL	3.00
4. Perfume	2.70
5. Pationic ISL	2.00
6. Witch Hazel	2.00
Part B:	
7. Distilled Water	15.30

Compounding Procedure:

Combine A and mix until clear. Slowly add B with agitation. Filter if desirable.
Formulation 101-77

Toner

A smooth freshener that tones up and firms pores. Alcohol free.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	82.60
2. Witch Hazel	16.00
3. Pationic 122A	1.00
4. Peppermint	0.10
5. Dowicil 200	0.20
6. Methylparaben	0.10

Compounding Procedure:

Add peppermint to Pationic 122A, mix. Add to remaining materials and mix.

Formulation 103-174

SOURCE: R.I.T.A. Corp.: Suggested Formulations

"Slender" Stick Eyeshadow

This easy to prepare formulation produces a non-greasy stick which can be easily applied. Excellent pay-off and long-wearing characteristics.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>	
A.	Castor Oil (q.s. to 100%)	30.90	
	Shea Butter (Shebu Refined)	6.10	
	Caprylic/Capric Triglyceride (Neobee M5)	6.10	
	Beeswax	4.60	
	Candellila Wax	4.60	
	Ozokerite Wax	5.00	
	Isopropyl Myristate	3.00	
	Isopropyl Lanolate (Amerlate P)	4.60	
	Talc	2.10	
	Octyl Methoxycinnamate (Parsol MCX)	3.00	
	Antioxidant	q.s.	
	Antimicrobial	q.s.	
	B.	Flamenco Twilight Blue 620CB	15.00
		Gemtone Moonstone G004	15.00

Procedure:

I. Weigh all the ingredients in Phase A into a vessel and heat to 85+-3C, stirring until melted and uniform. II. Add pre-mixed Phase B to Phase A, maintaining temperature at 85+-3C for 30 minutes with gentle agitation (This will allow for de-aeration if vacuum is not available). III. Pour at 75+-3C.

Note: If iron oxide or organic pigments are used, they should first be dispersed in Castor oil; this mixture should then be milled in either a colloid or roller mill.

Typical Properties:

Droop Point (44C): Passes
 Capillary Point: 56C+-3C
 Formulation CLE-92008

Loose Powder Eyeshadow

A highly pearlescent powder eyeshadow suitable for filling into pots or automatic containers.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A.	Talc (q.s. to 100%)	6.00
	Zinc Stearate	3.00
	Silica	1.00
	Mearlite LBU	5.00
	Gemtone Amber G001	55.00
	Antimicrobials	q.s.
B.	Mineral Oil (Carnation White Mineral Oil)	10.00
C.	Gemtone Amber G001	20.00

Procedure:

I. Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. II. Spray Phase B into pre-mixed Phase A and continue blending. III. Pulverize and return to blender. IV. Add Phase C to Phase A-B and mix until uniform

Typical Properties:

Bulk Density: 13.30+-0.5 lbs/ft. 3 Texture: Soft
 Formulation CLE-920010

SOURCE: The Mearl Corp.; Suggested Formulations

Sprayable Moisturizer

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	79.65
Glycerin	6.00
DMDM Hydantoin	0.30
Methylparaben	0.10
Propylparaben	0.05
Part B:	
Mineral Oil	10.00
Octyldodecyl Stearoylstearate	3.00
Oleth-10	0.40
Pemulen TR-1	0.30
Part C:	
AMP-95	0.10
Part D:	
Disodium EDTA	0.10

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. Parabens may be predispersed in glycerin to accelerate dissolution. Mix until parabens have dissolved. Combine B ingredients in a separate vessel. Mix to disrupt any soft agglomerates of Pemulen. With moderate agitation, add B to A. Mix for 10-15 minutes to allow resin to swell. Add C and use vigorous mixing to produce a smooth, white emulsion. Add D incrementally until a viscosity of 600-900 cps is obtained.

Formulation PF-0225 suggested by B.F. Goodrich

Moisturizing Gelee with Pseudocollagen

<u>Ingredients:</u>	<u>% by weight</u>
Carbopol 1342, 2% aq.	50.00
AMP-95	1.00
Suttocide A	1.00
Quamectant AM-50	5.00
Demineralized Water	q.s.
Fomblin HC04 Emulsion	0.25
Pseudocollagen	5.00
Fragrance FR-30	0.10
Polysorbate-20	1.00

Procedure:

1. Disperse Carbopol premix in water at room temperature using sweep agitation.
 2. Add AMP and mix slowly until a clear, uniform gel.
 3. Add Suttocide A and mix thoroughly.
 4. Add Quamectant and mix thoroughly.
 5. Disperse fragrance in Polysorbate and add. Mix well.
- Formulation PF-0207 suggested by Brooks Inds.

SOURCE: Angus Chemical Corp.: Suggested Formulations

Temporary Wrinkle Remover

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 941	0.20
2. Distilled Water	71.15
3. Glycerin	4.00
4. Methylparaben	0.10
Part B:	
5. Ritachol	2.50
6. Ritawax ALA	1.00
7. Glyceryl Stearate	1.00
8. Stearic Acid	2.00
9. Ritalan	4.50
10. Propylparaben	0.05
Part C:	
11. Triethanolamine (50%)	2.00
Part D:	
12. Bovinal 30	7.50
Part E:	
13. 2-Phenoxyethanol	2.00
14. Benzyl Alcohol	2.00

Compounding Procedure:

Disperse Acritamer in water and glycerin with rapid agitation. When uniform, heat to 75C. Combine part B and heat to 75C. Add part B to part A with agitation, avoid aeration. Mix until uniform. Add part C and mix until uniform. Cool to 30C. Add part D and mix until uniform. Add part E.

Formulation 108-3B

Temporary Wrinkle Remover

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol	2.50
2. Ritawax ALA	1.00
3. Glyceryl Stearate	1.00
4. Stearic Acid	2.00
5. Ritalan C	5.00
6. Pationic ISL	1.25
Part B:	
7. Acritamer 941	0.20
8. Distilled Water	70.55
9. Propylene Glycol	4.50
Part C:	
10. Triethanolamine (50%)	2.00
Part D:	
11. Bovinal 30	6.00
12. Phenoxyethanol	2.00
13. Benzyl Alcohol	2.00

Compounding Procedure:

Preweigh part A and heat to 70C. Premix part B and heat to 70C. When both are at temperature, combine part A and part B and mix until uniform. Cool with mixing to 40C. During cooling add part C. At 40C, add part D.

Formulation 108-3C

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Temporary Wrinkle Remover

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 941	0.20
2. Distilled Water	75.30
3. Glycerin	4.00
Part B:	
4. Ritachol	2.50
5. Ritawax ALA	1.00
6. Glyceryl Stearate	1.00
7. Stearic Acid	2.00
8. Ritalan	4.50
Part C:	
9. Triethanolamine (50%)	2.00
Part D:	
10. Bovinal 30	7.50
Part E:	
11. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse the Acritamer in water and Glycerin with rapid agitation. When uniform, heat to 75C. Combine the ingredients of Part B and heat to 75C. Add Part B to Part A with agitation-avoid aeration. Mix until uniform. Add Part C and mix until uniform. Cool to 30C. Add Part D and mix until uniform. Add color, fragrances and preservatives.

Formulation HB-89-A-14

Cuticle Remover

This formulation contains 2.00% by weight of sodium hydroxide. The composition also contains Ritachol to help ameliorate skin-related problems due to sodium hydroxide. The emulsion is a smooth, creamy-textured oil/water type.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Petrolatum USP White	8.00
2. Ritachol	2.00
3. Rita CA	13.00
4. Propylparaben	0.05
Part B:	
5. Laureth-12	2.50
6. Rita GMS	2.50
7. Distilled Water	69.55
8. Sodium Hydroxide	2.00
9. Methylparaben	0.15
10. Quaternium 15	0.25

Compounding Procedure:

Combine Part A and begin heating with mixing to 70-73C. Add items 5, 6, 7 and 9 into another container and begin heating with mixing to 70-73C. When both Part A and Part B are at 70-73C, add Part A to Part B while mixing. Mix for 15 minutes. Begin cooling to 25-30C and add item 8 when at 30C. Mix until uniform. Add item 10. Mix until uniform. Package.

Formulation HB-89-R-37

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Vitamin A Eye Gel

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Deionized water	63.65
	Aloe vera	1.00
	Methocel 40-101	0.10
	Triethanolamine	0.01
2	Glycerin	2.00
	Dow Corning 193	2.00
3	Polysorbate 20	0.50
	Retinol	0.05
4	Propylene glycol	3.00
	Methylparaben	0.18
5	Deionized water	1.00
	Dowicil 200 preservative	0.10
	Versene 100 (EDTA)	0.01
6	Carbopol 940 2% solution	25.00
7	Deionized water	1.00
	Triethanolamine	0.40

Procedure:

1. Add water to primary compounding vessel. With rapid agitation, add Aloe vera gel. Sprinkle in Methocel 40-101 and mix 5 minutes. Add TEA and mix until Methocel is completely hydrated.
2. In a separate vessel, blend ingredients from Phase 2. Add to batch and mix 5 minutes.
3. In a separate vessel, blend ingredients from Phase 3. Add to batch and mix 5 minutes.
4. In a separate vessel, blend ingredients from Phase 4. Heat to 60C and mix until Methylparaben is dissolved. Cool to 30-35C and add to batch. Mix until batch is clear.
5. In a separate vessel, blend ingredients from Phase 5. Add to batch.
6. Add Phase 6 (2% Carbopol 940 which has been previously prepared) to batch and mix for 15 minutes.
7. In a separate vessel, blend ingredients from Phase 7. Add to batch and mix until batch has gelled and is crystal clear.

SOURCE: Dow Chemical Co.: Suggested Formulation

Cuticle Coating

An excellent product for shine, split ends or leave-on conditioner.

Materials:

	<u>Part/Wt(%)</u>
SF1214	65.0
Isohexadecane	33.0
Parsol MCX	2.0
Propylparaben	q.s.

Procedure:

- 1) Predissolve Parsol MCX and propylparaben in Isohexadecane or Isohexadecane/SF1173 blend.
- 2) Slowly add SF1214 to the step (1) mixture until homogeneous.

Comments:

For faster drying, some of the Isohexadecane can be replaced with SF1173 (cyclomethicone-tetramer).

SOURCE: GE Silicones: Formulation HP303

Water Resistant Mascara

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
1	Deionized water	15.70
	Antifoam AF emulsion	0.05
2	Propylene glycol	4.00
	Veegum	0.50
	Methocel 40-202	0.20
3	Deionized water	30.00
	PVP	4.00
4	Black iron oxide	10.00
5	Deionized water	2.00
	TEA	1.50
6	Silicone 345	6.00
7	Propylene glycol	1.00
	Phenoxyethanol	0.50
	Ethylparaben	0.10
	Methylparaben	0.20
8	Carnauba wax flakes	5.50
	Beeswax	9.00
	Stearic acid	2.00
	Oleic acid	1.00
	Lexemul P	2.30
	Lexemul 515	2.30
	Propylparaben	0.10
	Indapol	1.00
9	Deionized water	1.00
	Dowicil 200 preservative	0.05

Procedure:

1. Weigh all ingredients in Phase 8 into an auxiliary compounding kettle equipped with a mixer. Heat to 82C.
2. Weigh materials in Phase 1 into the main kettle equipped with a colloid mill. Turn on mill.
3. Slowly add Phase 4 to the main kettle and pass through colloid mill until all pigments are completely dispersed.
4. Add Phase 2 (which has been previously dispersed) to the main kettle and mill until smooth.
5. Add Phase 3 (which has been previously dispersed) to the main kettle. Mix 5 minutes and turn off mill.
6. Add Phase 5 with mixing to the main kettle. Start to heat batch to 80C.
7. At 80C, add Phase 6. Mix 5 minutes and then add Phase 7 which has been previously heated to 60-80C and mixed to dissolve the parabens.
8. Slowly add the oil phase (phase 8) at 82C to the water phase at 80C. Mix for 10 minutes and start to cool.
9. At 40-45C, add Phase 9. Mix batch down to 30C.

SOURCE: Dow Chemical Co.: Suggested Formulation

W/O Liquid Makeup

A W/O emulsion based liquid makeup with improved pigment grinds.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	4.50
Cyclomethicone (Abil B 8839)	5.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Caprylic/Capric Triglycerides (Tegosoft CT)	1.00
Synthetic Wax	0.45
Hydrogenated Castor Oil	0.45
Mineral Oil	4.50
Phase B:	
Talc, USP	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
Phase C:	
Water	68.90
Sodium Chloride	0.50
Preservatives, Fragrance	Q.S.

Procedure:

Mix the ingredients of Phase A together, heat to 70C. When uniform, cool to 50C. Add Phase B. Mill. Heat water to 50C. Add the sodium chloride. Mix. Gently stream into phase A/B with lightning mixer. Cool to 35C, add preservatives and fragrance. Homogenize. A very stable soft creamy lotion results with a good pigment dispersion.

W/O Liquid Makeup
(Cold Mix Formula)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Stearoxy Dimethicone (Abil Wax 2434)	3.0
Cyclomethicone (Abil B 8839)	9.0
Caprylic/Capric Triglyceride (Tegosoft CT)	6.0
Titanium Dioxide	4.0
Iron Oxides	1.0
Phase B:	
Propylene Glycol	3.0
Sodium Chloride	0.8
Water	68.2
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. In a vessel, grind the Titanium Dioxide and pigments into the rest of the ingredients of Phase A.
2. In a separate vessel, blend the ingredients of Phase B.
3. Slowly with agitation, add Phase B to Phase A. Mix until uniform.
4. Add the ingredients of Phase C with agitation.
5. Homogenize and dispense.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

W/O Liquid Makeup - Oil Free

A W/O emulsion based liquid makeup with improved pigment grinds.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	4.50
Cyclomethicone (Abil B 8839)	10.50
Cetyl Dimethicone (Abil Wax 9801)	1.00
Synthetic Wax	0.45
Hydrogenated Castor Oil	0.45
Phase B:	
Talc, USP	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
Phase C:	
Water	68.90
Sodium Chloride	0.50
Preservatives, Fragrance	Q.S.

Procedure:

Mix the ingredients of Phase A together, heat to 70C. When uniform, cool to 50C. Add Phase B. Mill. Heat water to 50C. Add the sodium chloride. Mix. Gently stream into Phase A/B with lightning mixer. Cool to 35C, add preservatives and fragrance. Homogenize. A very stable soft creamy lotion results with a good pigment dispersion.

Liquid Hand and Facial Cleanser

<u>Ingredients:</u>	<u>% w/w</u>
Water	51.0
Sodium C12-15 Alkyl Sulfate	25.0
Sodium Laureth Sulfate	15.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.0
Cocamidopropyl Betaine (Tego-Betaine L-7)	5.5
Dimethicone Copolyol (Abil B88183)	0.5
Citric Acid	to pH 6.5
Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Sodium Chloride-25% solution to adjust viscosity	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Section V

Creams

All Purpose Cream

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Mineral oil 125/135	10.00
Kessco Isopropyl Palmitate	9.00
Kessco Cetyl Alcohol	5.00
Polowax	5.00
Stearic acid, triple pressed	3.00
Part B:	
Propylene glycol	2.50
Triethanolamine 85%	1.00
Methyl paraben	0.15
Propyl paraben	0.05
Fragrance	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Heat D.I. water to 65-70C. Add components of Part B with mixing until completely dissolved. Mix the components of Part A until homogeneous and heat to 60-75C. Add Part A to Part B with mixing. Cool to 40-45C and add fragrance, if desired. Cool to 30-35C and package. Consistency develops fully after 24 hours at room temperature.

Physical Attributes:

White, creamy paste
 pH (as is): 7-9
 Freeze thaw stable
 Stable at 50C for two weeks

Comment:

Excellent for dry skin. Very thick and creamy.
 Formulation No. 442

Foundation Cream

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Stearic acid, triple pressed	19.8
Kessco Glycerol Monostearate SEAS	3.0
Kessco Isopropyl Myristate	3.0
Propylene glycol, USP	3.0
Lanolin oil	1.0
Propyl paraben	0.2
Part B:	
D.I. water	69.2
Triethanolamine	0.6
Methyl paraben	0.2

Mixing Procedure:

Blend the components of Part A and heat to 75C with mixing. Blend the components of Part B with mixing and heat to 75C. With constant agitation, add Part A to Part B. Cool with mixing to room temperature.

Physical Properties:

Pearly, white cream
 Viscosity at 25C: 2000 cps
 pH (as is): 7-8

Product was freeze thaw stable, stable at 50C for two weeks

Comment: This foundation cream has a dry feel

SOURCE: Stepan Co.; Formulation No. 436

All-Purpose Dry Skin Cream

Glucquat 125 provides skin conditioning while acting together with the Glucam P-20 Distearate to maintain moisture in the skin. Glucate DO (w/o) and Promulgen D (o/w) act as a nonionic emulsifier pair. Acetulan imparts a smooth, velvety afterfeel while improving rub-in.

Formula:**Water Phase:**

Glucquat 125 (Lauryl Methyl Gluceth-10 Hydroxypropyl-dimonium Chloride)	4.0%
Deionized Water	80.0

Oil Phase:

Glucam P-20 Distearate (PPG-20 Methyl Glucose Ether Distearate)	2.0
Glucate DO (Methyl Glucose Dioleate)	0.5
Promulgen D (Cetearyl Alcohol and Ceteareth-20)	4.5
Acetulan (Cetyl Acetate and Acetylated Lanolin Alcohol)	2.0
Cetal (Cetyl Alcohol)	1.0
Mineral Oil, 70 vis.	5.0
Cetyl Palmitate	1.0
Perfume and Preservative	q.s.

Procedure:

Add Glucquat 125 to deionized water, and heat to 80C with adequate agitation. Combine oil phase ingredients, and heat to 80C with propeller mixing. Slowly add water phase to oil phase, and mix until uniform. When material starts to thicken during cooling, change to slow sweep agitation.

SOURCE: Amerchol Corp.: Formulation T62-126-3

Therapeutic Humectant Creme

This high-powered moisturizer is designed to help heal chapped or cracked skin rapidly. It contains a high concentration of glycerin and is easily prepared at a skin compatible pH of 6. Phospholipid PTS helps create the smoothing properties which are readily perceived.

Part A:

	<u>%</u>
Phospholipid PTS	3.00
Steareth-20	0.20
Glycerin	10.00
Methyl Paraben	0.20
Water	72.60

Part B:

Steareth-2	1.30
Cetyl Alcohol	2.50
Myristyl Myristate	3.50
Finsolv TN	3.00
Hexyl Laurate	2.50
Dimethicone (100 cS)	1.00
Propyl Paraben	0.20

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required. Fill.

SOURCE: Mona Industries, Inc.: Suggested Formulation

All Purpose Moisturizing CreamIngredients:

	<u>% by Wt.</u>
Part I:	
Deionized Water	69.21
Propylene Glycol, USP	4.40
Carbopol 940	0.25
Methyl Parasept	0.10
d1-Panthenol, Cosmetic Grade (Code 63920)	1.00
Part II:	
Cetyl Alcohol	1.50
Super Hartolan	1.00
Carnation Mineral Oil	9.00
Emersol 132	2.38
Witcamide MAS	1.00
Sesame Oil, USP	4.20
Propyl Parasept	0.10
Silicone 200 Fluid, 325 cs.	2.00
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Tenox BHT	0.06
Part III:	
Triethanolamine, 98%	0.90
Part IV:	
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	1.00
Part V:	
Perfume Oil	0.30
Part VI:	
Germa11 115	0.10
Deionized Water	0.50

Procedure:

Dissolve Carbopol 940 in water. Add remaining ingredients in Part I. Heat Part I and Part II to 75C. Add Part II to Part I mixing with an Eppenbach homomixer. Follow with the addition of Triethanolamine. Cool to 45C with continued mixing, then add Part IV. Add Part V and Part VI separately. Mix until homogeneous.

SOURCE: Roche Chemical Division: Formula SC 411

Anti-Inflammatory Cream

A rich oil in water cream for reduction of inflammation and irritation due to wind, sun, insect bites and irritants. Contains Panthenol for its anti-inflammatory and soothing effects. Promotes healing.

Ingredients:

	<u>% W/W</u>
Part A:	
1. Glycerol Stearate	11.50
2. Isopropyl Myristate	5.00
3. Ritasol	5.00
4. Pationic SSL	5.00
5. Stearic Acid	4.00
6. Mink Oil	2.75
7. Ritox 52	2.00
8. Beeswax	1.00
9. Shebu Refined	3.00
10. Propylparaben	0.05
Part B:	
11. Laneto 50	5.00
12. Ritapan DL	3.00
13. Distilled Water	51.20
14. Methylparaben	0.10
Part C:	
15. Triethanolamine (50%)	1.20
Part D:	
16. Perfume	QS
17. Glydant 40-700	0.20

Combine Part A materials and heat with mixing to 75-80C. Combine Part B materials and heat to 75-80C. Add Part A to Part B with agitation. Immediately add triethanolamine (Part C). Mix 15 minutes. Begin cooling. Cool to 40C. Add perfume and Glydant. Mix until uniform. Cool to 35C.

Formulation HB-89-PA-22

Oil in Water Cream

A light cream with good moisturizing and softening properties. Emulsified with Pationic SSL and Cetearyl alcohol, both of which help soften the skin. The combination of Panthenol, propylene glycol and Pationic SSL moisturizes the skin. Panthenol also relieves irritation and promotes healing.

Ingredients:

	<u>% W/W</u>
Part A:	
1. Cetearyl Alcohol	5.00
2. Dimethicone	1.00
3. Isopropyl Palmitate	2.00
4. Pationic SSL	2.00
Part B:	
5. Distilled Water	84.80
6. Ritapan DL	0.20
7. Propylene Glycol	5.00
Part C:	
8. Color, Preservative, Fragrance	QS

Combine Part A ingredients and heat to 70C. Combine ingredients in Part B and heat to 70C. Add Part A to Part B, mix well. Cool with mixing to 45C, add remaining ingredients. Cool to 35C.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-PA-8

Balancing Cream for Oily Skin

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	75.12
Carbopol 934	0.30
Propylene Glycol	2.00
Methyl Parasept	0.25
Allantoin	0.10
Veragel Liquid, 1:10	0.50
d1-Panthenol, Cosmetic Grade (Code 63920)	0.50
Sequestrene Na2	0.20
Ster-O-Pro	1.00
Part II:	
Parso1 1789	1.50
Parso1 MCX	2.00
Emerest 2400	1.50
Brij 72	0.90
Brij 78	3.60
Lexol PG 865	2.00
Finsolv TN	2.00
Propyl Parasept	0.10
Cetyl Alcohol	3.25
Silicone 200 Fluid	0.20
Part III:	
Triethanolamine, 98%	0.28
Vitamin E Acetate, USP-FCC (Code 60526)	0.50
Part IV:	
Collaso1	2.00
Perfume Oil	0.20

Procedure:

Disperse Carbopol in the water with rapid agitation. Add the rest of ingredients in Part I, heat to 75C. Separately heat ingredients in Part II to 75C. When both phases reach 75C, add Part II to Part I, with good mixing. Follow with addition of Triethanolamine and Vitamin E Acetate, each added separately. Remove heat and begin cooling. Continue mixing. When temperature reaches 40C add Collagen and Perfume Oil separately. Continue mixing and allow the batch to cool to room temperature.

SOURCE: Roche Chemical Division: Formula SC 408

Barrier Cream

An elegant water in oil emulsion which resists chemicals and oils better than silicone systems. It has excellent treatment properties contributed by Lanolin and good protection from Ritaplast. For use around grease, oil, dust, chemicals, permanent wave, relaxer and dyes. Easy to manufacture.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	24.50
2. Ritaplast	20.00
3. Beeswax, Natural	13.00
4. Lanolin USP Extra-Deodorized	10.00
5. Ritalan C	2.00
6. Propylparaben	0.10
7. Ritahydrox	0.30
Part B:	
8. Distilled Water	28.50
9. Borax	1.30
10. Methylparaben	0.10
Part C:	
11. Perfume	0.20

Compounding Procedure:

Heat Part A and Part B to 165F. Add Part A to Part B with mixing. Cool to 120F. Add Part C.

Caution: Do not exceed 168F for compounding. Texture will be affected. Brookfield RVF: Initial Viscosity: 2,800 cps
24 Hour: 10,500 cps

Formula HB-89-L-32/Ref. 106-3

Barrier Cream

An elegant water and oil emulsion with good rub-out, with excellent treatment properties contributed by Lanolin and good protection from Ritaplast. For use around grease, oil, chemicals, permanent waves, relaxer, and dyes. Easy to manufacture.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	24.50
2. Ritaplast	20.00
3. Beeswax, Natural	13.00
4. Lanolin USP Extra-Deodorized	10.00
5. Ritalan C	2.00
6. Propylparaben	1.00
Part B:	
7. Distilled Water	28.80
8. Borax	1.30
9. Methylparaben	0.10
Part C:	
10. Perfume	0.20

Compounding Procedure:

Heat Part A and Part B to 165F. Add Part A to Part B with mixing. Cool to 120F. Add Part C.

Brookfield RVF: Initial Viscosity: 2,800 cps/24 Hour: 10,500 cps

Formulation 104-12/HB-89-L-15

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Barrier Cream
Cold Mix Formula

<u>Ingredients:</u>	<u>%w/w</u>
<u>Phase A:</u>	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Cetyl Oleate (Tegosoft DO)	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Isopropyl Myristate (Tegosoft M)	5.0
Silica	0.5
<u>Phase B:</u>	
Sodium Citrate (solution)*	20.0
Water	58.7
Hydroxyethylcellulose	0.8
<u>Phase C:</u>	
Fragrance	Q.S.
Preservatives	Q.S.
* 100 G Sodium Citrate/1 liter water. pH adjusted to 5.0 with Citric Acid.	

Procedure:

1. In a vessel, blend together the ingredients of Phase A until uniform.
2. In a separate vessel, disperse the Hydroxyethylcellulose into the water.
3. Add the Phase B slowly to Phase A with agitation.
4. Add Phase C, mix until dispersed
5. Homogenize and dispense.

Emollient Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>% w/w</u>
<u>Oil Phase:</u>	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Hydrogenated Castor Oil	0.5
Synthetic Wax	0.5
Mineral Oil (70 SUS)	8.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Isopropyl Myristate (Tegosoft M)	4.0
<u>Water Phase:</u>	
Water	79.2
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, maintain temperature of 50-60C.
2. Mix the water and sodium chloride. Heat to 50-60C.
3. With lightning mixing, stream the water phase into the oil phase.
4. With sweep agitation, cool to 35C. Add color, fragrance and preservatives.
6. Homogenize with a roto-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Cleansing Cream-A
(W/O Emulsion)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Polyglyceryl-4 Isostearate (Isolan GI 34)	0.5
Mineral Oil	16.0
Cetyl Dimethicone (Abil Wax 9801)	0.5
Cetearyl Isononanoate (Tegosoft CI)	0.5
Hydrogenated Castor Oil	0.8
Synthetic Wax	1.2
Phase B:	
Water	77.9
Sodium Chloride	0.6
Preservatives	Q.S.

Cleansing Cream-B
(W/O Emulsion)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	14.5
Cetyl Dimethicone (Abil Wax 9801)	0.5
Cetearyl Isononanoate (Tegosoft CI)	0.5
Hydrogenated Castor Oil	0.8
Synthetic Wax	1.2
Phase B:	
Water	76.9
Sodium Chloride	0.6
Preservatives	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 80C. Mix until uniform.
2. Combine the ingredients of Phase B. Heat to 50C.
3. Cool Phase A to 50C.
4. Slowly add B to A using a low shear propeller mixer. At all times, maintain a milky appearance.
5. Cool to 35C. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Cocoa Butter Skin Cream (514145)

Microcrystalline Wax	32.0 wt%
Drakeol 9, Light Mineral Oil USP	29.6
Cocoa butter	28.0
Penreco Snow, White Petrolatum USP	10.0
Vitamin E Acetate	0.2
Allantoin	0.2

Melt the ingredients together with gentle stirring at 75C. When uniform, allow to cool and fill containers just prior to solidification. This cream can be made softer by decreasing the wax or cocoa butter by a few percent and by increasing the Drakeol 9. Alternatively, air can be whipped into the product as it cools for a softer consistency. Drakeol 7 can be substituted for Drakeol 9 with no noticeable difference in product texture or performance.

Moisturizing Cream (514140)

Part A:	
Drakeol 7, Light Mineral Oil USP	47.00 wt%
Laneth-25 (and) Ceteth-25 (and) Oleth-25 (and) Steareth-25	4.00
Glycol Stearate	4.00
Oleth-2	3.00
Cetyl Alcohol	3.00
Part B:	
Deionized water	38.80
Part C:	
Preservatives	0.20

Heat Part A to 70C. Heat Part B to 75C. Add Part B to Part A with stirring. Cool mixture to room temperature with stirring. Add Part C to the mixture below 60C, and add fragrance (if desired) below 45C.

SOURCE: Penreco: Penreco Cosmetic Formulary

Cold Cream (514021)

D Ideal for removing makeup, this glossy white cream goes on smoothly and leaves a silky, nongreasy afterfeel. Also, this cream can be used as a moisturizer all over the body.

Deionized water	49.6wt%
Drakeol 9, Light Mineral Oil USP	33.0
White Beeswax	16.5
Sodium borate	0.9
Preservatives	q.s.

Mix all ingredients together and heat to 70C with stirring. Agitate while cooling to room temperature. Add fragrance at 45C if desired.

Dry Skin Cream (514105)

This cream is opaque, white, and fluffy and goes on smoothly and leaves the skin feeling smooth and moisturized.

Part A:

Penreco Snow, White Petrolatum USP	35.00wt%
Sorbitan Sesquioleate	3.00
Mineral Oil (and) Lanolin Alcohol	2.00

Part B:

Deionized water	59.46
Carbopol 934	0.27
Triethanolamine	0.27

Part C:

Fragrance and preservatives	q.s.
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Disperse the Carbopol in the water at 70C. Add the triethanolamine. Heat Part A separately to 70C. Add Part A to Part B with stirring, and stir while cooling to 25C. At 45C, add preservatives and fragrance.

Emollient Cream (514124)

Part A:

Deionized water	70.50wt%
Glycerin	5.00
Triethanolamine	0.25
Carbopol 934	0.20

Part B:

Isopropyl myristate	7.00
Drakeol 7, Light Mineral Oil USP	5.60
Stearic Acid	3.50
Cetyl Alcohol	1.00
Laneth-16 (and) Ceteth-16 (and) Oleth-16 and Steareth-16	0.75
PEG-20 Glyceryl Stearate	0.75
Lanolin Alcohol	0.50
Polysorbate 80	0.50
Dimethicone, 200 cSt	0.50
Preservatives	0.35
Cellulose Gum	0.10

Heat Part A to 60C with stirring. Separately, heat Part B to 70C with stirring. Add Part B to Part A slowly with stirring. Let stir until room temperature is reached. Any desired fragrance may be added when the mixture temperature is below 45C.

SOURCE: Penreco; Penreco Cosmetic Formulary

Collagen Cleansing Cream

A collagen cleansing cream with Ritachol emollients and glycerin as a humectant.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Glyceryl Stearate	3.00
2. Ritachol	4.00
3. Mineral Oil (Light)	20.00
4. Ritachol 2000	3.00
Part B:	
5. Distilled Water	63.00
6. Glycerin	5.00
Part C:	
7. Ritacollagen BA-1	2.00
8. Preservative	QS
9. Fragrance	QS

Compounding Procedure:

Combine ingredients in Part A in mixing tank and heat to 70C. Combine ingredients in Part B and heat to 70C with agitation. Add Part A to Part B with mixing and cool to 40C. Add C, cool and package.

Formulation HB-89-R-21

Collagen Facial Washing Cream

A superfatted cleansing cream which can be tissueed off or washed away. Contains Ritachol as an emollient with glycerin and Pationic ISL to prevent drying.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol	2.00
2. Mineral Oil	2.00
3. Stearic Acid XXX	13.40
4. Propylene Glycol (and) Potassium Stearate	3.50
5. Propylparaben	0.05
Part B:	
6. Pationic ISL	2.00
7. Potassium Coco-Hydrolyzed Animal Protein	5.00
8. Glycerin	1.70
9. Triethanolamine (50%)	1.50
10. Distilled Water	66.22
11. Methylparaben	0.10
Part C:	
12. Kathon CG	0.03
13. Perfume	QS
Part D:	
14. Ritacollagen BA-1	2.50

Compounding Procedure:

Heat Parts A and B separately to 70-75C until dissolved. Add Part A to Part B with agitation. Mix and cool batch to 50C and add Part C. Cool batch with agitation to 29C, add Part D and fill.

Formulation HB-89-R-27

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Cream

To diminish visible signs of aging; help restore and maintain a younger look.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	59.30
2. dl-Panthenol	1.00
3. Magnesium Aluminum Silicate	2.00
4. Montmorrillonite	3.00
5. Methylparaben	0.40
6. Propylparaben	0.40
7. Ritaderm	0.50
8. Corn Starch	4.00
9. Bovinal 30	20.00
10. Sorbitol	5.00
11. Selastin EL 30	3.00
12. Vitamin E	1.00
13. Quaternium-15	0.20
14. Ritasilk	0.20

Compounding Procedure:

Weigh and add distilled water into a container and begin stirring. Add Magnesium aluminum silicate and stir until the material is completely hydrated and no lumps of the material are visible. Add the Montmorrillonite and continue stirring until no lumps can be seen or felt. Begin heating this blend. Heat the blend to 70-73C, and add Methylparaben and Propylparaben. Continue heating, while continuing to stir. (An agitator capable of imparting relatively high shearing stress should be used, i.e. a variable speed agitator equipped with a propeller stirrer is recommended). Add the Ritaderm and Corn Starch and continue stirring until the blend is thoroughly smooth and free of lumps which can be seen or felt. Begin cooling the batch. Cool to 40-43C and add the remaining ingredients, while continuing to stir. Cool the batch to 25-30C and package into suitable containers.

SOURCE: R.I.T.A. Corp.; Formulation 103-173

Day Cream

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Stearic Acid	25.00
Phenyl Dimethicone	5.00
Part B:	
Glycerine	8.00
AMP	1.50
Water	60.50
Preservatives	q.s.
Perfume, pigments	q.s.

Procedure:

Heat Part A and Part B each to 75C. Stir A slowly into B. Stir cold.

Temperature Stability:

Over ten weeks at 45C.

Provides a white firm cream with a silky shine. Absorbed well, leaves a dry feeling on the skin.

SOURCE: Angus Chemical Corp.: Formula PF-0165E Suggested by Wacker Silicone

Skin Cream

<u>Oil Phase:</u>	<u>% w/w</u>
Glyceryl Stearate (and) Steareth-25 (and) Ceteth-20 (and) Stearyl Alcohol (Tego Care 150)	8.0
Stearyl Alcohol	1.0
Stearoxy Dimethicone (Abil Wax 2434)	1.0
Isopropyl Stearate (Tegosoft S) or Isopropyl Myristate (Tegosoft M)	8.0
Water Phase:	
Glycerin	3.0
Water	79.0
Preservatives	Q.S.
Perfume	Q.S.

Procedure:

1. Heat oil phase to 60-70C. Mix until uniform.
2. Heat water and glycerin to 60C. Add to oil phase. Mix. Homogenize.
3. Cool slowly to 35-40C with sweep agitation. Add fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Dihydroxyacetone Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	4.0
Hydrogenated Castor Oil	0.5
Synthetic Wax	0.5
Stearoxy Dimethicone (Abil Wax 2434)	1.0
Cetearyl Octanoate (Tegosoft Liquid)	2.0
Phase B:	
Sorbitol (70%)	2.0
Glycerin	2.0
Sodium Chloride	1.5
Water	71.5
Preservatives, Color	Q.S.
Phase C:	
Dihydroxyacetone	5.0
Phase D:	
Fragrance	Q.S.
1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, maintain temperature of 50-60C.	
2. Mix the water, Sorbitol, Glycerin and Sodium Chloride. Heat to 50-60C.	
3. With lightning mixing, stream the water phase into the oil phase.	
4. With sweep agitation, cool to 35C.	
5. Add the Dihydroxyacetone.	
6. Add color, fragrance and preservatives.	
7. Homogenize with a rotor-stator homogenizer.	
SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation	

Cleansing Cream

<u>Phase A:</u>	<u>% Weight</u>
Hydroxylated Lanolin (Ohlan)	3.00
Isopropyl Lanolate (Amerlate P)	2.00
Beeswax	10.00
Mineral Oil, 80-90 vis.	44.00
Glyceryl Stearate	2.00
Ozokerite	5.00
Phase B:	
Borax	0.60
Water	28.60
Phase C:	
Germaben II-E	1.00
Polyquaternium-24 (and) Hyaluronic Acid (Biocare Polymer HA-24)	3.80
Combine Phase A and heat to 80C. Combine Phase B and heat to 80C. Add Phase A to Phase B at 80C with agitation. Cool batch to 50C and add Germaben II-E. Cool to room temperature and add Biocare Polymer HA-24 with thorough agitation.	
SOURCE: Sutton Laboratories: Suggested Formulation	

Dry Skin Treatment Cream

An oil/water emollient emulsion with Glycerin as a moisturizer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.55
2. Acritamer 941	0.15
3. Glycerin	5.00
Part B:	
4. Ritachol 1000	12.50
5. Patlac IL	1.00
6. Mineral Oil	10.00
7. Ritalan C	2.50
8. Ritachol	4.00
Part C:	
9. Triethanolamine (50%)	0.30
Part D:	
10. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse the Acritamer in water and Glycerin and heat to 70C. Combine ingredients in Part B and heat to 70C. Add Part B to Part A with agitation. Avoid aeration. Add Part C to Parts A and B and begin cooling. Cool to 30C. Add color, fragrance and preservatives. Package.

Formulation H-89-A-15

Dry Skin Night Cream

This is a smooth, creamy textured emulsion especially helpful for people with excessively dry skin. Ritalan C and lotion have been included for emulsion stabilization, as well as the amelioration of dry skin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Beeswax	13.00
2. Paraffin Wax	1.50
3. Mineral Oil	30.00
4. Petrolatum	13.00
5. Ritalan C	2.00
6. Lanolin	10.00
7. Propylparaben	0.10
8. Distilled Water	+29.00
9. Sodium Borate	1.30
10. Fragrance	QS
11. Methylparaben	0.10
12. Color	QS

Compounding Procedure:

Weigh and add item 1 through item 7 into a sweep-mixer and begin heating and stirring. Heat to 70-73C. Weigh and add items 8, 9 and 11 into a side container and begin heating and stirring. When both the Ritalan C- and water-containing blends are at 70-73C, add the Ritalan C- containing blend to the water containing blend while continuing to stir. When all the Ritalan C- containing blend has been added, begin cooling the batch. Cool to 40-43C and add the remaining ingredients. Continue to stir and cool. Cool to 25-30C and package fill into suitable containers.

Formulation HB-89-L-28

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Emollient Vanishing Cream

This gentle, non-ionic oil/water emulsion formulation can be used to help soften and smooth skin in the area of the eye. Ritachol and Ritasol impart emollient and lubricating properties that assist in keeping the skin soft and supple. Ritapro is used as the primary emulsifying agent. Forlan L contributes additional emulsifying benefits while offering lanolin related conditioning qualities.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritapro 100	7.50
2. Stearyl Alcohol	2.50
3. Mineral Oil (65/75 saybolt)	6.00
4. Ritachol	5.00
5. Ritasol	2.00
6. Forlan L	1.00
7. BHA	0.10
8. Sorbic Acid	0.20
9. Propylparaben	0.10
10. Distilled Water	70.20
11. Acritamer 941	0.10
12. Glycerin	5.00
13. Methylparaben	0.20
14. Triethanolamine (50%)	0.20

Compounding Procedure:

Weigh and add items 1 through 9 into a container and heat to 70-73C. Weigh and add item 10 into another container and slowly sprinkle in item 11 while stirring with a variable speed agitator capable of imparting relatively high shearing stress. Stir until the Acritamer 941 has thoroughly dispersed and hydrated and no lumps can be seen or felt.

Add the remaining ingredients and heat to 70-73C. When the blend containing Ritapro 100 and the blend containing water are both at 70-73C, add the water-containing blend to the blend containing the Ritapro 100 while stirring continuously to ensure adequate emulsification. Begin cooling. Cool to 25-30C and package.

SOURCE: R.I.T.A. Corp.: Formulation H-89-A-5

Environmental Protective Cream

	<u>% Weight</u>
Phase A:	
Octyl Methoxycinnamate (Parsol MCX)	5.00
Tocopheryl Acetate	2.50
PVP/Eicosene Copolymer (Ganex V220)	2.00
PEG-20 Methyl Glucose Sesquistearate (Glucamate SSE-20)	1.50
Methyl Glucose Sesquistearate (Glucate SS)	1.00
Aloe Vera Gel	1.00
Glyceryl Stearate (Emerest 2400)	0.50
Dimethicone	0.50
Phase B:	
Water	83.90
d1-Panthenol	0.50
Carbomer-934 (Carbopol 934)	0.25
Phase C:	
Triethanolamine	0.50
Phase D:	
Germaben II-E	0.75
Fragrance	0.10

Procedure:

Heat Phase A and Phase B separately to 75C. Add Phase A to Phase B with vigorous agitation. Transfer to a paddle-type mixer and add Phase C to the hot batch. Let cool. When the batch temperature drops below 45C, add Phase D to the batch with mixing

Therapeutic Humectant Creme

	<u>% Weight</u>
Phase A:	
Water	72.00
Stearamidopropyl PG-Dimonium Chloride Phosphate (Phospholipid P-TS)	3.00
Glycerin, 99%	10.00
Steareth-20	0.20
Phase B:	
Steareth-2	1.30
Cetyl Alcohol	2.50
Myristyl Myristate	3.50
C12-C15 Alcohols Benzoate (Finsolv TN)	3.00
Hexyl Laurate	2.50
Dimethicone, 10 cps.	1.00
Phase C:	
Germaben II-E	1.00

Procedure:

Prepare Phases A and B separately and heat to 70C with mixing. Add Phase B to Phase A and continue to vigorously mix, without air entrainment, for 10 minutes. Stir-cool to 45C, add Germaben II-E and package.

SOURCE: Sutton Laboratories: Suggested Formulas

European Night Cream

This formulation is a heavy system to enhance moisturizing.

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Glyceryl Stearate	6.0
Petrolatum	6.0
PEG-7 Hydrogenated Castor Oil	4.0
Clearlan	2.0
Isopropyl Palmitate	8.0
Mineral Oil	8.0
Softisan 378	3.0
Squalene	0.6
Part B:	
Hexylene Glycol	4.0
Magnesium Sulfate	0.5
Water	46.1
Part C:	
SF1173	3.0
SF1228	3.0
SS4267	2.5
Octyl Methoxy Cinnamate	3.3

Procedure:

1. Heat Part A and Part B to 75C.
2. Add Part B to Part A with high shear mixing. Cool to 55C.
3. Add Part C with continued mixing and cool to 25C

SOURCE: GE Silicones: Personal Care Formulary: Formula SP102

Hand Cream

<u>Ingredient:</u>	<u>% As Supplied</u>
(Water	74
(Glycerol	12
A(Aculyn 22	1
(Triethanolamine	0.5
(Mineral Oil	2
B(Cetyl Alcohol	10
(Ethomeen C-25	0.5

Mixing Procedure:

Combine the ingredients of parts A and B by adding in the stated order with moderate subsurface agitation. Heat each part separately to 70C(158F). For the hand care products, add part B to part A with high-shear agitation.

SOURCE: Rohm and Haas Co.: Suggested Formulation

Extra Body Conditioning Cream

<u>Ingredients:</u>	<u>% w/w</u>
Water	90.05
Stearamidopropyl Dimethylamine (Tegamine 18)	1.50
Citric Acid-Monohydrate	0.60
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Sodium Chloride	0.60
Behenoxy Dimethicone (Abil Wax 2440)	0.35
Propylene Glycol	1.00
Quaternium-80 (Abil Quat 3272)	0.50
Dimethicone Copolyol (Abil B 8851)	0.40
Color, Preservatives, Fragrance	Q.S.

Procedure:

1. Heat the water to 70-75C. Add the Tegamine 18. Disperse well. Add the Citric Acid. Mix well. NOTE: To facilitate mixing, some water can be held from the batch to dissolve the Citric Acid prior to adding to the batch.
2. Add the Ceteth-2 Cetyl Alcohol, Sodium Chloride and Abil Wax 2440. Mix.
3. Begin cooling. Cool to 45-50C while mixing. Mix the Propylene Glycol and the Abil Quat 3272 together and add to the batch. Mix.
4. Switch to sweep mixer. Cool to 35-40C. Add the Abil B 8851, Color, Preservatives, and Fragrance. Mix.
5. Continue cooling. Fill.
Formulation GCC 13-37

Lecithin Cream
W/O Emulsion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.00
Polyglyceryl-4 Isostearate (Isolan GI-34)	0.50
Mineral Oil	19.00
Octyl Stearate (Tegosoft OS)	2.50
Decyl Oleate (Tegosoft DO)	2.00
Microcrystalline Wax	1.20
Hydrogenated Castor Oil	0.80
Phase B:	
Preservatives	Q.S.
Water	68.10
Lecithin	2.15
Glyceryl Stearate S.E. (Tegin)	1.25
Sodium Chloride	0.50
Phase C:	
Fragrance	Q.S.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Greaseless Hand Cream

This non-mineral oil cream leaves the skin soft and smooth without being oily or greasy. It is pH balanced to match the pH of the skin with Patlac LA.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Cetyl Alcohol	6.00
2. Glyceryl Stearate	5.00
3. Patlac IL	3.50
4. Supersat AWS 4	1.50
5. Propylparaben	0.05
Part B:	
6. Distilled Water	80.06
7. Glycerin	3.50
8. Methylparaben	0.10
9. Sodium Hydroxide (20% Solution)	0.29

Compounding Procedure:

Heat Parts A and B to 165F. Add Part A to Part B with mixing. Maintain temperature and mixing for 10 minutes. Cool with mixing. Adjust pH to 5.5 with Sodium Hydroxide. Adjust pH to 5.5.
Formulation HB-89-L-13

W/O Night Creme

A rich water in oil emulsion to be used as a night treatment. This is also an excellent w/o vehicle for additives.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol	20.00
2. Pationic CSL	7.20
3. Grilloten LSE 87K	1.00
4. Shebu	1.50
5. Glycerin	5.00
6. Distilled Water	65.30
7. Color, Perfume, Preservative	QS

Compounding Procedure:

Combine items 1-4 and heat to 70C. Combine items 5 and 6 and heat to 70C. Combine both phases and cool with mixing to 45C, add perfume, preservative and color.

Formulation HB-89-S-5

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hand Cream

<u>Ingredients:</u>	<u>% by Weight</u>
Deionized Water	90.60
Neobee M-5	3.75
Kessco Cetyl Alcohol	2.00
Stearyl Alcohol	1.25
Petrolatum	1.15
Drewpol 3-1-0	0.50
Sodium Stearate	0.40
Propyl Paraben	0.20
Methyl Paraben	0.15
Fragrance	Q.S.

Mixing Procedure:

Phase A:

Add D.I Water to a suitable mixing vessel and heat to 50C. Begin agitation and disperse Sodium Stearate. Continue heating until temperature reaches 65C then add Methyl Paraben. Maintain temperature at 65C then continue mixing.

Phase B:

Add Kessco Cetyl Alcohol, Stearyl Alcohol, Drewpol 3-1-0, Petrolatum, Neobee M-5 and Propyl Paraben to a suitable mixing vessel. Begin agitation and heat to 70C.

Add Phase B to Phase A with quick agitation. Continue quick agitation for 10-15 min., making sure temperature doesn't exceed 70C. Slow agitation to moderate speed and begin cooling until temperature reaches 40C. Add Fragrance, and color if desired. Cool to 25C and fill.

Typical Properties:

Appearance: White, viscous cream

Viscosity @ 77F: 4000-5500 cps

pH (as is): 6-7

Passed three cycles of freeze thaw

Passed two weeks of stability testing at 50C

Comment:

Silky, dry feeling cream

SOURCE: Stepan Co.: Formulation No. 591

Hand and Nail Cream

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Mineral Oil	6.00
Beeswax	0.80
Hydrogenated Castor Oil	0.80
Cetyl Dimethicone (Abil Wax 9801)	0.50
Behenoxy Dimethicone (Abil Wax 2440)	0.20
Cyclomethicone (Abil B 8839)	4.50
Cetyl Octanoate (Tegosoft CO)	2.50
Cetearyl Octanoate (Tegosoft Liquid)	2.50
Phase B:	
Water	70.20
Sodium Chloride	0.50
Quaternium-80 (Abil Quat 3272)	0.50
Propylene Glycol	5.00
Urea	0.50
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Hand Cream

Oil Phase:	
Amersil VS-7158 (Cyclomethicone)	4.00%
Amersil L-45/1000 (Dimethicone)	1.50
PEG-20	2.00
Glucate IS (Methyl Glucose Sesquiosostearate)	3.00
Promulgen D (Cetearyl Alcohol and Cetareth-20)	3.00
Cetal (Cetyl Alcohol)	3.00
Caprylic/Capric Triglyceride	2.00
Water Phase:	
Glucam E-20 Distearate (Methyl Gluceth-20 Distearate)	3.00
Glucam E-20 (Methyl Gluceth-20)	3.00
Amercell Polymer HM-1500 (Nonoxynyl Hydroxycellulose)	0.90
Deionized Water	74.60
Perfume and Preservative	q.s.

Procedure:

Prepare an aqueous solution of Amercell Polymer HM-1500 by adding it to water at room temperature with rapid stirring. When well dispersed, heat to 75C and mix until uniform. Use this solution as part of the water phase. Add remaining water phase ingredients. Heat the oil phase to 75C. Add water phase to oil phase with agitation. Continue to mix and cool to room temperature.

SOURCE: Amerchol Corp.: Suggested Formulation T70-112-1

Hydroquinone Bleach Cream

This formulation is well designed to be applied morning and night to discolored areas of the skin and rubbed in well. It may be used under makeup. However, if no improvement is noticed after a time interval of two months, the product should be discontinued. This formulation contains a sun screen agent, which helps prevent the recurrence of the discolored spots when exposed to sunlight. The product should not be used on broken or irritated skin and contact with the eyes should be avoided. Sensitivity to the active ingredient, which may be experienced by some individuals, should be treated with discontinuance. The formulation contains Ritalan, which is 100% pure lanolin oil. Ritalan has been incorporated for its lubricating and emolliency attributes, as well as the fact that it is an excellent moisturizing agent for those persons with dry skin. Ritachol has also been added for emolliency, as well as auxiliary emulsification properties.

<u>Ingredients:</u>	<u>% W/W</u>
1. Glyceryl Monostearate (self-emulsifying)	6.15
2. Ritapro 165	4.75
3. Ritachol	5.00
4. Ritalan	1.00
5. Methylparaben	0.10
6. Propylparaben	0.05
7. Distilled Water	78.05
8. Sodium Bisulfate	0.20
9. Sodium Metabisulfite	0.20
10. Forlan C-24	0.50
11. Citric Acid (to pH of 3.5 to 4.0)	QS
12. Hydroquinone	2.00
13. Octyl Dimethyl Paba	2.00
14. Perfume	QS

Compounding Procedure:

Weigh items 1-4, 6 and 13 into a container and heat mixture to 70-73C with agitation. Weigh items 7-10 into a container and heat mixture to 70-73C with agitation. Add phase 2 to phase 1 with agitation. Cool mixture to 45C. Add remaining ingredients (5, 11, 12 and 14) to batch*. Cool to 25-30C with agitation. Pour into containers.

***NOTE:**

It may be desirable to pass material through ointment mill or equivalent at this point.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-R-19

Moisturizing Cream

The moisturizing cream formulation given here forms a smooth, creamy textured product. Ritaderm has been added to help alleviate skin dryness, roughness and chapping by imparting the qualities at both the lipid layer of the skin and the natural moisturizing factors. The product leaves skin soft, smooth, dry and dewy fresh.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 1000	3.00
2. Rita CA	3.00
3. Rita GMS	1.50
4. Stearic Acid (triple pressed)	2.25
5. Ritachol	2.00
6. Ritaderm	10.00
7. Mineral Oil, 70 wt.	4.00
8. BHA	0.10
9. Propylparaben	0.10
Part B:	
10. Distilled Water	68.55
11. Acritamer 940	0.10
12. Glycerin	5.00
13. Methylparaben	0.10
14. Triethanolamine (50%)	0.20
15. Quaternium 15	0.10
16. Perfume	QS

Compounding Procedure:

Weigh and add items 1-9 into a container and begin stirring and heating. Heat to 70-73C while stirring continuously. Weigh and add item 10 into a container and begin stirring. The use of an agitator equipped with a stirrer capable of imparting relatively high shearing stress is recommended. Add item 11 and stir until a homogeneous lump-free dispersion results. Add items 12, 13 and 14 and begin heating, heat to 70-73C. When both Parts A and B are at 70-73C, add Part B to Part A while stirring continuously. When all of Part B has been added, begin cooling. Cool to 40-43C and add the remaining ingredients. Continue stirring and cooling to 35C. Package.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-R-25

Moisturizing Cream

	<u>% Weight</u>
Phase A:	
Water	57.40
Glycerin	3.00
Carbomer-940 (Carbopol 940)	0.70
Disodium EDTA	0.10
Methylparaben	0.25
Phase B:	
PEG-8 (Carbowax)	5.00
Propylene Glycol Ceteth-3 Acetate (Hetester PCA)	8.00
PEG-40 Stearate (Myrj 52S)	0.50
Cetyl Alcohol	1.00
Propylparaben	0.10
Octyldodecanol (Eutanol G)	4.00
Stearyl Alcohol	1.00
Coco-Caprylate/Caprate (Cetiol LC)	3.00
Mineral Oil (Carnation Mineral Oil)	8.00
Glyceryl Stearate SE (Cerasynt Q)	3.00
Perfluoropolymethylisopropylether (Formblin HC/25)	2.00
Phase C:	
Triethanolamine, 99%	0.70
Phase D:	
Water	2.00
Germall 115	0.25

Procedure:

Heat Phase A to 80C. Heat Phase B to 80C. Add Phase B to Phase A. Cool to 75C and add Phase C. Continue cooling to 30C and add Phase D.

Moisturizing Cream, Oil-Free

	<u>% Weight</u>
Phase A:	
Hydrogenated Soy Glyceride (Myverol 18-06)	4.00
Stearic Acid (Emersol 132)	4.00
Isopropyl Palmitate	6.00
Cetyl Alcohol, NF	2.00
Propylparaben	0.10
Phase B:	
Water	77.00
Propylene Glycol	5.20
Methylparaben	0.25
Triethanolamine	0.70
Phase C:	
Germall 115	0.25
Tocophersolan, 20% Solution (Vitamin E TPGS)	0.50

Procedure:

Heat Phase A and Phase B separately to 80C with propeller mixing. Add Phase A to Phase B mixing well while cooling to 50C. Product will become viscous at 52C and mixing must be adjusted. Add Phase C while mixing. Force cool to room temperature.

SOURCE: Sutton Laboratories: Suggested Formulations

Moisturizing Cream
Cold Process
W/O

Ingredients:

	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Isopropyl Myristate (Tegosoft M)	5.0
Silica (Aerosil R821)	0.5
Phase B:	
Water	77.9
Sodium Chloride	0.8
Hydroxyethylcellulose (Tylose H20)	0.8
Preservatives	Q.S.
Perfume	Q.S.
Color	

Procedure:

1. Mix the oils of Phase A together. Slowly add the silica. Mix well.
2. Dissolve the sodium chloride in the water. With fast agitation, add the Hydroxyethylcellulose. Mix until uniform.
3. Add Phase B slowly into Phase A with agitation.
4. Homogenize.
5. Preservatives, perfume and color can be added at anytime.

Silicone Skin Protection Cream
(W/O Emulsion)

Ingredients:

	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Cetyl Dimethicone (Abil Wax 9801)	5.0
Polyglyceryl-4 Isostearate (Isolan GI-34)	1.0
Dimethicone (Abil 100)	3.0
Caprylic/Capric Triglycerides (Tegosoft CT)	4.0
Decyl Oleate (Tegosoft DO)	6.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Phase B:	
Water	76.5
Sodium Chloride	0.5
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Moisturizing Cream with Aloe Vera

This formula is a soft, creamy-textured oil in water emulsion containing Ritalan C for emolliency and lubricating properties. This formulation contains Ritaderm and Ritaloe 200 for skin conditioning and moisturizing.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	68.20
2. Acritamer 941	0.10
3. Methylparaben	0.10
4. Ritachol 1000	12.00
5. Ritalan C	1.00
6. Mineral Oil 65/70	10.00
7. Ritachol	3.00
8. Ritaderm	5.00
9. Propylparaben	0.10
10. BHA	0.10
11. Triethanolamine (50%)	0.20
12. Ritaloe 200	0.05
13. Perfume	QS
14. Color	QS
15. Quaternium 15	0.15

Compounding Procedure:

Weigh and add the distilled water into a container and begin mixing. A variable speed agitator equipped with a stirrer capable of imparting relatively high shearing stress is recommended. Sprinkle in the Acritamer 941, while stirring continuously. Begin heating, while continuing to stir. Heat to 70-73C and add item 3 (Methylparaben). Stir until the Acritamer 941 has been dispersed, so that no lumps can be seen or felt. Add items 11 and 12 into container and begin stirring and heating to 70-73C. When both blends are at 70-73C, add the water-containing blend to the blend containing the Ritaderm. When all the water-containing blend has been added, begin cooling the batch. Cool to 40-43C and add the remaining ingredients. Cool to 25-30C and package into suitable containers.

SOURCE: R.I.T.A. Corp.: Formula HB-89-R-29

Multivitamin Moisturizing Cream

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	68.36
Propylene Glycol, USP	4.40
Carbopol 940	0.25
Methyl Parasept	0.25
Dexpanthenol (Code #63909)	1.00
Biotin, FCC (Code 63344)	0.05
Part II:	
Cetyl Alcohol	1.50
Super Hartolan	1.00
Carnation Mineral Oil	9.00
Emersol 132	2.38
Witcamide MAS	1.00
Sesame Oil, USP	4.20
Propyl Parasept	0.10
Silicone 200 Fluid, 350 cs.	2.00
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Tenox BHT	0.06
Part III:	
Triethanolamine, 98%	0.90
Part IV:	
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	1.00
Perfume Oil	0.30
Part V:	
Germall 115	0.25
Deionized Water	1.00

Procedure:

Dissolve Carbopol 940 in water. Add remaining ingredients in Part I. Heat Part I and Part II to 75C. Add Part II to Part I mixing with an Eppenbach homomixer. Follow with the addition of Triethanolamine. Transfer batch to paddle type mixer, cool to 40C and then add Part IV, Part V and Part IV. Mix well between each addition until homogeneous.

SOURCE: Roche Chemical Division: Formula SC 410

Multivitamin Night CreamIngredients:

	<u>% by Wt.</u>
<u>Part I:</u>	
Stearyl Alcohol	15.00
White Perfecta Petrolatum	7.00
Cetyl Alcohol, NF	1.50
White Beeswax	2.00
Hystrene 9718	1.00
Deityl Prime	3.00
Propyl Parasept	0.05
Vitamin E Acetate, USP-FCC (Code 60526)	0.55
Tenox BHT	0.065
 <u>Part II:</u>	
Myrj 52	4.00
Propylene Glycol	12.00
Methyl Parasept	0.20
Versene NA2	0.01
Pyridoxine Hydrochloride, USP-FCC (Code 60650)	1.10
d1-Panthenol, Cosmetic Grade (Code 63920)	1.15
Deionized Water	50.525
 <u>Part III:</u>	
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	0.65
 <u>Part IV:</u>	
Perfume Oil	0.20

Procedure:

Heat Part I to 75C. Heat Part II to 70C and mix until solution is complete.

Add Part II to Part I slowly with agitation. Cool with slow mixing to 40C.

Add Part III and then Part IV, mixing well between each addition until homogeneous.

Preservative level may need adjustment to meet individual challenge test.

SOURCE: Roche Chemical Division: Formula SC 409

Night Cream

This is a super rich emollient cream for normal/dry skin. This formulation is non-oily with a silky afterfeel. Lexquat AMG-BEO is the primary cationic emulsifier in this system.

Phase A:	% (w/w)
Deionized Water	62.60
Cellosize QP-15,000H (Hydroxyethyl Cellulose)	0.90
Glycerine	3.00
Propylene Glycol USP	2.00
Lexgard M (Methylparaben)	0.20
Lexquat AMG-BEO (Behenamidopropyl Dihydroxypropyl Dimonium Chloride)	7.00
Phase B:	
Lexol PG-865 (Propylene Glycol Dicaprylate/Dicaprate)	15.00
Lexemul 55G (Glyceryl Stearate)	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.00
Cetyl Alcohol	1.50
Lexgard P (Propylparaben)	0.10
Phase C:	
Fragrance	0.20

Procedure:

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+-2C. Dust in Cellosize. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+-2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

Observations:

pH (direct): 4.9

Viscosity: 55,000 cps

SOURCE: Inolex Chemical Co.: Formulation SK-106

Facial Moisture Creme

This elegant formulation provides high moisturization, excellent rub off resistance, and is ideally suited for overnight skin care.

Part A:	%
Phospholipid SV	3.00
Methyl Paraben	0.25
Steareth-20	0.20
Water	81.50
Part B:	
Steareth-2	1.30
Cetearyl Alcohol	4.00
Myristyl Myristate	4.00
Isopropyl Myristate	4.00
Dimethicone (100 cS)	1.00
Lanolin Alcohol	0.50
Propyl Paraben	0.25

Procedure:

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required.

SOURCE: Mona Industries, Inc.: Phospholipid SV Formulation

Night Cream

Lexquat AMG-IS is the primary cationic emulsifier in this formulation. It can be used for make-up removal and will create a rich, moisture-enhancing yet light-feeling effect which is invisible on the skin.

	% (w/w)
Phase A:	
Deionized Water	57.50
Cellosez QP-15,000H (Hydroxyethyl Cellulose)	1.00
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M (Methylparaben)	0.20
Lexgard AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	12.00
Phase B:	
Lexol PG-865 (Propylene Glycol Dicaprylate/Dicaprate)	15.00
Lexemul 55G (Glyceryl Stearate)	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.00
Cetyl Alcohol	1.50
Lexgard P (Propylparaben)	0.10
Phase C:	
Fragrance	0.20

Procedure:

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+-2C. Dust in Cellosez. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+-2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

SOURCE: Inolex Chemical Co.: Formula SK-104

Light Texture Hand Creme

This high humectant creme provides a non-greasy, long lasting soothing feel.

	%
Part A:	
Phospholipid SV	3.00
Steareth-20	0.45
Glycerin	5.00
Methyl Paraben	0.25
Water	77.75
Part B:	
Steareth-2	0.80
Cetearyl Alcohol	3.50
Myristyl Myristate	3.50
Finsolv TN (Finetex)	1.50
Isopropyl Palmitate	3.00
Dimethicone (100 cS)	1.00
Propyl Paraben	0.25

Procedure:

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required.

SOURCE: Mona Industries: Phospholipid SV Formulations

O/W Hand Cream-A

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Steareth-25 (Emulgator 2568)	2.0
Glyceryl Stearate (Tegin M)	5.0
Stearyl Alcohol	2.0
Octyl Octanoate (Tegosoft EE)	6.0
Mineral Oil	15.0
Phase B:	
Glycerin	3.0
Water	65.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

O/W Hand Cream-B

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Steareth-25 (Emulgator 2568)	2.0
Glyceryl Stearate (Tegin M)	5.0
Stearyl Alcohol	2.0
Mineral Oil	8.0
Stearoxy Dimethicone (Abil Wax 2434)	3.0
Octyl Stearate (Tegosoft OS)	10.0
Phase B:	
Glycerin	3.0
Water	65.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 70C.
2. Mix Phase B. Heat to 60C.
3. Combine A/B. Homogenize. Cool at 45C.
4. Add fragrance. Sweep mix and cool to 30C. Dispense.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

O/W Hand Cream-C

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Steareth-25 (Emulgator 2568)	2.0
Glyceryl Stearate (Tegin M)	5.0
Stearyl Alcohol	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	12.0
Cetearyl Octanoate (Tegosoft Liquid)	3.0
Tocopherol Acetate	1.0
Avocado Oil	5.0
Phase B:	
Glycerin	3.0
Water	65.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

O/W Hand Cream-D

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Steareth-25 (Emulgator 2568)	2.0
Glyceryl Stearate (Tegin M)	5.0
Stearyl Alcohol	2.5
Octyl Stearate (Tegosoft OS)	10.0
Caprylic/Capric Triglycerides (Tegosoft CT)	7.0
Tocopherol Acetate	1.0
Avocado Oil	5.0
Decyl Oleate (Tegosoft DO)	7.0
Phase B:	
Glycerin	3.0
Water	55.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 70C.
2. Mix Phase B. Heat to 60C.
3. Combine A/B. Homogenize. Cool at 45C.
4. Add fragrance. Sweep mix and cool to 30C. Dispense.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Pearly Foundation Cream

This base make-up, foundation-type cream is typical of products with a high pigment load. The function of this cream is to create an appearance similar to the skin itself. Here, a pearl pigment helps to reproduce the natural luster of the skin.

<u>Phase:</u>	<u>Ingredients:</u>	<u>%wt.</u>
A	Laneth-10 Acetate (Solulan 98)	3.00
	Isopropyl Lanolate (Amerlate P)	5.50
	Acetylated Lanolin Alcohol (Acetulan)	5.30
	Glyceryl Stearate SE (Tegin)	3.50
	Stearic Acid	2.70
	Antimicrobials (oil soluble)	q.s.
	Antioxidants	q.s.
B	Propylene Glycol	5.00
	Triethanolamine	1.00
	Water (q.s. to 100%)	64.00
	Antimicrobials (water soluble)	q.s.
	Fragrance	q.s.
C	Flamenco Ultra Silk	9.00
	Cloisone' Super Bronze 240Z	1.00

Procedure:

- I. Heat Phases A and B in separate vessels to 80+-3C.
- II. Mix Phase B into Phase A. Then cool to 40+-3C. At this point add Phase C and mix until the pigment is well dispersed.
- III. Continue mixing and fill.

Color: Tan to match standard

Odor: Characteristic to match standard

Appearance: Pearly to match standard

Texture: Creamy

Identity: Oil/Water Emulsion

Viscosity: 13,700+-1000 cps

pH: 7.7+-0.5

Specific Gravity: 1.1+-0.1

SOURCE: The Mearl Corp.: Formula CLF-921966

Protective Day Cream for Normal Skin

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Parsol 1789	1.50
Parsol MCX	2.00
Robane	1.00
Emersol 132	2.50
Cetyl Alcohol, NF	1.00
Stearyl Alcohol, NF	0.50
Klearol Mineral Oil	8.00
Lipovol ALM	5.00
Myverol 18-00	2.50
Spermwax	2.00
Delyl Extra	4.00
Tenox BHA	0.05
Propyl Parasept	0.10
Part II:	
Deionized Water	58.55
Propylene Glycol	4.00
Methyl Parasept	0.25
Carbopol 940	0.25
Miranol CM Conc. N.P.	0.50
d1-Panthenol, Cosmetic Grade (Code 63920)	0.50
Ajidew N-50	1.00
Sequestrene Na2	0.20
Part III:	
Triethanolamine, 98%	0.80
Part IV:	
Collasol	2.00
Part V:	
Vitamin E Acetate, USP-FCC (Code 60526)	1.50
Perfume Oil	0.30

Procedure:

Mix together all ingredients in Part II except the Carbopol. Heat to 85C. Sift in Carbopol mixing with an Eppenbach homomixer until uniform. Heat Part I to 85C and Part I to Part II. Follow with addition of Triethanolamine while still using the Eppenbach. Stir with a paddle mixer until temperature reaches 40C. Add Part IV and Part V. Continue mixing until homogeneous.

SOURCE: Roche Chemical Division: Formula SC 412

Skin Conditioning Cream

White, glossy, heavy viscosity cream. Humectancy and smooth, silky afterfeel attributed to Kytamer PC and Glucam E-10. Amerlate P helps rub-in of cream onto skin by providing lubricity properties. Primary emulsification of system due to highly efficient, mild, nonionic emulsifier pair of Glucamate SSE-20 (o/w) and Glucate SS (w/o).

Water Phase:

Kytamer PC (Chitosan PCA)	0.5%
Glucam E-10 (Methyl Gluceth-10)	5.0
Glucamate SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	1.0
Deionized Water	65.5

Oil Phase:

Promulgen G (Stearyl Alcohol and Cetareth-20)	5.0
Amerchol L-101 (Mineral Oil and Lanolin Alcohol)	4.0
Amerlate P (Isopropyl Lanolate)	3.0
Glucate SS (Methyl Glucose Sesquistearate)	1.0
Mineral Oil	15.0
Perfume and Preservative	q.s.

Procedure:

Disperse Kytamer PC in water with highspeed agitation. When completely dispersed heat to 75C with continuous mixing until clear and uniform. Add Glucamate SSE-20 while maintaining temperature of water phase at 75C. Heat oil phase to 75C. Add water phase at 75C to oil phase at 75C with good agitation. Continue mixing while slowly cooling to room temperature. Add perfume below 50C.

Formula T60-28-1

Greaseless Night Cream

This luxurious w/o night cream provides long-lasting moisturization in a simple and basic vehicle which leaves the skin feeling soft, smooth and silky without the greasy aesthetics often encountered in night cream formulations. Glucate IS is a powerful w/o emulsifier which combines the large internal water phase into the much smaller external oil phase. Glucam E-10 is well known as a efficient humectant and emollient.

Phase A:

Water	78.3%
Glucam E-10 (Methyl Gluceth-10)	1.0

Phase B:

Mineral Oil, 70 vis.	15.0
Magnesium Sulfate Trihydrate	0.7
Glucate IS (Methyl Glucose Sesquistearate)	5.0

Phase C: Preservative

q.s.

Phase D: Fragrance

q.s.

Procedure: Heat phase A to 80-82C with mixing. Heat phase B to 80-82C with mixing. When both phases are homogeneous at 80-82C, increase the mixing speed and slowly add phase A to phase B. Continue mixing until the combined phases have cooled to 40-42C. Add phase C followed by phase D. Cool further to 28-32C. Homogenize completed formula until a uniform glossy appearance is developed.

SOURCE: Amerchol Corp.: Formulation T72-84-4

Skin Cream

A firm white cream which spreads easily on the skin and provides longlasting moisturization without greasiness.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	75.8
	Hydroxypropyl Methylcellulose Methocel 40-100	0.2
	Tetrasodium EDTA	0.1
	Triethanolamine, 50%	0.1
B	PPG-10 Butanediol	3.0
	Benzyl Laurate Mazon EE-1	4.0
	Mineral Oil Drakeol 9	4.0
	Cetearyl Alcohol (and) Ceteareth-20	6.0
	Macol 124	6.0
	Stearic Acid Hystrene 7018	2.0
	Glycol Stearate Mapeg EGMS	2.0
C	Deionized Water	2.0
	Quaternium-15 Dowicil 200	0.2
	Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	0.5
	Germaben II	0.1
	Citric Acid, 50%	0.1

pH: 6.0-6.5

Viscosity: 600,000-620,000 cps (Brookfield TD @ 0.3 rpm)
38,000- 43,000 cps (Brookfield #4 @ 3 rpm)

Appearance: Firm, glossy white cream

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water, mixing for at least 10 minutes. Add the Na₄EDTA and triethanolamine to initiate hydration. Begin heating part A to 65C. Blend the part B ingredients in a separate vessel, heating to 65C. Add part B to part A with good agitation to form the emulsion. Maintain agitation while cooling the batch to 40-45C. Dissolve the quaternium-15 in the part C water, and add to the batch. Add the Germaben II, and adjust pH with citric acid solution.

SOURCE: PPG Industries, Inc.: Formulation J-103

Skin Cream

A firm white cream which spreads easily on the skin and provides longlasting moisturization without greasiness.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	75.8
	Hydroxypropyl Methylcellulose Methocel 40-100	0.2
	Tetrasodium EDTA	0.1
	Triethanolamine, 50%	0.1
B	PPG-10 Butanediol	Macol 57 3.0
	Benzyl Laurate	Mazon EE-1 4.0
	Mineral Oil	Drakeol 9 4.0
	Cetearyl Alcohol (and) Ceteareth-20	Macol 124 6.0
	Stearic Acid	Hystrene 7018 2.0
	Glycol Stearate	Mapeg EGMS 2.0
C	Deionized Water	2.0
	Quaternium-15	Dowicil 200 0.2
	Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	Germaben II 0.5
	Citric Acid, 50%	0.1

pH: 6.0-6.5

Viscosity: 600,000-620,000 cps (Brookfield TD@0.3 rpm)

38,000- 43,000 cps (Brookfield #4@3 rpm)

Appearance: Firm, glossy white cream

Disperse the hydroxypropyl methylcellulose in the part A water, mixing for at least 10 minutes. Add the Na4EDTA and triethanolamine to initiate hydration. Begin heating part A to 65C. Blend the part B ingredients in a separate vessel, heating to 65C. Add part B to part A with good agitation to form the emulsion. Maintain agitation while cooling the batch to 40-45C. Dissolve the quaternium-15 in the part C water, and add to the batch. Add the Germaben II, and adjust pH with citric acid solution.

SOURCE: PPG Industries, Inc.: Formula J-103

Dry Skin Cream

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	79.3
	Triethanolamine	0.7
	Methyl Paraben	0.2
	Na4EDTA	0.2
B	Cetearyl Alcohol (and) Ceteareth 20	Macol 124 8.0
	Dimethicone	Masil SF-1000 0.5
	Mineral Oil	Drakeol 9 4.0
	Stearic Acid	Emersol 132 2.5
	Propylene Glycol	4.5
C	Fragrance	0.1

pH: 6.0-6.5

Viscosity: 480,000 cps (Brookfield TE @ 0.6 rpm)

Appearance: White, glossy, firm cream

Pre-mix Part A ingredients; heat to 65C (150F). Pre-mix Part B; heat to 65C (150F). When both are uniform, add B to A with high-shear mixing. Sweep-cool to 40C (105F). Adjust pH, if necessary, with citric acid solution or triethanolamine solution. Add fragrance.

SOURCE: PPG Industries, Inc.: Formula J-101

Throat and Neck Cream

	<u>% Weight</u>
Phase A:	
Hexyl Laurate (Cetiol A)	12.50
Glyceryl Stearate (Cutina GMS)	3.00
PEG-40 Stearate (Emerest 2715)	3.00
Dimethicone, 100 cps. (Dow Corning 200 Fluid)	0.10
Cetearyl Alcohol (Lanette O)	2.80
PEG-6000 Distearate	0.30
Phase B:	
Propylene Glycol	6.00
Xanthan Gum	0.20
Magnesium Aluminum Silicate (Veegum)	0.40
Trisodium EDTA	0.05
Water	65.50
Phase C:	
Hydrolyzed Animal Elastin (Elastin CLR)	5.00
Germaben II	1.00
Fragrance	0.15

Procedure:

Mix and heat phase A to 70-75C. Preblend Veegum and xanthan gum. Slowly add to water while agitating at maximum available shear. Mix until smooth. Add the trisodium EDTA and the propylene glycol and heat to 70-75C. Add Phase A to Phase B at 70-75C, stir at temperature for 15 minutes. Mix while cooling to 40C, add Phase C. Cool to 30C and package.

Night Time Moisturizing Cream

	<u>% Weight</u>
Phase A:	
Mineral Oil	10.00
Octyl Palmitate (Ceraphyl 368)	2.00
Stearic Acid (Emersol 132)	4.00
Glyceryl Stearate SE (Cerasynt Q)	3.00
PEG-40 Stearate (Myrj 52S)	1.00
Dimethicone Copolyol (Abil B8852)	1.00
Lanolin Oil	0.50
Phase B:	
Water	74.75
Triethanolamine, 99%	1.30
Acrylates/Octylpropenamide Copolymer (Dermacryl-79)	1.00
Phase C:	
Carbomer-934 (Carbopol 934)	0.25
Phase D:	
Germaben II-E	1.00
Phase E:	
Fragrance	0.20

Procedure:

Heat water and triethanolamine to 80C. Slowly sift in Dermacryl-79 and mix until completely dissolved. Slowly sift in Carbopol 934. In separate vessel, combine phase A and heat to 80C until clear with mixing. Add Phase A to Phase B and mix thoroughly at 80C for 30 minutes. Cool to 40C, add Phase D and Phase E.

SOURCE: Sutton Laboratories: Suggested Formulations

Under Make-Up Cream Base

An oil/water emulsion with Cetyl Alcohol and Lactylate to soften and moisturize the skin.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	84.80
2. Propylene Glycol	5.00
3. Acritamer 934	0.20
Part B:	
4. Ritachol 2000	3.00
5. Cetyl Alcohol	2.00
6. Patlac IL	2.00
7. Pationic ISL	2.00
8. Pationic 138C	0.60
Part C:	
9. Triethanolamine (50%)	0.40
Part D:	
10. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse the Acritamer in water and Propylene Glycol. Heat to 70C. Combine ingredients in Part B and heat to 70C. Add Part B to Part A. Mix until uniform. Add Part C and begin cooling. Cool to 30C. Add color, fragrance and preservatives. Package.

Formulation H-89-A-16

Cleansing Cream

A non-soap cleansing cream with Ritachol emollients and Lactylates for surfactancy, cleansing and moisturizing.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil, 65/70	15.00
2. Ritachol 1000	5.00
3. Ritachol	3.00
4. Patlac IL	3.00
5. Pationic CSL	2.00
6. Pationic 138C	1.00
7. Shebu Refined	1.00
Part B:	
8. Distilled Water	65.00
9. Glycerin	5.00
Part C:	
10. Preservatives	QS
11. Fragrance	QS

Compounding Procedure:

Heat Parts A and B to 70C. Add Part A to Part B with agitation. Mix 15 minutes. Begin cooling with agitation. Cool to 45C. Add Part C. Cool to 27C and package.

Formulation HB-89-R-33

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Vitamin Replenishing Cream

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Deionized Water	60.00
Carbopol 940	0.25
Propylene Glycol, USP	4.40
Methyl Parasept	0.25
Biotin, FCC (Code 63344)	0.05
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Part II:	
Cetal	1.50
Super Hartolan	1.00
Carnation Mineral Oil	9.00
Emersol 132	2.40
Witcamide MAS	1.00
Sesame Oil, NF	4.20
Propyl Parasept	0.10
Silicone 200 Fluid	2.00
Butylated Hydroxytoluene	0.06
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Part III:	
Triethanolamine, 98%	0.90
Part IV:	
Germall 115	0.25
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	1.00
Part V:	
Perfume Oil (PA 62053)	0.30
Part VI:	
Deionized Water	9.34

Procedure:

- A. Sift Carbopol 940 into water and dissolve using Eppenbach homomixer. Add remaining ingredients of Part I stirring well after each addition. Heat to 75C.
- B. Weigh Part II ingredients into separate kettle. Heat to 75C. Stir until completely homogeneous.
- C. Add Part II into Part I using the Eppenbach homomixer. Stir for 5 minutes.
- D. Add Part III and stir vigorously.
- E. Cool to 35C while stirring with a paddle mixer. Add Part IV. Stir slowly to avoid aeration.
- F. Add Part V. Stir for 5 minutes.
- G. Q.S. with water.
- H. Transfer to suitable containers. Protect from light.

SOURCE: Roche Chemical Division: Formula SC 415

W/O Body Cream-A

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Oleate (Isolan GO-33)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Decyl Oleate (Tegosoft DO)	12.0
Cetearyl Octanoate (Tegosoft Liquid)	12.0
Phase B:	
Water	65.5
Sodium Chloride	0.5
Urea	2.0
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

W/O Body Cream-B

<u>Ingredients:</u>	<u>%w/w</u>
Polyglyceryl-3 Oleate (Isolan GO-33)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Jojoba Oil	12.0
Octyl Stearate (Tegosoft OS)	12.0
Phase B:	
Water	65.5
Sodium Chloride	0.5
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 70C. Mix until the waxes are completely dispersed.
2. In a separate vessel, combine the water and Sodium Chloride. Mix and heat to 70C.
3. Add the Sodium Chloride/Water to Phase A slowly with lightning agitation. Mix until uniform.
4. Cool to 50C with mixing.
5. Add remaining ingredients of Phase B and the preservative.
6. Homogenize.
7. Cool to 35-40C with sweep mixer and add the fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

W/O Body Cream-C

<u>Ingredients:</u>	<u>%w/w</u>
Polyglyceryl-3 Oleate (Isolan GO-33)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Avocado Oil	12.0
Caprylic/Capric Triglycerides (Tegosoft CT)	12.0
Phase B:	
Water	67.5
Sodium Chloride	0.5
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 70C. Mix until the waxes are completely dispersed.
2. In a separate vessel, combine the water and Sodium Chloride. Mix and heat to 70C.
3. Add the Sodium Chloride/Water to Phase A slowly with lightning agitation. Mix until uniform.
4. Cool to 50C with mixing.
5. Add remaining ingredients of Phase B and the preservative.
6. Homogenize.
7. Cool to 35-40C with sweep mixer and add the fragrance.

W/O Hand and Body Cream-C

<u>Ingredients:</u>	<u>% w/w</u>
Polyglyceryl-4 Isostearate (Isolan GI-34)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Jojoba Oil	12.0
Octyl Stearate (Tegosoft OS)	12.0
Phase B:	
Water	65.5
Sodium Chloride	0.5
Glycerin	2.0
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 70C. Mix until the waxes are completely dispersed.
2. In a separate vessel, combine the water and Sodium Chloride. Mix and heat to 70C.
3. Add the Sodium Chloride/Water to Phase A slowly with lightning agitation. Mix until uniform.
4. Cool to 50C with mixing.
5. Add remaining ingredients of Phase B and the preservative.
6. Homogenize.
7. Cool to 35-40C with sweep mixer and add the fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

W/O Hand and Body Cream-A

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (Isolan GI-34)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Triolein	12.0
Caprylic/Capric Triglycerides (Tegosoft CT)	12.0
Phase B:	
Water	65.5
Sodium Chloride	0.5
Urea	2.0
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

W/O Hand and Body Cream-B

<u>Ingredients:</u>	<u>%w/w</u>
Polyglyceryl-4 Isostearate (Isolan GI-34)	5.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Decyl Oleate (Tegosoft DO)	12.0
Cetearyl Octanoate (Tegosoft Liquid)	12.0
Phase B:	
Water	67.5
Sodium Chloride	0.5
Phase C:	
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 70C. Mix until the waxes are completely dispersed.
2. In a separate vessel, combine the water and Sodium Chloride. Mix and heat to 70C.
3. Add the Sodium Chloride/Water to Phase A slowly with lightning agitation. Mix until uniform.
4. Cool to 50C with mixing.
5. Add remaining ingredients of Phase B and the preservative.
6. Homogenize.
7. Cool to 35-40C with sweep mixer and add the fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

W/O Massage Cream-Hot Process

<u>Ingredients:</u>	%
Oil Phase:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Castor Wax	0.50
F/T 200 Wax	0.50
Mineral Oil	8.00
Avocado Oil	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Isopropyl Myristate (Tegosoft M)	4.00
Water Phase:	
Water	78.70
Sodium Chloride	0.80
Seaweed Extract	0.50
Color, Perfume	Q.S.
Preservatives	Q.S.

W/O Massage Cream-Cold Process

<u>Ingredients:</u>	%
Oil Phase:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Mineral Oil	8.00
Avocado Oil	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Isopropyl Myristate (Tegosoft M)	4.00
Silica	0.50
Water Phase:	
Water	79.20
Sodium Chloride	0.80
Seaweed Extract	0.50
Color, Perfume	Q.S.
Preservatives	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Water/Oil Moisturizing Night Cream with a High Oil Content

This relatively high oil content moisturizing night cream is a w/o emulsion offering superior lubricating and moisturizing attributes. Forlan L serves as an auxiliary water/oil emulsifier to assist in emulsion stabilization. Forlan L also contributes to the lubricating and moisturizing qualities usually associated with lanolin. This product should be especially beneficial to individuals with excessively dry skin.

Ingredients:

	<u>% W/W</u>
1. Beeswax	3.00
2. Forlan L	20.00
3. Sorbitan Sesquioleate	2.50
4. Rita SA	0.34
5. Propylparaben	0.10
6. Petrolatum	26.85
7. Distilled Water	+-47.01
8. Methylparaben	0.10
9. Fragrance	QS
10. Quaternium-15	0.10

Compounding Procedure:

Weigh and add items 1 through 6 into a container and begin heating and stirring. While stirring continuously, heat the blend to 70-73C. Weigh and add items 7 and 8 into another container and begin heating and stirring. Heat this blend to 70-73C. When both blends are at 70-73C, add items 1 through 6 to the premix of items 7 and 8. Stir continuously. Mix until uniform. Cool with mixing to 35-40C and add items 9 and 10. Cool to 25-30C and package fill into suitable containers.

Note: 1 to 2% of Patlac IL (Isostearyl lactate) may be added to improve rub out.

Formulation HB-89-L-29

Night Creme

This oil-in-water night creme uses Pationics as its primary emulsifiers. They are also substantive humectants. The product is smooth and creamy because of the addition of Ritawax, Ritachol and Ritachol 1000 as emollients.

Ingredients:

	<u>% W/W</u>
1. Mineral Oil	8.00
2. Ritachol	4.00
3. Ritachol 1000	8.00
4. Pationic SSL	6.00
5. Glycol Stearate	5.00
6. Pationic ISL	2.00
7. Ritawax	1.00
8. Distilled Water	61.00
9. Propylene Glycol	5.00
10. Color, Fragrance and Preservative	QS

Compounding Procedure:

Combine items 1-7 and heat to 70C. Combine items 8 and 9 and heat to 70C. Combine both ingredient phases with mixing. Cool with mixing to 45C. Add remaining ingredients. Cool to 35C.

Formulation HB-89-R-34

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Section VI

Hair Care Products

Alcohol-Free Pump Hairspray
"Long Lasting Hold-Soft Natural Feel"

	<u>% Weight</u>
Vinylcaprolactam/PVP/Dimethylaminoethylmethacrylate Copolymer (Polymer ACP-1018)	5.00
Water	94.70
Suttocide A, 50% Solution	0.30
Fragrance, Plasticizer	Q.S.

Procedure:

Add Polymer ACP-1018 to water. Add rest of ingredients and adjust pH to 7.0-8.0 with citric acid.

Alcohol-Free Pump Hairspray
"Stiff Hard-Hold Spray"

	<u>% Weight</u>
Vinylcaprolactam/PVP/Dimethylaminoethylmethacrylate Copolymer (Polymer ACP-1018)	2.50
PVP/VA Copolymer (PVP/VA E735)	5.00
Water	92.20
Suttocide A, 50% Solution	0.30
Fragrance, Plasticizer	Q.S.

Procedure:

Add Polymer ACP-1018 and PVP/VA W-735 to water. Add Suttocide A, fragrance and plasticizer. Adjust pH to 7.0-8.0 with citric acid.

Hair Moisturizing Spray

	<u>% Weight</u>
Water	94.50
Acetamide MEA (and) Lactamide MEA (Incromectant LAMEA)	3.00
Cocodimonium Silk Amino Acids (Crosilkquat)	1.00
Minkamidopropalkonium Chloride (Incroquat Mink-85)	0.50
Germaben II	1.00

Procedure:

Warm water to 45C. Add the ingredients, mixing after each addition until clear.

SOURCE: Sutton Laboratories, Inc.: Suggested Formulations

Alkalizing of Hair

a) Alkalizing agent in the form of a solution

Ammonia solution (25%)	1.00g
Water, completely desalted	99.00g

b) Alkalizing agent in the form of a gel

Carboxylic vinyl polymer	0.7g
Water, completely desalted	97.6g
Ammonia solution (25%)	1.7g

c) Alkalizing agent in the form of an emulsion

Oleylcetylalcohol, oxyethylated with 7 to 8 moles of ethylene oxide	5.0g
Paraffinum liquidum	15.0g
Water, completely desalted	78.5g
Monoethanolamine	1.5g

d) Alkalizing agent in the form of an emulsion

Cetylstearylalcohol	5.0g
Cetyltrimethylammoniumchloride (50% aqueous-alcohol solution)	2.0g
Water, completely desalted	91.5g
Trisodium phosphate	1.5g

All percentages used in this application are intended to refer to percentages by weight.

SOURCE: Amerchol Corp.: Product Patent: Hair Setting Lotion
Containing a Chitosan Derivative

Clear Conditioner

This uncommon, oil-free clear conditioner is especially designed for hair that needs good conditioning and extra body. Lexquat AMG-WC furnished excellent wet and dry combability and adds softness to the hair without the typical heavy film associated with many conditioners. Although Lexquat AMG-WC is highly substantive it will not build up through repeated applications. This product leaves even limp, fine hair manageable, clean and lively.

Part A:	<u>%(w/w)</u>
Deionized water	80.65
Methocel E4M (Hydroxypropylmethylcellulose)	0.75
Part B:	
Myristamine Oxide	10.00
Lexquat AMG-WC (Cocamidopropyl Dihydroxypropyl Dimonium Chloride)	5.00
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.30
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid	qs to pH

Procedure:

Charge batch vessel with water and begin mixing and heating to 75C. Dust in Methocel. When completely hydrated, cool to 35C and add part B to batch. Cool to room temperature.

Adjusted pH (direct): 4.5-0.2

Formulation CD-100

Clear Conditioner

This clear conditioner is formulated for hair that requires good conditioning. It makes the hair fluffy, gives softness and shine, and hides damaged, split ends.

Part A:	<u>%(w/w)</u>
Deionized Water	79.20
Methocel E4M (Hydroxypropylmethylcellulose)	0.80
Part B:	
Myristamine Oxide	10.00
Lexquat AMG-BEO (Behenamidopropyl Dihydroxypropyl Dimonium Chloride)	4.50
Propylene Glycol USP	5.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid	qs to pH

Procedure:

Charge the batch vessel with water and begin mixing and heating to 78C+-2C. Dust Methocel slowly into water with agitation. When completely hydrated, cool to 35C and add part B to batch. Adjust pH to 4.5+-0.2 then cool to room temperature.

Observation:

Viscosity @ 25C: 4000 cps

SOURCE: Inolex Chemical Co.: Formulation CD-103

Clear Conditioner

This oil-free, clear conditioner is designed for hair that needs good conditioning and extra body. It leaves even limp, fine hair manageable, clean and lively.

Part A:	<u>%(w/w)</u>
Deionized water	79.80
Methocel E4M (Hydroxypropylmethylcellulose)	0.70
Part B:	
Myristamine Oxide	10.00
Lexquat AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	4.00
Propylene Glycol USP	5.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid (pH=7.0+-0.2)	0.20

Procedure:

Charge batch vessel with water and begin mixing and heating to 78+-2C. Dust Methocel slowly into water with agitation. When completely hydrated, cool to 35C. Add part B to batch. Adjust pH. Cool to room temperature.

Observations:

pH (direct): 7.0(7.2-6.8)

Viscosity @ 25C: 1550 cps

Formulation CD-102

Clear Conditioner

This clear conditioner is formulated for hair that requires good conditioning. It makes the hair fluffy, gives softness and shine, and hides damaged, split ends.

Part A:	<u>%(w/w)</u>
Deionized water	79.20
Methocel E4M (Hydroxypropylmethylcellulose)	0.80
Part B:	
Myristamine Oxide	10.00
Lexquat AMG-BEO (Behenamidopropyl Dihydroxypropyl Dimonium Chloride)	4.50
Propylene Glycol USP	5.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Fragrance	0.20
Citric Acid	qs to pH

Procedure:

Charge batch vessel with water and begin mixing and heating to 78+-2C. Dust Methocel slowly into water with agitation. When completely hydrated, cool to 35C and add part B to batch. Adjust pH to 4.5+-0.2 then cool to room temperature.

Viscosity @ 25C: 4000 cps

SOURCE: Inolex Chemical Co.: Formulation CD-103

Clear Conditioner

A viscous, clear conditioner which repairs, reduces static, moisturizes and adds luster.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Propylene Glycol	5.00
2. HEC QP 5200	0.80
3. Methylparaben	0.10
Part B:	
4. Distilled Water	51.15
5. EDTA	0.10
Part C:	
6. Ammonyx KP	6.00
7. Ammonyx LO	1.00
8. Laneto 50	0.75
9. dl-Panthenol	1.00
10. Simchin WS	0.75
11. Distilled Water	32.15
12. Glydant 40-700	0.20
Part D:	
13. Ritabate 20	0.80
14. Perfume	0.20
Part E:	
15. Patlac LA (44%)	QS

NOTE: 1-2% Pationic ISL may be used in Part A, but effect on viscosity has to be determined.

Compounding Procedures:

Part A: Dissolve Methylparaben in Propylene Glycol. Sprinkle in HEC and mix without aeration until uniformly dispersed. Part B: Dissolve EDTA in water. Add HEC slurry to EDTA mixture. Part C: Premix, mixing between additions, until uniform. Add Part C to main mixer. Mix until uniform. Avoid aeration. Part D: Add slowly with agitation to main mixing tank. Adjust pH with Patlac LA (44%) to 4.5-5.0.

Viscosity: 1800-2000 cps pH: 4.5-5.0

SOURCE: R.I.T.A. Corp.: Formulation 105-125/HB-89-L-14

Clear Conditioner

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		89.1
Hydroxyethyl Cellulose	Natrosol 250 HR	0.8
Triethanolamine		0.1
Stearamine Oxide	Mazox SDA	1.2
Soya Ethyldimonium Ethosulfate	M-Quat 1033	2.5
Olealkonium Chloride	M-Quat JO-50	1.0
Propylene Glycol		5.0
Benzoic Acid		0.2
Fragrance		0.2
Citric Acid		Q.S.

pH: 4.5-5.0

Viscosity: 5000 cps

Appearance: Water-white, slightly hazy liquid

Procedure:

Disperse the hydroxyethyl cellulose in the water, and add the triethanolamine with good mixing to expedite hydration. Pre-mix the Mazox SDA, M-Quat 1033, M-Quat JO-50, propylene glycol, and benzoic acid; add to batch. Add the fragrance and adjust the pH.

Formulation B-101

Cream Rinse Conditioner

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		89.75
Hydroxyethyl Cellulose	Natrosol 250 HR	0.50
Triethanolamine		0.10
Benzoic Acid		0.20
Ethylene Glycol Monostearate	Mapeg EGMS	2.50
PEG-150	Macol E-8000	0.25
Stearamine Oxide	Mazox SDA	3.00
Hydroxypropyl Bis Stearyl- dimonium Chloride	M-Quat Dimer 18	1.50
Cetearyl Alcohol (and) Cetareth 20	Macol 124	2.00
Fragrance		0.20

pH: 5.0-5.5

Viscosity: 11,600 cps

Appearance: Opaque white lotion

Procedure:

Disperse the hydroxyethyl cellulose in water; add triethanolamine to expedite hydration. Heat to 65C (150F); add the remaining ingredients in the order shown. Cool the batch to 45C (110F) before adding fragrance.

Formulation B-102

SOURCE: Mazer Chemicals; Suggested Formulations

Clear Conditioner

This uncommon, oil-free clear conditioner is especially designed for hair that needs good conditioning and extra body. Lexquat AMG-WC furnishes excellent wet and dry combability and adds softness to the hair without the typical heavy film associated with many conditioners. Although Lexquat AMG-WC is highly substantive it will not build up through repeat applications. This product leaves even limp, fine hair manageable, clean and lively.

Part A:	<u>%(w/w)</u>
Deionized Water	80.65
Methocel E4M	0.75
Part B:	
Myristamine Oxide	10.00
Lexquat AMG-WC	5.00
Propylene Glycol USP	3.00
Lexgard M	0.30
Lexgard P	0.10
Fragrance	0.20
Citric Acid	qs to pH

Procedure:

Charge batch vessel with water and begin mixing and heating to 75C. Dust in Methocel. When completely hydrated, cool to 35C and add part B to batch. Cool to room temperature.
adjusted pH (direct): 4.5+-0.2

SOURCE: Inolex Chemical Co.: Formulation CD-100

Foaming Anti-Dandruff Hair Conditioner

<u>Ingredients:</u>	<u>% by weight</u>
Cetyltrimethylammonium bromide	10.00
Hydroxyethyl cellulose	1.00
Sodium hydroxide	0.15
Polymer JR 30M	0.50
Bronopol	0.01
Zinc pyridinethione	0.35
Perfume and color	q.s.
Water	q.s. to 100

SOURCE: Angus Chemical Co.: Formulation PF-0112 from Cosmetics and Toiletries, Vol. 100, April 1985

Clear Conditioning Rinse

Clear, conditioning hair rinse which can be used after shampooing. Kytamer PC is a substantive humectant which helps retain moisture in hair leaving it soft and full in appearance. Kytamer PC's film forming properties give the hair shine.

Formula:

Kytamer PC (Chitosan PCA)	1.00%
Olealkonium Chloride (55% Aqueous)	3.64
Water	95.36
Perfume and Preservative	q.s.

Procedure:

Disperse Kytamer PC in water with high speed agitation. When completely dispersed, heat to 75C with continued mixing until solution is clear and uniform. Add Olealkonium Chloride and mix until uniform. Dissolve preservative into batch. Cool to room temperature.

Formulation No. T54-272-1

Conditioning Mousse for Hair

Glucquat 125 conditions the hair by maintaining moisture and reducing the drying effects of the alcohol. The mousse is formed by the combination of the non-ionic emulsifier, Ameroxol OE-20, with Glucquat 125.

Formula:

Glucquat 125 (Lauryl Methyl Gluceth-10 Hydroxypropyl Dimonium Chloride)	1.00%
Ameroxol OE-20 (Oleth-20)	1.00
SD Alcohol 40	15.00
Deionized water	83.00
Perfume and preservative	q.s.

Procedure:

Heat deionized water to 60C and add Glucquat 125, Ameroxol OE-20 and preservative into it. Cool to 40C. Add SD Alcohol 40 to water phase and mix until uniform.

Aerosol Fill Procedure:

Fill into aluminum mousse cans and charge with A-46 hydrocarbon propellant using 95% product and 5% propellant.

Formulation T62-88-6

SOURCE: Amerchol Corp.: Suggested Formulations

Clear Gel Activator/Conditioner

This is a clear rinsing curl activator used to bring out the natural curl of the hair. It also contains humectants, detackifiers and conditioners.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	57.65
Carbomer 940	0.50
Triethanolamine	2.25
Phase B:	
Glycerine	32.20
Propylene Glycol	5.00
Dimethicone Copolyol (Abil B 88183)	1.00
Dimethicone Copolyol (Abil B 8851)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Phase C:	
Color, Fragrance, Preservative	Q.S.

Procedure:

Disperse the Carbomer into the water and mix until completely clear. Add the Triethanolamine and mix well. Mix Phase B and add slowly to Phase A while mixing. Add Phase C with mixing.

Gel Activator

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	57.65
Carbomer 940 (Acrylic Polymer)	0.50
Triethanolamine	2.25
Phase B:	
Glycerine	32.20
Propylene Glycol	5.00
Quaternium-80 (Abil Quat 3272)	1.00
PEG-20 Glyceryl Laurate (Tagat L-2)	1.40
Phase C:	
Color, Fragrance, Preservative	Q.S.

Procedure:

1. Disperse the Carbomer into the water with high shear lightning agitation.
2. Mix the material of Phase B, separately until dispersed. Slowly add Phase B to Phase A with agitation.
3. Add Phase C to the final product.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Clear Hair Reparative and Conditioner

A clear liquid conditioner in which the Pationic ISL repairs and conditions and the polypeptide salt adds body and ease of combing with reduced fly-away. May be used as a "leave-in" or "rinse-out" product.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Quaternary Ammonium Polypeptide Salt	25.00
2. Ritoleth 20	3.00
3. Pationic ISL	2.00
Part B:	
4. Distilled Water	+--69.80
Part C:	
5. Glydant 40-700	0.20
6. Perfume	QS

Compounding Procedure:

Combine ingredients of Part A and heat to 45C. Add Part B mix while cooling to room temperature, add Part C. Adjust pH to 6.5-6.9.

Viscosity: 100 cps

Formulation H-89-P-8

Hot Oil Treatment

A clear, penetrating hot oil treatment to moisturize, impart luster and ameliorate damaged hair.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil 65/70	88.35
2. Pationic ISL	5.00
3. Lauryl Myristyl Alcohol	2.00
4. 2-Phenoxyethanol	2.00
5. Shebu Refined	0.50
6. Lanolin, Extra Deodorized	2.00
7. Perfume	+--0.15

Compounding Procedure:

Combine items 1-6. Heat to 165F, and cool to 100F. Add perfume. Mix until uniform.

Formulation HB-89-L-18/Ref.103-10

OSOURCE: R.I.T.A. Corp.: Suggested Formulations

Clear Oil-Free Hair Conditioner Gel

This is a cold process recipe featuring mild substantive conditioners and hair shaft moisturizers. The benefit of being free of waxes and fatty oils is in the results. This light, yet lubricious gel massages in the actives to leave the hair with shine and body, naturally! Since there's no oily residue, you can even use it as a "leave-on" for extra conditioning and body.

<u>Ingredient:</u>	<u>Percent by Weight</u>
Incroquat BA-85 babassamidopropyl dimethyl benzyl ammonium chloride	1.50
Croquat M cocodimonium hydrolyzed protein	3.00
Incromectant LAMEA acetamide MEA and lactamide MEA	2.50
Glycerin (moisturizer)	2.00
Dowicil 200 (preservative)	0.10
Methocel 40-202 (hydroxypropyl methylcellulose, thickener)	2.00
Versene 100 (tetrasodium EDTA)	0.10
Dimethicone Copolyol	2.00
Citric acid (for pH balance)	0.20
Deionized water (<35C)	86.60

Procedure:

1. Disperse and dissolve the first five ingredients into the water followed by addition of Methocel 40-202, a high clarity grade of surface treated hydroxypropyl methylcellulose.
 2. After it has dispersed and wetted out, the Methocel 40-202 can be solubilized by addition of a small amount of 20% NaOH (a few drops for 200 g of this formula). Maintain constant agitation as the alkali promotes polymer thickening.
 3. At this point, the Versene 100 chelant (for clarity) can be added followed by addition of the dimethicone copolyol.
 4. The formulation is then acid balanced to a pH of 4-5 by use of citric acid.
 5. A fragrance of your choice may be added for heightened appeal.
- SOURCE:** Dow Chemical Co.: **Suggested Formulation**

Clear Dilutable Gel

	<u>%(w/w)</u>
Lexquat AMG-0 (Oleamidopropyl Dihydroxy Dimonium Chloride)	50.00
Lexeine QX-3000 (Quaternium-76 Hydrolyzed Animal Protein)	25.00
Stearalkonium Chloride	25.00

Procedure:

Combine Lexquat and Lexeine. Heat to 75C with mixing and add stearalkonium chloride. Mix until clear. Cool, adjust pH to 4.0-4.5. A clear gel forms on cooling.
adjusted pH (direct): 4.0-4.5

SOURCE: Inolex Chemical Co.: **Formulation CD-101**

Conditioner Hair Cream

	<u>% Wt.</u>
Lexate CRC	5.50
Stearyl Stearate	1.00
Lexein X250	5.00
Mineral Oil 125/135	2.00
PEG 400 Distearate	1.50
Citric Acid Monohydrate	0.50
Sodium Chloride	1.20
Perfume G73-146	0.25
Water	82.95

Consistency: after 24 hours @ 25C: Soft Cream
pH: 5.5

Charge Water into making tank and heat to 70-75C. Dissolve Citric Acid and Sodium Chloride, then add and disperse Lexate CRC, Stearyl Stearate, Mineral Oil and PEG 400 Distearate. Continue stirring and cool to 50-55C, and add and disperse Lexein and Perfume. Continue cooling with gentle agitation to 35-40C. Fill into suitable containers. Consistency develops fully after 24 hours at 25C.

Formula 4316A

Conditioner Hair Lotion

	<u>% Wt.</u>
Lexate CRC	5.50
Stearyl Stearate	1.00
Lexol IPP	1.00
Hexylene Glycol	5.00
Citric Acid Monohydrate	0.50
Sodium Chloride	1.00
Perfume M-45790	0.25
Water	85.65
D&C Green #5	Q.S.
D&C Yellow #10	Q.S.

Viscosity: 3090 cps
pH: 5.9

Charge Water and Hexylene Glycol into making tank and heat to 70-75C. Dissolve Citric Acid and disperse Lexate CRC, Stearyl Stearate and Lexol with moderate agitation to avoid incorporating air. Cool to 45-50C and add Sodium Chloride with good agitation. Continue stirring, cool to 40-45C and add Perfume and Colors. Cool further with gentle agitation to 25-30C. Pack into suitable containers and let stand. Viscosity develops fully after 24 hours at 25C.

Formula 4320E

SOURCE: Inolex Chemical Co.: Suggested Formulas

Conditioner Rinse

<u>Ingredients:</u>	<u>% by Weight</u>
Deionized water	90.80
Neobee M-5	3.25
Kessco Cetyl Alcohol	2.10
Stearyl alcohol	1.25
Ammonyx KP	1.00
Hydroxyethylcellulose	0.45
Wecobee M	0.35
Propyl paraben	0.30
DMDM hydantoin	0.25
Fragrance	Q.S.

Mixing Procedure:

Add deionized water to a suitable mixing vessel and begin heating. Start mixing water and slowly disperse the hydroxyethylcellulose (avoid clumping). Add remaining ingredients to the water making sure to allow good agitation after each addition. Maintain heat at 65C for ten to fifteen minutes making sure temperature does not exceed 67C. Slow agitation to moderate speed and cool until temperature reaches 35C.

Physical Properties:

Opaque, cream
 Viscosity @ 25C: 1750-3000 cps
 pH (as is): 4-5

SOURCE: Stepan Co.: Formulation No. 594

Hair Conditioning Rinse

<u>Phase A:</u>	<u>% by Weight</u>
Water	90.50
Hydroxypropyl Methylcellulose (Methocel F4M)	1.50
<u>Phase B:</u>	
PPG-5-Ceteth-10 Phosphate (Crodafos SG)	1.00
Acetamide MEA (and) Lactamide MEA (Incromectant LAMEA)	3.00
Babassamidopropalkonium Chloride (Incroquat BA-85)	1.00
<u>Phase C:</u>	
Cocodimonium Silk Amino Acids (Crosilkquat)	2.00
Germaben II	1.00

Procedure:

Heat 1/3 of the water to 85C. Disperse Methocel F4M in the hot water. Add the remaining cold water. Mix until hydrated. Add ingredients from Phase B, mixing after each addition until clear. Cool batch to 40C and add Phase C. Mix until clear.

SOURCE: Sutton Laboratories: Suggested Formulation

Conditioner That Shampoos

Part:	Ingredient:		Wt %
A	Deionized Water		32.8
	Cocamidopropyl Hydroxysultaine	Mafo CSB-50	20.0
	Lauramine Oxide	Mazox LDA	24.0
	Cocamide DEA	Mazamide JT-128	2.0
	Benzoic Acid		0.2
	Na4EDTA		0.1
B	Deionized Water		10.0
	Soya Ethyldimonium Ethosulfate	M-Quat 1033	0.4
	Isostearamidopropyl Ethyldimonium Ethosulfate	M-Quat 522	0.2
C	Fragrance		0.3
	Citric Acid		Q.S.

pH: 5.5-6.0

Viscosity: 2,100 cps

Appearance: Clear, straw-colored liquid

Procedure:

Blend Part A ingredients; heat to 40C (105F). Pre-mix Part B; heat to 40C (105F). Combine Parts A and B; add fragrance and adjust pH.

SOURCE: PPG Industries, Inc.: Formulation B-105

Creme Rinse Protein Conditioner

	% Wt.
Lexate CRC	5.50
Stearyl Stearate	1.00
Lexein X250	3.50
Lexgard M	0.15
Lexgard P	0.05
Bronopol	0.05
Citric Acid Monohydrate	0.50
Sodium Chloride	1.00
Perfume 802169U	0.25
Water	88.00
FD&C Yellow #5	Q.S.

Viscosity: 1700 cps pH: 5.6

Charge Water into making tank and heat to 70-75C. Dissolve Lexgards and Citric Acid and disperse Lexate CRC and Stearyl Stearate with moderate agitation to avoid incorporating air. Cool to 45C and add Bronopol, Perfume, Lexein, Sodium Chloride and Color with good agitation. Continue stirring and cool to 25-30C. Pack into suitable containers and let stand. Viscosity develops fully after 24 hours at 25C.

SOURCE: Inolex Chemical Co.: Formula 4093A

Conditioning Hair Pomade

A quality hair pomade which conditions and moisturizes and has better spreading properties because of Pationic SSL. It has increased luster because of natural gloss agents, Simchin and Shebu.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritawax	1.50
2. Shebu	2.00
3. Simchin	2.00
4. Pationic SSL	2.00
5. Grilloten LSE 87K	1.00
6. Mineral Oil	13.00
7. Petrolatum	78.50
8. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Blend items 1 through 7 and heat until clear. Cool with stirring to 55C and add color, perfume and preservative. Fill at 50C. Stir while filling.

SOURCE: R.I.T.A. Corp.: Formulation H-89-S-7

Finishing Lotion

A translucent gel hair dressing which provides gloss, moisturization, and conditioning whithout greasiness.

<u>Part:</u>	<u>Ingredient:</u>		<u>Wt. %</u>
A	Cetyl Alcohol	CO-1695	1.0
	Propylene Glycol		32.0
	PPG-10 Butanediol	Macol 57	8.0
	Tetrabutoxypropyl Methicone	Masil 756	1.0
	Hydroxypropyl Bis-Stearylidmonium Chloride	M-Quat Dimer 18PG	1.0
	Dimethicone Copolyol	Masil 280	0.5
	B	Deionized Water	
Glycerin		Superol	2.0
Quaternium 15		Dowicil 200	0.2
C	Citric Acid, 10%		0.1
	Fragrance		Q.S.

pH: 6.0-6.5

Viscosity: 125,000-135,000 cps (Brookfield TC @ 0.6 rpm)
20,000- 23,000 cps (Brookfield #3 @ 3 rpm)

Appearance: Translucent soft gel

Procedure:

Blend and heat part A ingredients to 65C. In a separate vessel, blend and heat the part B ingredients to 65C. Add part B to part A with good propeller mixing. Continue mixing while cooling the batch to 40C. Adjust pH and add fragrance.

SOURCE: PPG Industries, Inc.: Formulation D-106

Conditioning Hair Setting Gel

The use of Dimethicone Copolyol in this hair setting gel improves the gloss, combability and conditioning properties of this formula.

<u>Ingredients:</u>	<u>% w/w</u>
Water	84.95
Tetrasodium EDTA	0.10
Dimethicone Copolyol (Abil B 8851)	0.35
Dimethicone Copolyol (Abil B 88183)	0.45
Carbomer 940	1.10
Sodium Hydroxide, 20% solution	1.55
Vinylcaprolactam/PVP/Dimethylaminoethyl-methacrylate Copolymer	10.00
Oleth-20	1.00
Preservative, Color, Fragrance	0.50

Procedure:

Add the Tetrasodium EDTA and Dimethicone Copolyols to the water. Mix until fully dispersed. Create a vortex in the water and sift in the Carbomer. Mix until the Carbomer is completely dissolved. Add the Sodium Hydroxide, Vinylcaprolactam/PVP/dimethylaminoethyl-methacrylate Copolymer. Warm the Oleth-20 and add as a liquid. (Cool slightly before adding.) Add color, fragrance and preservative.

Hot Oil Treatment

<u>Ingredients:</u>	<u>% w/w</u>
Almond Oil	15.0
Rose Hip Oil	5.0
Mineral Oil	56.7
Cetyl Dimethicone (Abil Wax 9801)	1.0
Cetyl Dimethicone (Abil Wax 9814)	0.5
Stearyl Dimethicone (Abil Wax 9800)	0.8
Dimethicone Copolyol (Abil B 8852)	0.5
Phenyl Trimethicone (Abil AV-20)	2.5
Squalene	15.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

Mix ingredients in order.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Conditioning Hair Spritz

<u>Ingredients:</u>	<u>% w/w</u>
Water	79.0
Propylene Glycol	5.0
Ethanol (SDA-40 95%)	15.0
Quaternium-80 (Abil Quat 3272)	0.4
Dimethicone Copolyol (Abil B 8851)	0.3
Dimethicone Copolyol (Abil B 88183)	0.3
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

Combine ingredients in order.

Formula aids in wet combing, provides static control and leaves a soft sheen on the hair.

For more substantivity, increase the Propylene Glycol to 7%, increase the Abil Quat 3272 to 0.6% and add 0.5% Abil B 9950 (Dimethicone Propyl PG-Betaine)

Emollient Glossing Spritz

<u>Ingredients:</u>	<u>% w/w</u>
Phenyl Trimethicone (Abil AV-20)	49.8
Cyclomethicone (Abil B 8839)	40.0
Dimethicone (Abil 350)	2.5
Dimethicone (Abil 5000)	7.5
Alpha Tocopherol (Vitamin E)	0.2
Natural Oils	Q.S.
Fragrance	Q.S.

Procedure:

Mix in order of addition until clear. Disperse into spray bottles.

Caution - Avoid using raw materials with more than 0.1% water as turbidity may result.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Conditioning Spritz

This leave-on conditioning spritz aids in combing, quickens drying time and imparts shine and softness to hair. This conditioner also provides body and activates curls.

<u>Materials:</u>	<u>Parts/Wt.(%)</u>
Part A:	
Incropol CS-20 (cetereth 20)	1.0
Stearyl Alcohol	1.0
SF1202 (cyclomethicone)	3.0
Part B:	
Water	93.6
Quat-Pro S (steartrimonium hydrolyzed animal protein)	0.5
Part C:	
SM2115 (trimethylsilylamodimethicone)	0.8
Kathon	0.1

Procedure:

- 1) Preheat Part A and Part B to 75C.
- 2) Add Part B to Part A with agitation.
- 3) Cool with mixing to 40 to 50C.
- 4) Blend in SM2115 and then the Kathon.
- 5) Cool to room temperature. Place in pump container.

Comments:

Use less stearyl alcohol for a thinner formulation.
Formula HP103

Hair Conditioner

This formulation is particularly good on damaged hair and improves softness.

<u>Materials:</u>	<u>Parts/Wt(%)</u>
Part A:	
Varisoft CRC	5.00
Citric Acid	0.05
Dowicil 200	0.10
Water	89.85
Part B:	
SM2115-D1	5.00
Citric Acid	q.s.

Procedure:

- 1) Heat water, citric acid & Dowicil 200 to 65C. Slowly add Varisoft CRC until completely melted and emulsion forms.
- 2) Cool to 45-50C and add SM2115-D1. Adjust pH to 4.5 with citric acid.
3. Cool and package.

SOURCE: GE Silicones; Formula HP104

Cream Conditioner for Permanent-Waved Hair

<u>Ingredients:</u>	<u>% by Weight</u>
Ammonyx 4	5.00
Glycerine	1.50
Panthenol	0.50
Citric acid	Q.S.
D.I. water	Q.S. to 100
Kessco Cetyl Alcohol	2.50
PPG-Ceteth 20	1.25
Stearyl alcohol	0.75
Preservative	Q.S.
Fragrance	Q.S.
Dye	Q.S.

Mixing Procedure:

Add ingredients and mix while heating to 75C. Mix until well blended. Cool with mixing to 30C and add fragrance, preservative, and dye if desired. Adjust pH with citric acid to 3-4.

Physical Properties:

Opaque, white liquid
 pH (as is): 3-4
 Viscosity at 25C: 2,000 cps
 Stable for two weeks at 50C
 Passed three freeze thaw cycles

Formulation No. 315

Dry & Damaged Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Ammonyx 4	3.50
Sodium PCA	1.25
Propylene glycol	0.75
Amphosol CA	0.50
Lactic acid	Q.S.
Kessco Cetyl Alcohol	2.70
Stearyl alcohol	0.70
Kessco Glycerol Monostearate SE AS	0.50

Mixing Procedure:

Combine ingredients. Adjust pH with lactic acid to 3-4. Heat to 70-75C with stirring. Allow to cool to room temperature and add fragrance, dye and preservative, if desired.

Physical Properties:

White, opaque liquid
 pH (as is): 3.0-4.0
 Viscosity @ 25C: 3,500 cps
 Passed three freeze/thaw cycles
 Stable at 50C for two weeks

SOURCE: Stepan Co.: Formulation No. 314

Cream Curl Activator

An emulsion hair groom with Masil 756 to provide gloss, softness, and combability to permed, bleached or color-treated hair.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	80.43
	Hydroxypropyl Methylcellulose	Methocel 40-100 0.20
	Triethanolamine	0.02
	Panthenol	DL Panthenol TK 1.00
	Hydrolyzed Silk Protein	Silk-Pro CM-1000 1.00
	Quaternium-15	Dowicil 200 0.30
B	Cetearyl Alcohol (and) Poly-	
	sorbate 60 (and) PEG-150	
	Stearate (and) Steareth-20	Macol CPS 6.00
	Laneth-16 (and) Ceteth-16	
	(and) Oleth-16 (and)	
	Steareth-16	Solulan 16 1.00
	Mineral Oil	Drakeol 9 2.00
	Tetrabutoxypropyl Methicone	Masil 756 3.00
Cyclomethicone	Masil SF-V 3.00	
Dimethicone Copolyol	Masil 280 2.00	
C	Citric Acid, 50%	0.05
	Fragrance	Q.S.

pH: 5.0-6.0

Viscosity: 160,000-200,000 cps (Brookfield TD @ 0.6 rpm)
10,000- 12,000 cps (Brookfield #3 @ 6 rpm)

Appearance: Soft white cream

Procedure:

Disperse hydroxypropyl methylcellulose in the water, then add the triethanolamine to initiate hydration. When hydration is complete (about 20 minutes), add the remaining part A ingredients, heat to 55C and stir until uniform. In a separate vessel, blend the part B ingredients and heat to 55C. Add part B to part A with good agitation, forming the emulsion. Maintain agitation while cooling the batch to 40C, then adjust the pH and add fragrance.

SOURCE: PPG Industries, Inc.: Formulation D-105

Cream Rinse

	<u>% Weight</u>
Hydroxyethylcellulose (Cellosize Polymer PCG-10)	0.50
Polyquaternium-10 (Ucare Polymer JR-30M)	0.50
Glycol Distearate	0.50
Cetearyl Alcohol	2.00
Cetyl Alcohol (Cetal)	0.50
PEG-100 Stearate	1.00
Stearalkonium Chloride	1.70
Citric Acid	0.05
Water	92.25
Germaben II	1.00

Procedure:

Dispense Ucare Polymer JR-30M and Cellosize Polymer PCG-10 in room temperature water with agitation. Heat to 70-75C. In a separate container add glycol distearate, cetearyl alcohol, cetyl alcohol and PEG-100 stearate and heat to 70C. When premix is at 70C and mixed to uniformity, slowly add it to the polymer solution. Mix until uniform. Add stearamonium chloride and citric acid and mix until uniform. Cool to 50C and add Germaben II. Cool to room temperature with proper mixing.

Replenishing Cream Rinse

	<u>% Weight</u>
Water	87.60
Hydroxyethylcellulose (Natrosol 250 HHR)	0.70
Glycol Distearate (Kessco Ethylene Glycol Distearate)	2.00
Cetearyl Alcohol (Lanette O)	2.50
Bishydroxyethyl Dihydroxypropyl Stearaminium Chloride (Monoquat TG)	6.70
Linoleamidopropyl PG-Dimonium Chloride Phosphate (Phospholipid EFA)	0.30
Germaben II	0.20

Procedure:

Charge water; carefully add Natrosol 250 HHR with good agitation. Heat to 50-60C. Add next 4 ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5 to 5.0. Add Germaben II. Continue cooling and agitation until pearl develops.

SOURCE: Sutton Laboratories, Inc.: Suggested Formulations

Creme Rinse Economy-Pearlescent

	% Wt.
Lexate CRC	3.40
PEG 6000 Distearate	1.00
Lexgard M	0.15
Lexgard P	0.05
Sodium Chloride	0.60
Citric Acid Monohydrate	0.35
Perfume #2478	0.10
Water	94.35
D&C Red #19	Q.S.

Viscosity, Brookfield RVT: 1400 cps
pH: 5.4

Charge Water and heat to 70-75C. Add all ingredients except Color, Sodium Chloride and Perfume. Agitate until uniformly dispersed. Cool with agitation to 50C and add Sodium Chloride. Cool with agitation to 45C and add balance of ingredients. Cool to 30C and fill.
Formula 4433-A

Creme Rinse Economy-Opaque

	% Wt.
Lexate CRC	3.40
PEG 600 Distearate	0.30
Lexgard M	0.15
Lexgard P	0.05
Sodium Chloride	0.60
Citric Acid Monohydrate	0.35
Perfume #2478	0.10
Water	95.05
D&C Red #19	Q.S.

Viscosity: Brookfield RVT: 1750 cps
pH: 5.3

Charge Water and heat to 70-75C. Add all ingredients except Color, Sodium Chloride and Perfume. Agitate until uniformly dispersed. Cool with agitation to 50C and add Sodium Chloride. Cool with agitation to 45C and add balance of ingredients. Cool to 30C and fill.
Formula 4432B

SOURCE: Inolex Chemical Co.: Suggested Formulas

Curl Activator Gel

This gel activator contains conditioners and humectants to leave the hair healthy, maintain curl and add shine.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 940	1.00
2. Distilled Water	45.00
Part B:	
3. Distilled Water	37.10
4. Glycerin	10.00
5. Oleyl Dimethyl Benzyl Ammonium Chloride	1.00
6. Shebu Natural	0.50
7. Simchin Natural	0.50
8. Pationic SSL	3.00
9. Grilloten LSE 87K	1.00
Part C:	
10. Color, Fragrance and Preservatives	QS
Part D:	
11. Triethanolamine (50%)	0.90

Compounding Procedure:

Slowly add Acritamer 940 to rapidly stirring water of Part A. Mix until uniform. Combine Part B and heat to 140F. Mix and add to Part A with mixing. When uniform, add Part C. Then neutralize with Part D.

Formulation 104-147

Penetrating Gel Base for Hair Products

A hair gel designed to penetrate the hair to transport oils and humectants.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Propylene Glycol	5.00
2. Ritoleth 10	3.00
3. 2-Phenoxyethanol	2.00
4. Methylparaben	0.10
5. Propylparaben	0.05
Part B:	
6. Distilled Water	87.35
7. dl-Panthenol	0.50
Part C:	
8. Acritamer 940	1.00
Part D:	
9. Triethanolamine (50%)	1.00

Compounding Procedure:

Add 2-Phenoxyethanol to Propylene Glycol, mix. Add Ritoleth 10, mix. Add Parabens, mix. Combine Part B. Slowly add Part A to Part B, mix. Add Part C, mix until fully dissolved. Neutralize with Part D.

Formulation 103-148

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Deep Hair Conditioner with Cholesterol

This formulation contains Cholesterol for its superior hair conditioning attributes. In addition, the formulation also contains Ritachol 1000 as a primary emulsifying agent. The formulation is a smooth, creamy-textured oil/water emulsion cream which applies easily and "rubs-in" quickly, leaving the hair and scalp soft and smooth to the touch. Supersat AWS-4 has been incorporated as an auxiliary emulsifier, which supplements the cholesterol related conditioning effect. The product should be liberally applied, allowed to remain about 30 minutes and then rinsed from the hair. Heat delivered by means of a hair drier is advised, to enhance the conditioning effect.

Ingredients:

	<u>% W/W</u>
1. Ritachol	2.00
2. Quaternium 18	2.00
3. Cholesterol N.F.	1.00
4. Ritachol 1000	10.00
5. Petrolatum	5.00
6. Supersat AWS-4	2.00
7. Sorbic Acid	0.20
8. Propylparaben	0.10
9. Methylparaben	0.20
10. BHA	0.20
11. Distilled Water	74.30
12. Propylene Glycol	3.00
13. Perfume	QS

Compounding Procedure:

Weigh and add items 1-5, 8 and 10 into an auxiliary mixing kettle and begin heating and stirring. In the main mixing tank, add the remaining ingredients, with the exception of the perfume. Heat the water phase to 70-73C. Heat the oil phase to 75-78C. When the oil phase is at 75-78C and the water phase is at 70-73C, add the oil phase to the water phase. Begin cooling the batch; cool to 40-45C and add the perfume. Cool to 35-40C and pass through a colloid mill. Package at 30-35C.
Formulation HB-89-R-23

Sheen Type Hair Conditioner

A petrolatum based hair dressing with moisturizer.

Ingredients:

	<u>% W/W</u>
1. Eskar Wax R-25	10.68
2. Petrolatum USP	49.17
3. Mineral Oil (Carnation Light)	30.00
4. BHA	0.10
5. Propylparaben	0.05
6. Forlan L	5.00
7. Color (oil soluble)	QS
8. Ritachol	3.00
9. Pationic ISL	2.00
10. Perfume	QS

Weigh all ingredients, except perfume. Heat to 60-65C while stirring. Cool to 50C and add perfume. Package fluid at 42-43C. Mix while filling.

SOURCE: R.I.T.A Corp.: Formulation HB-89-R-25

Detangling Sheen Conditioner (Pump-Spray)

<u>Ingredients:</u>	<u>% by Weight</u>
Ammonyx KP	3.00
PPG Methyl Gluceth-20	1.25
Propylene glycol	0.75
Lanolin	0.45
Polysorbate 20	0.25
Panthenol	0.25
Fragrance	Q.S.
Imidazolidinyl urea	0.50
Diazolidinyl urea	0.50
D.I. water	Q.S. to 100

Mixing Procedure:

Heat deionized water in a mixing vessel to 50C. Add the first six ingredients, mixing well after each addition. Cool to 30C with mixing. Add ureas, for preservative, and fragrance, if desired.

Physical Properties:

Cloudy, white liquid
 Viscosity @ 25C is water thin
 pH (as is): 5-6
 Passed three freeze thaw cycles and one week at 50C

Formulation No. 334

Clear Hair Rinse and Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Hydroxypropyl methylcellulose (3.0% Aq. Solution W/W)	40.0
Ammonyx KP (50%)	4.0
Solulan 98	0.5
D.I. Water	Q.S. to 100

Mixing Procedure:

Add Ammonyx KP to water with agitation until homogeneous. Follow with the addition of the methylcellulose solution, per manufacturer's instructions, mixing until uniform. Add Solulan and mix until dissolved.

Physical Properties:

Clear liquid
 pH (as is): 4.5-5.5
 Viscosity @ 25C: 5090 cps
 Passed three freeze/thaw cycles
 Stable at 50C for two weeks

SOURCE: Stepan Co.: Formulation No. 396

Elastic Curl Activator/Conditioner

This curl activator has Ritachol 1000 and Laneto 50 for stability. Glycerin and propylene glycol are good moisturizers for curl activation. The Ritalastin EL-30 will aid in repair of hair damage, leave a more manageable hair style and will help prevent future damage.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol 1000	4.00
2. Glyceryl Stearate	4.50
3. Petrolatum	2.00
4. Mineral Oil	6.00
5. Hydroxyethylcellulose	0.55
6. Propylene Glycol	2.00
7. Glycerin	7.00
8. Laneto 50	1.00
9. Preservatives and Color	QS
10. Distilled Water	70.95
11. Ritalastin EL-30	2.00
12. Fragrance	QS

Compounding Procedure:

Disperse cellulose gum (item 5) in water with agitation. Heat to 70C. Add items 6-11 and heat to 70C. Heat oil phase (items 1-4) to 70C and add to hot water phase with agitation. Mix well, cool to 40C, add fragrance. Cool to 35C. Fill into proper container.

Formulation HB-89-R-22

Spray Curl Activator

A glycerin based spray curl activator with a quat quaternium compound to reduce static charge and fly away. Pationic SSL helps with moisturization and Shebu and Simchin are emollients which contribute luster.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	84.50
2. Glycerin	10.00
3. Stearyl Dimethyl Benzyl Ammonium Chloride	0.50
4. Shebu	0.50
5. Simchin	0.50
6. Pationic SSL	3.00
7. Grilloten LSE 87K	1.00
8. Color, Fragrance and Preservative	QS

Compounding Procedure:

Combine items 1 through 7 and heat to 60C. Mix until uniform. Cool with mixing to 40C. Add remaining ingredients. Cool to 35C. Package.

Formulation H-89-S-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Enriched Cream Conditioner

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	89.75
Stearamidopropyl Dimethylamine (Tegamine 18)	1.50
Citric Acid Monohydrate	0.60
Methyl Paraben	0.20
Phase B:	
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Phase C:	
Propylene Glycol	1.00
Quaternium-80 (Abil Quat 3270)	0.50
Dimethicone Copolyol (Abil B 8851)	0.40
Behenoxy Dimethicone (Abil Wax 2440)	0.35
Phase D:	
Propyl Paraben	0.10
Sodium Chloride (35% Sodium)	0.60
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Add ingredients of Phase A in descending order. Mix and heat material at 70C until dispersed.
2. Melt and mix solids of Phase B separately. Disperse Phase B into A with agitation.
3. Begin ambient cooling of batch. Add pre-mixed materials of Phase C to reactor.
4. Add material of Phase D at 40C. Homogenize. Dispense at 35C.

Pump Spray Conditioner

A combable pump spray conditioner that provides gloss and sheen to the hair.

<u>Ingredients:</u>	<u>% w/w</u>
Stearamidopropyl Dimethylamine (Tegamine 18)	1.00
Glycerin	10.00
Propylene Glycol	10.00
Preservatives	Q.S.
Phosphoric Acid	to pH 5.0
Water	77.60
Dimethicone Copolyol (Abil B 88183)	1.00
Sodium Chloride	0.40

Procedure:

Heat the water to 65C. Add the Glycerin, Propylene Glycol, Dimethicone Copolyol, Sodium Chloride and preservatives. Mix until clear. Add the Stearamidopropyl Dimethylamine and adjust the pH. Cool and fill into pump spray units.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Glossing Hair Conditioner

This conditioner provides exceptional hair control, wet and dry combability, and gives a soft gloss to the hair.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	91.25
Citric Acid	0.50
Phase B:	
Stearamidopropyl Dimethylamine (Tegamine 18)	1.25
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Behenoxy Dimethicone (Abil Wax 2440)	0.35
Phase C :	
Propylene Glycol	0.90
Quaternium-80 (Abil Quat 3272)	0.40
Phase D:	
Dimethicone Copolyol (Abil B 8851)	0.25
Sodium Chloride-25% aqueous solution	0.60
Phase E:	
Color, Fragrance, Preservatives	Q.S.

Procedure

1. Heat the water to 70C. Add and disperse the Citric Acid.
2. Add the ingredients of Phase B to Phase A. One at a time, mixing between additions. After all additions are made mix until homogeneous.
3. Cool batch to 40C. Mix Phase C and add to A/B. Use sweep mixer.
4. Add remaining ingredients. Mix until uniform using sweep mixer.

Cream Hair Conditioner

<u>Ingredients:</u>	<u>% w/w</u>
Water	90.8
Glyceryl Stearate S.E. (Tegin)	3.0
Behenoxy Dimethicone (Abil Wax 2440)	0.3
Cetyl Alcohol	2.0
Propylene Glycol	3.0
Quaternium-80 (Abil Quat 3272)	0.5
Dimethicone Copolyol (Abil B 8851)	0.4
Color, Preservatives, Fragrance	Q.S.

Procedure:

1. Heat the water to 70-75C. Disperse the Tegin, Abil Wax 2440 and Cetyl Alcohol. Mix well.
2. Begin cooling. Cool to 45-50C. while mixing. Mix the Propylene Glycol and the Abil Quat 3272 together and add to the batch. Mix.
3. Switch to sweep mixer. Cool to 35-40C. Add the Abil B 8851, Color, Preservatives, and Fragrance. Mix.
4. Continue cooling. Fill.

SOURCE: Goldschmidt Chemical Corp.: Formula GCC 16-29

Guanidine No Base Relaxer

A cream/actuator system for no base relaxer. Contains emollients and moisturizers to prevent drying.

I. Activator Solution

<u>Ingredients:</u>	<u>% W/W</u>
1. Guanidine Carbonate	30.00
2. Distilled Water	70.00
3. Color, Preservative	QS

Compounding Procedure:

Combine ingredients at 20C or higher.

II. No Base Cream

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol 2000	12.00
2. Ritaderm	4.00
3. Petrolatum	10.00
4. Mineral Oil	16.00
5. Supersat AWS 4	2.00
6. Calcium Hydroxide (dry)	7.00
7. Propylene Glycol	5.00
8. Distilled Water	44.00
9. Fragrance, Preservative	QS

Compounding Procedure:

Combine ingredients 1-5 and heat to 70C. Combine ingredients 6-8 and heat to 70C. Combine both phases, mix well and cool with mixing to 45C, add remaining ingredients and cool with mixing to 40C. Package I at 1.75 fl. oz. Package II at 7.50 av. oz.

Directions:

Mix I in II, stir well with wooden stick until color is completely dispersed. Use as per normal relaxer instructions.

Formulation HB-89-R-15

Hair Relaxer

Super strength sodium hydroxide based hair relaxer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 2000	15.00
2. Mineral Oil	17.00
3. Ritachol	2.00
4. Petrolatum	17.50
5. Ritahydrox	0.50
6. Propylparaben	0.13
7. Rita SA	2.00
Part B:	
8. Propylene Glycol	6.00
9. Distilled Water	29.67
10. Methylparaben	0.20
Part C:	
11. Sodium Hydroxide (25% Solution)	10.00

Weigh Part A and heat to 78 to 82C. Weigh Part B and heat to 50C; add 25% Sodium Hydroxide Solution and raise the temperature to 75C. Add Part B to Part A slowly, avoiding aeration. Cool to 25C. Mill if required.

Formulation 106-78

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Stepanquat 6585	2.5
Kessco Cetyl Alcohol	2.0
Stearyl alcohol	2.0
Part B:	
Amphosol CA	3.2
Fragrance, dye, preservative	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Combine ingredients in Part A and heat to 75-80C. Heat D.I. Water to 85C and slowly add Part (A) to it with constant mixing. Add Amphosol CA with constant mixing and cool to 35C. Add fragrance, dye and preservative if desired.

Typical Properties:

pH (as is): 5.0-5.5
 White liquid
 Viscosity: Flowable cream
 Freeze thaw and elevated heat stable

Formulation No. 417

Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Stepanquat 6585	4.0
Kessco Cetyl Alcohol	2.0
Stearyl Alcohol	2.0
Kessco Glycerol Monostearate	0.5
Part B:	
Amphosol CA	2.0
Fragrance, dye, preservative	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Combine ingredients in Part A and heat to 75-80C. Heat DI water to 85C and slowly add Part (A) to it with constant mixing. Slowly add Amphosol CA and cool to 35C with constant mixing. Add fragrance, dye and preservative, if desired.

Physical Properties:

pH (as is): 3.0-3.5
 Viscosity: 2,060 cps
 Passed freeze thaw test
 Stable for two weeks at 50C
 Opaque, white liquid

SOURCE: Stepan Co.: Formulation No. 418

Hair Conditioner

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	67.8
	Xanthan Gum	Kelzan 0.5
B	Stearalkonium Chloride	M-Quat JS-25 6.0
C	Stearyl Alcohol (and) Ceteareth 20	Macol 125 3.5
	Isopropyl Palmitate	Lexol IPP 1.0
	Dimethicone	Masil SF-20 0.5
D	Deionized Water	20.0
	Hydrolyzed Animal Protein	Chempro 100C 0.2
	Quaternium 15	Dowicil 200 0.2
E	Fragrance	0.3
	Citric Acid	Q.S.

pH: 4.5-5.0

Viscosity: 6,500 cps

Appearance: White, opaque cream

Procedure:

Disperse the xanthan gum in th Part A water, heating to 65C (150F). When uniform, add the M-Quat JS-25. Pre-mix the Part C ingredients, heating to 65C (150F). Add Part C to the batch and cool to 45C (110F). Pre-mix Part D and add it to the batch. When uniform, blend in fragrance and adjust the pH.
Formula B-103

Cold-Mix Hair Conditioner

A clear, nearly water-white product containing three conditioning agents.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	83.3
	Stearamine Oxide	Mazox SDA 1.2
	Soya Ethyldimonium Ethosulfate	M-Quat 1033 2.5
	Oleaikonium Chloride	M-Quat JO-50 1.0
	Hydroxyethyl Cellulose	Natrosol 250R 1.5
	Triethanolamine	0.5
B	Propylene Glycol	10.0
	Preservative	QS
	Citric Acid	QS

pH: 5.0-5.5

Viscosity: 8000-8,500 cps

Appearance: Clear, very pale yellow, viscous liquid

Procedure:

Blend in the first four ingredients. When clear and uniform, add the hydroxyethyl cellulose and allow to disperse. Add the triethanolamine to increase the batch pH and initiate hydration of the cellulose. When hydration is complete, add the Part B ingredients. No heating is required.

Note:

If desired, the product can be pearlized by the addition of a pearl premix at 3-5%.

SOURCE: Mazer Chemicals; Formulation B-106

Hair Conditioner with Protein

Phase A:	
Water	<u>% Weight</u> 82.05
Phase B:	
Stearyl Alcohol	1.80
Glyceryl Stearate	0.90
Petrolatum, USP	1.80
Phase C:	
Cetrimonium Chloride	1.25
Water	10.00
Hydrolyzed Animal Protein (Crotein SPA)	2.00
Phase D:	
Suttocide A, 50% Solution	0.20

Procedure:

Heat water to 80C. Combine Phase B and heat to 80C with mixing until all ingredients are melted. Add Phase B to water at 80C and continue mixing for 10 minutes. Cool to 40-45C, add Phase C and allow to mix for 5 minutes. Combine Phase D and add to batch. Add Phase E. Cool to room temperature and adjust pH to 5.0.

Clear Crothix Conditioner

	<u>% Weight</u>
Minkamidopropalkonium Chloride (Incroquat Mink-85)	2.00
Acetamidopropyl Trimonium Chloride (Incroemectant AQ)	3.00
Oleth-20 (Volpo 20)	4.80
Polyol Alkoxy Ester (Crothix)	2.10
Water	87.10
Germaben II	1.00

Procedure:

Combine the water and the Volpo 20 and heat to 65C while mixing. Add the Crothix and continue mixing until homogeneous. Continue mixing and cool to 40C. Then add the remaining ingredients and mix until homogeneous.

SOURCE: Sutton Laboratories: Suggested Formulations

Hair Conditioner and Set
(For Use With Hot Air Dryer)

This formulation is designed for application to the hair after shampooing, and prior to drying. A quantity of polymer is included to provide a texturizing effect and some setting properties to the hair. Hair conditioning is accomplished by means of the lanolin-related attributes of Laneto 50. The completed product is a clear, water-thin liquid which can be applied by means of a mechanical sprayer.

<u>Ingredients:</u>	<u>% W/W</u>
1. SD Alcohol 40	30.00
2. Triethanolamine (50%)	0.06
3. Butyl Ester of PVM/MA Copolymer	1.50
4. dl-Panthenol	0.50
5. Benzophenone-2	0.05
6. Fragrance	QS
7. Laneto 50	2.00
8. Color	QS
9. Distilled Water	65.89

Compounding Procedure:

Weigh and add all ingredients in order into a container and begin stirring. Stir until a homogeneous dispersion results. Fill into suitable containers.

Note: Use an "explosion proof" mixer.

Formulation HB-89-PA-3

Conditioning-Styling Mousse

A low solids mousse with Celquat as the holding agent.

dl-Panthenol and Supersat AWS 4 are humectants and plasticizers.

<u>Ingredients:</u>	<u>% W/W</u>
1. dl-Panthenol	0.50
2. Celquat L-200	1.00
3. Distilled Water	72.75
4. SD Alcohol 40	15.00
5. Supersat AWS 4	0.50
6. Ritabate 20	0.15
7. Stearic Acid	0.10
8. Preservative and Fragrance	QS
9. Propellant A-46	+-10.00

Compounding Procedure:

Slowly sift Celquat into distilled water while mixing. When homogeneous, add remaining ingredients, filter and fill aerosols. Charge propellant.

Directions:

Shampoo, rinse and towel dry hair. Shake can well, invert and press button to dispense egg-sized amount of foam into palm of hand. Adjust amount, depending on hair length and amount of control desired. Massage evenly through hair. Do not rinse out. Style hair as desired.

Note: Use explosion proof equipment.

Formulation HB-89-PA-13

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Hair Conditioning Creme Rinse

Glucquat 125, the cationic substantive conditioning agent in this formula, provides good wet combing, manageability, shine and feel properties. Promulgen D acts as an o/w emulsifier. Cellosize Polymer PCG-10 helps build viscosity.

Glucquat 125 (Lauryl Methyl Gluceth-10 Hydroxypropylidimonium Chloride)	12.0%
Cellosize Polymer PCG-10 (Hydroxyethylcellulose)	0.6
Promulgen D (Cetearyl Alcohol and Cetareth-20)	4.5
Cetal (Cetyl Alcohol)	1.2
Hydrolyzed Protein	0.3
Deionized Water	81.4
Perfume and Preservative	q.s.

Procedure:

Add Cellosize Polymer PCG-10 to room temperature water with propeller agitation. Heat to 75C. When polymer is fully hydrated, add Glucquat 125, hydrolyzed protein and preservative, in that order, waiting for each ingredient to dissolve before adding the next. In a separate container, heat Promulgen D and Cetal to 75C, mix, and add to batch. Mix until uniform, and cool to room temperature with adequate mixing.

Formulation T60-150-4

Curl Activator

Clear product applied via pump spray. Glucquat 125 helps in curl activation by maintaining moisture while it conditions the hair, leaving it more manageable. In addition, it contributes to sheen along with the Ucon LB-1715.

Glucquat 125 (Lauryl Methyl Gluceth-10 Hydroxypropyl Dimonium Chloride)	12.00%
Deionized water	23.00
Ucon LB-1715 (PPG-40 Butyl Ether)	15.00
SD Alcohol 40	50.00

Procedure:

Add Glucquat 125 to deionized water. Separately dissolve Ucon LB-1715 into SD Alcohol 40. Combine phases and mix until uniform. Package in a pump sprayer.

Formulation T62-76-4

SOURCE: Amerchol Corp.; Suggested Formulations

Hair Finishing Mist

Designed for pump-spray application, this non-VOC and oil-free formula provides moisturization, gloss, and detangling benefits to treated or damaged hair.

<u>Ingredient:</u>		<u>Wt. %</u>
Propylene Glycol		23.0
Methyl Paraben		0.2
PPG-10 Butanediol	Macol 57	21.0
Dimethicone Copolyol	Masil 280	1.0
Fragrance		Q.S.
Deionized Water		54.0
Imidazolidinyl Urea	Germall 115	0.2
Silk Amino Acids	Crosilk Liquid	0.5
Triethanolamine, 50%		0.1

pH: 6.0-6.5

Appearance: Clear, water-white liquid

Procedure:

Dissolve the methyl paraben in the propylene glycol. Add the Macol 57, Masil 280, and fragrance, and mix until uniform. Add the remaining ingredients in order, mixing until uniform.

SOURCE: PPG Industries, Inc.: Formulation D-107

Comb Through Glosser

<u>Ingredients:</u>	<u>% w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	68.0
Phenyl Dimethicone (Abil AV-20)	20.0
Dimethicone (Abil 500)	2.0
Dimethicone (Abil 1000)	10.0
Fragrance	Q.S.

Combine ingredients in order - mixing well.

Caution - Traces of water will cause turbidity.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Hair Pomade

This hair pomade contains Simchin brand Jojoba Oil for increased gloss. The substantive Pationic SSL provides moisturizing and conditioning. Added elegance and moisturization for healthier looking hair are achieved by the use of Panthenol which thickens the fiber and repairs damage.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	5.00
2. Simchin	2.00
3. Petrolatum	88.00
4. Lanolin	2.00
5. dl-Panthenol	0.50
6. Pationic SSL	2.50
7. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Blend ingredients 1-6 and heat to 160F. Stir until uniform. Cool to 135F, add fragrance, preservatives and color. Fill into proper containers.

Formulation HB-89-PA-2

Hair Pomade

This hair pomade contains Simchin brand Jojoba Oil and Shebu brand Shea Butter for increased gloss. The Pationic SSL provides emulsification, moisturization and conditioning. Added elegance and moisturization for healthier looking hair are achieved by the use of dl-Panthenol.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	5.00
2. Simchin	2.00
3. Petrolatum	86.10
4. Shebu	2.00
5. Lanolin USP	2.00
6. dl-Panthenol	0.50
7. Pationic SSL	2.40
8. Color, Fragrance, Preservative	QS

Compounding Procedure:

Blend items 1 through 7 and heat to 70C. Stir until uniform. Cool to 40C. Add remaining ingredients. Fill into proper containers.

Formulation H-89-S-6

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Hair Pomade

A quality hair pomade which gives excellent luster and feel from the Simchin and Shebu. Easy spreadability, conditioning and moisturizing are obtained from Pationic ISL, with the benefits of lanolin coming from the Ritawax and Ritalan.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritawax	1.50
2. Mineral Oil	5.00
3. Simchin	2.00
4. Shebu	1.00
5. Petrolatum	85.00
6. Ritalan	3.00
7. Pationic ISL	2.50
8. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Blend items 1 through 7 and heat until clear. Cool with mixing to 50C. Add color, perfume and preservative. Fill hot. Mix during filling.

Formulation H-89-S-8

Hair Pomade

A high quality pomade with good luster contributed by Simchin and Shebu. Conditioning and moisturizing are obtained with Pationic ISL. Ritalan adds the benefits derived from lanolin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	5.00
2. Simchin	2.00
3. Shebu	1.00
4. Petrolatum	86.50
5. Ritalan	3.00
6. Pationic ISL	2.50
7. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Combine items 1 through 6 and heat until clear. Cool with mixing to 50C. Add color, perfume and preservatives. Fill hot. Mix while filling.

Formulation H-89-S-9

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Relaxer

Super strength sodium hydroxide based hair relaxer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 2000	15.00
2. Mineral Oil	17.00
3. Ritachol	2.00
4. Petrolatum	17.50
5. Ritahydrox	0.50
6. Propylparaben	0.13
7. Rita SA	2.00
Part B:	
8. Glycerin	6.00
9. Distilled Water	29.67
10. Methylparaben	0.20
Part C:	
11. Sodium Hydroxide (25% Solution)	10.00

Compounding Procedure:

Weigh Part A and heat to 78 to 82C. Weigh Part B and heat to 50C and add 25% Sodium Hydroxide solution and raise temperature to 75C. When both parts are at temperature, add Part B to Part A slowly, avoiding aeration. Cool to 25C.

Formulation 106-95A

Hair Relaxer

Super strength sodium hydroxide based hair relaxer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 2000	15.00
2. Mineral Oil	17.00
3. Ritachol	2.00
4. Petrolatum	17.50
5. Ritahydrox	0.50
6. Propylparaben	0.13
7. Rita SA	2.00
Part B:	
8. Propylene Glycol	9.00
9. Distilled Water	26.67
10. Methylparaben	0.20
Part C:	
11. Sodium Hydroxide (25% Solution)	10.00

Compounding Procedure:

Weigh Part A and heat to 78 to 82C. Weigh Part B and heat to 78 to 82C. When both parts are at temperature, slowly add Part B to Part A. Avoid aeration. Cool to 65C, avoiding aeration. Add 25% Sodium Hydroxide solution, avoiding aeration. Cool to 25C with cold water bath.

Formulation 106-80

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Hair Repair and Conditioner

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	88.10
Glyceryl Stearate S.E. (Tegin)	4.00
Mineral Oil	1.00
Cetyl Alcohol	2.00
Phenyl Trimethicone (Abil AV-20)	0.50
Ceteth-2	1.00
Phase B:	
Glycerin	1.00
Propylene Glycol	1.00
Dimethicone/Sodium Poly PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Phase C:	
Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
Citric Acid (25% Solution)	to pH 6.5

Procedure:

1. Heat the ingredients of A together with mixing to 70C.
2. Cool to 45-50C. Switch to sweep mixer.
3. Blend B. Add to A. Sweep mix. Cool to 35-40C.
4. Adjust pH. Add Color, Fragrance and Preservatives.

Soft Set Conditioning Mousse

This conditioning mousse formulation provides for both a soft, nontacky hold to a hair set and a conditioning effect on the hair fibers. The Dimethicone/Sodium Poly PG-propyl Dimethicone Thio-sulfate Copolymer contributes gloss and hydrophobicity to the hair.

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	82.20
Stearamidopropyl PG-Dimonium Chloride Phosphate	3.00
Phase B:	
Isopropyl Alcohol	10.00
Dimethicone/Sodium Poly PG-propyl Dimethicone Thiosulfate Copolymer (Abil S-201)	0.50
Aminomethyl Propanol	0.30
Butyl Ester of PVP/MA copolymer	2.00
Phase C:	
Dimethicone Copolyol (Abil B 8851)	2.00
Phase D:	
Fragrance, Preservatives	Q.S.
Fill: Concentrate	83.30
Isobutane	16.70

Procedure:

Mix (A). Heat to 65C and continue to mix until homogeneous. Cool to 40C. Separately mix (B) at 25C until homogeneous. Add (A) to (B) with stirring. Add (C), (D), mix until homogeneous. Add fragrance, coloring and preservative as required. Cool to 25C. Charge into aerosol container. Add propellant.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair and Scalp Conditioner

The formulation given here is a smooth, creamy-textured dispersion. The product contains a quantity of paraffin wax, which is used to adjust the melting point of the composition so that it approximates the temperature of the surface of the scalp. The formulation contains Ritachol, which provides lanolin alcohol related conditioning attributes, sheen, and lubricity to the hair fiber, as well as to the scalp. Forlan L has been added to improve the homogeneity of the dispersion and for its conditioning and lubricity characteristics. Forlan L also improves the reversion resistance of straightened hair in high humidity.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	+35.75
2. Petrolatum	45.00
3. Paraffin Wax	9.00
4. Ritachol	3.00
5. Forlan L	5.00
6. Patlac IL	2.00
7. Perfume	QS
8. BHA	0.10
9. Propylparaben	0.15

Compounding Procedures:

Mix all ingredients, except perfume. Heat with stirring to 60-65C. Cool to 50-55C, add perfume. Cool to 48-50C and package into suitable containers.

Formulation HB-89-R-9

Light Hair Conditioner

A pomade type hair conditioner with good grooming properties which improves combability.

<u>Ingredients:</u>	<u>% W/W</u>
1. Paraffin	10.70
2. Petrolatum	+49.15
3. Mineral Oil 90	30.00
4. BHA	0.10
5. Propylparaben	0.05
6. Forlan L	5.00
7. Ritachol	3.00
8. Patlac IL	2.00
9. Perfume and Color	QS

Compounding Procedure:

Mix all ingredients, except perfume and color. Heat with stirring to 60-65C. Cool to 43C, add perfume and color. Package fluid at 42-43C.

Formulation HB-89-R-8

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Setting Gel

A water based setting gel with Simchin WS and Shebu WS for luster and conditioning. The setting agent is plasticized with Supersat AWS 4. dl-Panthenol provides humectant benefits.

<u>Ingredient:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	50.00
2. Acritamer 940	0.70
Part B:	
3. Distilled Water	36.50
4. Glycerin	4.00
5. Simchin WS	2.00
6. Shebu WS	2.00
7. Supersat AWS 4	1.00
8. PVP K-30	2.00
9. Methylparaben	0.20
10. dl-Panthenol	0.20
11. Triethanolamine (50%)	1.40
Part C:	
12. Color, Fragrance	QS

Compounding Procedure:

Weigh water and slowly sprinkle in Acritamer while stirring with a variable speed agitator capable of imparting relatively high shear. Stir until the Acritamer 940 has thoroughly dispersed and hydrated and no lumps can be seen or felt. In a separate container, combine Part B and heat slightly until solids dissolve completely. Mix thoroughly. Mix thoroughly. Add Part B to the Acritamer solution, stirring slowly until homogeneous. Add color and fragrance.

Note: A fragrance with good water solubility should be used, or add a solubilizer, such as Ritoleth 5 or Ritabate 20 into fragrance.

Formulation H-89-S-10

Hair Gel

A clear Carbomer gel with emollients and humectants. The high glycerin content makes it usable as a curl activator product. The dl-Panthenol aids the humectancy and coats the hair to repair damage and improve luster.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	81.10
2. Acritamer 940	0.80
3. Glycerin	10.00
4. Propylene Glycol	5.00
5. Dimethicone Copolyol	1.00
6. dl-Panthenol	0.80
7. Laneto 50	0.50
8. Color, Fragrance and Preservative	QS
9. Triethanolamine (99%)	0.80

Compounding Procedure:

Disperse item 2 into 90% of the water without incorporation of air. Add item 3 to item 8. Mix gently to avoid air. Combine item 9 with balance of water. Add to batch. Mix gently-avoid air.

Formulation HB-89-PA-17

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Setting Lotion Containing a Chitosan DerivativeExample 1:

Chitosan (having 90% free amino groups)	1.0g
Acetic acid (10%)	3.36g
Sorbic acid	1.0g
Water, completely desalted	95.54g

20 ml of this solution are spread on the washed, towel-dry hair and the hair is then set and dried as customary.

Example 2:

Chitosan (having 90% free amino groups)	0.6g
Formic acid (10%)	1.56g
Isopropanol	25.0g
Water, completely desalted	72.84g

20 ml of this solution are spread on the washed, towel-dry hair and the hair is then set and dried as customary.

Example 3:

Chitosan (having 90% free amino groups)	1.5g
Lactic acid (10%)	7.4g
Sorbic acid	0.1g
Water, completely desalted	91.0g

20 ml of this solution are spread on the washed, towel-dry hair and the hair is then set and dried as customary.

Example 4

Chitosan (having 90% free amino groups)	1.00g
Acetic acid (10%)	3.36g
Cetyltrimethylammoniumchloride (50% aqueous-alcoholic solution)	0.10g
C.I. Basic Violet 1	0.05g
Water, completely desalted	95.49g

20 ml of this solution are spread on the washed, towel-dry hair and the hair is then set and dried as customary. The hair thereafter exhibited a slight bluish tint.

SOURCE: Amerchol Corp.; **Product Patent:** Hair Setting Lotion
Containing a Chitosan Derivative: Formulas

Hair Styling Gel with Oil

A non-mineral oil grooming gel with moisturizer and film former.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 940	0.60
2. Distilled Water	66.70
3. Glycerin	5.00
4. SD Alcohol 40	10.00
Part B:	
5. Laneto 50	5.00
6. PPG-12-Buteth-16	10.00
7. PVP	1.50
8. Supersat AWS 4	1.00
Part C:	
9. Diisopropanolamine	0.20
Part D:	
10. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Combine water, glycerin and alcohol in main mixing tank with impeller agitation and mix until uniform. Sprinkle in Acritamer to complete Part A. Mix until uniform. Combine materials of Part B and mix until uniform. Add Part B to Part A with mixing. Mix until uniform. Add Part C. Mix until uniform. Add color, fragrance and preservative. Package.

Formulation H-89-A-17

Hair Setting Gel

A non-mineral oil, soft holding hair setting gel with glycerin and film former.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Acritamer 940	0.70
2. Distilled Water	49.30
Part B:	
3. Distilled Water	41.60
4. PVP K-30	2.00
5. Supersat AWS 4	1.00
6. Glycerin	4.00
7. Triethanolamine (50%)	1.40
Part C:	
8. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse Acritamer in Part A water in main mixing tank with impeller. Combine the materials in Part B and heat until Supersat is melted. Mix until uniform. Add Part B to Part A and mix until uniform. Add Part C to Parts A and B and mix until uniform. Package.

Formulation H-89-A-18/Ref. 114-93

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Highlighting Hair Gel

A quick-drying, hydro-alcoholic gel which imparts pearlescent highlights to hair. It can be packaged into a jar, tube, or automatic mascara-type container.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Carbomer 940 - 2% Solution (Acritamer 940)	40.00
	Methyl Gluceth-20 (Glucam E-20)	2.00
	Propylene Glycol	2.00
	Glycerin	1.00
	Panthenol (DL-Panthenol)	1.00
B.	Water	2.00
	Triethanolamine	1.00
C.	Water (q.s. to 100%)	29.80
	Sodium Hexametaphosphate	0.10
	Antimicrobials	q.s.
D.	Cloisonne' Super Gold 232Z	5.00
E.	SD Alcohol 40	15.00
F.	PVP (PVP-K30)	2.00

Procedure:

- I. Mix all the ingredients in Phase A in suitable vessel until completely uniform.
- II. Add pre-mixed Phase B to Phase A while mixing until completely uniform.
- III. In a separate vessel combine all ingredients in Phase C.
- IV. Disperse Phase D into Phase C.
- V. Add Phase E to Phase C and mix.
- VI. Add Phase F to Phase C and mix.
- VII. Add pre-mixed Phase C, D, E and F to pre-mixed Phase A-B and mix until completely uniform.

SOURCE: The Mearl Corp.: Formulation CLH-921237

Instant Hair Conditioner

A viscous, opaque hair conditioner with reduced eye irritation.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Grilloten LSE 87K	2.00
2. Grilloten PSE 141G	4.00
3. Cetearyl Alcohol	2.50
4. PEG-20 Cetearyl Alcohol	0.50
5. Alcohol Glycol Ether	4.00
6. Gafquat N755	1.00
7. Polyquart H-81	1.00
Part B:	
8. Glycerin	3.00
9. Distilled Water	82.00
Part C:	
10. Perfume	QS
11. Citric Acid (25% Solution)	QS
12. Preservative	QS

Compounding Procedure:

Combine the materials in Part A. Heat to 150F with agitation. Combine Glycerin and water in part B and heat to 150F with agitation. Add Part A to Part B. Avoid aeration. Cool to 120F. Add perfume and preservative. Cool to 95F. Adjust to pH of 4.0 to 4.4 with Citric Acid.

Formulation H-89-G-26

Instant Hair Conditioner

An opaque viscous conditioning and reparative hair conditioner. Conditions, moisturizes and adds body. Product is designed to be applied, left on the hair 2-3 minutes and then rinsed.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	97.00
2. Jaguar C-13 S	0.75
3. Pationic ISL	0.50
4. Patlac IL	0.40
5. Ritoleth 20	0.30
6. Cetyl Alcohol	0.75
7. Sorbic Acid	0.20
8. Methylparaben	0.10
9. Patlac LA (44%)	QS
10. Perfume	QS

Compounding Procedure:

Disperse Jaguar in water in the main mixing kettle, heat to 75C. Allow to stand for one hour, enough to de-aerate. Combine the remaining materials, except Patlac LA and perfume in an auxiliary tank. Heat to 75C. Add This mixture to the Jaguar solution with agitation while both are at 75C. Cool to 45C with agitation. Add perfume, adjust pH to 4.5 with Patlac LA.

pH: 4.5+-0.2

Viscosity: 3,000 cps

Formulation H-89-P-9

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Liquid Brilliantine

This brilliant, colorless liquid imparts a high gloss to the hair.

Liquid Brilliantine with Protein(514143)

Drakeol 7, Light Mineral Oil USP	96.7%
Diisopropyl Adipate	2.5
Olive Oil	0.6
Isostearyl Hydrolyzed Animal Protein	0.2
Fragrance	q.s.

Combine all ingredients except fragrance and heat slowly to 60C while stirring until a homogeneous liquid blend is evident. Cool to 40C with stirring then add fragrance. Cool to room temperature and package.

Solid Brilliantine

These solids aid in moisture retention, hold hair in place, and add shine. Solid Brilliantine II is softer than Solid Brilliantine I.

Solid Brilliantine I with Sunscreen(514693)

Penreco Ultima, White Petrolatum USP	62.00 wt%
Microcrystalline wax	24.00
Drakeol 35, White Mineral Oil	7.80
Dimethicone, 350 vis	3.28
Isopropyl myristate	2.52
Sunscreen	0.20
Propylparaben	0.20

Melt all the ingredients together at 75C with gentle stirring. When the blend is uniform, allow it to cool and pour into containers just above the solidification point. If fragrance is desired, it should be added at 45C.

Solid Brilliantine II(514108)

Penreco Ultima, White Petrolatum USP	60.00wt%
Drakeol 9, Light Mineral Oil	34.85
Butyl Stearate	5.00
Butylparaben	0.15

Heat all ingredients slowly to 80C with moderate stirring. Once the mixture is homogeneous, cool and fill containers just above the product's set point. If desired, fragrance may be added at 45C.

SOURCE: Penreco: Penreco Cosmetic Formulary

Lotion Moisturizer

A water in oil lotion product for use on hair or skin. This is a high oil content formula which is expected to leave substantial residue.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	25.50
2. Lanolin, Extra Deodorized	5.00
3. Beeswax	3.00
4. Petrolatum	0.50
5. Octyl Dimethyl PABA	0.50
6. Ritahydrox	0.25
7. Propylparaben	0.10
Part B:	
8. Distilled Water	63.69
9. Sorbitan Oleate	0.80
10. Borax	0.26
11. dl-Panthenol	0.10
Part C:	
12. Fragrance	0.30

Compounding Procedures:

Heat Part A and Part B to 165F. Add Part A to Part B with agitation. Cool to 120F. Add Part C. Mix to room temperature. Package.

Initial Viscosity: 4000 cps

Formulation 101-62

Oil Moisturizer Lotion

This oil moisturizer gives hair a soft, natural sheen while adding substantivity through the use of Pationic CSL. It also contains dl Panthenol (Vitamin B) to nurture the hair and the sunscreen to reduce the damaging effects of the sun. Pationic CSL is used in this water in oil emulsion to eliminate the need for beeswax/borax.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	25.50
2. Lanolin, Extra Deodorized	5.00
3. Petrolatum	0.50
4. Pationic CSL	3.00
5. Octyl Dimethyl PABA	0.50
6. Ritahydrox	0.30
7. Propylparaben	0.10
Part B:	
8. Distilled Water	63.90
9. dl-Panthenol	0.10
10. Sorbitan Monooleate	0.80
11. Methylparaben	0.10
Part C:	
14. Fragrance	0.20

Heat Part A and Part B to 165F. Add Part A to Part B with mixing. Cool to 120F, add Part C. Cool to 80F with mixing.

Viscosity: 4000 cps.

SOURCE: R.I.T.A. Corp.: Formulation 104-74/HB-89-L-33

Moisturizing Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Deionized water	90.00
Neobee M-5	3.35
Kessco Cetyl Alcohol	2.20
Stearyl alcohol	1.25
Wecobee S	1.20
Ammonyx Cetac	1.00
Hydroxyethylcellulose	0.50
DMDM hydantoin	0.25
Propyl paraben	0.25
Fragrance	Q.S.

Mixing Procedure:

Phase A:

Add deionized water to a suitable mixing vessel and begin heating. Start mixing water and slowly disperse the hydroxyethylcellulose (avoid clumping). Add DMDM hydantoin and Ammonyx Cetac to the water phase, making sure to allow good agitation after each addition. Maintain heat at 65C.

Phase B:

Add Cetyl Alcohol, Stearyl Alcohol, Neobee M-5, Wecobee S, and Propyl Paraben to a separate mixing vessel. Heat to 65C and maintain at this temperature. Add the oil phase to the water phase slowly using quick agitation. Continue quick agitation for 10-15 minutes, making sure temperature doesn't exceed 67C. Slow agitation to moderate speed and begin cooling until temperature reaches 40C. Add fragrance and color if desired. Cool to 25C and fill.

Typical Properties:

White slightly viscous cream

Viscosity: 13,000 cps

Passed elevated temperature and freeze thaw study

Formulation No. 592

Clear Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Ammonyx KP	3.00
Ammonyx Cetac	1.50
Propylene glycol	1.50
Hydroxyethylcellulose	0.90
Polyquaternium 10	0.25
Fragrance, dye, preservative	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Disperse hydroxyethylcellulose in D.I. water with mixing until clear. Add Ammonyx KP and mix until homogeneous.

Slowly add Ammonyx Cetac and mix until homogeneous.

Disperse Polyquaternium-10 in propylene glycol and add to above solution with mixing until clear. Add fragrance, dye and preservative, if desired.

Typical Properties:

Clear liquid

pH (as is): 5.5

Freeze thaw and elevated heat stable

Viscosity: 750 cps

SOURCE: Stepan Co.: Formulation No. 420

Moisturizing Elastin Hair Styling Gel

This is a setting gel with a non-greasy water soluble oil. The Laneto 50 is used to solubilize the perfume oil and add the benefits of conditioning and shine. The Ritalastin EL30 (elastin) is added for superior protein benefits. dl-Panthenol is used to moisturize and condition. Ritaphenone 3 protects against UV damage.

<u>Ingredients:</u>	<u>% W/W</u>
1. Acritamer 940	0.60
2. Distilled Water	63.90
3. Glycerin	10.00
4. dl-Panthenol	0.20
5. Alcohol	10.00
6. Laneto 50	5.00
7. Ritaphenone 3	0.10
8. Tetrasodium EDTA	0.10
9. PPG-12-Buteth-16	5.00
10. PVP	1.50
11. Fragrance, Preservatives and Color	QS
12. Triethanolamine (99%)	0.60
13. Ritalastin EL 30	3.00

Compounding Procedure:

Add the preservatives to one-half of the water. Stir until clear. Disperse the Acritamer 940 in the glycerin and add to the water phase and stir until clear. Make a 10% solution of the triethanolamine and set aside. Combine the remaining ingredients, stir until clear. Add to the Acritamer 940 solution. Stir until clear. Allow all air to be removed with gentle stirring, then add the triethanolamine solution. This will thicken the product. Fill into proper containers when uniform.

Formulation HB-89-PA-15

Pump Spray Hair Detangler

A cationic based detangler spray with conditioners and moisturizers. dl-Panthenol is an effective moisturizer, emollient and conditioner for hair. It is used to give hair a healthy shine. Simchin WS is a water soluble jojoba oil derivative. It serves as a super fatting and foam stabilizing agent, as well as a plasticizer. Supersat AWS 4 is an emollient and conditioning agent, leaving a film, which is neither sticky nor tacky, but velvety smooth, and has exceptional slip and spreadability.

<u>Ingredients:</u>	<u>% W/W</u>
1. Cetyl Trimethyl Ammonium Chloride	5.00
2. Distilled Water	85.50
3. Dimethicone Copolyol	1.00
4. Supersat AWS 4	1.00
5. Glycerin	4.00
6. Propylene Glycol	2.00
7. dl-Panthenol	1.00
8. Simchin WS	0.50
9. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Heat water to 87C. Add Supersat AWS 4. Mix until clear. Add remaining ingredients while cooling to 40C. Fill into proper containers.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-PA-21

Opaque Hair and Scalp Moisturizer

This moisturizer is especially designed for use after a curl relaxer to rebalance pH of the scalp and hair cuticle. It is substantive and reparative.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Polypeptide LSN	3.00
2. DL Panthenol	1.00
3. Ritamectant K2	0.20
4. Grillocin HY-77	1.00
5. Pationic ISL	2.00
6. Glycerin	2.00
7. Distilled Water	73.90
8. Laneto 50	1.00
Part B:	
9. Ritapeg 150 DS	3.00
10. Rita EGDS	2.00
11. Rita GMS	3.00
12. PEG 100 Stearate	0.60
13. Patlac IL	1.00
14. Myristyl Lactate	1.00
Part C:	
15. Methocel E4M	0.50
Part D:	
16. Patlac LA (44%)	+ -4.00
17. Germall II	0.80

Compounding Procedure:

Weigh and heat Part B in an auxiliary kettle to 165F. Add Part C with agitation until dispersed. Heat Part A to 165F in the main mixing kettle. Add oil phase (Parts B and C) to Part A with agitation. Maintain heat and mix until uniform. Cool to 110F. Add Germall II. Adjust pH to 3.5 with Patlac LA.
Formulation HB-89-L-12

Hair Moisturizer

This product leaves hair easy to comb. The hair is protected and moisturized by the Shebu.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 0	3.00
2. Shebu Refined	1.00
3. Ritoleth 10	0.50
Part B:	
4. Cetrimonium Chloride	0.50
5. Glycerin	5.00
6. Distilled Water	+ -90.00
7. Color, France & Preservative	QS

Compounding Procedures:

Combine Part A in an auxiliary kettle and heat to 70C. Combine Part B in the main kettle and heat to 70C. Add Part A to Part B. Mix until uniform. Cool with mixing to 40C. Add remaining ingredients.

Formulation HB-89-R-10

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pomade

These pomade formulas are designed to provide a variety of textures and consistencies. They are starting points from which a product of the characteristics the formulator wants can be developed. Pomades can be made harder by increasing the amount of wax in the formula, or by substituting Penreco Ultima Petrolatum for Penreco Snow petrolatum. All of these pomades are light in color, slightly translucent, and can be drawn into classic petrolatum peaks.

Pomade(514991)

Penreco Snow, White Petrolatum USP	96.0 wt%
Paraffin Wax	4.0
Fragrance	q.s.

Pomade with Lanolin(514992)

Penreco Snow, White Petrolatum USP	94.0 wt%
Paraffin Wax	5.0
Lanolin	1.0
Fragrance	q.s.

Pomade with Protein(514993)

Penreco Snow, White Petrolatum USP	98.0 wt%
Drakeol 9, Light Mineral Oil USP	1.5
Isostearyl Hydrolyzed Animal Protein	0.5
Fragrance	q.s.

Heat slowly to 85C with moderate stirring. Hold at this temperature until mixture is uniform, then allow blend to cool to 45C. Add fragrance and color if desired, then fill containers just above set point of product.

SOURCE: Penreco: Penreco Cosmetic Formulary

Pomade Hair Dressing

Petrolatum-based dressing with improved spreading and sheen

<u>Ingredient:</u>		<u>Wt. %</u>
Petrolatum	Snow White USP	28.0
Ozokerite	White Ozokerite 77W	8.0
Lanolin	Lanolin, Cosmetic	22.0
Mineral Oil	Drakeol 9	32.0
PPG-9	Macol P-500	3.0
Phenyl Trimethicone	Masil SF 556	7.0

Appearance: Light tan, uniform soft solid

Melt Point: 49C (120F)

Procedure:

Heat petrolatum, lanolin, and ozokerite together to 85C (185F) to completely melt the wax. Add the mineral oil, Macol P-500, and Masil SF 556, cooling the batch to 65C (150F). Fill at 58-62C to avoid shrink holes.

SOURCE: Mazer Chemicals: Formulation D-101

Pomade Stick

This formula is a stick hair dressing that imparts sheen and soft hold to the hair.

	<u>% (w/w)</u>
Sodium Stearate C-1	8.00
Glycerine	42.00
Propylene Glycol USP	40.00
Lexquat AMG-0 (Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	7.00
PVP K-90 (Polyvinylpyrrolidone)	3.00

Procedure:

Charge the batch vessel with propylene glycol and glycerine. Begin mixing and heating to 78+-2C. Add the sodium stearate C-1 and let it mix. When the sodium stearate is well dispersed, add the Lexquat AMG-0 and the PVP-K90. Allow to mix for 15 minutes at 78C then cool to 45C. Add to stick container and allow to cool to room temperature.

SOURCE: Inolex Chemical Co.: Formulation HR-100

Professional Extra-Strength Relaxer

Extra strength relaxer with Supersat AWS 4 and Ritaderm as emollients and moisturizers.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 1000	12.00
2. Ritaderm	4.00
3. Mineral Oil	13.00
4. Ritachol	2.00
5. Petrolatum	17.50
6. Supersat AWS 4	1.00
Part B:	
7. Glycerin	6.00
8. Distilled Water	35.30
Part C:	
9. Sodium Hydroxide Solution (25%)	9.20

Compounding Procedure:

Pre-dissolve sodium hydroxide in water to obtain enough 25% solution for batch. Weigh Part A into sweep type jacketed tank and begin heating to 78-82C. Weigh Part B in a separate tank and begin heating to 78-82C. When both are at temperature, slowly add Part B to Part A avoiding aeration. Cool to 65C. Add sodium hydroxide solution (Part C) with agitation. Avoid aeration. Pump through colloid mill, cool to 25C and package.

Formulation HB-89-R-5

Professional No Base Relaxer C

An extra strength, professional relaxer with humectants and emollients to moisturize and prevent dryness.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 1000	12.00
2. Ritaderm	2.00
3. Mineral Oil, Light	13.00
4. Ritachol	2.00
5. Petrolatum	17.50
6. Supersat AWS 4	3.00
Part B:	
7. Glycerin	6.00
8. Distilled Water	35.30
Part C:	
9. Sodium Hydroxide (25% solution)	9.20

Compounding Procedure:

Pre-dissolve sodium hydroxide in water to obtain enough 25% solution for batch. Weigh Part A into sweep type jacketed tank and begin heating to 78-82C. Weigh Part B in a separate tank and begin heating to 78-82C. Weigh both are at temperature, slowly add Part B to Part A avoiding aeration. Cool to 65C. Add sodium hydroxide solution (Part C) without agitation. Avoid aeration. Pump through colloid mill, cool to 25C and package.

Formulation HB-89-R-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Relaxer

Regular strength potassium hydroxide based relaxer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 5000	15.00
2. Mineral Oil 70 wt.	17.00
3. Ritachol	2.00
4. Petrolatum	17.50
5. Ritahydrox	0.50
6. Propylparaben	0.13
7. Stearyl Alcohol	2.00
Part B:	
8. Glycerin	6.00
9. Distilled Water	29.67
10. Methylparaben	0.20
Part C:	
11. Potassium Hydroxide (25% Solution)	10.00

Compounding Procedure:

Weigh Part A and Part B and heat to 78 to 82C. When both parts are at temperature, add Part B to Part A slowly to avoid aeration. Cool to 65C and add Part C slowly to avoid aeration. Cool to 25C. Mill if necessary.

Formulation 109-184

Relaxer

Super strength sodium hydroxide based hair relaxer.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 5000	15.00
2. Mineral Oil 70 wt.	17.00
3. Ritachol	2.00
4. Petrolatum	17.50
5. Ritahydrox	0.50
6. Propylparaben	0.13
7. Stearyl Alcohol	2.00
Part B:	
8. Glycerin	6.00
9. Distilled Water	29.67
10. Methylparaben	0.20
Part C:	
11. Sodium Hydroxide (20% Solution)	10.00

Compounding Procedure:

Separately weigh Part A and Part B and heat to 78 to 82C. When both parts are at temperature, add Part B to Part A slowly to avoid aeration. Cool to 65C and add Part C slowly to avoid aeration. Cool to 25C. Mill if necessary.

Formulation 109-202

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Ringing Gel

An adaptable clear ringing gel which is suitable as a hair dressing or vehicle for other cosmetic materials where a micro emulsion is desired.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+54.00
2. Glycerin	10.00
3. Mineral Oil, Light	12.00
4. Ritoleth 5	10.00
5. Supersat AWS 4	12.00
6. Pationic ISL	1.00
7. Simchin WS	1.00
8. Preservative	QS
9. Fragrance and color	QS

Compounding Procedure:

Combine items 1, 2 and 7 and heat to 175F. Combine items 3,4,5 and 6 and heat to 175F. Add second phase to first phase with agitation. (NOTE: Use an additional 3 to 4% of the weight of the batch as add-back water to compensate for moisture loss. This is important.) Mix until uniform. Begin cooling. Cool to 130F or until thickening begins. Add items 8 and 9. Add back water to compensate for moisture loss. Fill hot. Cover immediately.

Formulation H-89-S-2

Ringing Gel

A clear ringing gel suitable as a hair dressing or vehicle for other cosmetic materials.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Distilled Water	42.40
2. Glycerin	15.00
<u>Part B:</u>	
3. Mineral Oil	12.00
4. Ritoleth 5	10.00
5. Supersat AWS 4	17.00
6. Pationic ISL	1.00
7. 2-Phenoxyethanol	2.00
<u>Part C:</u>	
8. Germall II	0.40
9. Perfume	0.20

Compounding Procedure:

Heat Part A and Part B to 165F. Add Part B to Part A. Cool to 140F. Add Part C. Pour into jars. Pour temperature-135F to 140F.

Note: Be sure to add water to compensate for moisture loss.

If this cannot be weighed, then use 3-4% excess water.

Formulation 109-109

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Sculpting Gel

A gum setting gel with emollients and plasticizers. dl-Panthenol helps plasticize the film without losing holding properties and also acts as a humectant.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	92.70
2. Polyquaternium 11	3.00
3. Ritaloe 200M	1.00
4. PVP	0.50
5. Ritoleth 20	0.30
6. Hydroxyethylcellulose	1.00
7. dl-Panthenol	0.50
8. Supersat AWS 4	0.80
9. Simchin WS	0.20
10. Color, Preservative and Fragrance	QS

Compounding Procedure:

Heat a small amount of the formula water. Add ingredients 4,5,7 and 8 and dissolve. Add remaining water. No further heating is required. Disperse ingredient 6 into water phase. Mix well. Add remaining ingredients.

Formulation HB-89-PA-7

Pump Gel Setting Lotion

A gel setting lotion which can be dispensed from a pump. Contains setting agents anti-stat and humectants. dl-Panthenol is used for repair, humectancy and luster.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	86.50
2. Propylene Glycol	5.00
3. Polyquaternium 4	3.00
4. dl-Panthenol	1.00
5. Ritaloe 200M	1.00
6. Polyquaternium 10	1.00
7. Ritabate 20	1.00
8. Hydroxyethylcellulose	1.00
9. Olealkonium Chloride	0.50
10. Patlac LA (44%)	QS
11. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Disperse items 6 and 4 into item 1. Mix well for 30 minutes. Heat to speed solution. Disperse item 8 into batch. Mix for 30 minutes. Add remaining ingredients. Adjust to pH 6 with Patlac LA.

Note: For a lower viscosity product, reduce item 8 to 0.5%.

Formulation HB-89-PA-19

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Sea Botanical and Herbal Hard to Hold Styling Gel

	<u>% Weight</u>
Phase A:	
Water	81.70
Calendula Extract	0.10
Chamomile Extract	0.10
Spirulina	0.10
Allantoin	0.05
Phase B:	
Polyglycerylmethacrylate (and) Propylene Glycol (Lubragel MS)	0.20
Carbomer-940 (Carbopol 940)	0.60
Suttocide A, 50% Solution	0.30
Triethanolamine, 85%	0.30
Phase C:	
Water	10.00
PVP(PVP K-30)	2.00
Phase D:	
PVP/VA Copolymer (PVP/VA E-735)	4.00
Phase E:	
PEG-60 Almond Glycerides (Crovol A-70)	0.50
Fragrance	0.05

Meter water into stainless steel mixing tank. Begin heating to 50C. Begin mixing and add rest of Phase A ingredients. Add Phase B ingredients in order given with adequate agitation to insure a homogeneous mixture after each addition. Premix Phase C and add to batch. Add Phase D. Premix Phase E, add to batch and mix until uniform.

Sea Botanical and Herbal Hard to Hold Styling Gel(Alcohol Free)

	<u>% Weight</u>
Phase A:	
Water	81.70
Calendula Extract	0.10
Chamomile Extract	0.10
Spirulina	0.10
Allantoin	0.05
Phase B:	
Polyglycerylmethacrylate (and) Propylene Glycol (Lubragel MS)	0.20
Carbomer-940 (Carbopol 940)	0.60
Suttocide A, 50% Solution	0.30
Triethanolamine, 85%	0.30
Phase C:	
Water	10.00
PVP (PVP K-30)	2.00
Phase D:	
PVP/VA Copolymer (PVP/VA E735)	4.00
Phase E:	
PEG-60 Almond Glycerides	0.50
Fragrance	0.05

Meter water into stainless steel mixing tank. Begin heating to 50C. Begin mixing and add rest of Phase A ingredients. Add Phase B ingredients in order given with adequate agitation to insure a homogeneous mixture after each addition. Premix Phase C and add to batch. Add Phase D. Premix Phase E, add to batch and mix until uniform.

SOURCE: Sutton Laboratories, Inc.: Suggested Formulations

Sea Botanical and Herbal Hard to Hold Styling Gel (TEA Free)

Phase A:	% Weight
Water	81.60
Calendula Extract	0.10
Chamomile Extract	0.10
Spirulina	0.10
Allantoin	0.05
Phase B:	
Polyglycerylmethacrylate (and) Propylene Glycol (Lubragel MS)	0.20
Carbomer-940 (Carbopol 940)	0.60
Suttocide A, 50% Solution	0.70
Phase C:	
Water	10.00
PVP (PVP K-30)	2.00
Phase D:	
PVP/VA Copolymer (PVP/VA E735)	4.00
Phase E:	
PEG-60 Almond Glycerides (Crovol A-70)	0.50
Fragrance	0.05

Procedure:

Meter water into stainless steel mixing tank. Begin heating to 50C. Begin mixing and add rest of Phase A ingredients. Add Phase B ingredients in order given with adequate agitation to insure a homogeneous mixture after each addition. Premix Phase C and add to batch. Add Phase D. Premix Phase E, add to batch and mix until uniform.

Styling Gel with Protein

Phase A:	% Weight
Water	85.80
Carbomer-940	1.00
Propylene Glycol	1.00
Phase B:	
Triethanolamine	1.00
Phase C:	
Polyquaternium-11	2.00
PVP/VA Copolymer	4.00
Phase D:	
Hydrolyzed Elastin	2.00
Phase E:	
Dimethicone Copolyol	0.50
PEG-75 Lanolin Oil	0.50
Polysorbate 80	1.00
Germaxen II	1.00
Fragrance	0.10
FD&C Green #3	0.10

Procedure:

Add carbomer to water with high agitation. Mix until smooth. Add rest of Phase A. Add triethanolamine and mix until clear. Add Phase C slowly, mix thoroughly. Add Phase D, mixing until uniform. Add Phase E in order and mix until homogeneous.

SOURCE: Sutton Laboratories; Suggested Formulations

Spray-on De-tangler

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		91.60
Isostearylamidopropyl Dimonium Ethosulfate	M-Quat 522	0.30
Dimethicone Copolyol	Masil 1066C	0.60
Propylene Glycol		7.00
Benzoic Acid		0.15
Triethanolamine		0.20
Fragrance		0.15

pH: 5.0-5.5

Viscosity: Water-thin

Appearance: Clear, nearly water-white liquid

Procedure:

Blend the water, M-Quat 522, and Masil 1066C. Pre-mix the benzoic acid and propylene glycol; add to batch. Adjust the pH and add fragrance.

SOURCE: Mazer Chemicals: Formulation B-104

Spray Detangler

This product is sprayed onto the hair to make combing of wet or dry hair easier.

<u>Ingredients:</u>	<u>% w/w</u>
Water	87.3
Propylene Glycol	8.0
Cocamidopropyl Betaine (Tego Betaine L-7)	3.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.0
Dimethicone Copolyol (Abil B 8852)	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

Blend the ingredients in order, mixing between additions until the formula is clear.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Two Phase Conditioner

A product which conditions and moisturizes the hair. Panthenol is an effective moisturizer, emollient and conditioner for hair. It gives hair a healthy shine. An especially good product to use after a curl relaxer to rebalance pH of the scalp and hair cuticle. It is substantive and reparative because of the Pationic ISL and dl-Panthenol.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil	21.000
2. Pationic ISL/85	4.000
3. Propylene Glycol	6.000
4. 2-Phenoxyethanol	1.500
5. Rita Guayazulene	0.006
Part B:	
6. Distilled Water	55.294
7. Methylparaben	0.200
8. dl-Panthenol	2.000
Part C:	
9. Electrolyte Solution	10.000

Compounding Procedures:

Heat A and B to 72C. Combine. Mix. Add C when temperature is at 60C. Cool to Room Temperature. Maintain rapid agitation during filling.

Electrolyte Solution:

1. Distilled Water	7.00
2. Citric Acid	1.10
3. Magnesium Sulfate	1.50
5. Magnesium Carbonate	0.40

Formulation 107-119

Instant Conditioner

This conditioner leaves the hair soft and smooth. Ritawax ALA adds luster to the hair and Patlac LA brings hair into the right pH balance.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	+87.80
2. Stearalkonium Chloride	7.50
3. Ritapro 165	2.00
4. Cetyl Alcohol	2.00
5. Ritawax ALA	0.50
Part B:	
6. Patlac LA (44%)	QS
7. Perfume	QS
Part C:	
8. Sodium Chloride (25% Solution)	+0.20

Heat Part A to 165F, mix. Cool to 120F with mixing. Add perfume. Cool to 95F. Adjust pH to 3.5 with Patlac LA. Adjust viscosity with Sodium Chloride (25% solution).

SOURCE: R.I.T.A. Corp.: Formulation 104-52/HB-89-1-16

Section VII

Insect Repellents

Gelled DEET

Protection against insects in a convenient non-greasy clear gel form, using 10% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	10.00
2. Alcohol - Ethyl Alcohol 190 Proof	40.00
Part B:	
3. Acritamer 940	0.50
Part C:	
Distilled Water	48.50
Part D:	
5. Triethanolamine (50%)	1.00

Compounding Procedures:

Combine Part A; add Part B and mix for 15 minutes. Slowly add C and mix for 45 minutes. Neutralize with D. (If product is aerated, allow to stand before adding D).

Viscosity: RVF Brookfield, Spindle #7 @ 20 rpm: 45,000 cps

Formulation 107-171

Gelled DEET

Protection against insects in a convenient non-greasy clear gel form, using 10% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	10.00
2. Alcohol - Ethyl Alcohol 190 Proof	40.00
3. Myristyl Lactate	0.50
Part B:	
4. Acritamer 940	0.50
Part C:	
5. Distilled Water	48.00
Part D:	
6. Triethanolamine (50%)	1.00

Compounding Procedure:

Combine Part A; add Part B and mix for 15 minutes. Slowly add Part C and mix for 45 minutes. Neutralize with part D. (If product is aerated allow to stand after adding D).

Viscosity: RVF Brookfield #7 @ 20 rpm: 42,000 cps.

Formulation 107-172

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Gelled DEET

Protection against insects in a convenient non-greasy clear gel form, using 10% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	10.00
2. Alcohol-Ethyl Alcohol 190 Proof	40.00
Part B:	
3. Acritamer 941	0.50
Part C:	
4. Distilled Water	48.50
Part D:	
5. Triethanolamine (50%)	1.00

Compounding Procedures:

Combine Part A; add Part B and mix for 15 minutes. Slowly add Part C and mix for 45 minutes. Neutralize with Part D. (If product is aerated allow to stand before adding D).

Viscosity: RVF Brookfield, Spindle #7 @ 20 rpm: 14,000 cps.
Formulation 107-173

Gelled DEET

Protection against insects in a convenient clear gel form, using 10% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	10.00
2. Alcohol - Ethyl Alcohol 190 Proof	40.00
Part B:	
3. Acritamer 940	0.25
4. Acritamer 941	0.25
Part C:	
5. Distilled Water	48.50
Part D:	
6. Triethanolamine (50%)	1.00

Compounding Procedures:

Combine Part A; add Part B and mix for 15 minutes. Slowly add Part C and mix for 45 minutes. Neutralize with Part D. (If product is aerated allow to stand before adding D.)

Viscosity: RVF Brookfield, Spindle #7 @ 20 rpm: 26,000 cps.
Formulation 107-175

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Gelled DEET

Protection against insects in a convenient non-greasy clear gel form, using 7.5% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	7.50
2. Alcohol - Ethyl Alcohol 190 Proof	40.00
3. Myristyl Lactate	0.50
Part B:	
4. Acritamer 940	0.50
Part C:	
5. Distilled Water	50.50
Part D:	
6. Triethanolamine (50%)	1.00

Compounding Procedures:

Combine Part A; add Part B and mix for 15 minutes. Slowly add Part C and mix for 45 minutes. Neutralize with Part D.

(If product is aerated allow to stand before adding D.)

Viscosity: RVF Brookfield, Spindle #7 @ 20 rpm: 41,000 cps.

Formulation 107-207

Gelled Deet

Protection against insects in a convenient clear gel form, using 7.5% DEET.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. DEET	7.50
2. Alcohol - Ethyl Alcohol 190 Proof	40.00
3. Myristyl Lactate	0.50
Part B:	
4. Acritamer 940	0.60
Part C:	
5. Distilled Water (80-95C)	16.00
6. Methocel E4M	0.20
7. Distilled Water (very cold or ice)	34.00
Part D:	
8. Triethanolamine (50%)	1.20

Compounding Procedures:

Combine Part A; add Part B and mix for 15 minutes. Premix hot water and Methocel E4M until all particles are thoroughly wetted and a smooth paste is obtained, then add cold water or ice. Cool to 20C and mix for 20 minutes. Then slowly add C and mix for 45 minutes. Neutralize with Part D.

Viscosity: RVF Brookfield, Spindle #7 @ 20 rpm: 54,000 cps

Formulation 107-208

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pyroicide and MGK Intermediates
Intermediate Number 1995

<u>1. Composition:</u>	<u>% by wt</u>
N,N-diethyltoluamide (95% meta)	86.00
MGK 264	8.00
MGK Repellent 326	6.00
<u>2. Typical Inspections:</u>	
Sp. Gravity @ 20C: 1.012	
Color, Gardner: 4	
Refractive Index ND 25C: 1.5181	
Flash Point TOC: 200F	
<u>3. EPA Reg. No. 1021-: 1276</u>	
<u>4. Typical Formulae from Intermediate Use (% by wt):</u>	
% Intermediate:	25.00
% Isopropanol or Blend of Isopropanol and Propellant:	75.00
<u>5. Finished Product (% by wt):</u>	
N,N-diethyltoluamide (95% meta):	21.50
MGK 264	2.00
MGK Repellent 326	1.50
Inerts (Propellant and Solvents or Solvent Only)	75.00

Intermediate Number 2007

<u>1. Composition:</u>	<u>(% by wt)</u>
N,N-diethyltoluamide (95% meta):	76.92
MGK 264	8.00
MGK Repellent 326	7.70
<u>2. Typical Inspections:</u>	
Sp. Gravity @ 20C: 1.013	
Color, Gardner: 4	
Refractive Index ND 25C: 1.5166	
Flash Point TOC: 200F	
<u>3. EPA Reg. No. 1021-: 1290</u>	
<u>4. Typical Formulae from Intermediate Use (% by wt):</u>	
% Intermediate	32.50
% Isopropanol or Blend of Isopropanol and Propellant	67.50
<u>5. Finished Product (% by wt):</u>	
N,N-diethyltoluamide (95% meta)	25.00
MGK 264	5.00
MGK Repellent 326	2.50
Inerts (Propellant and Solvents or Solvent Only)	67.50

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Pyroicide and MGK Intermediates
Intermediate Number 2020

<u>1. Composition:</u>	<u>(% by wt)</u>
N,N-diethyltoluamide (95% meta)	80.00
MGK 264	12.00
MGK Repellent 326	8.00
<u>2. Typical Inspections:</u>	
Sp. Gravity @ 20C: 1.008	
Color, Gardner: 4	
Refractive Index ND 25C: 1.5170	
Flash Point TOC: 200F	
<u>3. EPA Reg. No. 1021-: 1312</u>	
<u>4. Typical Formulae from Intermediate Use (% by wt):</u>	
% Intermediate:	25.00
% Isopropanol or Blend of Isopropanol and Propellent:	75.00
<u>5. Finished Product (% by wt):</u>	
N,N-diethyltoluamide (95% meta):	20.00
MGK 264	3.00
MGK Repellent 326	2.00
Inerts (Propellent and Solvents or Solvent Only)	75.00

Intermediate Number 5734

<u>1. Composition:</u>	<u>(% by wt)</u>
N,N-diethyltoluamide (95% meta)	70.00
MGK 264	20.00
MGK Repellent 326	10.00
<u>2. Typical Inspections:</u>	
Sp. Gravity @ 20C: 1.018	
Color, Gardner: 4	
Refractive Index ND 25C: 1.5147	
Flash Point TOC: 200F	
<u>3. EPA Reg. Reg. No. 1021-: 567</u>	
<u>4. Typical Formulae from Intermediate Use (% by wt):</u>	
% Intermediate:	25.00
% Isopropanol or Blend of Isopropanol and Propellent:	75.00
<u>5. Finished Product: (% by wt.)</u>	
N,N-diethyltoluamide (95% meta)	17.50
MGK 264	5.00
MGK Repellent 326	2.50
Inerts (Propellent and Solvents or Solvent Only)	75.00

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Repellent Stick

The following formula has produced a stick which is very cosmetically appealing and holds up well under storage. Formulators would be responsible for their own acute toxicology for registration purposes.

Stick Formula

DEET	14%
MGK 264	4%
MGK Repellent 326	2%
Isopropyl alcohol	55%
Glycerin	4%
*Beeswax	20%
Stearyl alcohol	1%

Blend all liquid ingredients together, heat to ca. 45C, then add solids. Agitate until all ingredients are dissolved.

Immediately pour into stick container and cool to room temperature.

Sticks of this type have held up chemically and physically after one year's storage at 100F.

*Synthetic Beeswax Beads Waxenol 82/5B

Repellent Roll-On

The roll-on applicator is a convenient way to apply a repellent to exposed skin - particularly the arms. MGK has developed a formulation that is suitable for this mode of application, and is cosmetically acceptable.

MGK Intermediate 5734	20.00%
Isopropyl alcohol	51.00%
Deionized water	28.50%
Carbopol 940	0.25%
Ethomeen C-25	0.25%

The levels of Carbopol 940 and Ethomeen C-25 can be varied to change the viscosity of the formulation.

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Spray Pump Formulations

There has developed an interest in personal repellent formulations which can be dispensed by finger operated spray pumps. The spray pumps provide almost the same ease of application of a pressurized product but without propellents. In the MGK work, two basic types of pumps and containers were evaluated - crimp-on with aerosol can and screw-on with various synthetic containers. The purpose of the study was to determine long-time action of typical repellent solutions in containers and pumps.

A. Crimp-On Pump:

Units containing the repellent formulation outlined below were stored at 100F upright and inverted. Each three months the units were weighed and actuated.

Pump - Emson

Crimp-Type Pump Spray Dispenser
1" Tin-Plate Mounting Cup
Epon Top and Bottom

Actuator:

"Extractor-Mist" actuator
1/2" diameter anadized
insert, .017" orifice,
.f180" depth.

Flowed-In Gasket
Buna Diaphragm
Delrin Stem

Container:

Peerless Tube
Epon Lining

Formulations:

Formula 2007	32.50%	to give: 25.00% DEET (95% meta)
Isopar E	15.00%	5.00% MGK 264
Isopropyl alcohol	52.50%	2.50% MGK R-326

After one year storage, all units continued to function properly, the weight loss was negligible (all units did not leak) and there was no effect on the can or pump. Chemical analysis showed the actives up-to-strength.

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Spray Pump Formulations (Continued)**B. Screw-On Pump:**

The liquids were stored at 100F in the various containers listed below. The pumps were stored separately and upside-down in a primed condition so that the solutions were in intimate contact with all parts of the pumps and dip tubes for the longest possible time between inspections. At each inspection (at three weeks, one month, six weeks, two months, six months, nine months and one year) the pumps were put onto the respective containers and tested for continued ability to spray satisfactorily.

Containers:

- 1) White, translucent, dense polyethylene from Monsanto Chemical Company.
- 2) White, opaque dense polyethylene from Contintal Can Company.
- 3) Green, translucent (almost clear) from high nitrile polymer Cyclopac from Borg Warner.

Pumps:**Comments:**

- | | |
|---|---|
| 1) Ethyl/VCA (Bridgeport)
Type: LP11
Rubber: Neoprene
Finish: 22 mm
Size: .415 D.C.
Dip Tube: .060"
Actuator: LP11-26 | Good spray and good projection |
| 2) Ethyl/VCA (Bridgeport)
Type: LP19
Rubber: Buna
Finish: 20 mm
Size: .410
Dip Tube: .060"
Actuator: L19-26 (std. insert) | Good spray and good projection |
| 3) Ethyl/VCA (Bridgeport)
Type: LPS10
Piston: Std.
Finish: 28
Size: 400
Dip Tube: .160 I.D.
Actuator: L28-21 (W-4 insert) | Particle size larger than with others, but still okay. Projection of spray not as good as others. |
| 4) Risdon Pump Valve SL-200
#372-017-14
Piston: 959-037-14
Body: 959-031-17
Actuator: 979-101-04 | Good spray and good projection |

Solutions:

- | | | |
|---|----------|--|
| A) 15% Int. 5734
15% Isopar E
70% Isopropanol | to give: | 10.50% Deet (94% meta)
3.00% MGK 264
1.50% MGK R-326 |
| B) 32.5% int. 2007
15.0% Isopar E
52.5% Isopropanol | to give: | 25.00% DEET (95% meta)
5.00% MGK 264
2.50% MGK R-326 |

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Specimen Label
Pressurized Insect Repellent Spray for Personal Use from
Pyrocide Intermediate 5734
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies, Black Flies, Gnats and Fleas on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	16.625%
Other isomers	0.875%
*N-Octyl bicycloheptene dicarboximide	5.000%
**Di-n-propyl isocinchomeronate	2.500%

INERT INGREDIENTS:

*MGK 264, Insecticide Synergist	75.000%
**MGK Repellent 326	
Pyrocide, MGK - Registered trademarks of McLaughlin Gormley King Co.	

Specimen Label
Pressurized Insect Repellent Spray for Personal Use from
MGK Intermediate 2007
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies, Black Flies, Gnats and Fleas on Exposed Skin Surfaes.

ACTIVE INGREDIENTS:

N, N-diethyl-m-toluamide	23.75%
Other isomers	1.25%
*N-Octyl bicycloheptene dicarboximide	5.00%
**Di-n-propyl isocinchomeronate	67.50%

INERT INGREDIENTS:

*MGK 264, Insecticide Synergist	
**MGK Repellent 326	
MGK - Registered trademark of McLaughlin Gormley King Co.	

Specimen Label
Liquid Insect Repellent for Personal Use from Pyrocide
Intermediate 5734
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies, Black Flies, Gnats and Fleas on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	16.625%
Other isomers	0.875%
*N-Octyl bicycloheptene dicarboximide	5.000%
**Di-n-propyl isocinchomeronate	2.500%

INERT INGREDIENTS

*MGK 264, Insecticide Synergist	75.000%
**MGK Repellent 326	
Pyrocide, MGK - Registered trademarks of McLaughlin Gormley King Co.	

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

SPECIMEN LABELSaturated Paper Towel Personal Repellent from Pyroicide
Intermediate 5734
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies,
Black Flies, Gnats and Flies on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	11.71%
Other isomers	0.62%
*M-Octyl bicycloheptene dicarboximide	3.52%

**Di-n-propyl isocinchomeronate	1.96%
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INERT INGREDIENTS:

82.19%

*MGK 264, Insecticide Synergist

**MGK Repellent 326

Pyroicide, MGK - Registered trademark of McLaughlin Gormley
King Co.

SPECIMEN LABELInsect Repellent Gel from Pyroicide Intermediate 5734
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies,
Black Flies, Gnats and Fleas on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	6.65%
Other isomers	0.35%

*N-octyl bicycloheptene dicarboximide	2.00%
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**Di-n-propyl Isocinchomeronate	1.00%
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INERT INGREDIENTS:

90.00%

*MGK 264, Insecticide Synergist

**MGK Repellent 326

Pyroicide, MGK - Registered trademarks of McLaughlin Gormley
King Co.

SPECIMEN LABELInsect Repellent Stick from Pyroicide Intermediate 5734
Front Panel

Repels Mosquitos, Chiggers, Ticks, Deer Flies, Stable Flies,
Black Flies, Gnats and Fleas on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	13.30%
Other isomers	0.70%

*N-Octyl bicycloheptene dicarboximide	4.00%
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**Di-n-propyl isocinchomeronate	2.00%
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INERT INGREDIENTS:

80.00%

*MGK 264, Insecticide Synergist

**MGK Repellent 326

Pyroicide, MGK - Registered trademarks of McLaughlin Gormley
King Co.

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

SPECIMEN LABEL
Insect Repellent Cream from Pyroicide Intermediate 5734
Front Panel

Repels Mosquitoes, Chiggers, Ticks, Deer Flies, Stable Flies, Black Flies, Gnats and Fleas on Exposed Skin Surfaces.

ACTIVE INGREDIENTS:

N,N-diethyl-m-toluamide	16.625%
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Other isomers	0.875%
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*N-Octyl bicycloheptene dicarboximide	5.000%
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**Di-n-propyl isocinchomeronate	2.500%
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INERT INGREDIENTS:	75.000%
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*MGK 264, Insecticide Synergist

**MGK Repellent 326

Pyroicide, MGK - Registered trademarks of McLaughlin Gormley King Co.

Pyroicide and MGK Intermediate

Intermediate Number: 6339

1. Composition: (% by wt)

N,N-diethyltoluamide (95% meta)	88.89
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MGK 264	11.11
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MGK Repellent 326	-----
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2. Typical Inspections:

Sp. Gravity @ 20C: 0.990

Color, Gardner: 4

Refractive Index ND 25C: 1.5182

Flash Point TOC: 200F

3. EPA Reg. No. 1021-: 737

4. Typical Formulae from Intermediate Use (% by wt):

% Intermediate	12.00
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% Isopropanol or Blend of Isopropanol and Repellent:	88.00
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5. Finished Product (% by wt):

N, N-diethyltoluamide (95% meta)	10.67
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MGK 264	1.33
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Inerts (Propellant and Solvents or Solvent Only)	88.00
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SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

General Formulation Information for Pressurized Spray

The variety of repellent mixtures offered by MGK enables the marketer of pressurized products to take advantage of this method of product use. For example, Intermediate 5734 might be filled as follows:

Formula 1:

MGK Intermediate 5734	15%
Isopar E	30%
Isopropanol	51%
Nitrous Oxide or Carbon Dioxide	4%

This formula should be used with a valve such as Precision NN with:

- 0.016" MBRT Button
- 0.013" Stem
- 0.080" Pressure Fill Body

The end product has a "soft" fine particle spray with little bounce-off.

A hydrocarbon propellant system can also be used to fill Intermediate 5734.

Formula 2

Intermediate 5734	10-25%
**Solvent	70-55%
A-46 Isobutane/Propane	20%

** All Isopropanol, all Isopar E, or blend of the two.

The selection of valves seems to be critical with this formulation. MGK has found two valves that gives suitable sprays:

.016" MBRT button	.016" MBRT button
.013" stem	.013" stem
.040" body	.080" body
regular dip tube	regular dip tube

Neoprene stem gasket proved satisfactory at 100F storage for one year. MGK expects Buna N to be okay also.

This pressurized fill, like all personal repellent pressurized fills, is flammable and must be labeled accordingly.

SOURCE: McLaughlin Gormley King Co.: Suggested Formulations

Section VIII

Lotions

Aloe Lotion

A viscous lotion with aloe and emollients.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	35.50
2. Glycerin	4.00
3. Acritamer 940	0.50
4. Ritaloe 1X	50.00
5. Ritachol	5.00
6. Patlac IL	1.00
7. PEG 20 Stearate	3.00
8. Triethanolamine (50%)	1.00
9. Color, Fragrance, Preservative	QS

Compounding Procedure:

Disperse item 3 into item 1. Add item 2. Mix well and heat to 70C. Combine items 5,6 and 7 and heat to 70C. Combine both phases, mix well. Add item 8, cool with mixing to 45C. Add remaining ingredients. Cool to 35C; package.

Formulation HB-89-R-17

Keri-Type Lotion

A Keri-type lotion formulation with emollients, softeners and humectants.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Ritalan C	2.00
2. Ritachol	5.00
3. Mineral Oil, 70/80	18.00
4. Cetyl Alcohol	2.00
5. Supersat AWS 4	2.00
6. Propylparaben	0.05
<u>Part B:</u>	
7. Glycerin	1.00
8. Methylparaben	0.10
9. Distilled Water	69.85

Compounding Procedures:

Combine Part A and heat to 65-70C with agitation. Combine Part B and heat to 75C with agitation. When both phases are at temperature, and uniform, add Part A to Part B with continued agitation. Cool to 35C. Package.

Formulation HB-89-R-16

SOURCE: R.I.T.A. Corp.: Suggested Formulations

All Purpose Skin Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
Part A: Mineral oil, light	4.00
Kessco Isopropyl Myristate	4.00
Polowax	3.50
Propyl Paraben	0.15
Part B: Glycerine	3.00
Carbomer 941	0.20
Methyl Paraben	0.15
Triethanolamine	0.20
Fragrance, dye	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Disperse Carbomer 941 in water and heat to 65C. After completely dispersed, add glycerine, methylparaben and triethanolamine. Mix until homogeneous. Heat Part A to 65C and add to Part B w/rapid mixing. Continue to heat and mix for thirty minutes. Cool to room temperature and add fragrance and dye if desired.

Typical Properties:

Creamy thick white emulsion
 Viscosity @ 25C: 20,000 cps
 pH (as is): 7
 Passed freeze thaw and elevated temperature study
 Formulation No. 444

Lotion for Normal-Oily Skin

<u>Ingredients:</u>	<u>% by Weight</u>
Kessco Octyl Isonanoate	5.00
Glycerin	3.00
Stearic acid, tech.	3.00
Triethanolamine 88%	1.80
Wecobee S	0.50
Kessco Cetyl Alcohol	0.50
DMDM hydantoin	0.25
Carbopol 934	0.15
Methyl paraben	0.15
Dow Corning 200 fluid (200cST)	0.10
Propyl paraben	0.10
Tetrasodium EDTA	0.10
D.I. water	Q.S. to 100

Mixing Procedure:

Add D.I. Water to a suitable mixing vessel and begin agitation. Add Carbopol 934 with good agitation and mix at high speed until a solution free of lumps is obtained. Add Silicone DC-200 and mix until completely dissolved. Add Glycerin, DMDM Hydantoin, and Methyl Paraben. Heat to 165-170F. Prepare the oil phase by adding together Kessco Octyl Isonanoate, Wecobee S, Kessco 653, Kessco Cetyl Alcohol, Stearic Acid, and Propyl Paraben. Heat to 170-175F. Add the oil phase to the water phase with good agitation and mix for 30 minutes. Start cooling to 90F. At 110F add Tetrasodium EDTA and Triethanolamine. Stop cooling and agitation at 90F.

SOURCE: Stepan Co.; Formulation No. 589

Body Lotion

<u>Phase A:</u>	<u>% Weight</u>
Glyceryl Stearate (Cerasynt GMS)	3.00
PEG-20 Stearate (Cerasynt 840)	2.00
C12-15 Alcohols Lactate (Ceraphyl 41)	2.00
Methylparaben	0.25
Propylparaben	0.25
Hexylene Glycol	2.20
Cetyl Alcohol	0.70
<u>Phase B:</u>	
Water	83.10
Carbomer-934 (Carbopol 934)	0.10
<u>Phase C:</u>	
Water	3.00
Triethanolamine, 99%	0.10
<u>Phase D:</u>	
Water	3.00
Germall 115	0.30

Procedure:

Heat Phase A to 85C. Stir well. Disperse Carbopol-934 in water while heating to 85C. Mix until uniform. Add Phase C to Phase B. Mix well with a sweep blade. Add Phase A to batch At 85C. Homogenize while cooling to 75C. Homogenize until uniform. Cool to 45C. while stirring with a sweep blade and add Phase D.

Behenyl Hand Lotion

	<u>% Weight</u>
Behenamidopropyl Dimethylamine (Incromine BB)	3.00
Behenic Acid (Crodacid B)	2.50
PPG-2 Myristyl Ether Propionate (Crodamol PMP)	20.00
Dimethicone, 200 cps. (Dow Corning 200 Fluid)	3.00
Germaben II	1.00
Water	68.50
Fragrance	2.00

Procedure:

Combine the first 4 ingredients and heat to 85-90C. Heat water to 85-90C and add to oils with good mixing. Cool to 40C and add Germaben II and fragrance. Continue mixing and cool to 30C.

SOURCE: Sutton Laboratories: Suggested Formulations

Body Massage Lotion

A low solids cream with emollients and humectants. dl-Panthenol helps dry skin, promotes healing and moisturizes.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Oil, 200/210	0.90
2. Dimethicone, 350 CST	1.20
3. Stearic Acid XXX	3.60
4. Rita CA	1.30
5. Ritalan	0.40
6. Ritachol	0.40
7. Propylparaben	0.30
8. Pationic ISL	0.20
Part B:	
9. Glycerin	1.50
10. Distilled Water	87.48
11. Ritapan DL	0.20
12. Triethanolamine (50%)	1.80
13. Methylparaben	0.70
Part C:	
14. Ritaloe 200M	0.02

Compounding Procedure:

Combine ingredients in Part A and heat to 180F. Combine ingredients in Part B and heat to 180F. Add Part A to Part B and stir until emulsion is uniform. Cool to 140F. Add remaining ingredient (Phase C).

Formulation HB-89-PA-14

Temporary Anti-Wrinkle Lotion

This product contains a wrinkle remover (temporary), Bovinal 30. The smoothing effect on the skin is due to the Ritachol, Ritawax ALA, Ritalan C, and the Pationic ISL. The stabilizer, Acritamer 941, and the Pationic ISL are the primary emulsifiers.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol	2.50
2. Ritawax ALA	1.00
3. Glyceryl Stearate	1.00
4. Stearic Acid	2.00
5. Ritalan C	5.00
6. Pationic ISL	1.25
7. Acritamer 941	0.20
8. Distilled Water	+75.55
9. Propylene Glycol	4.50
10. Triethanolamine (50%)	1.00
11. Bovinal 30	6.00
12. Color, Fragrance, Preservatives	QS

Compounding Procedure:

Disperse item 7 into item 8 and add item 9. Heat to 70C. Combine items 1-6 and heat to 70C. Combine both phases, mix well and add item 10. Cool with mixing to 40C before adding remaining ingredients. Cool to 35C. Fill.

Formulation HB-89-L-26

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Cationic Conditioning Lotion

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	90.85
Glycerin	2.00
AMP-95	0.25
Distearyldimmonium Chloride	0.10
Part B:	
Isopropyl Palmitate	2.50
White Petrolatum	1.00
Octyl Hydroxystearate	1.00
Glycol Stearate	1.00
Pemulen TR-1	0.40
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.90

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. With mixing, heat to 60C. In a separate vessel, combine all B ingredients except Pemulen. Heat to 60C. When all B ingredients have melted, reconfirm temperature and add Pemulen. Use agitation to break up any soft agglomerates of resin. With vigorous agitation, add B to A. Continue mixing to produce a smooth emulsion. At 45-50C, add C. Continue mixing. Fill containers @ 35C.

Formulation PF-0227 suggested by B.F. Goodrich

Hand and Body Lotion

<u>Ingredients:</u>	<u>% by weight</u>
A Stearic acid xxx	2.00
Glyceryl mono/distearate (Myvacet 9-40)	1.00
Cetyl alcohol (Crodacol C-70)	1.00
White Petrolatum USP (Penreco Snow)	2.50
White Mineral Oil (Drakeol 9)	4.00
Dimethicone (Silicone SF 96-200)	0.40
Oxaban-A	0.10
B Water	73.00
Glycerin	5.00
AMP	0.90
C Carbomer 2984	0.20
Disodium EDTA	0.10
Water	9.80

Procedure:

1. Dissolve EDTA into the water of Section C. With vigorous agitation, gently sprinkle Carbomer 2984 into the EDTA solution.
2. In a separate mixing vessel, combine all of the ingredients in Section B and heat to 80C.
3. Combine the ingredients in Section A, heat to 80C and mix.
4. Add A to B with vigorous agitation. Mix for a further 20 minutes.
5. Add C.
6. Cool rapidly

SOURCE: Angus Chemical Co.: Formula PF-0186

Cleansing Lotion

A	Water	35.0%
	Jordapon CI Flake	18.0
	Preservative, EDTA	0.4
B	Mineral Oil (1)	7.0
	Cetyl Alcohol (2)	2.0
C	Water	36.2
	Hydroxypropyl Methylcellulose (3)	0.5
	Triethanolamine	0.6
D	Fragrance	0.3
	(1) Drakeol 7, Penreco	
	(2) CO-1695, Proctor and Gamble	
	(3) Methocel 40-100, Dow Chemical	

Procedure:

In the main vessel, heat the part A ingredients to 55C with stirring. Premix part B, heat to 55C, and add to the batch with high shear mixing. In a separate vessel, disperse the Methocel in the part C water. Add approximately 0.06% of triethanolamine to initiate hydration. When hydration is complete, add this phase to the batch, cooling to 35-40C. Add fragrance, and adjust pH to 6.0-6.5 with remaining triethanolamine.

Formula 7003-41

Cleansing Lotion

A	Jordapon CI Dispersion	25.0%
	Water	56.8
	POE 20 Sorbitan Monostearate (1)	2.0
	Xanthan Gum (2)	0.4
	Preservative, EDTA	0.4
B	Cocamide MEA (3)	3.0
	Ceteareth-20 (4)	3.0
	Cetyl Alcohol (5)	2.0
	Ethylene Glycol Monostearate (6)	2.0
	Isopropyl Palmitate (7)	2.0
	Poloxamer 338 (8)	2.0
	PEG-7 Glyceryl Cocoate (9)	1.0
C	Fragrance	0.4
	(1) T-Maz 60, PPG/Mazer	
	(2) Kelzan, Kelco	
	(3) Mazamide CMEA, PPG/Mazer	
	(4) Macol CSA-20, PPG/Mazer	
	(5) CO-1695, Proctor and Gamble	
	(6) Mapeg EGMS, PPG/Mazer	
	(7) Propal, Amerchol	
	(8) Macol 108, PPG/Mazer	
	(9) Mazol 159, PPG/Mazer	

Procedure:

Blend the ingredients in part A, heating to 65C. Premix part B, heating to 65C. Add B to A with good mixing, cool with gentle mixing to 35C, add fragrance.

pH is 6.5-7.0, viscosity 31,000 (TD@3rpm).

SOURCE: PPG Industries, Inc.: Formula 7003-43

Cleansing Lotion

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	56.8
	Xanthan Gum	Kelzan 0.4
	Sodium Cocoyl Isethionate	Jordapon CI Dispersion 25.0
	Preservative, EDTA	0.4
B	Cocamide MEA	Mazamide CMEA 3.0
	POE 20 Sorbitan Monostearate	T-Maz 60 2.0
	Ceteareth-20	Macol CSA-20 3.0
	Cetyl Alcohol	CO-1695 2.0
	Ethylene Glycol Monostearate	Mapeg EGMS 2.0
	Isopropyl Palmitate	Lexol IPP 2.0
	Poloxamer 338	Macol 108 2.0
C	PEG 7 Glyceryl Cocoate	Mazol 159 1.0
	Fragrance	0.4

pH: 6.5-7.0

Viscosity: 31,600 cps

Appearance: Glossy white lotion

Procedure:

Dissolve xanthan gum in water; heat to 65C (150F). Add Jordapon CI dispersion, preservative, and EDTA. Pre-mix Part B and heat to 65C (150F). Add B to A with good mixing; then cool to 45C (110F). Add fragrance and adjust pH, if necessary.

Formula K-101

Cleansing Lotion

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	71.7
	Hydroxypropyl Methylcellulose	Methocel 40-100 0.5
	Triethanolamine	0.1
B	Sodium Cocoyl Isethionate (and)	18.0
	Stearic Acid	Jordapon CI Flake 0.4
C	Preservative, EDTA	0.4
	Mineral Oil	Drakeol 9 7.0
D	Cetyl Alcohol	CO-1695 2.0
	Fragrance	0.3

pH: 6.5-7.0

Viscosity: 18,000 cps

Appearance: Smooth pearlescent lotion

Procedure:

Disperse the hydroxypropyl methylcellulose in water. With mixing, add the triethanolamine to initiate hydration. Begin heating to 65C (150F). Add Part B ingredients. Pre-mix Part C; heat to 65C (150F). Add Part C to the batch with good mixing. Cool to 45 C (110F): add fragrance and adjust pH, if necessary.

Formula K-102

SOURCE: PPG Industries, Inc.: Suggested Formulations

Cold Mix - W/O Emulsion Dihydroxyacetone Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	6.0
Isopropyl Myristate (Tegosoft M)	6.0
Caprylic/Capric Triglycerides (Tegosoft CT)	4.0
Petrolatum	3.0
Octyl Stearate (Tegosoft OS)	3.0
Stearyl Dimethicone (Abil Wax 9800)	3.0
Phase B:	
Sorbitol (70%)	3.0
Glycerin	2.0
Sodium Chloride	2.0
Water	58.0
Dihydroxyacetone	5.0

Procedure:

1. Blend Phase A.
2. Mix Phase B.
3. With slow lightning mix - slowly stream B into A. A milky dispersion will form.
4. Homogenize.

Skin Softening Lotion
(W/O Emulsion - Cold Process)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Polyglyceryl-4 Isostearate (Isolan GI-34)	0.5
Mineral Oil	8.5
Octyl Stearate (Tegooft OS)	5.0
Cetearyl Octanoate (Tegosoft Liquid)	7.0
Cetyl Dimethicone (Abil Wax 9814)	1.0
Phase B:	
Water	Q.S.
Polyquaternium-16	5.0-10.0
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A.
2. Combine the ingredients of Phase B.
3. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
4. Add fragrance. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hand and Body Lotion

This oil/water emulsion applies easily and is absorbed into the skin quickly. It does not leave any residual greasiness or oiliness on the skin and leaves the skin soft and smooth to the touch.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	80.40
2. Acritamer 934	0.10
3. Glycerin	4.00
4. Tetra Sodium EDTA	0.05
5. Methylparaben	0.20
6. Glyceryl Stearate	3.20
7. Stearic Acid	3.00
8. Ritachol	3.00
9. Cetyl Alcohol	1.40
10. Ritachol 1000	0.60
11. Ritaderm	2.00
12. Isopropyl Palmitate	0.50
13. Propylparaben	0.10
14. Triethanolamine (50%)	1.20
15. Imidazolidinyl Urea	0.25
16. Fragrance	QS
17. Color	QS

Compounding Procedure:

Weigh and add item 1 into a container and begin stirring. Stir by means of a variable speed agitator equipped with a stirrer capable of imparting relatively high shearing stress (propeller type). Sprinkle in item 2 and stir until the resultant dispersion is smooth and free of lumps. Weigh items 3, 4 and 5 into the container and begin heating, while stirring continuously. Heat to 70-73C. Into another container add items 6 through 13 and begin heating and stirring. Heat this blend to 70-73C. When the water-containing blend is at 70-73C, add item 14. After neutralization of the Acritamer 934 has occurred, add the water-containing blend, while maintaining temperature, to the blend of items 6 through 13, which should be at 70-73C. While all the water-containing blend has been added, begin cooling the batch, while stirring continuously to ensure adequate emulsification. Cool to 55-60C and add the Urea. Cool to 40-43C and add remaining ingredients. Cool the batch to 25-30C and package.

SOURCE: R.I.T.A. Corp.; Formulation H-89-A-7

Hand and Body Lotion

This is an oil/water emulsion providing a creamy textured lotion which is adsorbed by the skin quickly and does not deposit residual greasiness or oilness. Ritaderm has been included for its natural moisturizing factor-related qualities, as well as lanolin-like attributes. Ritaderm, as an emollient and lubricating agent, heightens the user's awareness of skin softness and smoothness imparted by this product.

Ingredients:

	<u>% W/W</u>
1. Distilled Water	72.37
2. Acritamer 941	0.05
3. Propylene Glycol	5.00
4. Methylparaben	0.10
5. Triethanolamine (50%)	1.48
6. Stearic Acid	2.60
7. Mineral Oil	8.00
8. Ritaderm	2.75
9. Lanolin	1.00
10. Propylparaben	0.10
11. Ritachol	4.00
12. Glyceryl Stearate	2.00
13. Cetyl Alcohol	0.30
14. Fragrance	QS
15. Color	QS
16. Imidazolidinyl Urea	0.25

Compounding Procedure:

Weigh and add item 1 into the container and commence stirring. An agitator equipped with a stirrer capable of imparting relatively high shearing stress is recommended. (A variable speed agitator equipped with a propeller-type stirrer is suitable.) Add item 2 and stir until the Acritamer 941 is completely dispersed and no lumps can be seen or felt. Weigh items 3, 4 and 5, begin heating the blend. Heat to 70-73C, while stirring continuously. In another container, weigh and add all other ingredients with the exception of the fragrance and urea. Heat this blend, while stirring continuously to 70-73C. When both blends are at 70-73C add the water-containing blend to the Ritaderm-containing blend. When all the water-containing blend has been added, begin cooling the batch. Cool to 40-43C and add the remaining ingredients. Cool to 30-33C and package fill into suitable containers.

SOURCE: R.I.T.A. Corp.: Formulation H-89-A-8

High Humectant Lotion

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>	
A	Deionized Water	73.49	
	Sorbitol, 70%	Sorbitol Solution	12.00
	Nonoxynol-9	Maco1 NP-95	0.01
B	Carbomer 934	Carbopol 934	0.40
C	Xanthan Gum	Kelzan	0.40
D	SD Alcohol 40B		5.70
	Stearamine Oxide	Mazox SDA	0.80
	Meroxapol 171	Maco1 18	1.50
	PEG-7 Glyceryl Cocoate	Mazol 159	0.60
	Methyl Paraben	Methyl Parasept	0.15
E	Imidazolidinyl Urea	Germa11 115	0.15
	NaOH, 10% Solution		4.80

pH: 6.0-6.5

Viscosity: 150,000 cps (0.3 rpm)
43,000 cps (3.0 rpm)

Appearance: Translucent gel

Procedure:

Blend Part A ingredients; sift Part B into a vortex. When uniform, sprinkle in Part C. Pre-mix Part D ingredients; add to batch. Adjust pH with Part E.

SOURCE: PPG Industries, Inc.; Formula I-103

Fragrance Lotion

<u>Ingredients:</u>	<u>% by weight</u>
A Deionized water	88.50
Glycerin	4.00
Dimethicone Copolyol	0.30
Disodium EDTA	0.10
B C12-15 Alcohols Benzoate	3.00
Fragrance, Noville #24093	2.00
Oleth-10	0.20
Pemulen TR-1	0.25
Carbopol 981	0.35
C AMP-95	0.50
D Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80

Procedure:

- Blend Part A ingredients in a vessel which will contain the entire formulation.
- Blend Part B ingredients in a separate vessel. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
- With moderate agitation, add Part B to Part A. Mix for 15-20 minutes. Add Part C and mix vigorously to produce a glossy, white product.
- Mix Part D into emulsion.

SOURCE: Angus Chemical Co.; Formula PF-0233 suggested by B.F. Goodrich

Lotion

This is a rich, soothing lotion with a special conditioner that moisturizes and protects the skin. It combines the effectiveness of a cream with the lightness of a lotion. Lexquat AMG-IS is the primary cationic emulsifier with the added benefit of emolliency.

<u>Phase A:</u>	<u>% (w/w)</u>
Deionized Water	58.10
Cellosize QP-15,000H	0.60
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M	0.20
Lexquat AMG-IS	12.00
<u>Phase B:</u>	
Lexol PG-865	15.00
Lexemul 55G	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.00
Cetyl Alcohol	1.50
Lexgard P	0.10
<u>Phase C:</u>	
Fragrance	q.s.

Procedure:

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+-2C. Dust in Cellosize. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+-2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

Observations:

pH (direct): 4.9
Viscosity: 33,000 cps

SOURCE: Inolex Chemical Co.: Formulation SK-105

Body Lotion

<u>Ingredients:</u>	<u>% by weight</u>
A. Silicone Oil	7.5
Paraffin, thick liquid	7.5
Perfume oil	q.s.
Pemulen TR-1	0.4
B. Tris Amino	0.8
Water, distilled	to 100.0

Procedure:

Part A: Combine silicone oil and paraffin. Add Pemulen TR-1 and mix to disperse. Add perfume oil.

Part B: Dissolve Tris Amino in water.

Part C: Add A to B with vigorous agitation to emulsify.

SOURCE: Angus Chemical Co.: Formula PF-0194E

Lotion

Low solids o/w emulsion.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+83.50
2. Glycerin	4.00
3. Acritamer 940	0.50
4. Simchin WS	2.00
5. Ritachol	5.00
6. Patlac IL	1.00
7. PEG 20 Stearate	3.00
9. Triethanolamine (50%)	1.00
10. Color, fragrance and preservatives	QS

Compounding Procedure:

Disperse item 3 in water with good mixing. Add glycerin. Begin heating water phase to 165F. Combine items 4,5,6 and 7 and begin heating to 165F. Add oil phase to water phase with agitation. Add Triethanolamine. Continue mixing without aeration. Cool to 120F. Add color, perfume and preservatives. Cool to 95F.
Formulation H-89-S-5

Hand Lotion

A light hand lotion suitable as a hand and body lotion.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol 2000	3.50
2. Pationic SSL	1.40
3. Isopropyl Palmitate	1.30
4. Distilled Water	88.80
5. Propylene Glycol	5.00
6. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Combine items 1-3 and heat to 72C. Combine items 4 and 5 and heat to 72C. Combine both phases and mix well. Cool with mixing to 45C and add remaining ingredients. Cool to 35C. Package.
Formulation HB-89-R-40

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Lotion

This is a rich, soothing lotion with a special conditioner that moisturizes and protects the skin. It combines the effectiveness of a cream with the lightness of a lotion. Lexquat AMG-IS is the primary cationic emulsifier with the added benefit of emolliency.

<u>Phase A:</u>	<u>% (w/w)</u>
Deionized Water	58.10
Cellosize QP-15,000H	0.60
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M	0.20
Lexquat AMG-IS	12.00
<u>Phase B:</u>	
Lexol PG-865	15.00
Lexemul 55G	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.00
Cetyl Alcohol	1.50
Lexgard P	0.10
<u>Phase C:</u>	
Fragrance	q. s.
<u>Procedure:</u>	

Charge batch vessel with water (Phase A). Begin mixing and heating to 78+-2C. Dust in Cellosize. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+-2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

Observations:

pH (direct): 4.9

Viscosity: 33,000 cps

SOURCE: Inolex Chemical Co.: Formula SK-105

Hand and Body Lotion

A superior product designed for after-bath use on traditionally dry areas such as hands, elbows and heels. Phospholipid EFA is strongly substantive towards skin providing non-greasy moisturizing and a pleasant after feel.

<u>Part A:</u>	<u>%</u>
Phospholipid EFA	4.00
Water	83.00
<u>Part B:</u>	
Steareth-2	2.00
Light Mineral Oil	4.00
Cetearyl Alcohol	3.00
Octyldodecyl Myristate	2.50
Dimethicone (100 cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 45C. Add fragrance, color, and preservative as needed and fill.

SOURCE: Mona Industries, Inc.: Phospholipid EFA: Formula

Low Solids Anionic Lotion

A low solids, non-oily, moisturizing lotion.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	84.72
2. Propylene Glycol	5.00
3. Rita CA	3.00
4. Pationic ISL	2.00
5. Tauranol 1-78-6	1.25
6. Patlac NAL	1.00
7. Glycerin	1.00
8. Patlac IL	1.00
9. Ritapro 165	0.45
10. Methylparaben	0.15
11. Propylparaben	0.05
Part B:	
12. Germall II	0.20
13. Perfume	+0.10
14. Color (FD&C yellow #5)	+0.03
15. Patlac LA (44%)	+0.10

Compounding Procedure:

Heat Part A to 165F with agitation. Maintain 165F for 10 minutes. Cool with agitation to 120F. Add B with agitation. Cool to 95F. Adjust pH to 5.0+0.2 with Patlac LA.

Initial Viscosity: TA @ 10 rpm @ 27C: 2800 cps
Formulation 101-73

Cationic Lotion

A low solids, non-oily, moisturizing lotion.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	93.27
2. Rita CA	4.00
3. Cetyl Pyridinium Chloride	1.50
4. Patlac NAL	1.00
5. Methylparaben	0.15
6. Propylparaben	0.05
7. Patlac LA (44%)	+0.03

Compounding Procedure:

Heat all ingredients to 165F with agitation. Maintain 165F for 10 minutes. Cool with agitation to 95F. Adjust pH with Patlac LA to 5.0+0.2.

Initial Viscosity, Brookfield T-A @ 10 rpm @ 30C: 5700 cps.
48 Hour Viscosity T-A @ 10 rpm @ 27C: 14,000 cps.
Formulation 101-72

SOURCE: R.I.T.A. Corp.: Suggested Formulation

Lubriderm Type Lotion

A good replication of the well accepted commercial product.
A slightly heavy formula for use when problems exist.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	77.60
2. Sorbitol 70% Solution	3.50
Part B:	
3. Forlan 500	6.00
4. Rita CA	0.70
5. Mineral Oil 85/95	8.00
6. Stearic Acid	2.00
7. Methylparaben	0.15
8. Propylparaben	0.05
Part C:	
9. Triethanolamine (50%)	2.00

Compounding Procedure:

Heat Part A and Part B to 165F. Combine with agitation. Add Part C and maintain heat for 10 minutes. Cool with agitation to 95F.

Formulation 103-24

Lubriderm Type Lotion with 1% Patlac IL

A good replication of the well accepted commercial product.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	76.60
2. Sorbitol 70% USP	3.50
Part B:	
3. Forlan 500	6.00
4. Rita CA	0.70
5. Mineral Oil 80/90	8.00
6. Patlac IL	1.00
7. Stearic Acid	2.00
8. Methylparaben	0.15
9. Propylparaben	0.05
Part C:	
10. Distilled Water	1.00
11. Triethanolamine (50%)	1.00

Compounding Procedure:

Heat A and B to 165F. Combine with mixing (add B into A). Add C and maintain temperature for 10 minutes. Cool with mixing.

Formulation 107-116

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Moisturizing Lotion

This oil/water skin lotion features excellent emollience, moisturizing and lubricating attributes without an oily or greasy residue. Ritachol is included for its emollient and moisturizing qualities, as well as the low friction characteristics it imparts when this preparation is massaged into the skin. Ritachol is included for its lanolin-related conditioning effects and as a supplemental source of cholesterol.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	86.30
2. Potassium Hydroxide (20% Solution)	2.00
3. Sodium Hydroxide (18% Solution)	0.16
4. Acritamer 934	0.10
5. Methylparaben	0.10
6. Mineral Oil	5.50
7. Stearic Acid	3.09
8. Cholesterol	0.75
9. Ritasol	0.50
10. Ritachol	0.50
11. Rita CA	0.35
12. Myristyl Alcohol	0.20
13. Rita SA	0.10
14. Butyl Paraben	0.20
15. Propyl Paraben	0.15
16. Fragrance	QS
17. Color	QS

Compounding Procedure:

Add item 1 into a container and begin stirring by means of a variable speed agitator equipped with a stirrer capable of imparting relatively high shearing stress. Then add item 4 with continuous stirring. Stir until the Acritamer 934 has been completely dispersed and is smooth and free of lumps. Begin heating and add item 5. Heat to 70-73C with continuous stirring. In another container, add all other ingredients, with the exception of Potassium Hydroxide, Sodium Hydroxide and Fragrance. Heat this blend to 70-73C with continuous stirring. Add the oil phase to the water phase with agitation. Continue stirring and maintain the temperature at 70-73C. In another container, using a small amount of water, dissolve the Potassium Hydroxide and Sodium Hydroxide. Use caution when handling these materials. When the Potassium and Sodium Hydroxide have been dissolved, add this to the batch. Begin cooling. With continuous stirring, cool to 40-43C and add the fragrance. Cool to 25-30C and package.

SOURCE: R.I.T.A. Corp.: Formulation H-89-A-9

Moisturizing Lotion

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	74.5
	Polysorbate 20	T-Maz 20 1.0
	Sorbitol	Sorbitol 70% 4.0
	Methyl Paraben	0.2
	Na4EDTA	0.2
	Xanthan Gum	Kelzan 0.2
B	Capric/Caprylic Triglyceride	Mazol 1400 5.0
	Mineral Oil	Drakeol 9 1.0
	Isopropyl Myristate	Lexol IPM 3.0
	Dimethicone	Masil SF-1000 0.5
	Sorbitan Monostearate	S-Maz 60 3.0
	Polysorbate 60	T-Maz 60 2.0
	Cetyl Alcohol	CO-1695 2.0
	Ethylene Glycol Monostearate	Mapeg EGMS 1.5
	Hydroxypropyl Methylcellulose	Methocel 40-100 0.1
C	Deionized Water	1.5
	Hydrolyzed Animal Protein	Peptein 2000 0.2
D	Fragrance	0.1
	Citric Acid	Q.S.

pH : 6.5-7.0

Viscosity: 4,100 cps

Appearance: Glossy, flowable white lotion

Procedure:

Blend Part A ingredients except xanthan gum. When uniform, sprinkle in the xanthan gum and heat to 65C (150F). Pre-mix Part B, and heat to 65C (150F). When uniform, add Part B to Part A with high shear mixing. Sweep-cool to 40C (105F), and adjust the pH with citric acid. Pre-mix Part C and add to the batch. Add fragrance.

SOURCE: Mazer Chemicals: Formulation No. I-101

Moisturizing Lotion (Cold Preparation)

<u>Ingredients:</u>	<u>% by weight</u>
A Water	90.00
Hydroxypropylmethylcellulose (Methocel 40-100)	0.10
AMP	0.40
Oxaban-A	0.10
Glycerin	2.50
Disodium EDTA	0.10
B White Mineral Oil (Drakeol 9)	3.00
White Petrolatum (Penreco Snow)	3.00
Dimethicone (Silicone SF 96-200)	0.50
Isopropyl Palmitate	1.00
Sodium Isethionate (Hostapon KA)	0.10
Pemulen TR-2	0.20

Procedure:

This procedure is designed for ambient temperature production.

It is important that all ingredients should be sterile.

1. Combine the water, AMP, Oxaban-A, glycerin and disodium EDTA.
2. Vigorously agitate 1 and add hydroxypropylmethylcellulose.
3. In a separate vessel, combine the mineral oil, petrolatum, dimethicone, isopropyl palmitate and sodium isethionate; then add Pemulen TR-2. Mix until uniform.
4. Add 3 to 2 with vigorous agitation.

Formula PF-0187

Moisturizing Lotion (Cold Preparation)

<u>Ingredients:</u>	<u>% by weight</u>
A. Water	90.00
AMP-95	0.40
Oxaban-A	0.10
Glycerin	2.50
Disodium EDTA	0.10
B. Hydroxypropylmethylcellulose	0.10
C. White mineral oil	3.00
White Petrolatum	2.00
Dimethicone	0.50
Isopropyl palmitate	1.00
Sodium isethionate	0.10
D. Acrylates C10-30 alkyl acrylate crosspolymer (Pemulen TR-2)	0.20

Procedure:

Combine A. Vigorously agitate; add B. In a separate vessel, combine C. Add D. Mix until uniform. Add CD to AB with vigorous agitation.

This procedure is designed for ambient temperature production. It is important that all ingredients should be sterile.

SOURCE: Angus Chemical Co.: Formula PF-0219

Moisturizing Lotion

This rich moisturizing lotion helps the skin retain its youthful elasticity. It is a rich formulation to help replenish and maintain the skin's moisture level. LEXQUAT AMG-0 is the primary cationic emulsifier with the added benefit of emolliency.

Phase A:	% (w/w)
Deionized water	58.00
Cellose QP-15,000H (Hydroxyethyl Cellulose)	0.30
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M (Methylparaben)	0.20
Lexquat AMG-0	12.00
Phase B:	
Lexol PG-865	15.00
Lexemul 55G	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.20
Cetyl Alcohol	1.50
Lexgard P	0.10
Phase C:	
Fragrance	0.20
Procedure:	

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+2C. Dust in Cellose. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

Observations:

pH (direct): 4.8

Viscosity: 11,000 cps

SOURCE: Inolex Chemical Co.: Formulation SK-103

Deep Moisturizing Lotion

This after-bath lotion gives the benefits of potent skin conditioners while eliminating the tackiness associated with lanolin and petrolatum through the unique emolliency provided by Phospholipid EFA.

Part A:	%
Phospholipid EFA	4.00
Steareth-21	0.40
Water	82.00
Part B:	
Steareth-2	1.60
Anhydrous Lanolin	1.50
Petrolatum	3.00
Octyldodecyl Myristate	2.00
Cetearyl Alcohol	4.00
Dimethicone (100 cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 45-50C, then add fragrance, color, and preservative as needed before filling.

SOURCE: Mona Industries Inc.: Phospholipid EFA: Formula

Moisturizing Lotion

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	72.25
Hydroxypropyl Methylcellulose (1.0% solution)	10.00
Glycerin	2.00
Disodium EDTA	0.05
Part B:	
Petrolatum	5.00
Mineral Oil	3.00
Glycol Stearate	2.00
Isostearyl Benzoate	2.00
Paraffin	2.00
Dimethicone (110 cs.)	0.50
Pemulen TR-1	0.30
Part C:	
AMP-95	0.20
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.70

Procedure:

Combine A ingredients. Mix until homogeneous. Combine all B ingredients except Pemulen in a separate vessel. Heat both phases to 60-65C. Confirm that B is homogeneous and at the specified temperature. Add Pemulen to this phase. Agitate to break-up soft lumps of resin. With vigorous agitation, promptly add B to A. Maintain temperature at 60C. Mix for 15-30 minutes or until a smooth, non-grainy dispersion is apparent. Add C and discontinue heating. Continue vigorous agitation to produce a smooth product. When the temperature falls to 40-45C add D. Continue mixing until the product temperature is 30-35C. Cease agitation and fill containers.

SOURCE: Angus Chemical CO.; Formula PF-0224 B.F. Goodrich

Moisturizing Lotion

Soft, white, glossy lotion. Contains Kytamer PC, a substantive humectant which contributes to the lasting moisturization of the skin. The mild, nonionic emulsifying pair of Glucamate SSE-20 (o/w) and Glucate SS (w/o) gives the lotion long term stability. Promulgen serves as an auxiliary emulsifier to this o/w lotion.

Water Phase:

Kytamer PC (Chitosan PCA)	1.0%
Glucamate SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	1.5
Deionized Water	82.0

Oil Phase:

Glucate SS (Methyl Glucose Sesquistearate)	1.5
Promulgen G (Stearyl Alcohol and Ceteareth-20)	4.0
Mineral Oil	10.0
Perfume and Preservative	q.s.

Disperse Kytamer PC in water at room temperature with high speed agitation. When completely dispersed heat to 75C with continuous mixing until clear and uniform. Maintain temperature at 75C and add Glucamate SSE-20. Heat oil phase to 75C. Add the water phase at 75C to oil phase at 75C with good agitation. Continue mixing while slowly cooling to room temp. Add perfume.

SOURCE: Amerchol Corp.; Formula T57-130-1

Moisturizing Cleansing Lotion

This light, elegant moisturizing cleansing lotion applies with a rich lubricity. It deep cleans and softens the skin. Lexquat AMG-M is the primary cationic emulsifier with the added benefit of emolliency.

<u>Phase A:</u>	<u>% w/w</u>
Deionized Water	60.30
Cellose QP-15,000H	1.00
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M	0.20
Lexquat AMG-M	9.00
<u>Phase B:</u>	
Lexol PG-865	15.00
Lexemul 55G	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.20
Cetyl Alcohol	1.50
Lexgard P	0.10
<u>Phase C:</u>	
Fragrance	0.20
<u>Procedure:</u>	

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+-2C. Dust in Cellose. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+-2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

SOURCE: Inolex Chemical Co.: Formula SK-102

Light Emollient Lotion with Pseudocollagen

<u>Ingredients:</u>	<u>% by weight</u>
Carbopol 1342 2%	15.00
Glycerine	3.00
Phenonip	1.00
Brookswax D	1.00
Liquiwax DICDD	1.00
Evening Primrose Oil	1.00
AMP-95	0.30
Pseudocollagen	5.00
Deionized Water	72.70

Procedure:

1. Heat the Brookswax D, Liquiwax DICDD and Evening Primrose Oil to 50C, until molten.
2. Add the Carbopol dispersion to the water and glycerine. Mix and heat to 50C.
3. Add Part 1 to Part 2 with mixing. Add the AMP-95 to neutralize the Carbopol, then add the Phenonip and the Pseudocollagen.
4. Check pH (approximately 7) and viscosity.

SOURCE: Angus Chemical Co.: Formulation Suggested by Brooks Industries: Formula PF-0185

Moisturizing Cleansing Lotion

This light, elegant moisturizing cleansing lotion applies with a rich lubricity. It deep cleans and softens the skin. Lexquat AMG-M is the primary cationic emulsifier with the added benefit of emolliency.

<u>Phase A:</u>	<u>% (w/w)</u>
Deionized water	60.30
Cellosez QP-15,000H	1.00
Glycerine	3.00
Propylene Glycol	2.00
Lexgard M	0.20
Lexquat AMG-M	9.00
<u>Phase B:</u>	
Lexol PG-865	15.00
Lexemul 55G	4.50
Myristyl Myristate	1.00
Stearyl Alcohol	2.20
Cetyl Alcohol	1.50
Lexgard P	0.10
<u>Phase C:</u>	
Fragrance	0.20
<u>Procedure:</u>	

Charge batch vessel with water (Phase A). Begin mixing and heating to 78C+2C. Dust in Cellosez. When completely hydrated, add remaining material of Phase A to batch. Combine Phase B in a separate vessel and heat to 78C+2C. When uniform slowly add Phase B to Phase A maintaining mixing and temperature. Allow to mix at 78C for 15 minutes. Cool. At 40C, add Phase C to batch. Cool to room temperature.

SOURCE: Inolex Chemical Co.: Formulation SK-102

Pourable Moisturizing Lotion

This light-bodied pourable moisturizing lotion provides excellent lubricity when applied and worked into the skin. The after-feel is smooth and silky, and the skin is softened without feeling oily. Phospholipid PTS provides emulsification and skin conditioning.

<u>Part A:</u>	<u>%</u>
Phospholipid PTS	2.50
PEG 1450	2.00
Glycerin	3.00
Steareth-20	1.40
Methyl Paraben	0.25
Water	84.30
<u>Part B:</u>	
Steareth-2	0.60
Mineral Oil	2.50
Cetearyl Alcohol	2.00
Isopropyl Isostearate	2.00
Dimethicone (100 cS)	0.20
Propyl Paraben	0.25
<u>Procedure:</u>	

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required. Fill.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID PTS: Formula

Multivitamin Hand & Body Lotion

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Emersol 132	2.00
Arlacel 165	1.50
Acetulan	5.00
Lipovol ALM	5.00
Delyl Prime	4.00
Lexol PG 865	3.00
Cetyl Alcohol, NF	0.50
Silicone SF 96	0.50
Arlacel 80	0.80
Span 80	0.40
Propyl Parasept	0.05
Vitamin E Acetate, USP-FCC (Code 60526)	1.00
Tenox BHT	0.06
Part II:	
Deionized Water	67.59
Sequestrene Na3	0.05
Propylene Glycol, USP	5.00
Methyl Parasept	0.20
Dexpanthenol (Code #63909)	1.00
Part III:	
Carbopol 941	0.25
Part IV:	
Triethanolamine, 98%	0.50
Part V:	
Dowicil 200	0.10
Part VI:	
Vitamin A & D3 Blend (5:1 Ratio) (Code 63857)	1.00
Part VII:	
Perfume Oil	0.50

Procedure:

Heat Part I to 75C. Heat Part II to 80C. Sift in Carbopol to Part II and mix with an Eppenbach homomixer until a uniform slurry is formed. Add this to Part I using an Eppenbach homomixer and follow with the addition of Triethanolamine. Transfer to a paddle type mixer and cool to 40C with mixing. Then add Part V, Part VI, and Part VII, mixing well between each addition until homogeneous.

SOURCE: Roche Chemicals Division: Vitamins for Cosmetics: Formula SC 405

Nonionic Hand Lotion with Chlorhexidine Gluconate

A nonionic hand lotion with bactericide. Contains emollients and humectants to soothe skin and relieve dryness. Also contains Panthenol to relieve soreness and promote healing.

<u>Ingredients:</u>	<u>% W/W</u>
1. Mineral Oil	17.00
2. Ritalan C	3.00
3. Ritachol	5.00
4. Ritachol 1000	0.65
5. Ritapro 165	0.65
6. Ritapro 300	1.25
7. Cetyl Alcohol	2.00
8. Supersat AWS 4	2.00
9. DL Panthenol	0.50
10. Methylparaben	0.10
11. Propylparaben	0.05
12. Chlorhexidine Gluconate 20% BP	1.25
13. Distilled Water	66.55

Compounding Procedure:

Combine items 1-12 and heat to 75C. Heat item 13 to 75C and add to stirred mixture. Mix until cool.

Deodorizing Hand Lotion

A hand lotion with Grillocin HY-77 to be used when objectionable household or industrial odors have been retained on the hands.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol	2.50
2. Ritawax ALA	1.00
3. Rita GMS	2.00
4. Stearic Acid	2.00
5. Ritalan C	5.00
6. Propylparaben	0.05
7. Methylparaben	0.15
Part B:	
8. Distilled Water	74.10
9. Acritamer 941	0.20
Part C:	
10. Grillocin HY-77	2.00
11. Dipropylene Glycol	10.00
Part D:	
12. Triethanolamine (50%)	1.00
13. Fragrance	QS

Compounding Procedure:

Weigh water of Part B into a jacketed tank equipped with a variable speed mixer capable of creating a vortex. Sprinkle Acritamer 941 into vortex, avoiding any lumps or "fish eyes". Weigh Part A into a separate container and heat both water and oil phase to 80C. Add Part A to Part B with mixing. Mix until uniform. Pre-mix Part C and add to batch. Mix until uniform. Begin cooling. Add Triethanolamine. Mix until uniform. Begin cooling to 45C. Add perfume. Cool to 35C. Package.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-R-24 & HB-89-R-39

Nonionic Hand Lotions with Chlorhexidine Gluconate

A nonionic hand lotion with bactericide. Contains emollients and humectants to soothe skin and relieve dryness. Also contains Panthenol to relieve sore skin and promotes healing.

Ingredients:**Part A:**

1. Mineral oil, 65/75	17.00
2. Ritalan C	3.00
3. Ritachol	5.00
4. Ritachol 1000	0.65
5. Ritasynt IP	0.65
6. Ritapro 300	1.25
7. Cetyl Alcohol	1.00
8. Pationic SSL	1.00

Part B:

9. Supersat AWS 4	1.00
10. DL Panthenol	0.50
11. Germall II	0.30
12. Chlorhexidine Gluconate 20% BP	2.50
13. Distilled Water	66.15

Ingredients:**Part A:**

1. Mineral Oil, 65/75	17.00
2. Ritalan C	3.00
3. Ritachol	5.00
4. Ritasynt IP	0.65
5. Ritapro 300	1.25
6. Cetyl Alcohol	1.00
7. Pationic SSL	1.00

Part B:

9. Supersat AWS 4	1.00
10. DL Panthenol	0.50
11. Germall II	0.30
12. Chlorhexidine Gluconate 20% BP	1.25
13. Distilled Water	67.40

Compounding Procedure:

Combine ingredients in Part A. Heat to 70C. Combine ingredients in Part B, heating to 70C. Add Part A to Part B at moderate rate while stirring. Mix 10-15 minutes. Begin cooling, cool with mixing to 35C. Package.

SOURCE: R.I.T.A. Corp.: Alternative Formulations HB-89-R-20

O/W Hand and Body Lotion-A

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Steareth-25 (Emulgator E-2568)	2.0
Glyceryl Stearate (Tegin M)	4.5
Stearyl Alcohol	1.5
Stearoxy Dimethicone (Abil Wax 2434)	3.0
Decyl Oleate (Tegosoft DO)	5.0
Octyl Stearate (Tegosoft OS)	4.0
Cetearyl Octanoate (Tegosoft Liquid)	7.0
Tocopherol Acetate	1.0
Phase B:	
Glycerin	3.0
Water	75.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

O/W Hand And Body Lotion-B

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Steareth-25 (Emulgator E-2568)	2.0
Glyceryl Stearate (Tegin M)	4.5
Stearyl Alcohol	1.5
Jojoba Oil	4.0
Phase B:	
Glycerin	3.0
Water	75.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	2.0
Phase C:	
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 70C.
2. Mix Phase B. Heat to 60C.
3. Combine A/B. Homogenize. Cool to 45C.
4. Add fragrance. Sweep mix and cool to 30C. Dispense.

SOURCE: Goldschmidt Chemical Corp.: Formulations

Pearl Premix

Highly concentrated pearlescent additive in paste form

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		47.0
Propylene Glycol		6.0
Isostearamidopropyl Ethyldimonium		
Ethosulfate	M-Quat 522	22.0
Preservative		QS
Ethylene Glycol Monostearate	Mapeg EGMS	25.0
Triethanolamine		QS

pH (5% in water): 6.0-6.5

Appearance: White pearlescent paste

Procedure:

Blend the first four ingredients, heating to 70C (160F). Add the Mapeg EGMS with good mixing, maintaining the high temperature. When smooth and uniform, adjust pH and fill into suitable containers.

Note:

This premix, prepared ahead of time and packed into conveniently sized containers, can be added at room temperature to cold-mix products such as Family Shampoo A-102 or Cold Mix Hair Conditioner B-106 to impart a pearlescent appearance without heating and cooling steps. Pearl Premix should be added at 3-5% by formula weight.

SOURCE: PPG Industries, Inc.: Formulation B-199

Clear Dilutable Gel

	<u>%(w/w)</u>
Lexquat AMG-0	50.0
Lexein QX-3000	25.0
Stearalkonium Chloride	25.0

Procedure:

Combine Lexquat and Lexein. Heat to 75C with mixing and add stearalkonium chloride. Mix until clear. Cool, adjust pH to 4.0-4.5. A clear gel forms on cooling.

adjusted pH (direct): 4.0-4.5

SOURCE: Inolex Chemical Co.: Formulation CD-101

Protective Hand & Body Lotion

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Parso1 1789	1.50
Parso1 MCX	2.00
Emerso1 132	2.00
Emerest 2400	1.50
Lexo1 PG 865	4.00
Carnation Mineral Oil	3.00
Fluilan	0.50
Propyl Parasept	0.10
Part II:	
Deionized Water	74.50
Sequestrene Na2	0.20
Methyl Parasept	0.25
Carbopol 940	0.15
d1-Panthenol, Cosmetic Grade (Code 63920)	0.50
Propylene Glycol	5.00
Part III:	
Triethanolamine, 98%	1.00
Part IV:	
Collasol	2.00
Vitamin E Acetate, USP-FCC (Code 60526)	1.50
Part V:	
Perfume Oil	0.30

Procedure:

Disperse Carbopol in the water with rapid agitation. Add the rest of part II and heat to 75C. Heat Part I to 75C. Add Part I to Part II with mixing. Follow with addition of Triethanolamine. Mix with a paddle mixer until the temperature drops to 40C. Add Part IV and mix well. Follow with addition of Perfume and mix until homogeneous.

SOURCE: Roche Chemical Division: Vitamins for Cosmetics: Formula SC 406

Protective Skin Lotion

<u>Materials:</u>	<u>Parts/Wt(%)</u>
Part A:	
Stearic Acid	2.50
Cetyl Alcohol	1.80
Amphisol (cetyl phosphate (and) DEA cetyl phosphate)	2.50
SF1312 or SF1318 (lauryl or isostearyl trimethylolpropane siloxy silicate)	5.00
Neo Heliopan AV(octyl methoxycinnamate)	7.00
SF1202 (cyclmethicone)	5.00
Part B:	
Glycerine	4.00
Dowicil 200 (quaternium-15)	0.10
Keltrol T (xanthan gum)	0.25
Water	71.85
Fragrance	q.s.

Procedure:

- 1) Heat parts A and B in separate containers to 85-90C with agitation.
 - 2) Add Part A to Part B with high shear agitation.
 - 3) Cool with continued mixing.
- Formulation SP108

Silicone Lotion (Water/Oil)

This formulation applies as a very rich lotion, yet dries to a very dry feel.

<u>Materials:</u>	<u>Parts/Wt(%)</u>
Part A:	
SF1228	10.0
SF1202	8.5
SF1214	7.5
Part B:	
Glycerine	3.0
NaCl	1.0
Polysorbate 80	0.2
Water	69.7
Dowicil 200	0.1

Procedure:

- 1) Add Part A ingredients in order as shown, thoroughly mixing each component until homogeneous before adding next ingredient.
 - 2) Mix all ingredients of Part B together.
 - 3) Add Part B to Part A with good mixing gradually increasing agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
 - 4) Mill on homogenizer for 1-2 minutes.
- Formulation SP106

SOURCE: GE Silicones: Suggested Formulations

Rich Moisturizing Skin Lotion

A glossy white lotion which smooths instantly into the skin, leaving it soft, nonoily, and moisturized.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>	
A	Deionized Water	78.5	
	Triethanolamine	0.1	
	Methyl Paraben	0.2	
	Tetrasodium EDTA	0.2	
B	Cetearyl Alcohol (and)		
	Ceteareth-20	Macol 124	6.0
	Stearic Acid	Hystrene 7018	1.2
	Benzyl Laurate	Mazon EE-1	3.0
	PPG-10 Butanediol	Macol 57	4.0
	Tetrabutoxypropyl Methicone	Masil 756	5.0
	Deionized Water		5.0
C	Imidazolidinyl Urea	Germa11 115	0.2
	Citric Acid, 50%		0.1
	Fragrance		Q.S.

pH: 6.0-6.5

Viscosity: 180,000-185,000 cps (Brookfield TD @ 0.6 rpm)

9,000- 12,000 cps (Brookfield #3 @ 6 rpm)

Appearance: Smooth glossy white lotion

SOURCE: PPG Industries, Inc.: Formulation I-107

Light Emollient Lotion with Pseudocollagen

<u>Ingredients:</u>	<u>% by weight</u>
Carbopol 1342, 2%	15.00
Glycerine	3.00
Phenonip	1.00
Brookswax D	1.00
Liquiwax DICDD	1.00
Evening Primrose Oil	1.00
AMP-95	0.30
Pseudocollagen	5.00
Deionized Water	72.70

Procedure:

1. Heat the Brookswax D, Liquiwax DICDD and Evening Primrose Oil to 50C, until molten.
2. Add the Carbopol dispersion to the water and glycerine. Mix and heat to 50C.
3. Add Part 1 to part 2 with mixing. Add the AMP to neutralize the Carbopol, then add the Phenonip and the Pseudocollagen.
4. Check pH (approximately 7), and viscosity.

SOURCE: Angus Chemical Corp.: Formulation PF-0208

Silky Hand Lotion with Silicone

This light lotion goes on smoothly, and leaves a nongreasy, silicone-fortified barrier

<u>Part:</u>	<u>Ingredient:</u>		<u>Wt. %</u>	
A	Phenyl Trimethicone	Masil SF 556	2.0	
	Dimethicone	Masil SF 100	0.5	
	Isopropyl Myristate	Lexol IPM	2.0	
	Mineral Oil	Drakeol 9	3.0	
	Cetyl Alcohol	CO-1695	1.5	
	Stearic Acid	Emersol 132	0.5	
	Ceteareth-20	Macol CSA-20	2.0	
	Sorbitan Stearate	S-Maz 20	1.0	
	B	Deionized Water		80.3
		Glycerin		3.0
Propylene Glycol			3.0	
Hydroxypropyl Methylcellulose		Methocel 40-100	0.1	
C	Triethanolamine		0.3	
	Preservative	Germaben II	0.6	
	Fragrance		0.1	
	Citric Acid		0.1	

pH: 6.0-6.5

Viscosity: 31,000 cps (#2@1.5rpm)

23,000 cps (#2@3rpm)

Appearance: Glossy white flowable lotion

Procedure:

Premix Part A, heat to 60C. In the main vessel, mix the first four ingredients of Part B. Begin heating to 60C, add triethanolamine to initiate hydration of the hydroxypropyl methylcellulose. With both parts at 60C, slowly add A to B with high shear mixing. Sweep cool to 35C, adding the Part C ingredients at around 40-45C

SOURCE: Mazer Chemicals: Formulation No. I-104

Hand and Body Lotion

<u>Phase A:</u>	<u>% Weight</u>
Linoleamidopropyl PG-Dimonium Chloride Phosphate (Phospholipid EFA)	4.00
Water	82.00
Phase B:	
Steareth-2 (Brij 72)	2.00
Light Mineral Oil	4.00
Cetearyl Alcohol (Lanette O)	3.00
Octyldodecyl Myristate	2.50
Dimethicone, 100 cps. (Dow Corning 200 Fluid)	1.50
Phase C:	
Germaben II-E	1.00

Procedure:

Combine ingredients for Phase A and Phase B separately and heat to 65C. Homogenize Phase B into Phase A with continued heating until sufficiently mixed. Stir-cool to 40C, add Phase C and package.

SOURCE: Sutton Laboratories: Suggested Formulations

Skin Lotion (514117)

Part A:	
Drakeol 21, Mineral Oil USP	20.0 wt%
Polysorbate 60	7.5
Cetyl alcohol	5.0
Sorbitan Stearate	2.5

Part B:	
Deionized water	64.8
Methylparaben	0.1
Propylparaben	0.1

Heat Part A to 55C, and heat Part B to 60C. With stirring, add Part B to Part A, and let cool to room temperature. Fragrance may be added at 40C.

Hand and Body Lotion (514119)

Part A:	
Penreco Mineral Jelly No. 15	75.0 wt%
Sorbitan Sesquioleate	3.0
Mineral Oil (and) Lanolin Alcohol	2.0

Part B:	
Deionized water	20.0

Part C:	
Preservatives	q.s.

Mix the ingredients in Part A and heat to 70C with stirring. Heat Part B to 75C. Add Part B to Part A with stirring. Let the mixture cool to room temperature with stirring. Add fragrance at 40C if desired.

Hand and Face Lotion (514123)

Part A:	
Deionized water	69.75 wt%
Propylene glycol	6.00
Hydroxyethylcellulose	0.20
Triethanolamine	0.20
Carbopol 934	0.15

Part B:	
Drakeol 7, Light Mineral Oil USP	11.00
Glyceryl Stearate	3.00
Penreco Amber, White Petrolatum USP	2.75
Isopropyl myristate	2.00
Stearic Acid	2.00
Sorbitan Stearate	1.00
Stearyl Alcohol	1.00
Dimethicone, 200 cSt	0.50
Vitamin E Acetate	0.15
Part C:	
Preservatives	0.30

Heat each Part separately to 70C. While stirring Part A, add Part B. Stir vigorously until the mixture reaches room temperature. Add Part C and any desired fragrance when the temperature reaches 45C.

SOURCE: Penreco: Penreco Cosmetic Formulary

W/O Alcohol Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	16.0
Octyl Stearate (Tegosoft OS)	1.5
Cetyl Dimethicone (Abil Wax 9801)	1.5
Hydrogenated Castor Oil	0.5
Synthetic Wax	0.5
Phase B:	
Cyclomethicone (Abil B 8839)	5.0
Phase C:	
Water	60.3
Sodium Chloride	0.5
Carbomer 940 (1.5% - NaOH Neutralized)	0.2
SD Alcohol 40A	10.0
Phase D:	
Fragrance, Preservatives	Q.S.

W/O Alcohol Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	14.0
Octyl Stearate (Tegosoft OS)	3.5
Cetyl Dimethicone (Abil Wax 9801)	1.5
Hydrogenated Castor Oil	0.5
Synthetic Wax	0.5
Phase B:	
Cyclomethicone (Abil B 8839)	5.0
Phase C:	
Water	65.3
Sodium Chloride	0.5
SD Alcohol 40A	5.0
Phase D:	
Fragrance, Preservatives	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 80C. Mix until uniform and the waxes are dispersed. Cool to 40C.
2. Add the Cyclomethicone.
3. Mix Phase C add to A/B. Slowly add to Phase A/B with low energy stirring. Maintain a milky appearance at all times.
4. Add Phase D.
5. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formulations

Section IX

Shampoos

Aloe Shampoo and Body Wash

A premium shampoo with Aloe and Panthenol. Combines good cleansing with conditioning. Betaine improves ease of combing. Pationic ISL and Panthenol are deposited to repair hair, moisturize and impart luster.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	40.35
2. Ritaoe IX	15.00
3. dl-Panthenol	0.50
Part B:	
4. Sodium Lauryl Sulfate	25.00
5. Cocamidopropyl Betaine	10.00
6. Lauramide DEA	5.00
7. Pationic ISL	1.75
8. Methylparaben	0.15
Part C:	
9. Kathon CG	0.05
10. Fragrance	0.20
11. Sodium Chloride (25% Solution)	2.00
12. Patlac LA (44%)	QS

Compounding Procedure:

Combine ingredients of Part A and heat to 50C. Combine ingredients of Part B and heat to 50C. Combine Part A and Part B with mixing. Adjust pH with Patlac LA (7.0 recommended). Cool to 120F, add perfume and Kathon CG. Mix until uniform. Adjust viscosity with Sodium Chloride solution.

Formulation 112-56

Deodorizing Shampoo

A deodorizing shampoo with moisturizing and conditioning properties.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	59.20
2. Grillocin HY-77	1.00
3. Pationic 138C	4.00
4. Ritapeg 150 DS	1.75
5. Sodium Laureth Sulfate	33.00
6. Glydant 40-700	0.25
7. Methylparaben	0.10
8. Sodium Chloride (25% Solution)	+ -0.70

Compounding Procedure:

Heat water, Ritapeg 140 DS, Sodium Laureth Sulfate, Pationic 138C, and Grillocin to 165F. Mix until uniform. Add Methylparaben. Mix until dissolved. Begin cooling. Cool to 120F. Add Glydant (also add fragrance at this point, if desired). Cool to 80F. Add Sodium Chloride solution to increase viscosity. Package.

Formulation 113-105B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Amide Free Viscous Clear Shampoo with Pationic ISL

A clear shampoo which can be made without the use of amides, using Pationic ISL as a thickener and conditioner.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	20.00
2. Sodium Laureth Sulfate (2 Mole)	46.50
Part B:	
3. Pationic ISL	5.00
4. Fragrance	0.20
Part C:	
5. Distilled Water (cold)	26.15
Part D:	
6. Sodium Hydroxide (20% Solution)	+0.70
7. Sodium Chloride (25% Solution)	+1.25
8. Glydant 40-700	0.20

Compounding Procedure:

Heat water to Part A to 140F. Blend Part B. Add Part B to Part A, mix. Add Part C to Part AB (Note: Part C water should be cold to bring entire batch to 95F or lower, so it can be filled immediately without using cooling water). Add Glydant solution. Adjust pH to 7.0+0.1 with sodium hydroxide solution. Adjust viscosity with sodium chloride solution.

Viscosity: 2000 cps

Cloud Point: 22F

Clear Point: 32F

Formulation 104-140

Low Irritation/Sting Shampoo with Pationic 138C

A clear shampoo which has good cleaning properties, yet is proven to have low irritancy characteristics.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.08
2. Sodium Laureth Sulfate (2 Mole)	16.67
3. Pationic 138C	10.00
4. Ritamid C	4.00
5. Methylparaben	0.10
Part B:	
6. Triethanolamine (50	2.00
Part C:	
7. Perfume	0.20
8. Glydant 40-700	0.20
Part D:	
9. Sodium Chloride (25% Solution)	2.75

Compounding Procedures:

Heat Part A to 165F. While mixing, adjust to pH 7.5 with Part B. Cool to 120F. Add Part C. Adjust viscosity with Sodium Chloride 25% Solution.

Formulation 103-130

SOURCE: R.I.T.A. Corp.: Suggested Formulation

Amide Free Viscous Clear Shampoo with R.I.T.A. Complex A

A clear shampoo which can be accomplished without the use of amides, using Ritacomplex A as a thickener and conditioner.

Ingredients:	% W/W
Part A:	
1. Distilled Water	20.00
2. Sodium Laureth Sulfate (2 Mole)	46.50
Part B:	
3. Ritacomplex A	3.00
4. Fragrance	0.20
Part C:	
5. Distilled Water (Cold)	28.02
Part D:	
6. Sodium Hydroxide (20% Solution)	+ -0.33
7. Sodium Chloride (25% Solution)	+ -1.75
8. Glydant 40-700	0.20

Compounding Procedure:

Heat Water in Part A to 140F. Add Sodium Laureth Sulfate and mix. (Part A should be about 115F). Add Part B to Part A, mix. Add Part C to Parts AB (Note: Part C water should be cold to bring the entire batch to 95F, or lower, so it can be filled immediately without using cooling water. Add Glydant. Adjust pH to 7.0-0.1 with sodium hydroxide solution. Adjust viscosity with sodium chloride solution.

Viscosity, Brookfield: 1600 cps.

Cloud Point: 25F

Clear Point: 32F

Note: This formula can be compounded without using warm water in Part A. However, the mixing time must be extended.

Formulation 103-187A

Amide Free Viscous Clear Shampoo with R.I.T.A. Complex B

A clear shampoo made without the use of amides, using Ritacomplex B as a thickener and conditioner.

Ingredients:	% W/W
Part A:	
1. Distilled Water	47.07
2. Sodium Laureth Sulfate (2 Mole)	46.50
3. Glydant 40-700	0.70
Part B:	
4. Ritacomplex B	2.00
Part C:	
5. Sodium Hydroxide (20% Solution)	+ -0.23
6. Sodium Chloride (25% Solution)	+ -4.00

Compounding Procedure:

Heat Part A to 115F. Add Part A to Part B, mix. Add Part C to parts AB (Note: Water should be cold to bring entire batch to 95F or lower, so it can be filled immediately without using cooling water). Adjust pH to 7.0+ -0.1 with sodium hydroxide solution. Adjust viscosity with sodium chloride solution.

Formulation 103-187B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Amphoteric Shampoo with Sunscreen

	<u>% Weight</u>
Phase A:	
Lauramide DEA (Monamid 716)	1.00
Dimethyl PABA Ethyl Cetearyldimonium Tosylate (Escalol 537Q)	0.20
Phase B:	
Water	47.80
Lauramidopropyl Betaine (Monateric LMAB)	15.00
Sodium Laureth Sulfate (Maprofix ES-1)	35.00
Phase C:	
Germaben II	1.00

Procedure:

Combine Phase A and heat to 80C, mixing until Escalol 537Q is completely dissolved. Combine Phase B and heat to 80C. Add Phase A to Phase B. Cool to 50C and Phase C. Cool to room temperature.

Conditioning Shampoo

	<u>% Weight</u>
Water	45.15
Sodium Laureth Sulfate (2 Mole EO, 26% active) (Sipon ES-2)	20.00
Sodium Lauryl Sulfate (and) Disodium Lauryl Sulfosuccinate (Monaterge 1164)	20.00
Trisodium Lauroampho PG Acetate Phosphate Chloride (Phosphoteric QL-38)	10.00
Dimethicone, 200 cps. (Dow Corning 200 Fluid)	2.50
Glycol Distearate (Kessco Ethylene Glycol Distearate)	1.00
Cocamide MEA (Monamid CMA)	1.00
Sodium Chloride	0.15
Germaben II	0.20

Procedure:

Excluding Germaben II, add ingredients in order listed with agitation. Heat to 70C. Cool to 40C. Adjust pH to 5.5-6.0 with 50% citric acid. Add Germaben II.

SOURCE: Sutton Laboratories: Suggested Formulations

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	50.0
Stepan TAB-2	5.0
Zinc pyrithione (ZPT) 48% dispersion	4.2
Ninol 40-CO	2.0
EDTA	0.2
Glydant	0.2
Citric acid	Q.S.
Sodium hydroxide	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Stepanol AM-V, Ninol 40-CO, and EDTA to water and heat to 165-170F with mixing. Add Stepan TAB-2 and Zinc Pyrithione 48% dispersion and mix for 30 minutes. Begin to cool to room temperature with mixing. At 120F add preservative and adjust pH to 5.0-6.2 with Sodium Hydroxide or Citric Acid as needed. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid

Viscosity: 2500-3500 cps @ 25C

Comment:

Stable at 0C, 25C, and 42C for 1 month

Formulation No. 563

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	51.7
Stepan TAB-2	5.0
Ninol 40-CO	2.0
Selenium Sulfide	1.0
EDTA	0.2
Glydant	0.2
Sodium Hydroxide	Q.S.
Citric Acid	Q.S.
Ammonium Chloride	Q.S.

Mixing Procedure:

Into a suitable vessel equipped with mixing, heating and cooling capabilities add DI water, EDTA, Stepanol AM-V, Ninol 40-CO. Begin to agitate and heat to 160-165F. Add Selenium Sulfide. At 145F add Stepan TAB-2 and continue to heat to 160-165F. Agitate the batch for 30 min.** Begin to cool. At 110F add Glydant. Adjust pH to 5.0-6.2 with Sodium Chloride or Citric Acid. Adjust to desired viscosity with Ammonium Chloride.

**If smaller particle size and a pearly product is desired, homogenize the batch at 110-130F.

Typical Properties:

Appearance: Opaque, liquid

Viscosity: 2500-3500 cps @ 25C

pH (as is): 5.0-6.2

Comment:

Stable at 0C, 25C, and 42C for 1 month

SOURCE: Stepan Co.: Formulation No. 567

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	51.8
Stepan TAB-2	5.0
Ninol 40-CO	2.0
Sulfur powder, tech.	2.0
EDTA	0.2
Glydant	0.2
Sodium hydroxide	Q.S.
Ammonium chloride	Q.S.
DI Water	Q.S. to 100

Mixing Procedure:

Into a suitable vessel equipped with mixing, heating and cooling capabilities add DI water, EDTA, Stepanol AM-V, Ninol 40-CO. Begin to agitate and heat to 165-170F. Add Stepan TAB-2 and Sulfur powder. At 165-170F homogenize the batch for 10-15 minutes or pass it through a homogenizer. Begin to cool. At 110F add Glydant. Adjust pH if necessary with Sodium Hydroxide or Citric Acid. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid
 Viscosity: 2500-3500 cps @ 25C
 pH (as is): 5.0-6.2

Comment:

Stable at 0C, 25C, and 42C for 1 month.
 Formulation No. 565

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	51.7
Stepan TAB-2	5.0
Ninol 40-CO	2.0
Coal tar mixture	2.0
EDTA	0.2
Glydant	0.2
Sodium hydroxide	Q.S.
Citric acid	Q.S.
Ammonium chloride	Q.S.

Mixing Procedure:

Into a suitable vessel equipped with mixing, heating and cooling capabilities add DI water, EDTA, Stepanol AM-V, Ninol 40-CO. Begin to agitate and heat to 160-165F. At 145F add Stepan TAB-2 and Coal Tar Mixture. Continue to heat to 160-165F. Agitate the batch for 30 min. Begin to cool. At 110F add Glydant. Adjust the pH to 5.0-6.2 with Citric Acid or Sodium Hydroxide as needed. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid
 Viscosity: 2500-3500 cps @ 25C
 pH (as is): 5.0-6.2

Comment:

Stable at 0C, 25C, and 42C for 1 month.

SOURCE: Stepan Co.: Formulation No. 568

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
<u>Pre-mix:</u>	
D.I. Water	20.00
Stepanol AM-V	5.20
Selenium Sulfide	1.00
<u>Main Batch:</u>	
D.I. Water	57.15
Stepanol AM-V	46.40
Stepan TAB-2	5.00
Ninol 40-CO	2.00
EDTA	0.20
Glydant	0.20
Sodium Hydroxide	Q.S.
Citric Acid	Q.S.
Ammonium Chloride	Q.S.
<u>Mixing Procedure:</u>	
<u>Main Batch:</u>	

Into a suitable vessel equipped with mixing, heating and cooling capabilities add DI water, EDTA, Stepanol AM-V, Ninol 40-CO. Begin agitation and heating to 160-165F. At 145F add Stepan TAB-2. Continue to heat to 160-165F.

Pre-Mix:

In a vessel equipped with a high speed mixer prepare pre-mix by adding DI water, Stepanol AM-V, and Selenium Sulfide. Mix the batch for 10 min. at high speed. Add pre-mix to main batch and adjust temp. to 160-165F. Agitate using a propeller mixer for 30 min. Begin to cool. At 110F add Glydant. Adjust pH to 5.0-6.2 with Sodium Hydroxide or Citric Acid. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid
 Viscosity: 2500-3500 cps @ 25C
 pH (as is): 5.0-6.2

Comment:

Stable for 1 month at 0C, 25C, and 42C.

SOURCE: Stepan Co.: Formulation No. 566

Anti-Dandruff Shampoo

	<u>% by Weight</u>
Water	41.0
TEA-Lauryl Sulfate (40%)	30.0
Monateric CAB	17.0
Monamid 716	3.0
Monamid 150-ADY	3.0
Zinc Pyrithione (48% Aqueous Dispersion)	4.0
Glycol Distearate	2.0

Procedure:

Add ingredients in order listed. Mix and heat to 60C. Cool, adjust pH to 6.0. Add coloring, fragrance and preservative as required.

Appearance: Off white, opaque liquid

Viscosity: Approximately 2000 cps.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Antidandruff Shampoo

	<u>%(w/w)</u>
Deionized Water	62.81
TEA Lauryl Sulfate (40%)	18.00
Lexaine C (Cocamidopropyl Betaine)	7.00
Lauramide DEA	7.00
PEG-150 Distearate	2.00
Magnesium Stearate	2.00
Zinc Pyrithione	1.00
Lexgard M (Methylparaben)	0.17
Lexgard P (Propylparaben)	0.02
Sodium Chloride	q. s.

Procedure:

Wet magnesium stearate with TEALS, 1/4 water and Lauramide DEA. Heat this slurry to 70C and stir to dissolution. Add remaining water into another vessel and heat to 70C. Add other ingredients to this second vessel and mix thoroughly. Combine slurry from the first vessel to the second vessel, mix, cool to 40C and fill.

Observations:

Adjusted pH (direct): 7.0 with citric acid
 Viscosity: 38,000 cps

Formulation SP-86

Conditioning Gel Shampoo

	<u>%(w/w)</u>
Deionized Water	53.00
TEA Lauryl Sulfate (40%)	35.00
Lexaine C (Cocamidopropyl Betaine)	10.00
Lexamine O-13 (Oleamidopropyl Dimethylamine)	0.30
Ammonium Chloride	1.50
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Citric Acid (to desired pH)	q. s.

Procedure:

Add TEA Lauryl Sulfate and Lexaine C to water at 70C. Add Lexamine O-13, maintaining the pH at 5. Add remaining ingredients and fill.

Observations:

pH (direct): 5.6
 Viscosity: 17,250 cps

Formulation SP-96

SOURCE: Inolex Chemical Co.: Suggested Formulations

Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Pre-Mix:	
D.I. Water	20.0
Stepanol AM-V	20.7
Sulfur Powder, Tech.	2.0
Ninol 40-CO	1.0
Main Batch:	
D.I. Water	56.1
Stepanol AM-V	31.0
Stepan TAB-2	5.0
Ninol 40-CO	1.0
EDTA	0.2
Glydant	0.2
Sodium Hydroxide	Q.S.
Ammonium Chloride	Q.S.

Mixing Procedure:

Main Batch:

Into a suitable vessel equipped with mixing, heating and cooling capabilities add DI water, EDTA, Stepanol AM-V, Ninol 40-CO. Begin agitation and heating to 165-170F. At 145F add Stepan TAB-2.

Pre-Mix:

In a vessel equipped with a homogenizer add D.I. water, Stepanol AM-V, Ninol 40-CO, and Sulfur powder. Homogenize the product until a small particle size of sulfur and a homogenous mixture is obtained.

Add pre-mix to main batch, adjust temperature to 165-170F and agitate for 30 minutes. Begin to cool. At 110F add Glydant. Adjust pH to 5.0-6.2 with Sodium Hydroxide or Citric Acid as needed. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid

Viscosity: 2500-3500 cps @ 25C

pH (as is): 5.0-6.2

Comment:

Stable for 1 month at 0C, 25C, and 42C.

SOURCE: Stepan Co.: Formulation No. 564

Viscous, Low Cost Shampoo

This basic formulation may be modified with additives such as ethylene glycol distearate, protein and lanolin. Foaming and cleaning properties are excellent. The viscosity can be decreased or increased by raising or lowering the pH respectively.

	<u>% by Weight</u>
Water and Preservative	78.9
Neodol 25-3A	8.6
Monamine 779	10.0
Monamine 150-ADY	2.5

Add ingredients in order listed and mix with slow agitation. Adjust pH level. At pH 7 viscosity is approximately 5000 cps.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Cleansing Shampoo

<u>Ingredients:</u>	<u>%w/w</u>
Water	45.4
Ammonium Laureth Sulfate (30%)	35.0
Ammonium Lauryl Sulfate (30%)	10.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Dimethicone Copolyol (Abil B 8852)	0.6
Citric Acid	Q.S. to pH 6.5
Ammonium Chloride	1.0
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
 2. Add ingredients in order, mixing between additions. Avoid air entrapment.
 3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococate.
 4. Adjust viscosity with the 25% solution of Ammonium Chloride.
- Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.
- Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

Gentle Cleansing Shampoo

<u>Ingredients:</u>	<u>%w/w</u>
Sodium Lauryl Sulfate	15.00
Sodium Laureth Sulfate	25.00
Carbomer 208 (Antil 208)	0.70
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.00
Cocamidopropyl Betaine (Tego Betaine L-7)	5.00
Dimethicone Copolyol (Abil B 88183)	0.50
Propylene Glycol	1.00
Water	49.70
Tetrasodium EDTA	0.10
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Citric Acid (25% Solution)	to pH 6.0
Sodium Chloride (25% Solution)	Q.S.

Procedure:

1. Add the ingredients in order. Mix until uniform between additions.
2. Adjust pH with citric acid.
3. Adjust viscosity with the Sodium Chloride

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Clear Conditioning Shampoo

Delivers softness and excellent combability to the hair. It's a mild, clear, rich shampoo that provides easy combing and luster properties.

Part A:	<u>%(w/w)</u>
Sodium C14-16 Olefin Sulfonate	15.00
TEA Lauryl Sulfate	10.00
Lexamine LM (Lauramidopropyl Betaine)	10.00
Cocamide DEA	3.00
Maypon 4C (Potassium Coco-hydrolyzed Animal Protein)	3.00

Part B:	
Deionized Water	48.30
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Uvinul MS-40 (Benzophenone-4)	0.10
Tetrasodium EDTA	0.10

Part C:	
Lexquat AMG-IS (Isostearylamidopropyl Dihydroxypropyl Dimonium Chloride)	7.00

Part D:	
Fragrance	2.00
Color	

Part E:	
Citric acid pH=7.0+/-0.2	q.s.

Procedure:

Charge batch vessel with water (part B) and begin mixing. Add the remaining ingredients of part B to the water and heat to 60C+-2C. When materials are completely dissolved, add Part A to Part B. Maintain temperature and mixing. When uniform, add Part C to the batch. Begin cooling. At 40C-45C, add Part D. Cool to room temperature and adjust the pH (Part E).

Observations:

pH: 7.2

Viscosity: 500 cps

SOURCE: Inolex Chemical Co.: Formulation SP-103

Clear Protein Shampoo

	<u>%(w/w)</u>
Deionized Water	60.80
Sodium Lauryl Sulfate	30.00
Lexaine C (Cocamidopropyl Betaine)	6.00
Lexein QX3000 (Quaternium-76)	3.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Sodium Chloride (to desired viscosity)	q.s.
Phosphoric Acid (to desired pH)	q.s.

Procedure:

Heat water to 70C. Add sodium lauryl sulfate and Lexaine C slowly with agitation. Adjust pH then add remaining ingredients at 55C.

Observations:

pH (direct): 6.1

Viscosity: 560 cps

Formulation SP-89

Clear Conditioning Shampoo

Lexquat AMG-BEO is the primary conditioning agent in this luxurious, clear conditioning shampoo. It features improved softness and shine with easier comb-out.

Part A:

	<u>%(w/w)</u>
Sodium C14-16 Olefin Sulfonate	15.00
TEA Lauryl Sulfate	10.00
Lexamine LM (Lauramidopropyl Betaine)	10.00
Cocamide DEA	3.00
Maypon 4C (Potassium Coco-hydrolyzed Animal Protein)	3.00

Part B:

Deionized Water	48.30
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Uvinul MS-40 (Benzophenone-4)	0.10
Tetrasodium EDTA	0.10

Part C:

Lexquat AMG-BEO (Behenamidopropyl Dihydroxypropyl Dimonium Chloride)	7.00
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Part D:

Fragrance	0.20
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Color**Part E:**

Citric acid, pH=5.5+-0.2	q.s.
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Procedure:

Charge batch vessel with water (Part B) and begin mixing. Add the remaining ingredients of Part B to the water and heat to 60+-2C. When materials are completely dissolved, add Part A to Part B. Maintain temperature and mixing. When uniform, add Part C to the batch. Begin cooling. At 40-45C, add Part D. Cool to room temperature and adjust the pH (Part E).

Observations:

pH: 5.5

Viscosity: 6000 cps

SOURCE: Inolex Chemical Co.: Formulation SP-104

Clear Conditioning Shampoo

Features improved softness and shine with easier comb-out.

Part A:	<u>%(w/w)</u>
Sodium C14-16 Olefin Sulfonate	15.00
TEA Lauryl Sulfate	10.00
Lexamine LM (Lauramidopropyl Betaine)	10.00
Cocamide DEA	3.00
Maypon 4C (Potassium Coco-Hydrolyzed Animal Protein)	3.00

Part B:	
Deionized Water	48.30
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Uvinul MS-40 (Benzophenone-4)	0.10
Tetrasodium EDTA	0.10

Part C:	
Lexquat AMG-BEO (Behenamidopropyl Dihydroxypropyl Dimonium Chloride)	7.00

Part D:	
Fragrance	0.20
Color	

Part E:	
Citric acid pH = 5.5+/-0.2	q.s.

Procedure:

Charge batch vessel with water (part B) and begin mixing. Add the remaining ingredients of Part B to the water and heat to 60C+/-2C. When materials are completely dissolved, add Part A to Part B. Maintain temperature and mixing. When uniform, add Part C to the batch. Begin cooling. At 40-45C, add Part D. Cool to room temperature and adjust the pH (Part E).

Observations:

pH: 5.5
Viscosity: 6000 cps

SOURCE: Inolex Chemical Co.: Formulation SP-104

Clear Conditioning Shampoo

Lexquat AMG-M delivers softness and excellent combability to the hair. Although highly cationic, Lexquat AMG-M is completely compatible with anionic surfactants and does not have a significant adverse effect on their foaming. Lexquat AMG-M is highly substantive to the hair, without build-up, so the hair is left natural, healthy and bouncy.

	<u>%(w/w)</u>
Part A:	
Sodium C14-16 Olefin Sulfonate	15.00
TEA Lauryl Sulfate	10.00
Lexamine LM (Lauramidopropyl Betaine)	10.00
Cocamide DEA	3.00
Maypon 4C (Potassium Coco-Hydrolyzed Animal Protein)	3.00
Part B:	
Deionized Water	50.20
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.30
Lexgard P (Propylparaben)	0.10
Uvinul MS-40 (Benzophenone-4)	0.10
Tetrasodium EDTA	0.10
Part C:	
Lexquat AMG-M (Lauramidopropyl Dihydroxypropyl Dimonium Chloride)	5.00
Part D:	
Fragrance	0.20
Color	qs
Part E:	
Citric acid	qs to pH

Procedure:

Charge batch vessel with part B and begin mixing and heating to 60C+-2C. Add part A to batch. Add part C to batch. Cool to 45C and add part D. Cool to room temperature, and add part E.

Adjusted pH (direct): 6.0+-0.2

Formulation SP-100

Clear Bar Conditioning Shampoo

This clear bar shampoo provides copious foam, mildness, as well as superior cleaning and rinsing properties.

	<u>%(w/w)</u>
Sodium Stearate C-1	30.00
Standapol WAQ Special (Sodium Lauryl Sulfate)	10.00
Propylene Glycol USP	20.00
Glycerine	3.00
Lexquat AMG-O (Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	5.00
Lexaine LM (Lauramidopropyl Betaine)	15.00
Maypon 4CT (TEA-Coco-Hydrolyzed Animal Protein)	7.00
Tauranol WSP (Sodium Methyl Cocoyl Taurate)	10.00

Procedure:

Charge batch vessel with propylene glycol. Begin gentle mixing with heat to 80C+-2C. Add the remaining raw materials while continuing the gentle mixing. Pour into the mold. Cool to room temperature.

SOURCE: Inolex Chemical Co.; Formulation SP-105

Clear Shampoo

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	51.85
2. Sodium C14-16 Olefin Sulfonate	37.50
3. Methylparaben	0.10
Part B:	
4. Ritapeg 150 DS	3.50
5. Pationic ISL	3.00
Part C:	
6. Perfume	0.10
7. Kathon CG	0.05
Part D:	
8. Sodium Chloride (25% Solution)	3.50
9. Sodium Hydroxide (18% Solution)	0.40

Compounding Procedure:

Heat Part A and Part B to 165F. Add Part B to Part A with agitation and maintain heat for 10 minutes. Cool to 120F and add Part C. Adjust pH to 7.0+0.1 with Sodium Hydroxide solution. Adjust viscosity with Sodium Chloride solution.

Formulation 103-92

Clear Shampoo

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	48.52
2. Sodium Laureth Sulfate (2 Mole)	46.50
3. Glydant 40-700	0.20
Part B:	
4. Pationic ISL	2.25
5. Ritapeg 150 DS	0.75
Part C:	
6. Sodium Hydroxide (20% Solution)	+0.28
7. Sodium Chloride (25% Solution)	+1.50

Compounding Procedure:

Heat Part B to 165F, blend. Heat Part A to 115F. Add Part B to Part A, mix. Adjust pH to 7.0+0.1 with Sodium Hydroxide Solution. Cool to 90F. Adjust viscosity with Sodium Chloride solution.

Formulation 103-187C

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Clear Shampoo for Oily Hair

	<u>%(w/w)</u>
Deionized Water	63.70
Sodium Lauryl Sulfate	15.00
Lauramine Oxide	5.00
Lexaine LM (Lauramidopropyl Betaine)	5.00
Lauramide DEA	5.00
Propylene Glycol USP	6.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10

Procedure:

Combine with mixing. Adjust pH.

Observation:

Adjusted pH (direct): 7.5 with citric acid

Formulation SP-102

Clear Shampoo for Normal to Dry Hair

	<u>%(w/w)</u>
Ammonium Lauryl Sulfate	20.00
Lexaine LM (Lauramidopropyl Betaine)	10.00
Cocamide DEA	7.50
Maypon 4CT (TEA-Coco-Hydrolyzed Animal Protein)	5.00
Alpha Olefin Sulfonate 90%	4.00
Deionized Water	50.20
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10

Procedure:

Combine with mixing. Adjust pH.

Observation:

Adjusted pH (direct): 6.0 with citric acid

SOURCE: Inolex Chemical Co.: Formulation SP-101

Clear Viscous Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	35.0
Amphosol CA	12.0
Ninol 49-CE	2.2
Propylene glycol	1.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first four components to D.I. water and heat to 50C with mixing. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

Clear, yellow liquid

Viscous gel

Stable at elevated temperature and through three freeze thaw cycles

pH: 6.0-7.0 (as is)

Formulation No. 68

Every Day Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	35.0
Amphosol CA	5.0
Ninol 40-CO	5.0
Propylene glycol	3.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add the first four components to the D.I. water and heat to 40C with mixing. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Attributes:

pH (as is): 6.0-7.0

Viscosity: as is: 4,050 cps

0.5% sodium chloride: 9,850 cps

Clear, yellow liquid

Stable for two weeks at 50C

Passed freeze thaw test

Comment:

Formulation 69 had slightly better foam volume in Stepan salon evaluation than a leading brand of shampoo.

SOURCE: Stepan Co.: Formulation 69

Conditioning Mousse Shampoo with Vitamins

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Tween 20	2.00
Vitamin E Acetate USP-FCC (Code 60526)	0.20
Ceraphyl 60	2.00
Miranol BT	5.00
Super Amide 128T	1.00
Standapol SH-100	10.00
Standapol ES-2	38.00
Part II:	
Deionized Water	q.s. to 100
Methyl Parasept	0.10
Propyl Parasept	0.05
Part III:	
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Perfume Oil	q.s.
Procedure:	

Predissolve Vitamin E Acetate in Tween 20, then mix all ingredients in Part I in the order listed until each one is thoroughly dissolved. Heat Part II to 65C to dissolve the parabens. Add Part II to Part I and mix. Let cool to room temperature. Add Part III and mix. Fill and pressurize.

<u>Aerosil Fill:</u>	<u>% by Wt.</u>
Concentrate	95.00
Propellant A-46	5.00

Vitamin Moisturizing Shampoo

<u>Ingredients:</u>	<u>% by Wt.</u>
Part I:	
Standapol A	35.00
Monateric ISA-35	4.00
Monamate CPA-40	5.00
Cerasynt IP	1.00
Monamid 716	3.00
Part II:	
Deionized Water	45.00
dl-Panthenol, Cosmetic Grade (Code 63920)	1.00
Biotin, FCC (Code 63344)	0.05
Part III:	
Dowicil 200	0.10
Sodium Chloride	0.50
Perfume Oil	0.40
Citric Acid, USP-FCC (Code 69941)	q.s.
Part IV: Deionized Water	q.s. to 100.00
Procedure:	

A. Weigh Part I ingredients into a suitable container. Heat to 65C with stirring until uniform. B. Dissolve Part II ingredients and heat to 65C. Add to Part I. Stir well. C. Cool to 40C with stirring. Add Part III ingredients stirring well after each addition. D. Adjust to pH 6.5 with Citric Acid and q.s. with water. E. Adjust viscosity to 2800 cps with Sodium Chloride.

SOURCE: Roche Chemical Division: Formulations MU 501 and HC 201

Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	70.0
Stepan TAB-2	5.0
Ninol 40-CO	2.0
Silicone DC-200 (12,500 cs)	0.5
EDTA	0.2
Glydant	0.2
Citric acid	Q.S.
Sodium hydroxide	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Stepanol AM-V, Ninol 40-CO and EDTA to water and heat to 165-170F with mixing. Add Stepan TAB-2 and Silicone and mix for 30 minutes. Cool to room temp with mixing. Add preservative and adjust pH to 5.8-6.2 with Citric acid or Sodium hydroxide as needed. Adjust to desired viscosity with Ammonium Chloride.

Typical Properties:

Appearance: Opaque, liquid
 Viscosity: 2500-3500 cps @ 25C
 pH (as is): 5.8-6.2

Comment:

Stable at 0C and 25C for 1 month and 42C for 3 months.
 Formulation No. 557

Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	70.0
Stepan TAB-2	5.0
Zinc pyrithione (ZPT) 48% Dispersion	4.2
Ninol 40-CO	2.0
Silicone DC-200 (12,500 cs)	0.5
EDTA	0.2
Glydant	0.2
Citric acid	Q.S.
Sodium hydroxide	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Stepanol AM-V, Ninol 40-CO, and EDTA to water and heat to 165-170F with mixing. Add Stepan TAB-2, Silicone and Zinc Pyrithione and mix for 30 minutes. Cool to room temperature with mixing and add preservative. Adjust pH to 5.0-6.2 with Sodium hydroxide or Citric acid as needed. Adjust to desired viscosity with Ammonium chloride.

Typical Properties:

Appearance: Opaque, liquid
 Viscosity: 2500-3500 cps @ 25C
 pH (as is): 5.0-6.2

Comment: Stable at 0C and 25C for 1 month and 42C for 3 months
 SOURCE: Stepan Co.: Formulation No. 561

Conditioning Shampoo

	<u>%(w/w)</u>
Deionized Water	47.80
Sodium Laureth Sulfate (30%)	32.00
Lexaine C (Cocamidopropyl Betaine)	15.00
Lexamine O-13 (Oleamidopropyl Dimethylamine)	3.00
Lexein X250 (Hydrolyzed Animal Protein)	2.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Lactic Acid (to desired pH)	q.s.

Procedure:

Disperse sodium laureth sulfate and Lexaine C into water at 70C. Adjust pH to 4.0. Slowly add Lexamine O-13, maintaining the pH at 4.0. Add remaining ingredients, cool and fill.

The viscosity can be increased by adding sodium chloride to the formula.

Observations:

pH (direct): 4.0

Viscosity: 200 cps

Formulation SP-97

Conditioning Shampoo

	<u>%(w/w)</u>
Deionized Water	43.70
Sodium C14-16 Olefin Sulfonate (40%)	45.00
Lexaine C (Cocamidopropyl Betaine)	8.00
Lexamine S-13 (Stearamidopropyl Dimethylamine)	1.00
Ammonium Chloride	2.10
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Citric Acid (to desired pH)	q.s.

Procedure:

Heat water to 70C. Add sodium C14-16 olefin sulfonate and Lexaine C and mix until homogeneous. Add Lexamine S-13, maintaining the pH at 5. Add remaining ingredients, cool and fill. Viscosity can be increased by raising the level of ammonium chloride.

Observations:

pH (direct): 5.0

Viscosity: 225 cps

SOURCE: Inolex Chemical Co.: Formulation SP-98

Conditioning Shampoo

	<u>% Weight</u>
Polyquaternium-10 (Celquat SC-240)	0.70
Cocoamphodiacetate (and) Disodium Cocoamido MIPA-Sulfosuccinate (Monateric 805)	18.80
TEA-Lauryl Sulfate (Stepanol WAT)	18.50
Lauramide DEA (Monamid 1034)	4.00
Propylene Glycol	2.00
Citric Acid	0.50
Germaben II	0.50
Fragrance	0.20
Water	54.80

Procedure:

Dissolve Celquat SC-240 in half of the water by sifting into water while mixing. In a separate vessel, combine all remaining ingredients except citric acid. When both solutions are complete, add the Celquat solution to the surfactant solution while mixing. When homogeneous, add citric acid and mix until dissolved.

Conditioning/Highlighting Shampoo

	<u>% Weight</u>
Ammonium Lauryl Sulfate (and) Ammonium Laureth Sulfate (and) Cocamidopropyl Betaine (and) Cocamide DEA (and) Lauramide DEA (and) Citric Acid (Witcodet AEG)	33.00
Polyquaternium-7 (Merquat 550)	3.00
Water	55.00
Nettle Extract	2.00
Comfrey Root Extract	2.00
Chamomile Extract	2.00
Henna Extract	2.00
Germaben II	0.50
Fragrance (Bell Fragrance J-5226)	0.50

Procedure:

Mix all ingredients gently while heating to a maximum of 45-50C. If necessary, adjust viscosity with sodium chloride (approximately 0.1%). Allow product to cool and package.

SOURCE: Sutton Laboratories: Suggested Formulas

Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	30.0
Stepanol AM-V	15.0
Ammonyx LO	1.0
Ninol 55-LL	2.0
Glycerine	3.0
Hydroxypropyl methylcellulose	0.4
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
Deionized water	Q.S. to 100

Mixing Procedure:

Heat one third of D.I. water to 80C. Add methylcellulose and mix until the particles are wetted. While cooling to room temperature, add remaining D.I. water and mix until the solution is clear and particle free. Add the first five components and mix until homogeneous. Adjust pH to 6.0-6.3 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Clear light yellow liquid

Stable over freeze/thaw and elevated temperature

Viscosity Response @ 25C

0% Sodium chloride 65 cps

5% Sodium chloride 400 cps

Formulation No. 27

Clear Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	25.0
Amphosol CA	5.0
Ninol 49-CE	2.5
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add the first four components to D.I. water. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear yellow liquid

pH (as is): 6.0-7.0

Viscosity Profile: As is: 40 cps

1.0% sodium chloride: 70 cps

3.0% sodium chloride: 1,490 cps

4.0% sodium chloride: 1,680 cps

SOURCE: Stepan Co.: Formulation No. 65

Conditioning Shampoo

An opaque pearlized conditioning shampoo with low eye irritation.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Grilloten LSE 87K Soft	4.00
2. Luviquat FC 550	1.00
3. Distilled Water	10.00
Part B:	
4. Sodium Laureth Sulfate-40 Mole	42.00
5. Cocamidopropyl Betaine	8.00
6. PEG-55 Propylene Glycol Oleate	2.00
7. Ritasynt IP	3.00
8. Distilled Water	30.00
Part C:	
9. Perfume, Preservative	QS

Compounding Procedure:

Combine Sodium Laureth Sulfate, water and Cocamidopropyl Betaine in main tank. Begin heating to 170F. Add Ritasynt-IP and PEG-55 Propylene Glycol Oleate. Continue mixing and maintain temperature. Weigh Part A materials in separate tank. Heat with agitation to 170F. Examine Part B for uniformity. When Part B is uniform add Part A to Part B with agitation. Mix until uniform. Begin cooling. Cool to 120F. Add perfume and preservative. Cool to 95F. Package.

Formulation H-89-G-20

Conditioning Shampoo for Dry Hair

A premium quality, mild, moisturizing shampoo. This shampoo will moisturize the hair with Pationic ISL. The Pationic ISL is substantive to the hair and will retain moisture. The Simchin brand Jojoba Oil will give sheen to the hair.

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium C14-16 Olefin Sulfonate	18.75
2. Sodium Cocoyl Sarcosinate	25.00
3. Glycerin	3.00
4. Pationic ISL	3.50
5. Lauramide DEA	2.00
6. Ritapeg 150 DS	2.00
7. Simchin	0.50
8. Distilled Water	45.25
9. Pationic LA (44%)	QS
10. Color, Fragrance and Preservatives	QS

Compounding Procedures:

Combine items 1 and 2. Heat to 45C. Mix well. Add items 3 through 7 maintaining heat at 45C. Mix well. Add item 8, still maintaining heat at 45C. Mix well. Adjust pH to 5.5 with Patlac LA. Add remaining ingredients. Mix well.

Formulation H-89-S-11

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Conditioning Shampoo

An excellent low viscosity conditioning shampoo which has the ability to suspend pearlescent pigments.

<u>Ingredients:</u>	<u>% wt.</u>
A. Water (q.s to 100%)	64.55
Cellulose Gum (CMC)	0.50
Xanthan Gum (Keltrol)	0.60
Preservative	q.s.
B. TEA-Lauryl Sulfate (Standapol T)	25.00
Lauramide DEA (Monamid 716)	3.50
Keratin	0.80
C. Timica Gold Sparkle 212P	0.05
Water	5.00
Fragrance	q.s.
FD&C water soluble dyes	q.s.

Procedure:

- I. Disperse Cellulose and Xanthan gums into de-ionized water with high shear agitation.
- II. Add Phase B ingredients to Phase A and mix until uniform.
- III. Add pre-mixed Phase C to Phase A-B with gentle agitation.
- IV. Tint to desired shade with FD&C water soluble dyes.
- V. Adjust to pH 5.0 with Citric Acid.

Typical Properties:

- Color: Light green with gold sparkle to match standard
- Odor: Characteristic to match standard
- Appearance: Lustrous to match standard
- pH: 5.0+-0.5
- Specific Gravity: 0.994+-0.100
- Viscosity: 129+-10 cps

SOURCE: The Mearl Corp.: Formulation CLT-910931

Family Shampoo

Jordapon CI Dispersion	3.0%
Ammonium Lauryl Sulfate	25.0
Cocamidopropyl Hydroxysultaine	8.0
Cocamide DEA	1.0
Preservative, EDTA, Fragrance, Citric Acid	0.8
Water	62.2

Procedure:

Blend the water, Jordapon CI Dispersion, ammonium lauryl sulfate, preservative, and EDTA. When uniform, add the Mafo CSB-50, Mazamide 80, and fragrance. Adjust the pH to 6.0-6.5 with citric acid. Final viscosity: 5000 cps.

SOURCE: PPG Industries, Inc.: Formulation 7003-45

Dandruff Control Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
D.I. Water	40.00
Magnesium Aluminum Silicate	1.00
Hydroxypropyl Methylcellulose	0.70
Part B:	
Bio-Terge AS-40	30.00
Amphosol CA	8.30
Part C:	
Selenium Sulfide	1.00
Titanium Dioxide	0.70
Citric Acid	Q.S.
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Heat water in Part (A) to 70C. Add magnesium aluminum silicate and disperse. Add hydroxypropyl methylcellulose slowly, mixing until completely homogeneous. Remove (A) from heat source and stir in (B). Mix thoroughly. Blend in titanium dioxide to mixture, mixing until thoroughly dispersed. Repeat with selenium sulfide. Adjust pH to 4.0-5.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride. Complete process by homogenizing product.

Physical Properties:

Viscosity @ 25C: 4,450 cps
 Orange, opaque liquid
 pH (as is): 4.0-5.0
 Formulation No. 392

Dandruff Control Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
D.I. Water	52.5
Magnesium Aluminum Silicate	1.0
Hydroxypropyl Methylcellulose	0.8
Part B:	
Bio-Terge AS-40	35.0
Ninol 96-SL	3.5
Hydrolyzed Animal Protein	2.0
Ninol 201	3.0
Part C:	
Zinc Pyrithione (48% Dispersion)	4.2

Mixing Procedure:

Heat the water in Part A to 70C. Add magnesium aluminum silicate and disperse. Add hydroxypropyl methylcellulose slowly, mixing until completely homogeneous. Remove (A) from heat source and stir in Part (B). Mix thoroughly. Blend in zinc pyrithione to mixture, mixing until thoroughly dispersed. Adjust pH to 4.0-5.0 with citric acid. Add fragrance, dye and preservative, if desired. Complete process by homogenizing product.

White, opaque liquid
 Viscosity @ 25C: 5,250 cps
 pH (as is): 4.0-5.0

SOURCE: Stepan Co.; Formulation No. 382

Detangling Shampoo

A viscous, clear shampoo with conditioning effects. Contains Simchin WS (water soluble Jojoba Oil) to replace oils, Grilloten to reduce irritation and stripping, and Betaine for conditioning.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	62.00
2. Hydroxypropyl Methylcellulose	1.00
3. Grilloten LSE 87	1.00
4. Sodium C14-16 Olefin Sulfate	30.00
5. Cocamidopropyl Betaine	5.00
6. Simchin WS	1.00
7. Patlac LA (44% Solution)	QS
8. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Prepare dispersion of ingredients 1 and 2. Weigh ingredient 3. When the gum is completely dissolved, warm ingredient 3 gently to liquefy and add to batch. Add ingredients 4, 5 and 6 to the batch, mixing until uniform between additions. Add perfume, color and preservative, mixing until uniform. Adjust pH to 5.5 with Patlac LA lactic acid.

Formulation H-89-G-9

Detangling Shampoo

A viscous, light foaming conditioning shampoo.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+ -73.00
2. Hydroxypropyl Methylcellulose	1.00
3. Grilloten LSE 87	2.00
4. Sodium C14-16 Olefin Sulfate	18.00
5. Cocamidopropyl Betaine	5.00
6. Simchin WS	1.00
7. Patlac LA (44.0%)	QS
8. Color, fragrance and preservatives	QS

Compounding Procedures:

Heat water to 70C and add item 2 into water with good agitation. Add Grilloten LSE 87. Add item 4, 5 and 6 and continue agitation. Begin cooling. Cool to 120F. Add item 7 to pH 5.5. Add color, fragrance and preservative. Cool to 95F.

Formulation H-89-S-3

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Economy Shampoo

	<u>%(w/w)</u>
Deionized Water	75.80
Ammonium Lauryl Sulfate (30%)	18.00
Lexaine CG-30 (Cocamidopropyl Betaine)	5.00
Ammonium Chloride	1.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Phosphoric Acid (to desired pH)	q.s.

Procedure:

Heat water to 70C. Slowly add ingredients and blend until clear. Adjust final pH and fill.

Observations:

pH (direct): 6.0
Viscosity: 100 cps

Formulation SP-91

Economy Shampoo

	<u>%(w/w)</u>
Deionized Water	61.00
Sodium C14-16 Olefin Sulfonate (40%)	28.00
Lexaine CS (Cocamidopropyl Betaine)	6.30
Ammonium Chloride	2.50
Cocamide DEA	2.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Phosphoric Acid (to desired pH)	q.s.

Procedure:

Heat water to 70C. Add ingredients and blend until clear.

Observations:

pH (direct): 6.0
Viscosity: 3,000 cps

SOURCE: Inolex Chemical Co.: Formulation SP-92

Everyday Soft Highlights Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
PEG-7 Glyceryl Cocoate (Tegosoft GC)	4.00
Ammonium Lauryl Sulfate	17.00
Ammonium Laureth Sulfate	22.00
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.50
Dimethicone Copolyol (Abil B 88183)	1.00
Water	47.15
Tetrasodium EDTA	0.10
Cocamidopropyl Betaine (Tego Betaine L-7)	6.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Citric Acid (25% Solution)	to pH 6.0
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Ammonium Chloride (25% Solution)	Q.S.

Procedure:

1. Add the ingredients in order. Mix until uniform between additions.
2. Adjust pH with the Citric Acid.
3. Adjust viscosity with the Sodium Chloride.

Three in One Shampoo
(Cleansing, Conditioning and Shine)

<u>Ingredients:</u>	<u>% w/w</u>
Tetrasodium EDTA	0.1
Water	44.8
Ammonium Laureth Sulfate (30%)	35.0
Ammonium Lauryl Sulfate (30%)	10.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Dimethicone Propyl PG-Betaine (Abil B 9950)	0.6
Dimethicone Copolyol (Abil B 8852)	0.6
Dimethicone Copolyol (Abil B 88183)	0.3
Cetyl Dimethicone Copolyol (Abil EM-90)	0.6
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Ammonium Chloride (25% solution)	As needed to adjust viscosity

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Extra Mild Pearlized Shampoo

A low actives lotion shampoo which is made milder by the Grilloten LSE 87 K, which also reduces sting. Contains Panthenol for thickening and strengthening the hair fibers.

Ingredients:

	<u>% W/W</u>
1. Distilled Water	54.84
2. Sodium Lauryl Sulfate (28%)	22.86
3. Sodium C14-16 Olefin Sulfate (40%)	5.00
4. Lauramide DEA	4.00
5. Ritabate 20	3.00
6. dl-Panthenol	0.50
7. Methylparaben	0.10
8. Grilloten LSE 87K	3.00
9. Rita EGMS	2.50
10. Sodium Chloride (25% Solution) (or to desired viscosity)	4.00
11. Color	QS
12. Fragrance	QS
13. Glydant	0.20

Compounding Procedure:

Heat water to 70C. Add ingredients in order for items 2-8, bringing temperature back to 70C after each addition and stir until clear. Cool stirred mixture to 40C. Add remaining ingredients, except Sodium Chloride. Mix until uniform. Add Sodium Chloride solution to adjust viscosity.

Formulation HB-89-PA-9

Cold Process Pearlized Shampoo

A viscous shampoo which can be made without heating. Ritasynt CBE blend is used as a thickener and conditioner.

Ingredients:

	<u>% W/W</u>
Part A:	
1. Lauramide DEA	5.00
2. Perfume	0.20
3. Pationic ISL	3.00
4. Methylparaben	0.10
Part B:	
5. Distilled Water	39.15
6. Alpha Olefin Sulfate	41.00
7. Kathon CG	0.05
Part C:	
8. Ritasynt CBE Blend	9.00
Part D:	
9. Patlac LA (44%)	0.50
10. Sodium Chloride (25% Solution)	2.00

Compounding Procedure:

Weigh Lauramide DEA, add perfume and mix until uniform. Add Pationic ISL and mix until uniform. Add Methylparaben and mix until uniform. Add Part A to Part B with mixing and mix until consistent. Add Part C. Adjust pH with Patlac LA (pH 5.5-6.5 recommended). Adjust viscosity with Sodium Chloride solution.

Formulation 103-61

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Family Shampoo

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		40.0
Hydroxypropyl Methylcellulose	Methocel 40-100	0.7
Triethanolamine		0.1
Ammonium Lauryl Sulfate	Mazon AL-300	45.0
Cocamidopropyl Betaine	Mafo CAB	7.0
Lauramine Oxide	Mazox LDA	6.0
Dimethicone Copolyol	Masil 280 LP	0.5
Fragrance		0.3
Preservative, EDTA		0.4
Citric Acid		Q.S.

pH: 6.0-6.5

Viscosity: 2,100 cps

Appearance: Clear, straw-colored liquid

Procedure:

This is an economical, room-temperature process requiring only one vessel. Disperse the hydroxypropyl methylcellulose in the water; then add the triethanolamine to initiate hydration. Add the Mazon AL-300, Mafo CAB, and Mazox LDA. When uniform, add the Masil 280 LP and fragrance (these can be pre-mixed to speed dissolution of the fragrance in the batch). Add the preservative and EDTA, and adjust the pH.

SOURCE: PPG Industries, Inc.: Formulation A-102

Zinc Pyrithione Containing Shampoo*

<u>Phase</u>	<u>Ingredients:</u>	<u>% by Weight</u>
A	Water, Deionized	66.58
A	Aculyn 33	6.67
A	Sodium Hydroxide, 50%	0.75
A	Oramix NS10	13.5
A	Monteine LCQ	8.5
A	Simulso 220 TM	3.0
A	Zinc Omadine	1.0
A	Preservative	QS

pH: 7

Viscosity: 32,700 cps

* Not clinically tested

Add ingredients in order listed (very important), adjust to pH7

This mild shampoo containing an anti-dandruff agent made with Aculyn 33 exhibits very good stability at room temperature and in low-temperature or high-temperature (4C/40C) studies. In addition, Aculyn 33 polymer is easily used in the manufacturing process because it is a liquid emulsion.

: Rohm and Haas Co.: Suggested Formulation

Gel Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-460	14.0
Amphosol CA	4.5
Ninol 40-CO	4.0
Ninol 201	2.5
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Heat D.I. water to 55C and add first four components. Mix until homogeneous. Cool to 40C with mixing. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative if desired. Adjust to desired viscosity with sodium chloride. Allow product to deaerate before filling.

Typical Properties:

Yellow clear gel

Viscosity Profile:

0% Sodium chloride: 200 cps

0.5% Sodium chloride: 5500 cps

1.0% Sodium chloride: 11300 cps

Passed F/T

Formulation No. 379

Gel Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-20	20.00
Amphosol CA	10.00
Ninol 40-CO	4.00
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first three components to water and heat to 50C. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Cool to desired filling temperature. Adjust to desired viscosity with sodium chloride.

Physical Attributes:

Yellow semi-viscous liquid

pH (as is): 6.0-7.0

Passed three freeze/thaw cycles and two weeks at 50C

Viscosity Profile: as is: 510 cps

0.5% sodium chloride: 4,200 cps

1.0% sodium chloride: 7,475 cps

2.0% sodium chloride: 17,400 cps

SOURCE: Stepan Co.: Formulation No. 406

Gel Shampoo
15.0% Active

A high viscosity shampoo which has good cleaning properties.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Standapol ES-2	54.35
2. Distilled Water	39.50
3. Methylparaben	0.15
4. Ritacomplex B	4.00
<u>Part B:</u>	
5. Sodium Chloride	0.25
<u>Part C:</u>	
6. dl-Panthenol	0.25
7. Laneto 50	0.75
8. Merquat 550 (optional)	0.50
<u>Part D:</u>	
9. Perfume	0.20
10. Kathon CG	0.05
<u>Part E:</u>	
11. Sodium Chloride (25% Solution)	QS

Compounding Procedure:

Heat Part A and Part C to 165F. When Part A reaches temperature, add Part B with mixing. Continue mixing, add Part C. Cool to 120F and add Part D. Adjust viscosity with Part E.

Initial Viscosity: 3,000 cps

Adjusted Viscosity: 9,000 cps

Formulation 102-19

Gelled Alkaline Shampoo
A Shampoo with Alkaline pH

Alkaline shampoo for use after resin hold products.

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium Laureth Sulfate CS-230	50.00
2. Distilled Water	34.65
3. Ritasynt IP	4.50
4. Pationic ISL	3.00
5. Laneto 50	1.50
6. dl-Panthenol	0.50
7. Methylparaben	0.10
8. Ritapeg 150 DS	2.00
9. Perfume	+-0.10
10. Kathon CG	+-0.05
11. Sodium Hydroxide (20% Solution)	+-0.60
12. Sodium Chloride (25% Solution)	+-3.00

Compounding Procedure:

Heat items 1-8 to 165F. Mix, cool to 120F. Add Kathon CG and perfume. Adjust pH with Sodium Hydroxide solution. Adjust viscosity with Sodium Chloride solution.

Formulation 103-2

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Glossing Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Water	50.6
Tetrasodium EDTA	0.1
Sodium Lauryl Sulfate	20.0
Sodium Laureth Sulfate	20.0
PEG-18 Glyceryl Oleate/Cocoate (Anti 171)	1.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Phase B:	
Dimethicone Copolyol (Abil B 8851)	0.8
Cetyl Dimethicone Copolyol (Abil EM-90)	0.5
Citric Acid	To pH 6.5
Phase C:	
Color, Preservatives, Fragrance	Q.S.
Sodium Chloride	As Needed

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
 2. Add ingredients in order, mixing between additions. Avoid air entrapment.
 3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococoate.
 4. Adjust viscosity with the 25% solution of Ammonium Chloride.
- Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.
- Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Shampoo

Ammonium lauryl sulfate	20.0
Lexate BPQ (Lauramidopropyl Betaine (and) TEA-Coco-Hydrolyzed Animal Protein (and) Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	15.0
Deionized water	41.7
Propylene glycol	3.0
Lexgard M (Methylparaben)	0.2
Lexgard ^{CP} (Propylparaben)	0.1
Citric acid	to pH 6.0+-2.0

Procedure:

Combine ingredients with mixing. Adjust pH.

SOURCE: Inolex Chemical Co.: Suggested Formulation

Hair Repair Shampoo
(Shampoo for Damaged Hair)

<u>Ingredients:</u>	<u>% w/w</u>
Tetrasodium EDTA	0.1
Water	60.5
Ammonium Lauryl Sulfate	10.0
Ammonium Laureth Sulfate (2M E.O.)	20.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.5
Cocamidopropyl Betaine (Tego Betaine L-7)	5.0
Dimethicone Copolyol (Abil B 8851)	0.5
Propylene Glycol	1.0
Dimethicone/Sodium Poly PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.0
Quaternium-80 (Abil Quat 3272)	0.4
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.5
Ammonium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.

Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

Shampoo for Dyed and Permed Hair

<u>Ingredients:</u>	<u>% w/w</u>
Tetrasodium EDTA	0.1
Water	61.8
Ammonium Lauryl Sulfate	10.0
Ammonium Laureth Sulfate (2M E.O.)	20.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.2
Dimethicone Propyl PEG-Betaine (Abil B 9950)	1.5
Dimethicone Copolyol (Abil B 88183)	0.4
Cocamidopropyl Betaine (Tego Betaine L-7)	4.0
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.5
Ammonium Chloride	1.0

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note: For manufacturing ease, a 25% solution can of Ammonium Chloride can be made.

Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

High Active Clear Gel Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-130	75.0
Amphosol CA	6.6
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

To D.I. water, add Steol CS-130 and Amphosol CG, mixing well after each addition. Adjust pH to 6.5-7.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Attributes:

Clear, yellow liquid
 pH (as is): 6.5-7.5
 Passed freeze thaw study
 Viscosity: 0.5% sodium chloride: 34,250 cps
 Formulation No. 395

Low pH Gel Shampoo

<u>Ingredients</u>	<u>% by Weight</u>
Bio-Terge AS-40	22.0
Amphosol CA	14.0
Ammonyx CDO	5.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first three components to D.I. water and heat to 50C. Adjust pH to 4.0-5.0 with citric acid. Cool to 40C and add fragrance, dye and preservative, if desired.

Physical Properties:

Yellow, semi-viscous gel
 Viscosity: as is: 2,550 cps
 0.5% sodium chloride: 19,600 cps
 Passed three freeze thaw cycles
 Passed two weeks stability at 50C

SOURCE: Stepan Co.: Formulation No. 422

Improved Combing Conditioning Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Water	49.0
Ammonium Laureth Sulfate (30%)	30.0
Ammonium Lauryl Sulfate (30%)	10.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.5
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Dimethicone Copolyol (Abil B 8852)	0.5
Dimethicone Copolyol (Abil B 88183)	0.5
Cetyl Dimethicone Copolyol (Abil EM-90)	0.5
Ammonium Chloride	1.0
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.

Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

Soft Highlights--Conditioning Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Water	44.7
Ammonium Laureth Sulfate (30%)	35.0
Ammonium Lauryl Sulfate (30%)	10.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Cetyl Dimethicone (Abil Wax 9801)	0.3
Dimethicone Copolyol (Abil B 8852)	0.6
Cetyl Dimethicone Copolyol (Abil EM-90)	0.4
Ammonium Chloride	1.0
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredient in order. Mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.

Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Low Cost Clear Shampoo

<u>Ingredients:</u>	<u>Percent by Weight</u>
Water (20C or cooler), q.s.	65.54
Dowicil 200 preservative	0.10
Methocel 40-100	0.90
Versene 100 (EDTA)	0.11
Ammonium lauryl sulfate (28% active)	28.40
Coco-diethanolamide (liquid)	4.00
Citric acid	0.20
Sodium chloride	0.75

Note:

Alternately, one could use Methocel 40-202 at 1.3% for an exceptionally clear shampoo. Any alkali source will suffice to activate surface treated Methocel products. Other examples include alkanolamines, aminomethylpropane, or dilute sodium hydroxide. Methocel hydroxypropyl methylcellulose not only provides thickening, but also contributes to production of luxurious and stable foam.

Procedure:

This is a cold process shampoo, no heating required.

1. Add the indicated cool water to a stirred vessel and dissolve the Dowicil 200 preservative.
2. Mix in the thickener, Methocel 40-100 hydroxypropyl methylcellulose surface treated powder, and activate it by adding liquid Versene 100, an alkaline EDTA chelating agent for water hardness ion control.
3. Continue mixing at low to moderate speeds to minimize foaming and to enable hydration of the Methocel 40-100. The resulting solution should thicken and turn clear.
4. At this point, one can blend in the surfactants and fatty amide followed by citric acid and salt to adjust final pH and viscosity.
5. Fragrance can be added anytime after the surfactant addition. Alternately, one could use Methocel 40-202 at 1.3% for an exceptionally clear shampoo.

SOURCE: Dow Chemical Co.: Suggested Formulation

High Performance Shampoo

	<u>% by Weight</u>	<u>% Active</u>
Monamate LA-100	9.5%	8.1
Monateric LMM-30	20.0%	6.0
AOS (40%)	15.0%	6.0
Water	55.0%	---

Adjust pH to 5.0

Mix with heat until clear. Cool. Adjust pH.

This shampoo has good viscosity, is crystal clear, non-irritating, and provides an abundance of luxurious lather which cleans hair without stripping.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Low Cost Clear Shampoo (Cold Process)

<u>Ingredients:</u>	<u>Percent by Weight</u>
Dowicil 200 preservative	0.10
Methocel 40-202	1.30
Versene 100 (EDTA)	0.11
Ammonium lauryl sulfate (28% active)	28.40
Coco-diethanolamide (liquid)	4.00
Citric acid	0.20
Ammonium chloride	0.40
Water (20C or colder), q.s.	65.49

Note:

Any alkali source will suffice to activate surface treated Methocel products. Other examples include alkanolamines, amino-methylpropanol, or dilute sodium hydroxide. Methocel hydroxypropyl methylcellulose not only provides thickening, but also contributes to production of luxurious and stable foam, with excellent lubricity.

Procedure:

1. This is a cold process shampoo, no heating required. Add the indicated cool water to a stirred vessel and dissolve the Dowicil 200 preservative.
2. Mix in the thickener, Methocel 40-202 hydroxypropyl methylcellulose surface treated powder, and activate it by adding liquid Versene 100, an alkaline EDTA chelating agent for water hardness ion control.
3. Continue mixing at low to moderate speeds to minimize foaming and to enable hydration of the Methocel 40-202. The resulting solution will thicken and turn clear.
4. At this point, one can blend in the surfactants and fatty amide followed by citric acid and salt to adjust final pH and viscosity.
5. Fragrance can be added anytime after the surfactant addition.

SOURCE: Dow Chemical Co.: Suggested Formulation

Luxurious Shampoo with Soap-Like Feel

The following formula develops excellent lather with a rich soap-like feel and leaves the hair soft and manageable.

	<u>% By Weight</u>	<u>% Active</u>
Water and Preservative	39.0	---
Monamate LNT-40	12.0	4.75
Monamate C-1142	12.0	4.75
Monateric 985A	35.0	12.20
Monamid 1089	2.0	2.00

Add ingredients in order listed and blend until homogeneous. Adjust pH level to 5.5 Viscosity: approximately 2500 cps.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Low Irritation/Sting Shampoo

A shampoo which has good cleaning properties with proven low irritancy and characteristics.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.08
2. Sodium Laureth Sulfate (2 Mole)	16.67
3. Pationic 138C	10.00
4. Ritamid C	3.00
5. Monaquat TG	0.50
6. dl-Panthenol	0.50
7. Methylparaben	0.10
Part B:	
8. Triethanolamine (50%)	+ -2.00
Part C:	
9. Perfume	0.20
10. Glydant 40-700	0.20
Part D:	
11. Sodium Chloride (25% Solution)	2.75

Compounding Procedure:

Heat A to 165F. While mixing, adjust pH to 7.5 with B. Cool to 120F. Add C. Cool to 90F. Adjust viscosity with Sodium Chloride 25% Solution.

Formulation 107-117

Low Irritation Shampoo

A shampoo which has good cleaning properties, yet is proven to have low irritation characteristics. The hair is left soft and manageable due to the use of Pationic 138C and the cationic surfactant Monaquat PTS.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.08
2. Sodium Laureth Sulfate (2 Mole)	16.67
3. Pationic 138C	10.00
4. Ritamid C	3.00
5. Methylparaben	0.10
6. Monaquat PTS	0.50
7. dl-Panthenol	0.50
Part B:	
8. Triethanolamine (50%)	2.00
Part C:	
9. Perfume	0.20
10. Glydant 40-700	0.20
Part D:	
11. Sodium Chloride (25% Solution)	2.75

Compounding Procedure:

Heat A to 165F. While mixing, neutralize to 7.5 with B. Cool to 120F. Add C. Adjust viscosity with Sodium Chloride 25% solution.

Formulation 107-118

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Low Sting Shampoo

A shampoo which has good cleaning properties, yet is proven to be mild.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Pationic 138C	7.50
2. Hamposyl TL 40	18.75
3. Ritapeg 150 DS	2.00
4. Distilled Water	69.32
5. Methyl Parahydroxybenzoate	0.15
Part B:	
6. Potassium Hydroxide (10% Solution)	QS
Part C:	
7. Kathon CG	0.03
8. Perfume	0.25
Part D:	
9. Potassium Chloride (25% Solution)	2.00

Compounding Procedures:

Gently heat Part A with mixing to 165F. Mix until uniform. Begin cooling. Cool to 120F. Check pH. Add/QS amount of Potassium Hydroxide solution to adjust pH up to 7.5. Add perfume and preservative. Cool to 90F. Add Potassium Chloride to adjust viscosity (if needed-3,000 to 4,000 cps seems desirable). Add back water to 100% to compensate for moisture loss.

Low Sting Shampoo

A shampoo which has good cleaning properties, yet is proven to be mild.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Hamposyl TL 40	37.50
2. Ritapeg 150 DS	4.00
3. Distilled Water	56.07
4. Methyl Parahydroxybenzoate	0.15
Part B:	
5. Potassium Hydroxide (10% Solution)	QS
Part C:	
6. Perfume	0.25
7. Kathon CG	0.03
Part D:	
8. Potassium Chloride (25% Solution)	+/-2.00

Compounding Procedure:

Gently heat Part A with mixing to 165F. Mix until uniform. Begin cooling. Cool to 120F. Check pH. Add/QS amount of Potassium Hydroxide solution to adjust pH up to 7.5. Add perfume and preservative. Cool to 90F. Add Potassium Chloride to adjust viscosity (if needed-3,000 to 4,000 cps seems desirable). Add back water to 100% to compensate for moisture loss.

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Low Sting Shampoo

A shampoo which has good cleaning properties, yet is proven to be mild.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Pationic 138C	7.50
2. Hamposyl L	7.50
3. Ritapeg 150 DS	2.00
4. Distilled Water	80.57
5. Methyl Parahydroxybenzoate	0.15
Part B:	
6. Potassium Hydroxide (10% Solution)	QS
Part C:	
7. Perfume	0.25
8. Kathon CG	0.03
Part D:	
9. Potassium Chloride (25% Solution)	2.00

Compounding Procedure:

Gently heat Part A with mixing to 165F. Mix until uniform. Begin cooling. Cool to 120F. Check pH. Add/QS amount of Potassium Hydroxide solution to adjust pH up to 7.5. Add perfume and preservative. Cool to 90F. Add Potassium Chloride to adjust viscosity (if needed-3,000-4,000 cps seems desirable). Add back water to 100% to compensate for moisture loss.

Low Sting Shampoo

A shampoo which has good cleaning properties, yet is proven to be mild.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Hamposyl L	15.00
2. Distilled Water	78.57
3. Ritapeg 150 DS	4.00
4. Methyl Parahydroxybenzoate	0.15
Part B:	
5. Potassium Hydroxide (10% Solution)	QS
Part C:	
6. Perfume	0.25
7. Kathon CG	0.03
Part D:	
8. Potassium Chloride (25% Solution)	2.00

Compounding Procedure:

Gently heat Part A to 165F with agitation. Mix until uniform. Hold at 165F. Add Potassium Hydroxide solution to pH 7.5. Begin cooling. Cool to 120F. Recheck pH and adjust if necessary. Add perfume and preservative. Cool to 80F. Add Potassium Chloride to adjust viscosity (if needed-3,000 to 4,000 cps seems desirable). Add back water to 100% to compensate for moisture loss.

Low Sting Shampoo

A low actives content shampoo with reduced irritation and sting because of the Grilloten LSE 87. Viscosity is adjusted by the use of lauramide, Ritapeg 150DS and salt solution. Panthenol is used to thicken and strengthen the hair fibers and improve luster.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	52.90
2. Sodium Lauryl Ether Sulfate (28%)	30.00
3. Lauramide DEA	5.00
4. Ritapeg 150 DS	2.00
5. Ritabate 20	2.00
6. dl-Panthenol	0.50
7. Methylparaben	0.10
8. Grilloten LSE 87	3.00
9. Color	QS
10. Sodium Chloride (25% Solution) (or to desired viscosity)	4.00
11. Patlac LA (44%)	0.50
12. Fragrance	QS

Compounding Procedure:

Heat water to 70C. Add ingredients in order for items 2-9, bringing temperature back to 70C after each addition and stir until clear. Cool to 40C. Add Patlac LA to adjust pH between 6.5 to 7.0. Add remaining ingredients, except salt solution. Adjust viscosity with salt solution.

Formulation HB-89-PA-10

Low Sting Shampoo

A shampoo which has good cleaning properties, yet is proven to be mild.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Pationic 138C	15.00
2. Distilled Water	78.57
3. Ritapeg 150 DS	4.00
4. Methylparaben	0.15
<u>Part B:</u>	
5. Potassium Hydroxide (10% Solution)	QS
<u>Part C:</u>	
6. Perfume	0.25
7. Kathon CG	0.03
<u>Part D:</u>	
8. Potassium Chloride (25% Solution)	2.00

Compounding Procedure:

Gently heat Part A with mixing to 165F. Mix until uniform. Hold at 165F. Add Potassium Hydroxide solution to pH 7.5. Begin cooling. Cool to 120F. Recheck pH and adjust if necessary. Cool to 80F. Add Potassium Chloride to increase viscosity (if needed-3,000 to 4,000 cps seems desirable). Add back water to 100% to compensate for moisture loss.

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Maximum Conditioning Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Tetrasodium EDTA	0.1
Water	44.3
Ammonium Lauryl Sulfate	18.0
Ammonium Laureth Sulfate (2M. E.O.)	25.0
Cocamidopropyl Betaine (Tego Betaine L-7)	6.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Dimethicone Copolyol (Abil B 88183)	0.4
Dimethicone Copolyol (Abil B 8852)	0.6
Cetyl Dimethicone Copolyol (Abil EM-90)	0.6
Quaternium-80 (Abil Quat 3270)	0.3
Polyquaternium-7	0.5
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservatives	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.2
Ammonium Chloride (25% solution)	As needed to adjust viscosity

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

2:1 Conditioning Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
Water	48.6
Sodium Laureth Sulfate (28%)	40.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.0
Cetyl Dimethicone Copolyol (Abil EM-90)	0.6
Dimethicone Copolyol (Abil B 8852)	0.5
Polyquaternium-7	0.4
Quaternium-80 (Abil Quat 3270)	0.3
Cocamidopropyl Betaine (Tego Betaine L-7)	5.0
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.6

Procedure:

1. Add the ingredients in order, mixing well between the additives.
2. Adjust pH with the Citric Acid.
3. Add the fragrance, color and preservatives. Mix well.
4. Add the Antil 171. Mix well avoiding air entrapment. Maximum viscosity is observed at 24 hours.

Note: Additional viscosity can be obtained by increasing the Antil 171 or by adding Sodium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Mild Shampoo

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		62.2
Sodium Cocoyl Isethionate	Jordapon CI Dispersion	3.0
Ammonium Lauryl Sulfate	Mazon AL-300	25.0
Cocamidopropyl Hydroxysulfate	Mafo CAB-50	8.0
Methyl Paraben		0.2
Tetrasodium EDTA		0.2
Cocamide DEA	Mazamide JT-128	1.0
Fragrance		0.2
Imidazolidinyl Urea	Germa11 115	0.2
Citric Acid		Q.S.

pH: 6.5-7.0

Viscosity: 5,000-8,000 cps (with 0 to 0.4% NaCl)

Appearance: Clear, straw-colored liquid

Foaming: Flash: 25 sec.

Half-life: 6 min., 19 sec.

Density: 45.1 gm/liter

Procedure:

Blend the first six ingredients. With mixing, heat the batch to 45C (115F). When uniform, add the Mazamide JT-128 and fragrance, cooling to 35C (95F). Add the imidazolidinyl urea and adjust the pH.

Note:

A pearlescent product will result if 0.75-1.5% Ethylene Glycol Monostearate or Ethylene Glycol Distearate (Mapeg EGMS, Mapeg EGDS) is added with the initial ingredients. Heat the batch to 60-65C (140-150F) to ensure complete dissolution of the pearl agent.

SOURCE: PPG Industries, Inc.: Formulation A-101

Mild High Foaming Shampoo (28% active)

The following formula is suggested as an everyday shampoo because of its mildness to the skin and eyes and gentleness to the hair. It has excellent flash-foaming properties and develops a dense soapy lather which rinses easily, leaving the hair soft and manageable.

	<u>% By Weight</u>
Water and Preservative	22.9
Monamate LNT-40	20.0
Monateric 985-A	57.1

Procedure:

Add ingredients in order listed. No heat is necessary.

Adjust pH to approximately 6.5.

Viscosity: approximately 1000 cp

SOURCE: Mona Industries, Inc.: Suggested Formulation

Mild Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepan-Mild LSB	29.0
Steol CS-330	22.0
Amphosol CA	14.0
Ninol 40-CO	2.0
Dimethicone copolyol	0.5
Sodium chloride	Q.S.
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Deionized water	Q.S. to 100

Mixing Procedure:

Add first five ingredients to water and mix well. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Attributes:

Clear yellow liquid

pH (as is): 6.0-7.0

Passed three freeze thaw cycles

Passed two weeks of stability at 50C

Viscosity Profile:

as is: 800 cps 0.5% sodium chloride: 830 cps

1.0% sodium chloride: 970 cps 2.0% sodium chloride: 1,200 cps

Comment: Mild shampoo that cleans and conditions

Formulation No. 537

Mild Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	45.0
Ninol 55-LL	5.0
Amphosol CA	5.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add the first three components with D.I. water and mix well. Adjust pH to 5.5-6.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to the desired viscosity with sodium chloride.

Physical Properties:

Clear liquid

pH (as is): 5.5-6.0

Viscosity Profile:

as is: 250 cps

0.5% sodium chloride: 250 cps

1.0% sodium chloride: 8,900 cps

2.0% sodium chloride: 19,550 cps

Passed three freeze thaw cycles

SOURCE: Stepan Co.: Formulation No. 344

Neutralizer Shampoo

For use after relaxer or hair straightener treatment. Will lay down the cuticle, and restore shine and pH balance.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Alpha Olefin Sulfonate (40% active)	37.50
2. Pationic ISL	3.00
3. Monamid 150-LMW-C	3.00
4. Perfume	0.30
5. Methylparaben	0.20
6. Distilled Water	56.00
7. Patlac LA (44%)	QS

Compounding Procedure:

Warm Lauric Myristic Diethanolamide to 140F maximum. Dissolve Pationic ISL and Methylparaben into the Amide. Combine AOS and water. Add Lactylate/Amide mixture to water/AOS. Mix until uniform. Adjust pH to 5.5 with Patlac LA (44%).

Note:

Viscosity may be increased by the use of 2-3% of Ritapeg 150 (PEG 6000 Distearate), which can be added to the Lactylate/Amide blend.

Formulation 105-15

Pationic SSL Lotion Shampoo

A conditioning shampoo which leaves hair soft and manageable.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Sodium Lauryl Sulfate	21.43
2. Sodium Lauryl Ether Sulfate (2 mole)	21.43
3. Kathon CG	0.03
4. Pationic SSL	3.00
5. Methylparaben	0.15
6. Distilled Water	45.56
7. Rita EDGS	3.50
Part B:	
8. Ritamid C	4.50
Part C:	
9. Perfume (Finesse)	0.40
Part D:	
10. Patlac LA (44%)	QS
Part E:	
11. Sodium Chloride (25% Solution)	QS

Compounding Procedure:

Heat Part A to 160-165F with mixing. Mix until uniform. Allow to de-aerate before cooling. Begin cooling with mixing, cool to 140F. Add Part B, cool to 120F. Add Part C, cool to 80-85F. Adjust viscosity with Part E to 3,000-4,000 cps.

Formulation 105-128

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Normal Hair Shampoo

A good, basic shampoo with excellent flash foam and lather which is dense and soft.

<u>Part</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	DeminerIALIZED Water	58.54
	Hydroxypropyl Methylcellulose	Methocel 40-100 0.10
	Na4EDTA	0.20
	Triethanolamine	0.01
B	TEA Lauryl Sulfate	Sipon LT-6 22.50
	Methyl Paraben	0.20
	Imidazolidinyl Urea	Germall 115 0.20
	Ammonium Laureth Sulfate	Alfonic 1412-A 5.50
	Ammonium Cocoyl Isethionate	Jordapon ACI-30 6.70
C	Cocamide DEA	Mazamide 80 3.00
	Isostearamidopropyl Ethyl-	
	dimonium Ethosulfate	M-Quat 522 0.70
	Fragrance	0.10
	Citric Acid	0.25
	Ammonium Chloride	2.00

pH: 6.3-6.7

Viscosity: 5500-6000 cps

Appearance: Clear, straw-colored liquid

In the main vessel, disperse the hydroxypropyl methyl-cellulose in the water, mixing for ten minutes. Add the Na4EDTA and triethanolamine, which initiates hydration of the gum. Mix for about 20 minutes to ensure complete hydration, then add the part B ingredients in order given. When batch is clear and uniform, add the Mazamide 80 and the M-Quat 522, and fragrance, and adjust the pH and viscosity.

Formula A-108

Gel Shampoo

High-viscosity shampoo suitable for tube packaging. Mildness and foam lubricity are enhanced by Jordapon ACI-30 surfactant.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deionized Water	44.1
	Ammonium Lauryl Sulfate	Sipon L-22 31.0
	Ammonium Cocoyl Isethionate	Jordapon ACI-30 15.4
	Na4EDTA	0.2
	Methyl Paraben	0.2
	Imidazolidinyl Urea	Germall 115 0.2
B	Cocamidopropyl Betaine	Mafo CAB 5.8
	Cocamide DEA	Mazamide JT-128 1.5
	Lauric Acid	1.0
C	Fragrance	0.1
	Citric Acid	0.1
	Ammonium Chloride	0.4

pH: 6.3-6.7

Viscosity: 18,000-22,000 cps

Appearance: Clear, pale yellow viscous liquid

Mix the part A ingredients in the main vessel until uniform. In a separate vessel, premix part B, heating to 40C if necessary to dissolve all the lauric acid. Add B to A, mixing continuously. Adjust pH and viscosity with part C ingredients.

SOURCE: PPG Industries, Inc.: Formula A-109

Pearlescent Shampoo

	<u>%(w/w)</u>
Deionized Water	61.75
Sodium Lauryl Sulfate	30.00
Lexaine C (Cocamidopropyl Betaine)	6.00
Lexemul EGMS (Glycol Stearate)	1.00
Lexein X250 (Hydrolyzed Animal Protein)	1.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Citric Acid	0.05
Sodium Chloride (to desired viscosity)	q.s.

Procedure:

Heat water to 70C. Add ingredients slowly with agitation to ensure complete dispersion. Adjust pH, cool to 40C. and fill. Full pearlescence develops within 24 hours.

Observations:

pH (direct): 6.0

Viscosity: 1,625 cps

Formulation SP-94

Moisturizing Shampoo

	<u>%(w/w)</u>
Deionized Water	53.60
Sodium Laurate Sulfate (30%)	25.00
Maypon 4C (Potassium Coco-Hydrolyzed Animal Protein)	10.00
Lexaine O (Oleamidopropyl Betaine)	5.00
Cocamide DEA	1.00
Propylene Glycol USP	3.00
Magnesium Aluminum Silicate	1.00
Hydroxypropyl Methyl Cellulose	1.20
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05

Procedure:

Heat water to 70C. Disperse methyl cellulose and magnesium aluminum silicate. Add remaining ingredients and mix thoroughly. Cool to 40C and fill.

Observations:

pH (direct): 6.7

Viscosity: 2925 cps

SOURCE: Inolex Chemical Co.: Formulation SP-95

Pearlized Alkaline Shampoo

A shampoo with alkaline pH, formulated for effective removal of resin based sprays and sets. Viscosity is derived from the Ritasynt IP and Ritapeg 150 DS. Hair is left soft, with a pleasant after-feel, due to the inclusion of Pationic ISL.

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium Laureth Sulfate (2 Mole)	50.00
2. Distilled Water	38.58
3. Ritasynt IP	4.50
4. Pationic ISL	3.00
5. Laneto 50	1.50
6. dl-Panthenol	0.50
7. Methylparaben	0.10
8. Ritapeg 150 DS	0.50
9. Perfume	+ -0.10
10. Kathon CG	+ -0.05
11. Sodium Hydroxide (20% Solution)	+ -0.67
12. Sodium Chloride (25% Solution)	+ -0.50

Compounding Procedure:

Heat to 165F. Mix, cool to 120F. Add Kathon CG and perfume.
Formulation 103-165

Pearlized Gel Shampoo

This shampoo has a beautiful pearly opaqueness and high viscosity due to the use of Rita Complex B and Rita EGMS.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Ritacomplex B	3.00
2. Rita EGMS	2.00
3. Sodium Laureth Sulfate	53.60
4. Distilled Water	37.20
5. Methylparaben	0.15
<u>Part B:</u>	
6. Distilled Water	0.25
7. dl-Panthenol	0.25
8. Laneto 50	0.75
9. Propylene Glycol	2.50
<u>Part C:</u>	
10. Perfume	0.20
11. Kathon CG	0.10

Compounding Procedure:

Weigh and heat Part A to 165F. Premix distilled water and dl-Panthenol and add to part A, add the balance of Part B to Part A. Cool to 120F, and add Part C.

Viscosity: 25,000 centipoises
Formulation 107-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pearlized Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM	40.0
Amphosol CA	5.0
Glycerine	3.0
Ninol 40-CO	2.0
Kessco Ethylene Glycol Monostearate Pure	2.0
Panthenol	0.1
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium Chloride	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Combine the first five components with D.I. water and heat to 65C. Maintain temperature with mixing until the EGMS is completely melted. Cool to 35C with constant mixing. Adjust pH to 4.5-5.5 with citric acid. Blend in panthenol and mix well. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

Pearly, white viscous liquid
 Passed freeze thaw and elevated heat study
 Viscosity profile: 0% sodium chloride: 2500 cps
 0.5% sodium chloride: 15,400 cps
 1.0% sodium chloride: 28,250 cps

pH (as is): 4.5-5.5

Formulation No. 377

Conditioning Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol WAC	45.00
Ninol 55-LL	3.50
Quaternium 4	1.00
Kessco Ethylene Glycol Distearate	0.50
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Disperse Quaternium 4 in water. Blend in Stepanol WAC, Ninol 50-LL and Kessco EGDS. Heat to 70C, mixing until the Kessco EGDS is completely melted. Cool to 30C. Adjust pH to 6-7 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

White, pearly liquid
 Viscosity Profile: 0.5% sodium chloride: 4450 cps
 1.0% sodium chloride: 5650 cps
 2.0% sodium chloride: 14000 cps

Passed three day freeze thaw cycle and elevated heat study

SOURCE: Stepan Co.: Formulation No. 394

Pearlized Shampoo

A cold process pearlized shampoo with Animal Collagen and Grilloten LSE 87 Soft for conditioning and mildness.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 87K Soft	4.00
2. Distilled Water	15.00
3. Hydrolyzed Animal Collagen	1.50
4. Sodium Laureth Sulfate-40 Mole	30.00
5. Ritasynt-CB	20.00
6. Distilled Water	29.50
7. Preservative	QS
8. Perfume	QS
9. Sodium Chloride (25% Solution)	QS

Compounding Procedure:

Combine ingredients 1, 2 and 3. Mix until uniform (gentle heating will help). Add ingredients 4 and 6 to main mixer. Add ingredient 5 with agitation. Add preservative and perfume. Thicken with salt solution if desired.

Formulation H-89-G-18

Pearlized Shampoo

An opaque conditioning shampoo with reduced eye irritation.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 65K Soft	2.80
2. Distilled Water	43.20
3. Sodium Laureth Sulfate	40.00
4. Cocamidopropyl Betaine	8.00
5. Luviquat FC 500	1.00
6. Ritasynt IP	3.00
7. Sodium Chloride (25% Solution)	+2.00
8. Preservative, Perfume	QS

Compounding Procedure:

Combine ingredients 1 and 2 at room temperature. Begin heating with agitation. Heat to 165 to 170F. Add ingredient 3. Continue mixing and maintain temperature. Add ingredients 4, 5 and 6 while mixing. Maintain temperature. Examine for undissolved material. When uniform, begin cooling. Cool to 120F. Add perfume and preservative. Continue cooling. Adjust viscosity with salt solution.

Formulation H-89-G-19

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pearlized Shampoo

A pearlized, conditioning, acid pH shampoo. Contains dl-Panthenol for hair thickness, repair and luster.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	68.20
2. Xanthan Gum	0.10
3. TEA Lauryl Sulfate	9.40
4. Sodium C14-16 olefin Sulfate	9.50
5. Ritamid C	5.50
6. Pationic ISL	2.50
7. Cocamidopropyl Betaine	1.40
8. Ritabate 20	0.50
9. Ritapeg-165	1.40
10. Stearic Acid	0.50
11. dl-Panthenol	1.00
12. Patlac LA (44%)	QS
13. Preservative	QS
14. Fragrance, Color	QS

Compounding Procedure:

Disperse item 2 into item 1. Heat to 75C. Add ingredients 3-11 with good agitation, maintaining 75C. When mixed well, begin cooling to 25C. Adjust pH to 6.0 with Patlac LA and add remaining ingredients.

Formulation HB-89-PA-12

Pearlized Shampoo

This shampoo has a beautiful pearly opaqueness with the use of Ritasynt IP. Viscosity is derived from the Ritasynt IP and Ritapeg 150 DS. Hair is left soft, with a pleasant after-feel, due to the inclusion of Pationic ISL.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Distilled Water	52.85
2. Sodium C14-16 Olefin Sulfonate	37.50
3. Methylparaben	0.10
<u>Part B:</u>	
4. Ritasynt IP	4.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	2.00
<u>Part C:</u>	
6. Perfume	0.10
7. Kathon CG	0.05
<u>Part D:</u>	
8. Sodium Hydroxide (18% Solution)	0.40
9. Sodium Chloride (25% Solution)	QS

Compounding Procedures:

Heat Part A and Part B to 180F. Add Part B to Part A with agitation and maintain heat for 10 minutes. Cool, with mixing to 120F and add Part C. Adjust pH to 7.0+0.1 with Sodium Hydroxide solution. Adjust viscosity with Sodium Chloride solution.

Formulation 103-28

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Premium Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	45.0
Ninol 30-LL	4.0
Amphosol CG	1.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first three components to D.I. water and mix until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear, yellow liquid

pH (as is): 6.0-7.0

Viscosity Profile: as is: 20 cps

0.5% sodium chloride: 450 cps

1.0% sodium chloride: 2,450 cps

2.0% sodium chloride: 32,650 cps

Passed three freeze thaw cycles

Stable for two weeks at 50C & six months at room temp.

Formulation No. 479

Clear Gel Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-130	60.0
Ninol 30-LL	5.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Steol CS-130 and Ninol 30-LL to D.I. water. Mix until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear light yellow gel

Viscosity: 19,000 cps @ 25C

Stable for two weeks at 50C

Passed three freeze thaw cycles

Stable at room temperature for six months

pH (as is): 6.0-7.0

SOURCE: Stepan Co.: Formulation No. 478

Protein Shampoo

	<u>%(w/w)</u>
Deionized Water	51.65
Sodium C14-16 Olefin Sulfonate (40%)	30.00
TEA Lauryl Sulfate	9.00
Lauramide DEA	3.50
Lexaine C (Cocamidopropyl Betaine)	3.50
Lexein X250 (Hydrolyzed Animal Protein)	2.00
Citric Acid	0.15
Lexgard M (Methylparaben)	0.15
Lexgrad P (Propylparaben)	0.05
Sodium Chloride (to desired viscosity)	q.s.

Procedure:

Heat water to 65C. Disperse ingredients and agitate until clear. Adjust pH and fill.

Observations:

pH (direct): 5.0

Viscosity : 11,100 cps

Formulation SP-90

Protein Enriched Shampoo

	<u>%(w/w)</u>
Deionized Water	53.80
TEA Lauryl Sulfate (40%)	15.00
Ammonium Lauryl Sulfate (30%)	15.00
Cocamide DEA	5.00
Lexaine (Cocamidopropyl Betaine)	5.00
Maypon 4C (Potassium Coco-Hydrolyzed Animal Protein)	2.00
PVP/VA Copolymer	1.50
Ammonium Chloride	1.50
Lexein X250 (Hydrolyzed Animal Protein)	1.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05

Procedure:

Heat water to 70C. Slowly add ingredients and mix until clear. Adjust pH then fill.

Observations:

Adjusted pH (direct): 7.3 with citric acid

Viscosity: 1,300 cps

SOURCE: Inolex Chemical Co.: Formulation SP-88

Protein Shampoo-Normal Hair

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol AM-V	20.00
Stepanol WA-Extra	20.00
Ninol 40-CO	3.00
Hydroxypropyl methylcellulose	0.50
Hydrolyzed animal protein	0.50
Polyvinylpyrrolidone	0.20
Tetrasodium EDTA	0.10
Benzophenone-4	0.05
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add hydroxypropyl methylcellulose to water per the manufacturing instructions. Add first eight components to water mixing well between each addition. Adjust pH to 6.0-6.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

Clear liquid
 pH (as is): 6.0-6.5
 Freeze/thaw stable
 Stable for two weeks at 50C
 Viscosity Profile: as is: 100 cps
 1.0% ammonium chloride: 14,800 cps
 2.0% ammonium chloride: 24,050 cps
 3.0% ammonium chloride: 22,300 cps

Formulation No. 148

Mild Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-130	30.0
Amphosol CA	20.0
Polysorbate 20	5.0
Kessco PEG 6000 Distearate	2.0
Sodium hydroxide	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add the Steol CS-130 and Kessco PEG 6000 Distearate to D.I. water. Heat to 60C and mix until the PEG 6000 Distearate is completely dispersed. Add the polysorbate 20 and Amphosol CA. Blend well and cool to 30C. Adjust pH to 6.5-7.0 with sodium hydroxide. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear, yellow, liquid
 Viscosity @ 25C: 25,500 cps
 Passed three freeze/thaw cycles and one week at 50C

Comment:

Thick shampoo without using additional sodium chloride.

SOURCE: Stepan Co.: Formulation No. 409

Shampoo for Normal Hair

A viscous, clear, high foaming shampoo which conditions and adds body without buildup.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	+47.50
2. Sodium C14-16 Olefin Sulfate	20.00
3. Sodium Lauryl Sulfate	20.00
4. Ritamid C	3.00
5. Cocamidopropyl Betaine	3.00
6. Ritapeg 150 DS	2.00
7. Pationic ISL	2.50
8. Simchin WS	2.00
9. Patlac LA (44%)	QS
10. Sodium Chloride (25% Solution)	QS
11. Fragrance, color and preservatives	QS

Compounding Procedure:

Combine items 1 through 8 and heat to 165F. Mix until uniform. Begin cooling. Cool to 120F. Add fragrance, color and preservatives. Cool to 95F. Adjust pH to 5.5 with Patlac LA (lactic acid). After pH adjustment, adjust viscosity with salt solution. Do not exceed 1% salt (dry basis).

Formulation H-89-S-1

Conditioning Shampoo with Lactylate and Cationic

This clear shampoo has excellent cleaning properties, yet leaves the hair soft and manageable due to the use of Pationic ISL and Monaquat P-TS.

<u>Ingredients:</u>	<u>% W/W</u>
<u>Part A:</u>	
1. Distilled Water	49.95
2. Sodium Laureth Sulfate	40.00
3. Glydant 40-700	0.20
<u>Part B:</u>	
4. Monaquat P-TS	0.75
5. Distilled Water	2.25
<u>Part C:</u>	
6. Ritamid C	2.00
7. Perfume	0.30
8. Pationic ISL	3.00
9. Methylparaben	0.10
10. Propylparaben	0.05
<u>Part D:</u>	
11. Patlac LA (44%)	0.05
12. Sodium Chloride (25% Solution)	1.25
13. Color (1% Solution)	0.10

Compounding Procedure:

Combine Part A. Heat Part B slightly to produce a clear solution. Add to Part A. Combine Part C in order, blending after each addition. Add Part C to AB. Adjust pH to 6.5 with Patlac LA. Adjust viscosity with Sodium Chloride solution. Adjust color.

Formulation 103-108

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Shampoo for Normal Hair

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanol WAT	30.00
Ninol 40-CO	3.00
Hydroxypropyl methylcellulose	0.80
Tetrasodium EDTA	0.10
Benzophenone-4	0.05
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Ammonium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add hydroxypropyl methylcellulose to D.I. water and mix until homogeneous. Add Stepanol WAT, Ninol 40-CO, tetrasodium EDTA, and benzophenone-4. Blend until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with ammonium chloride.

Physical Properties:

Clear, yellow liquid
 pH (as is): 6.0-7.0
 Viscosity: as is: 550 cps
 1.0% sodium chloride: 790 cps
 Passed three freeze/thaw solid cycles
 Stable at 50C for two weeks
 Formulation No. 475

Salt Free Economy Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge 804	15.0
Hydroxyethylcellulose	0.6
Fragrance, Dye, Preservative	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add hydroxyethylcellulose to D.I. Water and heat to 40C, mixing until completely dispersed. Add Bio-Terge 804 and blend until clear. Add fragrance, dye, and preservative, if desired. Viscosity may be modified by using more or less hydroxyethylcellulose.

SOURCE: Stepan Co.: Formulation No. 385

Shampoo for Normal to Oily Hair

	<u>%(w/w)</u>
Deionized Water	44.70
Ammonium Lauryl Sulfate	25.00
Lexaine O (Oleamidopropyl Betaine)	10.00
Coacamide DEA	10.00
Sodium C14-16 Olefin Sulfonate (40%)	4.00
Maypon 4CT (TEA-Coco-Hydrolyzed Animal Protein)	3.00
Propylene Glycol USP	3.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Dye	q.s.
Fragrance	q.s.

Procedure:

Charge batch vessel with water and begin mixing and heating to 70C. Add the methylparaben and propylparaben and continue mixing. Add the propylene glycol. When the materials are completely dissolved begin cooling. At 40C, slowly add the rest of the materials with continued mixing. Adjust pH.

Observations:

pH (direct): 7.1 with citric acid

Viscosity: 1,400 cps

Formulation SP-110

Shampoo for Oily Hair

	<u>%(w/w)</u>
Deionized Water	44.80
Sodium Lauryl Sulfate	40.00
Maypon 4C (Potassium Coco-Hydrolyzed Animal Protein)	10.00
Lexaine C (Cocamidopropyl Betaine)	5.00
Lexgard M (Methylparaben)	0.15
Lexgard P (Propylparaben)	0.05
Dye	q.s.
Fragrance	q.s.
Citric Acid (to desired pH)	q.s.
Sodium Chloride (to desired viscosity)	q.s.

Procedure:

Heat water to 70C. Slowly add ingredients and mix until clear. Fill.

Observations:

pH (direct): 6.4

Viscosity: 125 cps

SOURCE: Inolex Chemical Co.: Formulation SP-99

Shampoo with Protein for Damaged Hair

	<u>% Weight</u>
Phase A:	
Water	49.30
Sorbitol	1.00
Glycol Stearate	1.00
Phase B:	
Cocamidopropylhydroxysultaine	20.00
Disodium Cocamido MIPA Sulfosuccinate	20.00
Sodium Lauroyl Sarcosinate	5.00
Phase C:	
Propyltrimonium Hydrolyzed Collagen (Protectein)	2.00
Phase D:	
Germaxen II	1.00
Citric Acid	0.50
Fragrance	0.10
FD&C Yellow #5 (0.01% Solution)	0.10

Procedure:

Heat water to 80C, add Phase A in order listed. Mix until clear. Add Phase B ingredients in order and mix until homogeneous. Cool to room temperature. Add Protectein slowly, mix until smooth. Add Phase D ingredients and mix until uniform.

Lotion Shampoo with Protein

	<u>% Weight</u>
Phase A:	
Water	52.45
Tetrasodium EDTA	0.10
Polyquaternium-10	0.75
TEA Lauryl Sulfate	30.00
Glycol Stearate	1.50
Cocamide DEA	3.00
Phase B:	
Water	10.00
Hydrolyzed Animal Protein (Crotein SPA)	2.00
Phase C:	
Suttocide A, 50% Solution	0.20

Procedure:

Heat water to 70C. Add Phase A ingredients in order listed, mixing until homogeneous after each addition. Cool batch to 40C. Combine Phase B and add to batch. Add Phase C. Cool to room temperature and adjust pH to 6.3.

SOURCE: Sutton Laboratories: Suggested Formulation

2 in 1 Conditioning Shampoo

This two-in-one shampoo provides light conditioning without build-up during daily use.

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Steol CA-460 (ammonium laureth sulfate)	16.7
Ninol 30LL (lauramide DEA)	4.0
Part B:	
Water	76.9
Carbopol 1342 (acrylates/C10-C30 alkyl) (acrylate cross polymer)	0.8
Dowicil 200 (quaternium 15)	0.1
Part C:	
50% Solution Sodium Hydroxide	q.s.
Part D:	
SF1708-D1 (trimethylsilylamodimethicone)	1.5
Part E:	
Citric Acid	q.s.

Procedure:

- 1) Mix Part B ingredients until Carbopol 1342 is completely dissolved.
- 2) Add Part A to Part B with moderate agitation.
- 3) Add Part C to pH=7.5.
- 4) Add Part D slowly with moderate agitation.
- 5) Add Part E to pH=6.0.

Formulation HP202

Clear Conditioning Shampoo

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Steol CA-460 (ammonium laureth sulfate)	25.0
Ninol 30LL (lauramide DEA)	4.0
Part B:	
Water	67.3
Methocel 60HC (4000)	0.6
Kathon	0.1
Part C:	
SF1188	3.0
Color	q.s.
Perfume	q.s.
Part D:	
Citric Acid	q.s.

Procedure:

- 1) Mix Part B until Methocel is completely dissolved.
- 2) Add ingredients of Part A slowly with slow agitation to avoid air entrainment.
- 3) Add SF1188 also with very slow agitation. Then blend in perfume and color.
- 4) Adjust pH with Part D (citric acid) to 4.5.

Formulation HP204

SOURCE: GE Silicones: Suggested Formulations

2 in 1 Conditioning Shampoo

Viscasil 60M provides heavier conditioning to permed, bleached or other forms of difficult hair to condition.

<u>Materials:</u>	<u>Part/Wt(%)</u>
Part A:	
Steol CS330 (sodium laureth sulfate)	35.7
Ninol 40 CO (cocamide DEA)	4.0
Part B:	
Water	56.9
Carbopol 1382 (acrylates/C10-C30 alkyl acrylate cross polymer)	0.8
Kathon	0.1
Part C:	
50% Solution Sodium Hydroxide	q.s.
Part D:	
Viscasil 60M (dimethicone)	2.5
Part E:	
Citric Acid	q.s.

Procedure:

- 1) Mix Part B ingredients until Carbopol 1382 is completely dissolved.
- 2) Add Part A to Part B with moderate agitation.
- 3) Add Part C to pH=7.5.
- 4) Add Part D slowly with moderate agitation.
- 5) Add Part E to pH=6.0

SOURCE: GE Silicones: Formulation HP203

Shampoo with Protein

	<u>% Weight</u>
Phase A:	
TEA Lauryl Sulfate	25.00
Lauramide DEA	5.00
Cocoamphocarboxyglycinate (Miranol C2M-NP)	5.00
PEG-75 Lanolin, 50% (Solulan L-575)	3.00
Phase B:	
Water	57.30
Hydrolyzed Animal Protein (Crotein SPA)	4.50
Phase C:	
Suttocide A, 50% Solution	0.20

Procedure:

Combine Phase A ingredients in order listed while heating to 70C. When batch is homogeneous, cool to 45C. Combine Phase B and add to batch. Add Phase C and cool to room temperature with mixing. Adjust pH to 7.0.

SOURCE: Sutton Laboratories: Suggested Formulation

Section X

Shaving Products

After Shave Lotion
O/W Emulsion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Glyceryl Stearate (and) Ceteth-20 (Teginacid H)	4.0
Cetyl Dimethicone (Abil Wax 9801)	0.5
Stearyl Alcohol	1.8
Decyl Oleate (Tegosoft DO)	3.5
Caprylic/Capric Triglycerides (Tegosoft CT)	3.5
Isopropyl Myristate (Tegosoft M)	1.7
Phase B:	
Propylene Glycol	3.0
Water	72.0
Phase C:	
SD Alcohol 40A	10.0
Phase D:	
Fragrance	Q.S.
Preservatives	Q.S.
<u>Procedure:</u>	
1. Combine the ingredients of Phase A. Heat to 80C.	
2. Heat Phase B to 80C.	
3. Combine Phases A/B. Mix well. Cool to 60C. Homogenize.	
4. Cool with sweep mix until 40C.	
5. Add ethanol. Mix. Re-homogenize.	
6. Add remaining ingredients. Sweep mix to 25C.	

W/O After Shave Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Cyclomethicone (Abil B 8839)	20.0
Tocopherol Acetate	0.5
Fragrance	Q.S.
Phase B:	
Water	75.9
Sodium Chloride	0.5
Lactic Acid	0.1
Panthenol (50% ig)	1.0
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	1.0
Preservatives	Q.S.
<u>Procedure:</u>	
1. Combine the ingredients of Phase A.	
2. Combine the ingredients of Phase B.	
3. Slowly add Phase B to Phase A with low energy stirring. At all times maintaining a milky appearance.	
4. Homogenize.	

SOURCE: Goldschmidt Chemical Corp.: Formulations

Shave Cream

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		76.9
Carbomer 934	Carbopol 934	0.2
Sodium Cocoyl Isethionate		
(and) Stearic Acid	Jordapon CI Flake	15.0
Propylene Glycol		5.0
PEG 75 Lanolin	Solulan 75	0.5
Preservative		0.2
Fragrance		0.2
Triethanolamine		2.0

Procedure:

Disperse and dissolve the Carbomer 934 in the water. Add the Jordapon CI Flake and heat to 45C (110F) to dissolve. Pre-mix the propylene glycol, PEG 75 lanolin, preservative, and fragrance; add this to the batch. Adjust pH to 7.0-7.5 with triethanolamine. Use this concentrate at 93%, with 7% Propellant A-47.

Formulation P-101

Shave Cream

Rich lather, good razor glide and no calcium soap scum

<u>Ingredient:</u>		<u>Wt. %</u>
Deionized Water		76.9
Carbomer 934	Carbopol 934	0.2
Sodium Cocoyl Isethionate		
(and) Stearic Acid	Jordapon CI Flake	15.0
Propylene Glycol		5.0
PEG 75 Lanolin	Solulan 75	0.5
Preservative		0.2
Fragrance		0.2
Triethanolamine		2.0

Procedure:

Disperse and dissolve the Carbomer 934 in the water. Add the Jordapon CI Flake and heat to 45C (110F) to dissolve. Premix the propylene glycol, PEG 75 lanolin, preservative, and fragrance; add this to the batch. Adjust pH to 7.0-7.5 with triethanolamine. Use this concentrate at 96% with Propellant A-46.

Formulation P-201

SOURCE: PPG Industries, Inc.: Suggested Formulations

Section XI

Soaps and Hand Cleaners

Clear Body Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge 804	50.0
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Bio-Terge 804 to D.I. water. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Attributes:

Clear, yellow liquid

Passed freeze thaw study

Stable for two weeks at 50C & one year at room temperature

Viscosity Profile:

as is: 1559 cps

0.5% sodium chloride: 2800 cps

1.0% sodium chloride: 4200 cps

2.0% sodium chloride: 5400 cps

Formulation No. 388

Pearlescent Body Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge 804	50.0
Kessco Ethylene Glycol Monostearate	0.5
Sodium chloride	Q.S.
Fragrance, dye, preservative	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add Bio-terge 804 and EGMS to water. Heat to 65C and blend until homogeneous. Cool to 40C while mixing. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Yellow, pearly liquid

pH (as is): 6.0-7.0

Viscosity: 5,700 cps

Passed freeze thaw test

Stable for two weeks at 50C

Stable for one year at room temperature

Formulation No. 348

SOURCE: Stepan Co.; Suggested Formulations

Liquid Soap

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium C14-16 Olefin Sulfonate	23.00
2. Cocamidopropyl Betaine	5.00
3. Ritamid C	3.00
4. Glycol Stearate	1.50
5. Pationic ISL	1.00
6. Distilled Water	63.50
7. Propylene Glycol	2.00
8. Sodium Chloride (25% Solution)	+ -1.00
9. Patlac LA (44%)	QS
10. Color, Fragrance, Preservative	QS

Compounding Procedures:

Combine 1-5 and heat to 70C, mix until clear. Combine 6 and 7 and heat to 70C. Combine both phases, mix well, and cool to 40C. Add remaining ingredients. Adjust pH to 6.0 with Patlac LA. Adjust viscosity with Sodium Chloride solution.

Formulation 110-124

Liquid Hand Soap

This liquid hand soap owes its pleasant after-feel to Laneto 50.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.00
2. Alpha Olefin Sulfonate	19.00
3. Sodium Chloride (25% Solution)	1.00
4. Ritamid C	6.00
5. Ritaloe 1X	5.00
6. Coco Betaine	3.00
7. Laneto 50	2.00
Part B:	
8. Patlac LA	QS
Part C:	
9. Preservative	QS
10. Fragrance	QS

Compounding Procedures:

Blend Part A together at room temperature. Adjust pH to 6.0 with lactic acid. Add preservative and fragrance.

Formulation 110-126

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Clear Liquid Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	15.4
Steol CS-460	9.0
Amphosol CA	4.0
Ninol 40-CO	1.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add the first four components to D.I. water and blend until clear. Adjust pH to 5.5-6.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Light yellow liquid

pH (as is): 5.5-6.5

Viscosity Profile:

as is: 25 cps

0.5% sodium chloride: 50 cps

1.0% sodium chloride: 50 cps

2.0% sodium chloride: 50 cps

5.0% sodium chloride: 4750 cps

Passed freeze thaw and elevated temperature study

Formulation No. 389

Clear Liquid Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	15.0
Steol CS-460	9.0
Amphosol CA	4.0
Ninol 96-SL	1.0
Citric acid	Q.S.
Dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add the first four components to D.I. water. Heat to 40C and blend until clear. Adjust pH to 5.5-6.5 with citric acid. Add dye and preervative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Yellow liquid

Passed freeze thaw cycle

pH (as is): 5.5-6.5

Stable for two weeks at 50C

Formulation No. 390

SOURCE: Stepan Co.: Suggested Formulations

Conditioning Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	23.30
Ammonyx MO	5.00
Ninol 96-SL	3.50
Amphosol CA	1.00
Polyquaternium-7	0.25
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D. I. water	Q.S. to 100

Mixing Procedure:

Add 1st five components to water, heat to 60C, blend until homogeneous. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear yellow liquid

Freeze thaw and elevated heat stable

Viscosity Profile:

as is: 1000 cps

0.5% sodium chloride: 13,300 cps

1.0% sodium chloride: 25,300 cps

Formulation No. 371

Emollient Liquid Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-terge AS-40	15.0
Steol CS-460	9.0
Amphosol CA	4.0
Polyquaternium-7	4.0
Ninol 96-SL	1.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Disperse polyquaternium in water and heat to 50C. Add the first three components and Ninol 96-SL and mix well. Adjust pH to 5.5-6.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Yellow clear liquid

pH (as is): 5.5-6.5

Viscosity Profile: as is: 10 cps

1.0% sodium chloride: 40 cps

2.0% sodium chloride: 260 cps

3.0% sodium chloride: 1670 cps

Freeze thaw and elevated heat stable

Formulation No. 373

SOURCE: Stepan Co.: Suggested Formulations

Cold Process Waterless Hand Cleaner

A creamy waterless hand cleaner that owes its smooth texture to Acritamer 934.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. White Mineral Oil	10.00
2. PEG 8 Oleate	3.00
Part B:	
3. Distilled Water	85.60
4. Triethanolamine (50%)	1.00
Part C:	
5. Acritamer 934	0.40

Compounding Procedures:

Mix Part A and Part B separately until clear. Add Part A to Part B slowly with agitation. Add Part C slowly while mixing and continue mixing for 30 minutes. Perfume as desired.

Formulation 110-107

Non-Mineral Spirits Waterless Handcleaner

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Finsolv TN	45.00
2. Laneto 50	4.00
3. Ritalan C	1.00
4. Ritachol 1000	12.00
5. Propylparaben	0.10
6. Grillocin HY-77	0.50
Part B:	
7. Distilled Water	37.30
8. Methylparaben	0.10

Compounding Procedure:

Heat Part A and Part B to 165F. Add Part A to Part B with mixing. Cool to 110F. Pour into jars.

Formulation 104-47

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Handcleaner

A waterless handcleaner containing kerosene for hard to remove dirt and stains. Lanolin and Ritabate 80 leave the hands smooth, and help condition the skin.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Polysorbate 85	3.75
2. Ritabate 80	11.25
3. Anhydrous Lanolin USP	2.00
4. Kerosene	60.00
Part B:	
5. Distilled Water	23.00

Compounding Procedure:

Blend Part A ingredients together and heat to 45-50C. Heat Part B to a similar temperature and add to Part A slowly with mechanical stirring.

Formulation 110-108

Hand Cleanser

A viscous product which moisturizes and leaves a good after feel. Grilloten is used to prevent drying. Pationic ISL and Panthenol are used for moisturization and after feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 87K	3.00
2. Distilled Water	42.50
3. DL Panthenol	1.00
4. Sodium Laureth Sulfate	46.00
5. Pationic ISL	3.50
6. Euperlan PK 900	3.00
7. Sodium Chloride (25% Solution)	1.00
8. Preservative, Perfume	QS

Compounding Procedure:

Stir items 1 and 2 thoroughly. Add other ingredients through item 6, in given order, stirring after each addition. After addition of item 6, mix until uniform. Add perfume. Mix until uniform. Add Sodium Chloride solution to adjust viscosity.

Formulation 110-125

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hand Cleaner

This hand cleaner has a beautiful pearly opaqueness.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Bio Terge AS40	25.00
2. Distilled Water	66.62
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Ritapeg 150 DS	2.00
Part C:	
6. Perfume	0.05
7. Kathon CG	0.05
Part D:	
8. Patlac LA (44%)	+ -0.18
Part E:	
9. Sodium Chloride (25% Solution)	2.00

Compounding Procedures:

Heat Part A and Part B to 185F. Add Part B to Part A with mixing. Avoid aeration. Mix 15 minutes, then cool. At 120, add perfume and Kathon. Adjust pH with Patlac LA. Adjust viscosity with Sodium Chloride solution.

Formulation 101-21

Non-Drying Lotion Hand Cleaner

A surfactant based hand cleaner with Pationic ISL to prevent drying and leave a luxurious after feel.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.80
2. Alpha Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	2.00
Part C:	
7. Sodium Chloride (25% Solution)	1.00
8. Kathon CG	0.05
9. Perfume	0.05
10. Patlac LA (44% Solution)	QS

Compounding Procedure:

Heat ingredients of Part A and Part B to 185F (85C). Add Part B to Part A with agitation and maintain heat until blended. Cool to 120F (50C), add Part C. Adjust pH to 6.0 with Patlac LA (44% solution). Fill.

Formulation 101-30

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Liquid Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	10.00
Stepanol AM	8.74
Stepanol WAT	6.25
Ninol 40-CO	3.00
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first four components to D.I. water and mix until homogeneous. Adjust pH to 5.5-6.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear, yellow liquid
 Passed three freeze/thaw cycles
 Stable at 50C for two weeks
 Viscosity Profile: as is: 10 cps
 2.0% sodium chloride: 430 cps
 3.0% sodium chloride: 2,300 cps

Formulation No. 149

Hand Soap

<u>Ingredients:</u>	<u>% by Wt.</u>
Bio-Terge 804	50.00
Kessco EGMS	1.50
Water, D.I.	34.75
d-Limonene	10.00
Sodium chloride	3.75

Mixing Procedure:

Mix first three ingredients and heat to 60C with slow agitation. EGMS must be thoroughly dispersed in solution. Start cooling while mixing slowly. Add d-Limonene when temperature is between 25C and 30C while mixing. Mix until homogeneous. Add salt and mix until homogeneous.

Properties:

Appearance: Pearled viscous liquid
 pH, as is: 7.0
 Viscosity @ 25C, cps: 5000
 Odor: Citrus

Use Instructions:

Use as is from a dispensing bottle.
 Formulation No. 197

SOURCE: Stepan Co.: Suggested Formulations

Liquid Hand Soap-Clear Type

	<u>(w/w)</u>
Deionized Water	56.70
Sodium C14-16 Olefin Sulfonate (40%)	30.00
Lexaine C (Cocamidopropyl Betaine)	12.00
Lexein X250 (Hydrolyzed Animal Protein)	1.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Sodium Chloride	q. s.
Dye	q. s.
Fragrance	q. s.

Procedure:

Charge water into vessel and heat to 70C. Add Lexgard M and Lexgard P and mix until dissolved. Continue by adding C(14-16) olefin sulfonate, Lexaine C, and Lexein X250 with agitation. Mix until clear. Cool to 40C. Add sodium chloride to desired viscosity. Adjust pH. Cool batch to 30C with continued agitation. Fill.

Observations: Adjusted pH (direct): 7.0 with citric acid
 Viscosity: 1,000 cps
 Formulation SO-101

Liquid Hand Soap-Pearlescent Type

	<u>%(w/w)</u>
Sodium Lauryl Sulfate	30.00
Lexaine C (Cocamidopropyl Betaine)	15.00
Cocamide DEA	1.00
Lexein X250 (Hydrolyzed Animal Protein)	1.00
Lexemul EGDS (Glycol Distearate)	0.50
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Deionized water	52.20
Dye	q. s.
Fragrance	q. s.

Procedure:

Charge water into vessel and heat to 75C. Add all ingredients except fragrance with agitation. Mix until clear. Adjust pH. Continue agitation and let cool to 55C. Add fragrance. Cool to 40C with continued agitation and fill.

Pearl will develop on standing.

Observations: Adjusted pH (direct): 7.0 with citric acid
 Viscosity: 3,000 cps
 Formulation SO-102

SOURCE: Inolex Chemical Co.: Suggested Formulations

Liquid Handwashing Cleanser

This preparation imparts a prolific, creamy textured foam with excellent cleansing characteristics. Bovinal 30 is utilized for its whole protein content imparting skin conditioning and protective qualities. Bovinal 30 is a whole natural ingredient and is not a hydrolysate consisting of a degraded perfume. Ritawax AEO also contributes emollience and lubricating properties to this product.

<u>Ingredients:</u>	<u>% W/W</u>
1. Sodium Laureth Sulfate	15.00
2. Cocamidopropyl Betaine	7.50
3. Ritamid C	3.00
4. Bovinal 30	2.00
5. Ritawax AEO	2.00
6. Lytron 614	0.75
7. Citric Acid	QS
8. Sodium Chloride (25% Solution)	1.00
9. Glydant	0.15
10. Distilled Water	67.85
11. Perfume	QS
12. Color	QS
13. Ritapeg 150 DS	0.75

Compounding Procedures:

Weigh and add the distilled water into a container and begin stirring and heating. Stir by means of a variable speed agitator equipped with a stirrer designed to minimize foaming and possible air entrapment. Begin weighing the other ingredients, with the exception of the perfume and Glydant. When all ingredients have been added, bring the temperature blend to 70-73C and stir until all ingredients have thoroughly dispersed. Begin cooling with continuous stirring to 40-43C and add the perfume and Glydant. Adjust the pH to 5.4 with Citric Acid. Cool to 25-30C and package

SOURCE: R.I.T.A. Corp.: Formulation 110-131

Hand Cleaner with Pumice

<u>Ingredients:</u>	<u>% by Weight</u>
D.I. Water	46.0
Pumice	42.2
Bio-Soft D-62	5.6
Ninol 40-CO	3.6
Potassium citrate	2.6
Sulfuric acid	Q.S.

Mixing Procedure:

Combine the pumice and water; mix until a soft paste. Add Ninol 40-CO and Bio-Soft D-62 and mix until homogeneous. Add potassium citrate and mix thoroughly, avoiding air entrapment into the product. Adjust pH to 7.0-8.0 with sulfuric acid.

Typical Properties:

pH (as is): 7.0-8.0

Grey viscous gel

Product must be shaken before use

SOURCE: Stepan Co.: Formulation No. 369

Liquid Soap

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt.%</u>
A	Deionized Water	71.4
	Sodium Cocoyl Isethionate	Jordapon CI Dispersion 6.0
	Ammonium Lauryl Sulfate	Mazon AL-300 13.0
	Ethylene Glycol Distearate	Mapeg EGDS 0.5
	Na4EDTA	0.1
	Methyl Paraben	0.2
B	Cocamidopropyl Betaine	Mafo CAB 6.0
	Cocamide DEA	Mazamide JT-128 2.5
C	Fragrance	0.2
	Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 2,500-3,500 cps (with 0.6-0.9% NaCl)

Appearance: Creamy, pearlescent liquid

Procedure:

Mix and heat Part A ingredients to 65C (150F). When uniform, add Mafo CAB and Mazamide JT-128. Cool batch to 40C (105F); add fragrance and adjust pH. Adjust viscosity with sodium chloride

SOURCE: PPG Chrmicals, Inc.: Formulation N-101Liquid Soap (Pearlized)

Sodium lauryl ether sulfate (35%)	30.0
Lexate BPQ [Lauramidopropyl Betaine (and) TEA-COCO-Hydrolyzed Animal Protein (and) Oleoamidopropyl Dihydroxypropyl Dimonium Chloride]	10.0
Glycerin	5.0
Lexgard M (Methylparaben)	0.2
Lexgard P (Propylparaben)	0.1
Deionized water	53.7
Lexemul EGMS (Glycol Stearate)	1.0
Lactic acid	to pH 7.0+-0.2

Procedure:

Combine ingredients with heat (70C) and mixing. Adjust pH. Pearl will develop on standing.

SOURCE: Inolex Chemical Co.: Suggested Formulation

Lotion Hand Cleaner

This hand cleaner has a beautiful pearly opaqueness.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	65.10
2. Alpha Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	2.00
Part C:	
7. Sodium Chloride (25% Solution)	+ -0.50
8. Preservative	0.05
9. Perfume	+ -0.05
10. Patlac LA (44%)	+ -0.20

Compounding Procedure:

Heat Part A and Part B to 185F (85C). Add Part B to Part A with agitation and maintain heat until blended. Cool to 120F (50C) and add C. Adjust pH to 6.0 with Patlac LA (44%). Cool to 95F (35C). Package.

Formulation 101-102

Lotion Hand Cleaner

This hand cleaner has a beautiful pearly opaqueness.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	65.00
2. Sodium C14-16 Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Ritapeg 150 DS	2.00
Part C:	
6. Sodium Chloride (25% Solution)	+ -3.75
7. Kathon CG	0.05
8. Perfume	+ -0.05
9. Patlac LA (44%)	+ -0.05

Compounding Procedure:

Heat Part A and Part B to 185F (85C). Add Part B to Part A with agitation and maintain heat until blended. Cool to 120F (50C) and add part C. Adjust pH to 6.0 with Patlac LA. Cool to 95F (35C). Adjust viscosity with Sodium Chloride solution.

Formulation 103-25

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Mild Hand Soap

<u>Ingredients:</u>	<u>% by weight</u>
Steol CS-330	20.0
Amphosol CA	8.0
Ammonyx CDO	5.0
Glycerine	4.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add first four components to D.I. water and mix until clear. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear, yellow liquid
 pH (as is): 6.0-7.0
 Passed three freeze thaw cycles
 Stable for two weeks at 50C
 Viscosity Profile: as is: 10 cps
 1.0% sodium chloride: 40 cps
 2.0% sodium chloride: 2,620 cps
 4.0% sodium chloride: 7,000 cps

Formulation No. 423

Pearlized Hand Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Bio-Terge AS-40	20.0
Amphosol CA	3.8
Ninol 96-SL	2.0
Kessco Ethylene Glycol Monostearate Pure	2.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	>2.0
D.I. water	Q.S. to 100

Mixing Procedure:

Combine first four ingredients with D.I. water. Heat to 65C with agitation and maintain until the solution is clear and homogeneous. Cool to 30C with mixing. Adjust pH to 7.0-8.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with at least 2.0% sodium chloride.

Physical Properties:

White pearly liquid
 pH (as is): 7.0-8.0
 Viscosity Profile:
 2.0% sodium chloride: 2390 cps
 3.0% sodium chloride: 16,300 cps

Passed freeze thaw and elevated temperature study

Comment: Requires at least 2.0% sodium chloride

Formulation No. 393

SOURCE: Stepan Co.; Suggested Formulations

Moisturizing Liquid Hand Soap

<u>Ingredients:</u>	<u>% w/w</u>
Sodium Lauryl Sulfate	10.00
Sodium Laureth Sulfate	20.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.50
Acrylates Stearate-50 Acrylates Copolymer (Antil 208)	0.75
Quaternium-80 (Abil Quat 3272)	0.20
Propylene Glycol	2.00
Dimethicone Copolyol (Abil B88183)	0.50
Water	55.05
Cocamidopropyl Betaine (Tego-Betaine L-7)	5.00
Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48)	3.00
Fragrance	Q.S.
Preservatives	Q.S.
Color	Q.S.

Procedure:

Mix the ingredients in order. Avoid air entrapment.

Germicidal Hand Cleanser

<u>Ingredients:</u>	<u>% w/w</u>
Propylene Glycol (and) PEG-55 Propylene Glycol Oleate (Antil 141 Liquid)	3.5
Cocamidopropyl Betaine (Tego-Betaine L-7)	20.0
Cocamidopropyl Betaine (Tego-Betaine S)	20.0
Dimethicone Copolyol (Abil B 88183)	0.3
Water	55.7
Chlorhexidine	0.5
Sodium Chloride	As Needed
Fragrance	Q.S.

Procedure:

1. Add the water and Tego-Betaine to a vessel-heat to 60C. Mix.
2. Add the Antil 141 Liquid. Mix until uniform.
3. Cool to 40C. Add the remaining ingredients. Adjust viscosity with Sodium Chloride.

Note: If a pearled or opaque product is desired, add 3-4% of Tego-Betaine B-48

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

The following are examples of syndet bar formulations taken from the patent literature:

Neutral pH Detergent Bar

(US Patent #3,376,229, Lever Bros. April 2, 1968)

Jordapon CI Powder	59.0%
Sodium Alkylbenzene Sulfonate	2.0
Stearic Acid	22.7
Sodium Isethionate	1.4
Water	4.2
Soap Chip (80/20 Tallow/Coco)	10.0
Miscellaneous	0.7

Neutral pH Detergent Bar

(US Patent #3,248,333, Hewitt Soap Co. April 26, 1966)

Jordapon CI Powder	25.0%
Milled Bleached White Flour	54.0
Glycerine	3.0
Cornstarch	4.0
Lanolin	1.0
Isopropyl Myristate	2.0
Lactic Acid	2.0
Water	2.0

Solid Iodophor Cleansing Bar

(US Patent #3,687,855, Synergistics, August 29, 1972)

Jordapon CI Powder	20.0%
Polyvinylpyrrolidone Iodine	10.0
Cetyl Alcohol	2.0
PEG-4000	68.0

Applications:

The common bar of soap has provided personal cleanliness for centuries. But soap has several drawbacks which today's sophisticated consumer only grudgingly tolerates: irritancy, drying of the skin, and poor lathering/scum formation in hard water. Jordapon CI Powder's combination of mildness, soft after-feel, and excellent hard water performance offsets each of soap's negatives. Thus, syndet bars based on Sodium Cocoyl Isethionate have been well received by consumers. Jordapon CI Powder also offers advantages to the formulator and processor of syndet bars. The trace quantities of sodium chloride will eliminate salt-induced cracking of the bars. The low free fatty matter minimizes bar softness and tackiness. And the high active level means that Jordapon CI Powder imparts optimum foaming and cleansing performance.

SOURCE: PPG Chemicals, Inc.: Suggested Formulations

Non-Drying Lotion Hand Cleaner

A surfactant based hand cleaner with Pationic ISL to prevent drying and leave a luxurious after-feel.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.30
2. Alpha Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Ritapeg 150 DS	2.00
Part C:	
6. Pationic ISL	3.00
7. Triclorcarban	0.50
Part D:	
8. Sodium Chloride (25% Solution)	1.00
9. Kathon CG	0.05
10. Perfume	0.05
11. Patlac LA (44%)	QS

Compounding Procedures:

Heat ingredients of Part A and Part B to 170F (77C). Premix Part C, then add to Part B. Add Part B to Part A with agitation and maintain heat until blended. Cool to 120F (50C), add Part D. Adjust pH to 6.0 with Patlac LA (44% solution). Fill.

Formulation 110-136

Non-Drying Lotion Hand Cleaner

A surfactant based hand cleaner with Pationic ISL to prevent drying and leave a luxurious after-feel.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	63.30
2. Alpha Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Ritapeg 150 DS	2.00
Part C:	
6. Pationic ISL	3.00
7. Triclocarban	0.50
8. Propylene Glycol	1.00
Part D:	
9. Sodium Chloride (25% Solution)	1.00
10. Kathon CG	0.05
11. Perfume	0.05
12. Patlac LA (44%)	QS

Compounding Procedure:

Heat ingredients of Part A and Part B (separately) to 170F (77C). Premix Part C, then add to Part B, then add Part B and C blend to Part A with agitation and maintain heat until blended. Cool to 120F (50C), add Part D. Adjust pH to 6.0 with Patlac LA (44% solution). Fill.

Formulation 110-137

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Non-Drying Lotion Hand Cleaner

A surfactant based hand cleaner with Pationic ISL to prevent drying and leave a luxurious after-feel.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	64.30
2. Alpha Olefin Sulfonate	25.00
3. Methylparaben	0.10
Part B:	
4. Ritasynt IP	4.00
5. Ritapeg 150 DS	2.00
Part C:	
6. Pationic ISL	3.00
7. Triclosan	0.50
Part D:	
8. Sodium Chloride (25% Solution)	1.00
9. Kathon CG	0.05
10. Perfume	0.05
11. Patlac LA (44% Solution)	QS

Compounding Procedures:

Heat ingredients of Part A and Part B to 170F (77C). Premix Part C, then add to Part B. Add Part B to Part A with agitation and maintain heat until blended. Cool to 120F (50C), add Part D. Adjust pH to 6.0 with Patlac LA (44% Solution). Fill.

Formulation 110-134

Waterless Handcleaner

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	58.25
2. Acritamer 934	0.50
3. Methylparaben	0.10
Part B:	
4. Laneto 50	3.00
5. Triethanolamine (50%)	1.00
Part C:	
6. Mineral Spirits, Deodorized	25.00
7. Ritachol 1000	10.00
8. Propylparaben	0.05
Part D:	
9. Ground Walnut Shells (AD 9 or AD 7 type)	2.00
Part E:	
10. Perfume	0.10
11. Preservative	QS

Compounding Procedures:

Dissolve Methylparaben in water. Then slowly, with mixing, add the Acritamer 934. Mix until thoroughly dispersed. Add Part B with mixing, then heat to 165F. Heat Part C to 165F. Add Part C to Parts A and B with mixing. Add Part D. Mix. Cool with mixing to 120F. Add Part E. Fill.

Formulation 110-135

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pearlized Liquid Soap

A pearlized liquid soap with excellent after feel.

<u>Ingredients:</u>	<u>%W/W</u>
<u>Part A:</u>	
1. Sodium C14-16 Olefin Sulfonate	20.00
2. Ritamid C	3.50
3. Pationic 138C	2.00
4. Pationic ISL	2.00
5. Rita EGDS	0.35
6. Ritapeg 150 DS	0.25
<u>Part B:</u>	
7. Laneto 50	2.00
8. Distilled Water	68.90
<u>Part C:</u>	
9. Sodium Chloride (25% Solution)	+1.00
10. Color, Fragrance and Preservative	QS
11. Patlac LA (44%)	QS

Compounding Procedures:

Combine ingredients in Part A and heat to 70C. Combine ingredients in Part B and heat to 70C. Add Part A to Part B with agitation. Cool to 40C. Add perfume, then cool to room temperature. Adjust pH to 7.0-7.5 with Patlac LA. Adjust viscosity with sodium chloride 25% solution.

Formulation 110-127

Pearlized Liquid Soap

A pearlized liquid soap which does not dry the skin and leaves a smooth feel.

<u>Ingredients:</u>	<u>% W/W</u>
1. Grilloten LSE 87K Soft	4.00
2. Distilled Water	21.00
3. Sodium Laureth Sulfate - 40 Mole	40.00
4. Ritasynt IP	3.00
5. Cocamidopropyl Betaine	8.00
6. Distilled Water	23.00
7. Sodium Chloride (25% Solution)	+1.00
8. Preservative, Perfume	QS

Compounding Procedures:

Combine ingredients 1, and 2 and mix. Heat to 175F. Add ingredient 4 to this premix. Maintain at 175F. Combine ingredients 3, 5 and 6 in main mixer and heat to 175F. Add ingredients 1, 2 and 4 premix to ingredients 3, 5 and 6 while mixing. Mix until uniform. Begin cooling at 120F. At 120F, add perfume and preservative. Cool to 95F with mixing. Adjust viscosity with Sodium Chloride solution.

Formulation 110-129

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Sanitizing Hand Soap

<u>Ingredients:</u>	<u>% by Wt.</u>
Water	83.9
Natrosol 250 HHR	0.5
BTC 2125M (50% active)	5.0
Amphosol CG	5.5
Ammonyx CDO	3.5
Amidox C-5	1.6

Mixing Procedures:

Charge vessel with water and heat to 140F with high speed mixing. Slowly sprinkle in Natrosol 250HHR. Continue to mix until the Natrosol is hydrated and a clear homogeneous solution is obtained. Discontinue heating and add remaining ingredients in order shown. Mix until a clear homogeneous solution is obtained. Finally, adjust pH to 6.7 with 10% citric acid.

Properties:

Appearance: Clear, light yellow liquid
 pH, as is: 6.7
 Density, lbs/gal: 8.35
 Viscosity @ 25C, cps: 100-300

Use Instructions:

This formulation effectively reduces bacterial flora of the skin. For one-step hand washing and sanitizing place approximately 5 cc (ml) in palm of hand, add approx. 15 cc (ml) of water, lather and wash normally. After use, hands must be thoroughly rinsed with potable water. Repeat whenever re-entering production area.

This formulation must be dispensed from an adequate dispenser located a sufficient distance from the processing line to prevent accidental production contamination.

This formulation is authorized for use by USDA in federally inspected meat and poultry processing plants under Category E2: Hand Washing and Sanitizing Compounds.

Efficacy tests have demonstrated that this formulation is effective in water up to 400 ppm hardness as CaCO₃.

Comments:

To market a product based on this formulation, a completed "Application for Authorization of Distributor Product" must be submitted to USDA. Contact Stepan's Regulatory Dept. for assistance.

Storage Stability:

This formulation is freeze/thaw stable. Upon thawing it will return to its original state.

Store in a cool dry place.

SOURCE: Stepan Co.: Formulation No. 74

Skin Conditioning Liquid Soap

	<u>%(w/w)</u>
Deionized Water	52.70
TEA Lauryl Sulfate	35.00
Lexaine O (Oleamidopropyl Betaine)	10.00
Lexein X250 (Hydrolyzed Animal Protein)	2.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Sodium Chloride	q.s.
Dye	q.s.
Fragrance	q.s.

Procedure:

Charge water into vessel and heat to 70C. Add Lexgard M, Lexgard P, TEA lauryl sulfate, Lexaine O, and Lexein X250 with agitation. Mix until clear. Cool to 40C. Add sodium chloride to desired viscosity. Adjust pH. Cool and package.

Observations:

Adjusted pH (direct): 7.0 with citric acid
Viscosity: 200 cps

Formulation SO-103

Clear Gel Hand Soap

	<u>%(w/w)</u>
Ammonium Lauryl Sulfate	49.70
Deionized Water	40.00
Lexaine IS (Isostearamidopropyl Betaine)	10.00
Lexgard M (Methylparaben)	0.20
Lexgard P (Propylparaben)	0.10
Sodium Chloride	q.s.
Dye	q.s.
Fragrance	q.s.

Procedure:

Charge water into vessel and heat to 70C. Add ammonium lauryl sulfate, Lexaine IS, Lexgard M, and Lexgard P with agitation. Mix until clear. Add sodium chloride to desired viscosity. Adjust pH. Cool and package.

Observations:

Appearance: Clear light yellow gel
Adjusted pH (direct): 5.1 with citric acid
Viscosity: 11,000 cps

Formulation SO-104

SOURCE: Inolex Chemical Co.: Suggested Formulations

The following formulations produce both gel and lotion type waterless hand cleaners offering:

Excellent heavy soil detergency	Excellent water rinsability
Quick "break" on application	Ease of manufacture
Excellent shelf stability	

Gel Waterless Hand Cleaner

Water	58.0%
Monamine 853	11.0%
Deodorized Kerosene	27.0%
Oleic Acid	4.0%

Mixing Procedure:

Add ingredients in the order listed with good agitation.

Slow Setting Gel Waterless Hand Cleaner

The addition of Gafac RM-510 to the basic formulation delays the set-time sufficiently to permit liquid filling of containers, and eliminates the need for heavy mixing and piston filling equipment. This system remains flowable for approximately one hour after filling, and on standing overnight develops the desired "pinging" gel structure.

Water	58.0%
Monamine 853	11.0%
Gafac RM-510	2.0%
Deodorized Kerosene	27.0%
Oleic Acid	2.0%

Mixing Procedure:

Add ingredients in the order listed with good agitation.

SOURCE: Mona Industries, Inc.: Suggested Formulations

Waterless Hand Cleaner

<u>Ingredient:</u>	<u>As Supplied, %</u>
Water	47.13
Aculyn 22	1.67
Triton N-101	3
Deodorized Kerosene	38
Mineral Oil	10
NaOH (50%)	0.2

Mixing Procedure:

Add the ingredients in the listed order. High shear mixing is necessary to disperse the solvents (kerosene, oil).

SOURCE: Rohm and Haas Co.: Suggested Formulations

Slow Set Waterless Hand Cleaner

	<u>% by Weight</u>
Water	47.90
Nonyl Nonoxynol - 10 Phosphate	2.40
Nonyl Phenol 9.5 moles E.O.	1.20
Dimethicone Copolyol	0.40
Oleic Acid	1.80
Polysorbate 80 & Acetylated Lanolin Alcohol & Cetyl Alcohol	0.40
Monamine 1255	5.90
Mineral Spirits	40.00

Procedure:

Add in order listed. Slowly add mineral spirits with agitation. Add fragrance, coloring and preservatives as required. Mix until uniform and package.

Appearance:

White pourable lotion which sets in 3-4 hours and becomes a ringing gel after 12 hours.

Fast Set Waterless Hand Cleaner

	<u>% by Weight</u>
Odorless Mineral Spirits	40.0
Monamine 1255	12.0
Monafax 785	0.5
Glycerine (99%)	1.0
Light Mineral Oil	2.0
Water	44.5

Procedure:

Add ingredients as listed except water. Mix well, stop agitation and add water, turn agitation on and mix.

Appearance: White ringing gel

Note:

Product sets immediately upon thorough agitation and requires A piston type filler.

SOURCE: Mona Industries, Inc.: Suggested Formulations

Soft Skin Liquid Soap

<u>Ingredients:</u>	<u>% w/w</u>
Water	54.20
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate	15.00
Sodium Laureth Sulfate	20.00
Cocamidopropyl Betaine (Tego Betaine L-7)	6.00
Dimethicone Copolyol (Tego B 88183)	0.50
PEG-7 Glyceryl Cocoate (Tegosoft GC)	3.00
Fragrance	Q.S.
Preservative	Q.S.
Color	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.20
Sodium Chloride (25% Solution)	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
 2. Add ingredients in order, mixing between additions. Avoid air entrapment.
 3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
 4. Adjust viscosity with the 25% solution of Sodium Chloride
- Note:** For a pearlized formula substitute the following for part of the water:

Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48)	3.00%
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Conditioning Liquid Soap

<u>Ingredients:</u>	<u>% W/W</u>
Water	57.80
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate	30.00
Cocamidopropyl Betaine (Tego Betaine L-7)	8.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
Quaternium-80 (Abil Wax 3272)	0.25
Dimethicone Copolyol (Abil B 88183)	0.35
Fragrance	Q.S.
Preservative	Q.S.
Color	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.00
Sodium Chloride (25% Solution)	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
 2. Add ingredients in order, mixing between additions. Avoid air entrapment.
 3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
 4. Adjust viscosity with the 25% solution of Sodium Chloride.
- Note:** For a pearlized formula substitute the following for part of the water:

Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48)	3.00%
--	-------

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Soap Base Beauty Bar

A high foaming beauty bar which combats dryness and leaves a luxurious after-feel.

Ingredients:

	<u>%W/W</u>
1. Soap Base 80/20 Tallow/Coco	+-94.00
2. Pentasodium Pentetate	QS
3. Tetrasodium Etidronate	QS
4. Perfume Oil K-79-531	1.00
5. Pationic ISL	3.00
6. Polyox WSR N-80	1.50
7. Titanium Dioxide	0.50

Compounding Procedure:

Pre-mix the Pationic ISL and perfume oil to reduce the viscosity of the Pationic ISL and facilitate subsequent incorporation. Combine the other materials to some degree of uniformity using suitable equipment. Add the Pationic-perfume mixture and continue blending until uniform.

pH: 10.1-10.5

Formulation H-89-P-10

Liquid Soap

A high quality liquid soap especially suited to multiple daily use. The Grilloten has been shown to reduce irritation. The Panthenol also helps minimize irritation, plus moisturizes. The Betaine and Euperlan prevent stripping and leave a good after feel.

Ingredients:

	<u>% W/W</u>
1. Grilloten LSE 87K Soft	4.00
2. Distilled Water	43.00
3. DL Panthenol	1.00
4. Sodium Laureth Sulfate	40.00
5. Euperlan PK 810	3.00
6. Cocamidopropyl Betaine	8.00
7. Sodium Chloride (25% Solution)	1.00
8. Preservative, Perfume	QS

Compounding Procedures:

Stir ingredients 1 and 2 thoroughly. Add other ingredients in given order, stirring after each addition. Add Sodium Chloride solution in small amounts to increase viscosity.

Formulation 110-128

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Transparent Liquid Soap

This clear, rich-lathering system has the mildness and soft skin feel of Jordapon ACI-30 surfactant. And it is economical to make, due to the low level of actives and efficient room-temperatures processing.

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>
A	Deminerlized Water	58.80
	Ammonium Lauryl Sulfate	Sipon L-22 18.50
	Ammonium Cocoyl Isethionate	Jordapon ACI-30 9.20
	Na4EDTA	0.20
	Imidazolidinyl Urea	Germa11 115 0.20
	Methyl Paraben	0.20
B	Cocamidopropyl Betaine	Mafo CAB 3.40
	Cocamide DEA	Mazamide JT-128 0.90
	Fragrance	0.05
C	Citric Acid, 50%	0.10
D	Deionized Water	6.75
	Ammonium Chloride	1.70

pH: 6.0-6.5

Viscosity: 2500-3500 cps

Appearance: Clear, nearly water-white liquid

Procedure:

Mix part A ingredients until clear and uniform. In a side vessel, blend part B together. This premix will not be clear, but it will speed up the dissolution of the fragrance. Add B to A, mixing until clear and uniform. Adjust the pH with citric acid. In the side vessel, dissolve the NH4Cl in the part D water, and add to the batch. Viscosity is responsive to NH4Cl level, from under 1000 cps at 1% salt to 4000 cps at 2% salt.

Formulation N-104

Applications: Bars

Jordapon CI Flake offers the bar producer a convenient, preformulated chip. It can be amalgamated, plodded, and stamped much the same as regular soap.

Syndet Bar

Jordapon CI Flake	83.5%
Soap Chips (80/20 Tallow/Coco)	10.0
Water	5.0
Fragrance, Pigments, etc.	1.5
Formulation 7003-49	

SOURCE: PPG Chemicals, Inc.: Suggested Formulations

Waterless Handcleaner

This waterless handcleaner contains Grillocin HY-77 to absorb and neutralize odors. It leaves the hands soft and smooth.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Mineral Spirits, Deodorized	45.00
2. Laneto 50	4.00
3. Ritalan C	1.00
4. Ritachol 1000	12.00
5. Grillocin HY-77	0.50
6. Propylparaben	0.10
Part B:	
7. Distilled Water	37.10
8. Methylparaben	0.10
Part C:	
9. Perfume	0.20

Compounding Procedure:

Heat Parts A and B to 165F. Add Part A to Part B with mixing. Cool to 120F. Add Part C. Fill into jars while warm.

Formulation 104-18

Waterless Handcleaner

This creamy waterless handcleaner owes its smooth texture to Acritamer 934 and Ritachol, and pleasant after feel to Laneto 50.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	60.25
2. Acritamer 934	0.50
3. Methylparaben	0.10
Part B:	
4. Laneto 50	3.00
5. Triethanolamine (50%)	1.00
Part C:	
6. Mineral Spirits, Deodorized	25.00
7. Ritachol 1000	10.00
8. Propylparaben	0.05
Part D:	
9. Perfume	0.10

Compounding Procedure:

Dissolve Methylparaben in water. Then slowly, with mixing, add the Acritamer 934. Mix until thoroughly dispersed. Add Part B with mixing, then heat to 165F. Heat Part C to 165F. Add Part D. Mix. Cool with mixing to 120F. Add Part D. Fill.

Formulation 104-19

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Waterless Handcleaner

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. D-Limonene	5.00
2. Mineral Spirits, Deodorized	40.00
3. Laneto 50	4.00
4. Ritalan C	1.00
5. Ritachol 1000	12.00
6. Grillocin HY-77	0.50
7. Propylparaben	0.10
Part B:	
8. Distilled Water	37.10
9. Methylparaben	0.10
Part C:	
10. Perfume (optional)	0.20

Compounding Procedure:

Heat Parts A and B to 165F. Add Part A to Part B with mixing.
Cool to 120F. Add Part C. Fill into jars while warm.
Formulation 110-132

Waterless Handcleaner

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. D-Limonene	45.00
2. Laneto 50	4.00
3. Ritalan C	1.00
4. Ritachol 1000	12.00
5. Grillocin HY-77	0.50
6. Propylparaben	0.10
Part B:	
7. Distilled Water	37.10
8. Methylparaben	0.10
Part C:	
9. Perfume (Optional)	0.20

Compounding Procedure:

Heat Parts A and B to 165F. Add Part A to Part B with mixing.
Cool to 120F. Add Part C. Fill into jars while warm.
Formulation 110-133

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Waterless Hand Cleanser with Antimicrobial Properties

This waterless hand cleaner is virtually without odor. It has excellent cleansing characteristics and "breaks" rapidly upon application. Forlan L contributes emulsion stability and lanolin-related moisturizing and emollient qualities. Ritachol helps prevent defatting of the skin due to the cleansing related solvent. Antimicrobial properties are imparted by the use of Triclosan.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol	3.00
2. C13-14 Isoparaffin	40.00
3. Emulsifier WHC	14.00
4. Forlan L	2.00
5. Propylparaben	0.10
6. BHA	0.10
7. Triclosan	0.10
8. Distilled Water	40.60
9. Methylparaben	0.10
10. Perfume	QS

Compounding Procedures:

Weigh and add 1-7 ("oil blend") into a container and begin heating and stirring. Heat the "oil" phase to 70-73C. Weigh and add 8 and 9 into another container and begin heating and stirring. When both blends are at 70-73C, add the water/paraben blend to the "oil" phase blend. Begin cooling, after adding all the water containing blend, while stirring continuously. Add 10 at 45-48C. Package fill into suitable containers at 35-40C

Formulation 110-138

Waterless Hand Cleaner

A waterless hand cleaner with Laneto 50 to prevent drying and Grillocin HY-77 to remove objectionable household or industrial odors that have been retained on the hands.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Magnesium Aluminum Silicate	2.00
2. Distilled Water	69.30
Part B:	
3. Propylene Glycol	5.00
4. Cocamidopropyl Betaine	3.00
5. Laneto 50	3.00
6. Sodium Lauryl Sulfate	0.50
Part C:	
7. Glyceryl Oleate	5.00
8. Ritapro 300	1.50
9. Mineral Spirits	10.00
10. Methylparaben	0.10
11. Propylparaben	0.10
12. Grillocin HY-77	0.50

Compounding Procedures:

Add ingredient 1 into 2 and heat with stirring to 50C. Mix B into A, keeping the mixture at 50C. Then mix C into the A and B mixture. Stir until smooth while cooling.

Formulation 110-144

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Section XII

Sun Care Products

All Natural Tan Glow Intensifying Gel

A tanning enhancer gel with tyrosine to hasten tanning with aloe, glycerin and propylene glycol for humectancy and with Panthenol as an anti-inflammatory agent.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	37.00
2. Ritaloe 1X	45.00
3. Acritamer 940	2.00
4. Glycerin	3.50
5. Propylene Glycol	3.50
6. Germaben II	1.00
7. dl-Panthenol	1.00
8. Supersat AWS 4	1.00
9. Tyrosine	2.00
10. Triethanolamine (50%)	4.00
11. Fragrance	QS

Compounding Procedure:

Weigh ingredients 1 and 2 into mixing container. Slowly add ingredient 3 into stirred mixture, stir until completely dispersed. Add ingredients 4-9 into this mixture and stir until completely dispersed. Add ingredient 11. Slowly add ingredient 10 to stirred mixture, stir until the batch is uniform. Pour into suitable containers.

SOURCE: R.I.T.A. Corp.: Formulation HB-89-PA-4

Sun Stick

This product in stick form will serve as a moisturizer for the skin and will give an oil-free smooth coverage of sunscreen which stays effective for a time span.

	<u>% (w/w)</u>
Sodium Stearate C-1	10.00
Glycerine	69.00
Lexquat AMG-0 (Oleamidopropyl Dihydroxypropyl Dimonium Chloride)	10.00
Amerscreen P (Ethyl Dihydroxypropyl PABA)	6.00
SDA-40 (200 P)	5.00

Procedure:

Charge batch vessel with glycerine. Begin mixing and heating to 78C+-2C. Add the sodium stearate C-1 and let it mix. Add the Amerscreen P with mixing. Add the Lexquat AMG-0 and continue mixing. Begin to cool. At 45C, add the alcohol. Continue mixing at this temperature for 10 minutes then pour into the mold.

SOURCE: Inolex Chemical Co.: Formulation SN-100

Improved Wear Sunscreen

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Caprylic/Capric Triglyceride (Tegosoft CT)	3.0
Mineral Oil	3.0
Octyl Palmitate (Tegosoft OP)	1.0
Octyl Stearate (Tegosoft OS)	1.0
Hydrogenated Castor Oil	0.5
Synthetic Wax or Beeswax	0.5
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-13)	10.0
Octyl Methoxycinnamate	4.5
Phase B:	
Water	73.9
Sodium Chloride	0.6
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

Clear Anhydrous Sunscreen

<u>Ingredients:</u>	<u>% w/w</u>
Cyclomethicone (Abil B 8839)	56.0
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	20.0
Diisopropyl Adipate	10.0
C12-15 Alcohols Benzoate	10.0
Octyl Dimethyl PABA	4.0

Procedure:

Mix ingredients in order.

This formula is anhydrous, oil-free and clear. It is quick spreading and hydrophobic on the skin.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Lip Balm with Sunscreen-A

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Petrolatum	40.7
Cetyl Alcohol	4.0
Beeswax	6.0
Carnauba Wax	6.4
Paraffin	16.4
Ozokerite	6.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Stearyl Dimethicone (Abil Wax 9800)	1.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Cetearyl Octanoate (Tegosoft Liquid)	3.0
Mineral Oil	5.0
Phase B:	
Octyl Methoxycinnamate	4.0
Benzophenone-3	1.5
Phase C:	
Color	Q.S.
Fragrance	Q.S.

Lip Balm with Sunscreen-B

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Petrolatum	44.5
Cetyl Alcohol	6.0
Beeswax	14.0
Carnauba Wax	2.0
Paraffin	8.0
Ozokerite	3.0
Cetyl Dimethicone (Abil Wax 9801)	0.5
Stearyl Dimethicone (Abil Wax 9800)	0.5
Caprylic/Capric Triglycerides (Tegosoft CT)	8.0
Cetearyl Octanoate (Tegosoft Liquid)	3.0
Mineral Oil	5.0
Phase B:	
Octyl Methoxycinnamate	4.0
Benzophenone-3	1.5
Phase C:	
Color	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat phase A ingredients together until melted. Begin cooling.
2. Add Phase B, mix until uniform.
3. Add color and fragrance when batch is cooled to a creamy consistency.
4. Mold.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

"PABA Free" Waterproof Sunscreen (Approx. SPF 6)

	<u>% Weight</u>
Phase A:	
Octyl Methoxycinnamate (Escalol 557)	7.50
Octyl Palmitate (Estol EHP 1543)	5.00
Cetyl Alcohol	1.00
Stearic Acid (Emersol 132)	2.00
PEG-40 Stearate (Myrj 52S)	1.50
Dimethicone Copolyol (Abil B8852)	1.00
Dimethyl Stearamine (Armeen DM 18D)	2.00
Phase B:	
Water	66.70
Triethanolamine, 99%	0.70
Acrylates/Octylpropenamide Copolymer (Dermacryl-79)	2.00
Carbomer-941, 2% Solution (Carbopol 941)	10.00
Methylparaben	0.15
Propylparaben	0.10
Phase C: Germall II	0.15
Phase D: Fragrance	0.20

Procedure:

Add triethanolamine to water and heat to 80C, add Dermacryl-79 slowly and disperse it thoroughly. Add Carbopol solution to it and rest of ingredients of Phase B. Mix thoroughly. Combine Phase A ingredients and heat to 80C. Add Phase A to Phase B at 80C. Mix for 15 minutes. Cool to 40C and add Phase C and Phase D to it. Cool to room temperature and package.

Waterproof Sunscreen SPF 22

	<u>% Weight</u>
Phase A:	
Octyl Dimethyl PABA	8.00
Octyl Salicylate	5.00
Octyl Methoxycinnamate (Escalol 557)	7.50
Benzophenone-3 (Escalol 567)	4.00
Octyl Palmitate (Estol EHP 1543)	3.00
Cetyl Alcohol	2.00
PEG-40 Stearate (Myrj 52S)	1.00
Glyceryl Stearate (Estol 1473)	2.00
Dimethicone Copolyol (Abil B8852)	1.00
Stearic Acid (Emersol 132)	6.00
Lauramidopropyl Dimethylamine (Lexamine L-13)	2.00
Acrylates/Octylpropenamide Copolymer (Dermacryl-79)	2.00
Phase B:	
Water	53.60
Carbomer-941 (Carbopol 941)	0.20
Triethanolamine, 99%	1.50
Phase C: Germaben II-E	1.00
Phase D: Fragrance	0.20

Procedure:

Disperse Carbopol 941 in water and heat to 80C; add triethanolamine slowly to prepare Phase B. Combine Phase A ingredients except Dermacryl-79 and heat to 80C. Sift Dermacryl-79 into the oil phase with constant stirring until dissolved. Add Phase A to Phase B at 80C and mix for 15 minutes. Cool to 45C, add Phase C and Phase D. Continue cooling to room temperature and package.

SOURCE: Sutton Laboratories; Suggested Formulations

Pearlescent Waterproof Sun Creme

This formula is a light textured oil in water emulsion which contains a high percentage of Flamenco Ultra Silk pearl pigment. An attractive pearlescent cream, this product also functions as an effective waterproof sunscreen.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	PVP/Eicosene Copolymer (Ganex V220)	4.10
	Stearic Acid	3.30
	Triisostearyl Trilinoleate (Schercemol TIST)	3.30
	Isononyl Isononanoate (Wickenol 151)	3.30
	Octyl Methoxycinnamate (Parso1 MCX)	2.60
	Cetyl Alcohol (Adol 52)	0.80
	Benzophenone-3 (Uvinul M-40)	0.80
	Dimethicone (Dow Corning 200 Fluid)	0.20
	Antimicrobials (oil soluble)	q.s.
B.	DEA Cetyl Phosphate (Amphisol)	2.00
C.	Water (q.s. to 100%)	46.60
	Glycerin	4.10
	Antimicrobials (water soluble)	q.s.
	Carbomer 940-2% aqueous solution (Carbopol 940)	3.80
D.	Triethanolamine	0.10
E.	Flamenco Ultra Silk	25.00

Procedure:

- I. Separately heat Phase A and Phase C to 80+-3C while mixing until completely uniform.
- II. Stir Phase B into Phase A until homogeneous.
- III. Add pre-mixed Phase A & Phase B to Phase C while mixing until completely uniform. Then cool to 40C with slow stirring.
- IV. Add Phase D with stirring.
- IV. Disperse pigment (Phase E) into warm base.
- V. Cool to 30C and fill.

SOURCE: The Mearl Corp.; Formulation CLS-921967

Moisturizing Water Resistant Sunscreen Gel

<u>Ingredients:</u>	<u>% W/W</u>
Phase A:	
Water, Deionized	q.s.
PVM/MA Decadiene Crosspolymer (Stabileze 06)	0.40
Phase B:	
Sodium Hydroxymethylglycinate (Suttocide A)	0.40
Phase C:	
Phenoxyethanol	0.60
Phase D:	
Maleated Soybean Oil (Ceraphyl GA-D)	2.00
Aloe Vera Gel (10X Concentrate)	0.20
Tocopheryl Acetate	0.05
Soluble Collagen	0.05
Octyl Methoxycinnamate (Escalol 557) or Octyl Dimethyl PABA (Escalol 507)	5.00
Fragrance	0.10

SOURCE: ISP Van Dyk, Inc.; Formulation #K142-52-1

Pearly Bronze/Copper Suntan Cream

A suntan cream containing a high percentage of a copper or bronze pearl pigment not only has the advantage of color/function association, but can create an attractive "instant tan". A wide range of shades can be produced to satisfy different opinions on how a tan should look.

<u>Phase:</u>	<u>Ingredients:</u>	<u>% wt.</u>
A.	Octyl Methoxycinnamate (Parsol MCX)	3.00
	Lanolin Acid (Amerlate LFA)	3.00
	Isopropyl Lanolate (Amerlate P)	1.50
	Petrolatum (and) Lanolin (and) Lanolin Alcohol (Amerchol C)	4.00
	Mineral Oil, 70 visc. (Carnation White Mineral Oil)	3.50
	Glyceryl Stearate SE (Tegin)	6.00
	Stearyl Alcohol	3.00
	Ozokerite (170D)	5.00
	Antimicrobials (oil soluble)	q.s.
	Antioxidants	q.s.
B.	Triethanolamine	1.00
	Methyl Gluceth-10 (Glucam E-10)	2.50
	Water (q.s. to 100%)	62.50
	Antimicrobials (water soluble)	q.s.
	Fragrance	q.s.
C.	Cloisone' Super Copper 350Z	5.00

Procedure:

- I. Separately heat Phase A and B to 80+-3C.
- II. Stir Phase B into Phase A until homogeneous. Then cool to 40C with slow stirring.
- III. Disperse pigment (Phase C) into Phase A-B.
- IV. Cool to 30C and fill.

SOURCE: The Pearl Corp.: Formulation CLS-921965

Sunscreen Cream(SPF 15)

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
PVM/MA Decadiene Crosspolymer (Stabileze 06)	0.4
Water, Deionized	q.s.
Phase B:	
Sodium Hydroxymethylglycinate (Suttocide A)	0.5
Phase C:	
Octyl Methoxycinnamate (Escalol 557)	7.5
Benzophenone-3 (Escalol 567)	3.0
Octyl Salicylate (Escalol 587)	3.0
Hydrogenated Polyisobutenes (Panalane L-14E)	5.0
Isocetyl Stearoyl Stearate (Ceraphyl 791)	7.0
Glycol Stearate SE (Cerasynt MN)	7.0
PEG-20 Stearate (Cerasynt 840)	3.0
Phase D:	
Fragrance	0.1
Water, Deionized	4.0
Allantoin	1.0

SOURCE: ISP Van Dyk, Inc.: Formulation #G139-28-3

Presun Moisture Accelerator

	<u>% Weight</u>
Phase A:	
Polysorbate 80	3.00
Octyl Palmitate	2.50
Glyceryl Stearate	2.50
Stearyl Alcohol (Crodacol S-95)	2.00
Tocopheryl Linoleate (Vitamin E Linoleate)	1.50
Sorbitan Stearate	1.50
Cetyl Esters	1.50
Tocopheryl Acetate (Vitamin E Acetate)	1.00
Phase B: Water	80.35
Panthenol (Dexpanthenol)	1.00
Carbomer-934 (Carbopol 934)	0.30
Phase C: Triethanolamine, 50% Solution	0.60
Phase D:	
Corn Oil (and) Retinyl Palmitate (Vitamin A Palmitate P1M0/BH)	1.20
Germaben II-E	0.75
Fragrance	0.20
Tocopherol (Vitamin E Alcohol)	0.10

Dissolve panthenol in water, sprinkle in Carbopol 934, mix until properly dispersed. Separately heat Phase A and Phase B to 75C; add Phase A to Phase B with agitation. Using paddle-type mixer, add Phase C. Cool to 40C and add Phase D. Cool to room temperature, mixing until smooth.

After Sun Moisturizer

	<u>% Weight</u>
Phase A:	
Water	56.05
Polyacrylamide	0.15
Carbomer-940 (Carbopol 940, 2% Solution)	15.00
Phase B:	
Wheat Germ Oil Fatty Acids (and) Wheat Germ Oil (and) Tocopherol (EFA-Plex WGOFA)	0.30
Stearic Acid	1.70
Cetyl Alcohol	3.00
Lanolin Oil (Ivarlan 3100)	2.00
Sorbitan Sesquiolate (Liposorb SQO)	2.00
Mineral Oil	9.00
C12-15 Alcohols Benzoate (Finsolv TN)	2.50
Phase C: Glycerin	3.00
Tissue Respiratory Factors (Biodynes TRF)	0.70
Phase D: Germaben II	1.00
Water	3.00
Potassium Hydroxide	0.30
Tetrasodium EDTA	0.10
Phase E: Fragrance	0.20

In main vessel, melt Phase B materials at 70C. In side vessel dissolve the polyacrylamide at 75C. Add Carbopol solution to complete Phase A, mix until uniform. Add Phase A to Phase B with rapid agitation. Cool to 50C with sweep agitation. Add Phase C and mix until uniform. Combine Phase D, add to batch. Cool to room temperature, Add Phase E.

SOURCE: Sutton Laboratories; Suggested Formulations

Protective Skin Product with Sunscreen

An excellent protective product for daily use on face or other exposed skin areas.

<u>Materials:</u>	<u>Parts/Wt(%)</u>
Part A:	
SF1202	12.0
Mineral Oil (light)	1.0
Heliopan AV	5.0
SS4267	3.0
SF1228	10.0
Lanolin	0.5
TiO ₂ (micronized)	3.0
Part B:	
Polysorbate 80	0.2
Glycerine	3.0
NaCl	1.0
Water	61.2
Dowicil 200	0.1

Procedure:

- 1) Add Part A ingredients in order as shown, thoroughly mixing each component until homogeneous before adding next ingredient. The solution should remain clear until TiO₂ is added.
- 2) Mix all ingredients of Part B together.
- 3) Add Part B to Part A with good mixing gradually increasing agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
- 4) Mill on homogenizer for 1-2 minutes.

SOURCE: GE Silicones: Formulation SP107
Sunscreen Cream

<u>Phase A:</u>	<u>% Weight</u>
Octyl Methoxycinnamate (Neo Heliopan AV)	7.50
Menthyl Anthranilate (Neo Heliopan MA)	5.00
Cyclomethicone (Dow Corning 344 Fluid)	2.00
Cetyl Octanoate (Trivent OC-16)	4.00
PVP/Eicosene Copolymer (Ganex V-220)	3.00
Polyethylene (AC Polyethylene 617A)	2.00
Cetearyl Alcohol (Lanette O)	0.50
PEG-40 Stearate (Myrj 52S)	0.50
Acrylates/C10-30 Alkyl Acrylate Cross Polymer (Pemulen TR-1)	0.25
Tocopheryl Acetate (Vitamin E Acetate)	0.10
Phase B: Water	59.75
Carbomer-980, 2% Solution (Carbopol 980)	10.00
Propylene Glycol	3.00
Aloe Vera Gel	1.00
Phase C: Triethanolamine, 99%	0.40
Phase D: Germaben II-E	1.00

Procedure:

In a suitable vessel weigh Phase A, heat to 75C and completely disperse Pemulen TR-1. In another vessel able to contain the entire batch, weigh Phase B and heat to 75C with agitation. Mix until uniform, and start cooling with continuous agitation. Cool to 40C and add Phase D. Continue cooling with agitation to 25-28C, pass thru a mill and package.

SOURCE: Sutton Laboratories: Suggested Formulation

Sprayable Sunscreen

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	79.20
Glycerin	3.00
AMP-95	0.12
Part B:	
Octyl Methoxy Cinnamate	7.00
Octyl Salicylate	3.00
Oxybenzone	2.00
C12-15 Alcohols Benzoate	4.00
Oleth-10	0.08
Sorbitan Oleate	0.05
Dimethicone, 100 cs.	0.50
Pemulen TR-2	0.15
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	0.80
Disodium EDTA	0.10

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. In a separate vessel, combine all B ingredients except dimethicone and Pemulen. Heat to 45-50C to hasten dissolution of oxybenzone. Discontinue heating and add Pemulen. Mix to obtain a smooth dispersion. Add dimethicone. Add B to A with rapid agitation. Continue mixing to obtain a smooth emulsion. Add C. Disodium EDTA should be added incrementally such that a Brookfield viscosity of 500-1000 cps is achieved.

Formulation PF-0230 suggested by B.F. Goodrich

Suntan Cream

<u>Ingredients:</u>	<u>% by weight</u>
Stearic acid, triple-pressed	4.50
Cetyl Alcohol	0.90
Mineral Oil	4.75
Pur-Cellin liquid	5.00
Pur-Cellin solid	0.25
Prosolal S9	1.00
Super Sat AWS-4	2.00
AMP-95	0.90
Carbopol 934	0.20
Deionized water	69.75
Preservative	q.s.
Perfume	q.s.

Formulation PF-0105 suggested by Dragoco, Inc.

SOURCE: Angus Chemical Co.: Suggested Formulations

Sun CareSuntan Oil(51485A)

This formula produces an essentially colorless, transparent oil. It spreads evenly and does not leave a greasy feel on the skin.

Drakeol 7, Light Mineral Oil USP	63.7wt%
Isopropyl Palmitate	28.8
Sunscreen	5.0
Wheat Germ Oil	2.5
Fragrance	q.s.

Blend all ingredients at room temperature and package.

Suntan Lotion(514127A)

This lotion is thick and very smooth, with emollient characteristics in addition to its sun screening properties. It goes on smoothly with a nice cushion and leaves a fine moisturizing coating on the skin.

Part A:	
Drakeol 7, Light Mineral Oil USP	18.0wt%
Penreco Snow, White Petrolatum USP	12.0
Glyceryl Stearate	7.0
White Beeswax	3.0
Sunscreen	2.0
Part B:	
Deionized water	58.9
Thickening agent	0.1
Part C:	
Preservatives	q.s.
Fragrance	q.s.

Disperse the thickening agent in the water at 70C. Separately, blend the ingredients in Part A and heat the mixture to 75C. When Part A is uniform, add Part B to Part A and continue to mix until the blend has cooled to room temperature. Add fragrance and preservatives at 45C.

SOURCE: Penreco: Penreco Cosmetics Formulary

Sun Protection Cream (O/W) SPF 5

<u>Ingredients:</u>	<u>% by weight</u>
A. PEG-1 Glyceryl oleostearate and paraffin wax	6.00
Mineral oil high viscosity	14.50
Beeswax, white	3.00
Dimethicone, 100 cs	2.00
Tocopherol acetate	0.50
B. Phenyl benzimidazole sulfonic acid	1.50
C. Tris(hydroxymethyl)aminomethane	0.66
D. Water, demineralized	qs 100.00
E. Glycerin	2.00
Magnesium sulfate heptahydrate	0.70
Preservatives	q.s.

Procedure:

To neutralize B, dissolve C in D. Add B while stirring. When uniform, add E; heat to 80C. Heat A to 75C. Add BCDE slowly to A, stirring gently. Homogenize. Cool while stirring. Add fragrance at 40C, as required. Note: Viscosity 76,000 mPas at 26C.

SOURCE: Angus Chemical Co.: Formulation PF-0221 Suggested by EM Industries, Inc.

Sunscreen Oil

In this formula, Macol 57 and Mazon EE-1 solubilize the actives and reduce the greasiness of the oil. Macol 57, due to its relatively polar structure, helps to offset the hypsochromic shift ("blue shift") in the lambda-max caused by the mineral oil.

<u>Ingredient:</u>	<u>Trade Name:</u>	<u>Wt. %</u>
Benzyl Laurate	Mazon EE-1	20.0
PPG-10 Butanediol	Macol 57	8.0
Homosalate	Uniderm Homsal	8.0
Ethylhexyl p-Methoxycinnamate	Parsol MCX	3.0
Fragrance		Q.S.
Mineral Oil	Drakeol 7	61.0
Appearance: Clear, water-white light oil		

Procedure:

Blend the first four ingredients at ambient temperature, add fragrance. When uniform, blend in the mineral oil.

SOURCE: PPG Industries, Inc.: Formula L-104

Sun-Protection-Gel (Aqueous)

<u>Ingredients:</u>	<u>% by weight</u>
A. Eusolex 232	4.00
Tris Amino brand of tris(hydroxymethyl)aminomethane	1.77
Allantoin	0.20
Sorbitol F liquid	5.00
Preservatives	q.s.
Water, Demineralized	ad 100.00
B. Perfume 72979	0.30
PEG-35 Hydrogenated Castor Oil	0.60
C. Carbopol 940	1.50
Water, Demineralized	36.10
D. Tris Amino	2.40
Water, Demineralized	10.00

Procedure:

To neutralize Eusolex 232 dissolve Tris Amino in the water of Phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of Phase A. Heat to 70C until homogeneous and cool while stirring. Blend ingredients of Phase B. Disperse Carbopol 940 in the water of phase C and homogenize. Dissolve the Tris Amino in the water of phase D. Combine phases C and D and homogenize. Incorporate phases A and B. Homogenize again.

Note: Transparent Gel

Viscosity: 35,000 mPas at 25C

pH: 6.7

Formulation PF-0171 suggested by EM Industries, Inc.

Sun-Protection Cream (O/W)SPF-5 (sun protection factor, FDA-method with 5 human subjects)

<u>Ingredients:</u>	<u>% by weight</u>
A. PEG-1 Glyceryl Oleostearate + Paraffin Wax	6.00
Mineral Oil High Viscosity	14.50
Beeswax, white	3.00
Dow Corning 200 (100 cs)	2.00
Tocopherol acetate	0.50
B. Eusolex 232	1.50
Tris Amino brand of tris(hydroxymethyl)aminomethane	0.66
Glycerine	2.00
Magnesium sulfate heptahydrate	0.70
Preservatives	q.s.
Water, demineralized	to 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris Amino in the water of Phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while gently stirring. Homogenize. Cool down while stirring and add perfume at 40C as required.

Note: Viscosity 76,000 mPas at 26C

Formulation PF-0174 suggested by EM Industries, Inc.

SOURCE: Angus Chemical Co.: Suggested Formulations

Sun Protection Lotion-A

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	9.0
Caprylic/Capric Triglycerides (Tegosoft CT)	8.0
Octyl Stearate (Tegosoft OS)	6.0
Synthetic Wax	1.2
Hydrogenated Castor Oil	0.8
Phase B:	
Octyl Methoxycinnamate	5.0
Titanium Dioxide	5.0
Phase C:	
Water	62.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Sun Protection Lotion-B

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	8.0
Caprylic/Capric Triglycerides (Tegosoft CT)	6.0
Octyl Stearate (Tegosoft OS)	3.0
Synthetic Wax	1.2
Hydrogenated Castor Oil	0.8
Phase B:	
Octyl Methoxycinnamate	12.0
Titanium Dioxide	5.0
Phase C:	
Water	61.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

- Mix the ingredients of Phase A together and heat to 80C. Mix until uniform.
- Cool Phase A to 25C. Add the actives of Phase B. Mill until uniform.
- Mix Phase C (20-25C). Slowly add to the milled Phase A/B with slow mix. At all times maintain a creamy appearance.
- Homogenize.

Note:

Waterproofing polymers may be added to this formula.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Sun Protection Lotion

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	9.0
Carylic/Capric Triglycerides (Tegosoft CT)	8.0
Octyl Stearate (Tegosoft OS)	6.0
Synthetic Wax	1.2
Hydrogenated Castor Oil	0.8
Phase B:	
Octyl Methoxycinnamate	5.0
Titanium Dioxide	5.0
Phase C:	
Water	62.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Sun Protection Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	8.0
Caprylic/Capric Triglycerides (Tegosoft CT)	6.0
Octyl Stearate (Tegosoft OS)	3.0
Synthetic Wax	1.2
Hydrogenated Castor Oil	0.8
Phase B:	
Octyl Methoxycinnamate	12.0
Titanium Dioxide	5.0
Phase C:	
Water	61.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

- Mix the ingredients of Phase A together and heat to 80C. Mix until uniform.
- Cool Phase A to 25C. Add the actives of Phase B. Mill until uniform.
- Mix Phase C (20-25C). Slowly add to the milled Phase A/B with slow mix. At all times maintain a creamy appearance.
- Homogenize.

Note: Waterproofing polymers may be added to this formula.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulas

Sunscreen Cream with TiO₂(514128)

This light, fluffy product goes on easily without leaving a white film or a greasy feel on the skin.

Part A:	
Penreco Snow, White Petrolatum USP	6.00wt%
Sorbitan Sesquioleate	5.00
Mineral Oil (and) Lanolin Alcohol	5.00
Drakeol 9, Light Mineral Oil USP	2.00
Laneth-16 (and) Ceteth-16 (and) Oleth-16 (and) Steareth-16	1.00
Part B:	
Deionized water	74.25
Titanium dioxide	5.00
Thickening agent	1.75
Part C:	
Fragrance and preservatives	q.s.

Disperse the titanium dioxide in the water at 70C with vigorous stirring. Add the thickening agent. Separately, heat Part A to 70C until homogeneous. Add Part A to Part B with stirring. Let the blend cool to room temperature with stirring. At 45C, add Part C.

Sunscreen Lotion Containing TiO₂(514118)

Part A:	
Deionized water	74.90wt%
Glycerin	3.00
Methylparaben	0.20
Propylparaben	0.10
Citric Acid	0.10
Part B:	
Titanium dioxide	4.50
Hydroxyethylcellulose	0.80
Part C:	
Drakeol 7, Light Mineral Oil USP	11.20
Emulsifying Wax	3.50
Cetyl Alcohol	1.00
Dimethicone, 200 cSt	0.50
Vitamin E Acetate	0.20

Heat Part C to 70C with stirring. Add well-mixed Part B to Part C very slowly with vigorous stirring. Stir until smooth. Heat Part A to 70C. Add hot BC to A with rapid stirring. Stir complete mixture at 65-70C for 15 minutes, then cool to room temperature with stirring. If desired, add fragrance at 40C.

SOURCE: Penreco: Penreco Coemetic Formulary

Sunscreen Gel

Phase A:	<u>% Weight</u>
Water	10.80
Carbomer-940, 2% Solution (Carbopol 940)	55.00
SD Alcohol 39-C	5.00
Propylene Glycol	5.00
Propylene Glycol (and) Ethoxydiglycol (and) Aloe Extract (Cremogen Aloe Vera)	2.00
Germaben II	1.00
Phase B:	
Water	10.00
Triethanolamine, 99%	2.20
Panthenol (DL-Panthenol)	0.50
Phase C:	
Phenylbenzimidazole Sulfonic Acid (Neo Heliopan Hydro)	6.70
Phase D:	
Fragrance	0.30
PPG-2-Isodeceth-12 (Sandoxylate SX-424)	1.50

Procedure:

In a suitable vessel able to contain the entire batch, weigh Phase A and mix until uniform. Slowly add Phase B and mix until uniform. Add Phase C and mix until uniform. Add Phase D, (slightly heated) and mix until uniform.

Sunscreen Moisturizing Cream

Phase A:	<u>% Weight</u>
Polyglyceryl-3 Beeswax (Cera Bellina)	6.00
Light Mineral Oil	6.00
Octyl Dimethyl PABA (Escalol 507)	5.10
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	5.00
Castor Oil	3.00
Glycerin	2.00
Isopropyl Palmitate	2.00
Ozokerite 160/164	1.00
Dimethicone (Dow Corning 200 Fluid)	1.00
Phase B:	
Water	64.70
Butylene Glycol	3.00
Sodium Borate	0.20
Phase C:	
Germaben II	1.00

Procedure:

Heat Phase B to 75C under agitation insuring that the entire phase is solubilized. Melt and mix Phase A until homogeneous and a temperature of 75C is maintained. Slowly add Phase A to Phase B under vigorous stirring. Allow to cool to 50C and add Phase C. Cool to 35C and package.

SOURCE: Sutton Laboratories: Suggested Formulations

Sunscreen-High SPF* Formulation

<u>Phase:</u>	<u>Ingredients:</u>	<u>% by Weight</u>
A	Water, Deionized	61.32
A	Aculyn 33	3.33
A	Propylene Glycol	2.00
A	Tetrasodium EDTA	0.10
B	Neoheliopan AV	7.50
B	Benzophenone-3	6.00
B	Octocrylene	8.00
B	Finsolv TN	2.00
B	Ganex V-220	3.00
B	DC 344	2.00
B	Myrj 52S	1.50
B	Promulgen D	1.50
C	Triethanolamine 99%	0.75
D	Preservative	1.00

Manufacturing Instructions:

Heat phase A to 75C, heat phase B to 75C, add phase B to phase A, add phase C and cool to 45C and add phase D.

Viscosity: 34,000

pH: 7.7

* SPF calculated, not clinically tested

Waterproof Sunscreen* Formulation

<u>Phase:</u>	<u>Ingredients:</u>	<u>% by Weight</u>
A	Water, Deionized	63.45
A	Aculyn 22	2.00
A	Aculyn 33	2.00
A	Propylene Glycol	1.00
B	Isopropyl Myristate	5.00
B	DC 344	1.00
B	Cetearyl Alcohol	1.00
B	Amphisol (DEA Cetyl Phosphate)	4.00
B	Neoheliopan AV	7.50
B	Benzophenone-3	6.00
B	Macadamia Nut Oil	5.00
B	Vitamin E Acetate	0.05
C	Preservative	2.00

Manufacturing Instructions:

Heat phase A to 75C, heat phase B to 75C, add phase B to phase A, add phase C and cool to 45C.

*Not clinically tested

This formulation has good pickup and rub out characteristics and does not leave a tacky feeling to the skin.

SOURCE: Rohm and Haas Co.: Suggested Formulations

Sunscreen Lotion

<u>Part</u>	<u>Ingredient:</u>		<u>Wt. %</u>	
A	Methyl Stearoyl Dimethicone	Masilwax 135	4.0	
	Octyl Dimethyl PABA	Escalol 507	4.0	
	Octyl Salicylate	Sunarome WMO	3.0	
	Isopropyl Palmitate	Lexol IPP	1.0	
	Cetyl Alcohol	CO-1695	1.0	
	Ethylene Glycol Monostearate	Mapeg EGMS	1.0	
	Stearic Acid	Emersol 132	1.0	
	Cetearyl Alcohol (and) Cetareth 20	Macol 124	3.0	
	B	Deionized Water		78.2
		Hydroxypropyl Methylcellulose	Methocel 40-100	0.2
Sorbitol		Sorbitol Solution	3.0	
Preservative, EDTA			0.4	
Triethanolamine			0.2	

pH: 6.5-7.0

Viscosity: 59,800 cps

Appearance: Glossy white lotion

Performance: Non-greasy, smooth feel

Procedure:

Pre-mix Part A; heat to 55C. Pre-mix Part B; heat to 55C. Add Part A to B with high shear. Sweep-cool to 35C. If necessary, adjust pH with 50% citric acid in water.

Formulation I-102

Sunscreen Oil

<u>Ingredient:</u>		<u>Wt. %</u>
Cyclomethicone	Masil SF-V	64.9
Octyl Dimethyl PABA	Escalol 507	6.0
Capric/Caprylic Triglyceride	Mazol 1400	5.0
Fragrance		0.1
Isopropyl Palmitate	Propal	24.0

Appearance: Clear, water-white

Performance: A light oil which spreads rapidly and leaves a uniform, non-oily film

Procedure:

Blend all ingredients at room temperature.

Formulation L-102

SOURCE: PPG Industries, Inc.: Suggested Formulations

Sunscreen Lotion

<u>Part:</u>	<u>Ingredient:</u>	<u>Wt. %</u>	
A	Methoxy Stearoxy Dimethicone	Masilwax 135 4.0	
	Octyl Dimethyl PABA	Escalol 507 4.0	
	Octyl Salicylate	Sunarome WMO 3.0	
	Isopropyl Palmitate	Lexol IPP 1.0	
	Cetyl Alcohol	CO-1695 1.0	
	Ethylene Glycol Monostearate	Mapeg EGMS 1.0	
	Stearic Acid	Emersol 132 1.0	
	Cetearyl Alcohol (and) Cetareth 20	Macol 124 3.0	
	B	Deionized Water	78.2
		Hydroxypropyl Methylcellulose	Methocel 40-100 0.2
Sorbitol Sorbitol Solution		3.0	
Preservative, EDTA		0.4	
Triethanolamine		0.2	
pH: 6.5-7.0			
Viscosity: 59,800 cps			
Appearance: Glossy white lotion			
Performance: Non-greasy, smooth feel			
Pre-mix Part A; heat to 55C. Pre-mix Part B; heat to 55C. Add Part A to B with high shear. Sweep-cool to 35C. If necessary, adjust pH with 50% citric acid in water.			
SOURCE: PPG Industries, Inc.: Formula I-102			

Cooling Suntan Lotion

<u>Phase A:</u>	<u>% Weight</u>
Octyl Methoxycinnamate (Neo Heliopan AV)	3.00
Octyldodecanol (Eutanol G)	4.50
PEG-5 Glyceryl Stearate (Arlatone 983S)	2.00
Mineral Oil (Drakeol 7)	2.00
Isopropyl Myristate	2.00
Steareth-10 (Brij-76)	2.00
Menthyl Lactate (Frescolat)	2.00
Cetearyl Alcohol (Lanette O)	1.50
Phase B:	
Water	75.50
Carbomer-934 (Carbopol 934)	0.30
Propylene Glycol	3.00
Phase C:	
Sodium Hydroxide, 10% Solution	1.20
Phase D:	
Germaben II-E	1.00
Fragrance	Q.S.
Procedure:	

In a suitable vessel weigh Phase A and heat to 75C with agitation. In another vessel able to contain the entire batch, weigh water and completely disperse Carbopol 934 with vigorous agitation. Add the remaining ingredients in Phase B and heat to 75C with agitation. Slowly add Phase A to Phase B, mix for 10 minutes and add Phase C. Mix until uniform and start cooling with agitation. Cool to 40C and add Phase D. Continue cooling with agitation to 25-28C and package.

SOURCE: Sutton Laboratories: Suggested Formulation

Sun Screen Oil

This preparation contains a quantity of sun screen agent. It must be noted that the Food and Drug Administration, in its monograph referring to over-the-counter sun screen drug products, has concluded that over-exposure to the sun may lead to premature aging, as well as other negative conditions.

<u>Ingredients:</u>	<u>% W/W</u>
1. Isopropyl Myristate	10.00
2. Ritalan	3.00
3. Ritacetyl	1.75
4. Ritawax AEO	5.00
5. Mineral Oil	72.15
6. Propylparaben	0.10
7. Fragrance	QS
8. Homo Menthyl Salicylate	8.00

Compounding Procedure:

Weigh and add all ingredients with the exception of the fragrance and Homo Menthyl Salicylate into a container and begin stirring. Heat while stirring continuously to a temperature of 67-72C. Hold at this temperature for about 20 minutes, stirring until all ingredients dissolve. Begin cooling. Cool to 40-43C and add the remaining ingredients. Cool to 25-30C and package fill into suitable containers.

Formulation HB-89-L-23

Sun Screen Gel

This Acritamer-based gel has Ritalan and Patlac IL to prevent the skin from drying. NOTE: All sun screen products must be checked to comply with the OTC monograph.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritalan	5.00
2. PEG-32	3.00
3. Octyl Dimethyl PABA	3.00
4. Patlac IL	1.00
5. Acritamer 934	0.60
6. Distilled Water	+56.20
7. Triethanolamine (50%)	1.20
8. SD Alcohol 40	30.00
9. Color, Fragrance, Preservative	QS

Compounding Procedure:

Disperse item 5 into item 6 and heat to 70C. Combine items 1-4 and heat to 70C. Combine both phases with mixing. Add item 7. Cool with mixing to 40C. Add remaining ingredients.

Formulation HB-89-L-24

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Sunscreen Oil

In this formula, Macol 57 and Mazon EE-1 solubilize the actives and reduce the greasiness of the oil. Macol 57, due to its relatively polar structure, helps to offset the hypsochromic shift ("blue shift") in the lambda-max caused by the mineral oil.

<u>Ingredient:</u>		<u>Wt.%</u>
Benzyl Laurate	Mazon EE-1	20.0
PPG-10 Butanediol	Macol 57	8.0
Homosalate	Uniderm Homsal	8.0
Ethylhexyl p-Methoxycinnamate	Parso1 MCX	3.0
Fragrance		Q.S.
Mineral Oil	Drakeol 7	61.0
Appearance: Clear, water-white light oil		

Procedure:

Blend the first four ingredients at ambient temperature, add fragrance. When uniform, blend in the mineral oil.

SOURCE: PPG Industries, Inc.: Formulation L-104

Sun Stick

This product in stick form will serve as a moisturizer for the skin and will give an oil-free smooth coverage of sunscreen which stay effective for a time span.

	<u>% (w/w)</u>
Sodium Stearate C-1	10.00
Glycerine	69.00
Lexquat AMG-0	10.00
Amerscreen P	6.00
SDA-40 (200 P.)	5.00

Procedure:

Charge the batch vessel with glycerine. Begin mixing and heating to 78C+-2C. Add the sodium stearate C-1 and let it mix. Add the Amerscreen P with mixing. Add the Lexquat AMG-0 and continue mixing. Begin to cool. At 45C, add the alcohol. Continue mixing at this temperature for 10 minutes, then pour into the mold.

SOURCE: Inolex Chemical Co.: Formulation SN-100

Sunscreen
O/W with Ethanol

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Steareth-25 (Emulgator E-2568)	2.5
Glyceryl Stearate (Tegin M)	5.5
Cetyl Dimethicone (Abil Wax 9801)	3.0
Dimethicone (Abil 350)	0.5
Stearyl Alcohol	2.5
Benzophenone-3	2.0
Octyl Methoxycinnamate	4.0
Mineral Oil	5.0
Decyl Oleate (Tegosoft DO)	6.5
Phase B:	
Glycerin	3.0
Carbomer 934 (1.5% - NaOH Neutralized)	0.2
Water	55.3
Preservatives	Q.S.
Phase C:	
SD Alcohol 40	10.0
Fragrance	Q.S.
Procedure:	
1. Combine the ingredients of Phase A. Heat to 80C.	
2. Combine the ingredients of Phase B. Heat to 80C.	
3. Mix Phases A & B. Cool to 60C while mixing. Homogenize.	
4. Cool to 45C with sweep mix.	
5. Add Phase C. Rehomogenize. Cool to 25C with sweep mix.	

Titanium Dioxide Sunscreen

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Octyl Isostearate	12.0
Cetyl Dimethicone Copolyol (Abil EM-90)	2.5
Mineral Oil	13.0
Hydrogenated Castor Oil	0.5
Synthetic Wax	1.0
Phase B:	
Titanium Dioxide	8.0
Phase C:	
Water	62.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.
Procedure:	
1. Mix the ingredients of Phase A together and heat at 80C. Mix until uniform.	
2. Cool Phase A to 25C. Add the actives of Phase B. Mill until uniform.	
3. Mix Phase C (20-25C). Slowly add to the milled Phase A/B with slow mix. At all times maintain a creamy appearance.	
4. Homogenize.	
Note: Waterproofing polymers may be added to this formula.	

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Suntan Lotion

This formulation contains Ritaderm for its lipid layer-related attributes, as well as its natural moisturizing factor-like properties. Thus, Ritaderm functions to help protect the skin against negative environmental influence, such as sun, wind, cold and water by imparting moisturizing benefits that assist in maintaining the normal moisture content of the stratum corneum. The lotion is an easily applied oil/water emulsion that "rubs in" quickly, leaving the skin soft and smooth to the touch.

This sun screen preparation is based on the use of Para Amino Benzoic Acid. Based on current regulations, this formulation should be considered a drug item. The SPF (sun protection factor) for this product should be determined by "in vivo" methods to be used on the label.

Ingredients:

	<u>% W/W</u>
1. Distilled Water	72.50
2. Acritamer 941	0.10
3. Propylene Glycol	3.00
4. Methylparaben	0.20
5. Isopropyl Myristate	5.00
6. Ritaderm	5.00
7. Ritacetyl	2.50
8. Ritalan	1.00
9. Cetyl Alcohol	0.70
10. Glyceryl Stearate	1.50
11. Stearic Acid	2.00
12. Mineral Oil	2.00
13. Octyl Dimethyl Paba	2.50
14. Propylparaben	0.10
15. Triethanolamine (50%)	1.60
16. Fragrance	QS
17. Imidazolidinyl Urea	0.30

Compounding Procedure:

Add item 1 into a container and stir by means of a variable speed agitator equipped with a stirrer capable of imparting high shear. Slowly sprinkle in item 2 and stir until it is thoroughly dispersed and no lumps can be seen or felt. Add items 3 and 4 and heat to 70-73C, with stirring, add item 15 to the first blend until completely dispersed. When both blends are at 70-73C, add the first blend to the second blend, stirring continuously to ensure adequate emulsification. After all of the first blend has been added, cool to 40-45C and add the remaining ingredients. Cool to 25-30C and package.

SOURCE: R.I.T.A. Corp.: Formulation H-89-A-6

Suntan Lotion

This lotion will moisturize the skin while providing sunburn protection. Pationic ISL and Glycerin moisturize. Shebu provides emollience which adds to the UV protection.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	77.40
2. Acritamer 934	0.20
3. Glycerin	4.00
4. Xanthan Gum	0.10
5. Supersat	0.50
6. Shebu	2.00
7. Glyceryl Stearate	1.00
8. Octyl Dimethyl PABA	2.00
9. Mineral Oil	7.00
10. Pationic ISL	2.00
11. Stearic Acid	2.00
12. Triethanolamine (50%)	1.80
13. Color, Fragrance and Preservatives	QS

Compounding Procedure:

Disperse item 2 into item 1, add items 3 and 4 and heat to 70C. Combine items 5-11, heat to 70C. Combine both phases, add item 12; cool with mixing to 40C, add remaining ingredients.

Note:

The above provides a minimum of protection. Other sunscreens can be used to obtain better protection and testing must be done to claim a specific SPF.

Formulation HB-89-S-1

Bronzer Gel

A clear gel that imparts color to the skin.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	76.00
2. Acritamer 934	1.00
3. Glycerin	16.00
4. Ritoleth 20	3.00
5. Supersat AWS 4	2.00
6. Triethanolamine (50%)	2.00
7. FDA Approved Dye Solutions	QS
8. Fragrance and Preservatives	QS

Compounding Procedure:

Disperse the Acritamer in water and Glycerin. Combine and melt the Ritoleth 20 and Supersat AWS4 and add to batch while stirring. Add correct dye solution- Recheck for color. Add items 6 and 8 and mix until uniform.

Formulation H-89-A-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Tanning Accelerator Formulation

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	39.70
2. Ritaloe 1X	41.50
3. Acritamer 940	0.10
Part B:	
4. Ritapro 300	2.00
5. Octyl Dimethyl PABA	1.50
6. Simchin	3.00
7. Pationic ISL	3.50
8. Shebu	2.00
9. Supersat AWS 4	2.00
10. Stearic Acid XXX	1.00
11. Rita GMS	2.00
Part C:	
12. DL Panthenol	1.00
13. Triethanolamine (50%)	0.70
14. Preservative	QS
15. Color	QS

Compounding Procedure:

Weigh items 1 and 2 into mixing container. Slowly add item 3 into rapidly mixing blend. Stir until completely dispersed. Weigh items 4 through 11 into another container. Heat both phases to 70C. Pour Part A into Part B. Add item 12 and mix. Add item 13 and mix. Cool mixture to 45C, then add items 14 and 15. Cool to 35C. Fill into suitable containers.

Note: 2.0% Tyrosine may be added to further promote more rapid tanning.

Formulation H-89-S-12

Tanning Oil

This oil will give sunburn protection and will keep the skin soft and smooth. The combined protection of Octyl PABA and Shebu will help prevent burning. Check OTC monograph before marketing any sun product.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritalan C	7.00
2. Pationic ISL	2.00
3. Ritacetyl	1.75
4. Shebu	3.00
5. Mineral Oil	84.25
6. Octyl Dimethyl PABA	2.00
7. Color, Fragrance and Preservative	QS

Compounding Procedure:

Combine and heat ingredients 1-5 to 50C. Mix until uniform. Allow to cool to 40C. Add remaining ingredients, mix until uniform.

Formulation HB-89-S-11

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Titanium Dioxide Based Waterproof Sunscreen
(SPF 12)

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	67.80
Propylene Glycol	5.00
Hydroxypropyl Methylcellulose	0.10
Aminomethyl Propanol	0.25
Disodium EDTA	0.05
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.30
Part B:	
C12-15 Alcohols Benzoate	3.00
Butyl Stearate	3.00
Myristyl Myristate	4.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol 2984	0.20
Part C: Octyl Palmitate (and) Titanium Dioxide	15.00
Polyglyceryl-10 Decaoleate	1.00
1. Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C.	
2. In a separate vessel, combine Part B ingredients. Heat to 50C.	
3. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion.	
4. Using moderate agitation, <u>slowly</u> add Part C to the emulsion. Slowly cool lotion using continued moderate agitation.	

Titanium Dioxide Based Waterproof Sunscreen (SPF12)

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	67.80
Propylene Glycol	5.00
Hydroxypropyl Methylcellulose	0.10
AMP-95	0.25
Disodium EDTA	0.05
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.30
Part B:	
C12-15 Alcohols Benzoate	3.00
Butyl Stearate	3.00
Myristyl Myristate	4.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol 2984	0.20
Part C: Octyl Palmitate (and) Titanium Dioxide	15.00
Polyglyceryl-10 Decaoleate	1.00
Combine A ingredients in a vessel which will contain the entire formulation. Heat to 50C. In a separate vessel, combine B ingredients. Heat to 50C. Using rapid agitation, add B to A. Mix to form a smooth, viscous emulsion. Using moderate agitation, slowly add C to the emulsion. Slowly cool lotion using continued moderate agitation.	
Formulation PF-0229 suggested by BF Goodrich	

SOURCE: Angus Chemical Co.: Suggested Formulations

Waterproof Sun Protection Lotion
SPF-18

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	3.0
Caprylic/Capric Triglyceride (Tegosoft CT)	8.0
Octyl Stearate (Tegosoft OS)	6.0
Synthetic Wax	1.2
Hydrogenated Castor Oil	0.8
Cetyl Dimethicone (Abil Wax 9801)	1.0
Phase B:	
Octyl Methoxycinnamate	5.0
Titanium Dioxide	5.0
Cyclomethicone (Abil B 8839)	5.0
Phase C:	
Water	62.3
Sodium Chloride	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. Mix the ingredients of Phase A together and heat at 80C. Mix until uniform.
2. Cool Phase A to 25C. Add the actives of Phase B. Mill until uniform.
3. Mix Phase C (20-25C). Slowly add to the milled Phase A/B with slow mix. At all times maintain a creamy appearance.
4. Homogenize.

Note: Water proofing polymers may be added to this formula.
Formula LB-27-111

W/O Natural Sun Protection Lotion

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.50
Octyl Palmitate (Tegosoft OP)	6.00
Mineral Oil	1.00
Octyl Stearate (Tegosoft OS)	1.50
Cetyl Dimethicone (Abil Wax 9801)	1.00
Hydrogenated Castor Oil	0.50
Beeswax	1.00
Cyclomethicone (Abil B 8839)	7.50
Phase B:	
Titanium Dioxide	8.00
Phase C:	
Water	70.40
Sodium Chloride	0.60
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formulas

Waterproof Sunscreening Cream (O/W)
SPF 8

A non-greasy, waterproof sunscreen preparation. The polymer provides a waterproof matrix for the sunscreen. The Pationics act as emulsifiers and improve the ease of application. The lactylates and Ritapro moisturize and condition the skin.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Octyl Dimethyl PABA	8.00
2. Stearic Acid	4.00
3. Cetyl Alcohol	1.00
4. Pationic ISL	3.00
5. Pationic SSL	3.00
6. PVP/Eicosene Copolymer	5.00
7. Dimethicone	0.30
8. Shebu Refined	3.00
Part B:	
9. Ritapro 300	2.50
Part C:	
10. Distilled Water	64.00
11. Glycerin	5.00
12. Acritamer 940	0.10
Part D:	
13. Distilled Water	1.00
14. Triethanolamine 99%	0.10
Part E:	
15. Perfume, Preservatives	QS

Heat Part A to 85C while mixing with planetary mixer. Then add Part B. Blend Acritamer into water and glycerin of Part C. Heat to 75C. When both are homogeneous, add Part B to Part C with mixing. Mix until uniform. Add Part D. Begin cooling, cool to 40C. Add Part E. Compensate for water loss, continue mixing until homogeneous, while cooling to 35C.

Formulation HB-89-S-2

Body Spray After Sun Burn

A simple body spray moisturizer to relieve dryness. May be used during or after sun exposure. Ritalan, glycerin and Panthenol soothe, condition and moisturize.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritaloe IX	80.00
2. Glycerin	3.00
3. dl-Panthenol	0.50
4. Methylparaben	0.20
5. Distilled Water	16.30
Combine ingredients and stir until completely dissolved.	
Formulation HB-89-PA-27	

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Water-Resistant Suntan Lotion

<u>Phase:</u>	<u>Ingredients:</u>	<u>Percent by Weight</u>
A	Deionized water	60.90
	Versene powder chelating agent	0.05
	Carbomer 934	0.15
B	Glycerin	3.00
	Propylene glycol	1.00
	Methylparaben	0.20
C	Ethylparaben	0.15
	Propylene glycol	2.00
D	Xanthan gum	0.10
	Solution of 10% Ethocel and diisopropyl adipate	10.00
	Mineral oil	10.00
	Glyceryl stearate	3.00
	Sorbitan stearate	1.00
	Stearic acid	2.00
	Dimethicone	0.50
	Octyl dimethyl PABA	1.50
	Petrolatum white	1.00
	Cetyl alcohol	1.00
E	Deionized water	1.00
	Triethanolamine	0.20
F	Deionized water	1.00
	Dowicil 200 preservative	0.10
G	Perfume oil	0.15

Procedure:

1. Meter deionized water into a compounding vessel and begin mixing without heat. Add Versene powder and mix until dissolved. Sprinkle in Carbomer and mix rapidly until dissolved. Start heating to 80C.
2. Mix together ingredients in phase B and heat to 80C to dissolve parabens. Add to water phase when water phase is above 60C.
3. Mix together ingredients in Phase C and add to water phase at about 60C. (Be sure that xanthan has been well wetted by the propylene glycol).
4. Mix together ingredients in Phase D. Heat to 80C with mixing. Add to water phase when both phases are at 80C. Mix for 5 minutes.
5. Mix together ingredients in Phase E. Add to batch and continue mixing for 10 minutes. Start to cool batch.
6. At 45C add Phase F solution.
7. At 45C add Perfume oil.
8. Continue to mix batch to 35C.

Some ideas you can try:

1. For a "lighter" feel, substitute a vegetable oil for the mineral oil in Phase D.
2. Try using an additive that would be helpful in product marketing, such as aloe vera or skin proteins.

SOURCE: Dow Chemical Co.: Suggested Formulations

Waterproof High SPF Sun Protection Lotion
(W/O Emulsion)
SPF-18

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Octyl Methoxycinnamate	7.0
Benzophenone-3	3.0
Octyl Palmitate (Tegosoft OP)	1.0
Hydrogenated Castor Oil	0.4
Beeswax	0.6
Octyl Stearate (Tegosoft OS)	7.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Mineral Oil	2.0
Phase B:	
Cyclomethicone (Abil B 8839)	6.0
Phase C:	
Sodium Chloride	0.6
Water	69.4
Preservatives	Q.S.
Fragrance	Q.S.
Procedure:	
1. Combine the ingredients of Phase A. Heat to 80C. Mix until the waxes are dispersed.	
2. Cool with stirring until 40-45C. Add the Cyclomethicone.	
3. Mix Phase C. Slowly add to Phase A/B with low energy stirring. Maintain a milky appearance at all times. 4. Homogenize.	
5. Add fragrance with sweep mixer.	

Formula LB-27-109

Waterproof Sun Protection Lotion
(with 8% Titanium Dioxide)
SPF-12

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	5.0
Octyl Stearate (Tegosoft OS)	12.0
Cyclomethicone (Abil B 8839)	8.0
Cetyl Dimethicone (Abil Wax 9801)	3.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	1.0
Mineral Oil	2.0
Phase B:	
Titanium Dioxide	8.0
Phase C:	
Water	60.0
Sodium Chloride	0.5
Fragrance, Preservatives	Q.S.
Procedure:	
1. Combine the ingredients of Phase A. Heat to 80C to melt and disperse the waxes. Cool to 60C. 2. Add the Titanium Dioxide. Disperse and mill the pigment. Cool to 50C. (3) Mix Phase C. Heat to 50C. Add to Phase A/B slowly with low energy stirrer. Maintain a milky appearance at all times. (4) Cool to 35C. Add Phase D. Homogenize.	

SOURCE: Goldschmidt Chemical Corp.; Formula LB-27-105

Waterproof W/O Sunscreen Lotion (PABA)
SPF-12

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Dimethyl PABA	1.4
Phase B:	
Water	70.8
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize. Formula LB-30-66

Waterproof W/O Sunscreen Lotion (PABA/Melanin)
SPF-15

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Dimethyl PABA	1.4
Phase B:	
Water	60.8
Melanin (10% active)	10.0
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formula LB-30-64

Waterproof W/O Sunscreen Lotion (PABA)
SPF-18

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Dimethyl PABA	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize. Formula LB-30-68

Waterproof W/O Sunscreen Lotion (PABA)
SPF-17

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Dimethyl PABA	1.4
Benzophenone-3	2.0
Phase B:	
Water	68.8
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with a sweep mixer. Add fragrance. (4) Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formula LB-30-70

Waterproof W/O Sunscreen Lotion
SPF-18

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

Formula LB-27-107

Waterproof W/O Sunscreen Lotion
SPF 22

<u>Ingredient:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	4.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Almond Oil	2.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formula LB-27-53

W/O Sunscreen Lotion
with Melanin (0.05% active)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	5.0
Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	4.0
Octyl Stearate (Tegosoft OS)	4.0
Cyclomethicone (Abil B 8839)	1.0
Cetyl Dimethicone (Abil Wax 9801)	4.0
Isopropyl Myristate (Tegosoft M)	2.0
Almond Oil	0.8
Hydrogenated Castor Oil	1.2
Microcrystalline Wax	3.0
Octyl Methoxycinnamate	3.0
Phase B:	
Water	68.7
Sodium Chloride	0.8
Melanin (10% active)	0.5
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

W/O Sun Protection Lotion
(maximum protection)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Caprylic/Capric Triglyceride (Tegosoft CT)	4.0
Octyl Palmitate (Tegosoft OP)	5.5
Hydrogenated Castor Oil	0.4
Synthetic Wax or Beeswax	0.6
Cyclomethicone (Abil B 8839)	7.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Octyl Methoxycinnamate	5.0
Benzophenone-3	1.5
Methyl Anthranilate	3.0
Phase B:	
Water	73.9
Sodium Chloride	0.6
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C. (2) Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times. (3) Cool to 35C with sweep mixer. Add fragrance. (4) Homogenize.

SOURCE: Goldschmidt Chemical Corp.; Formulations

W/O Sunscreen Lotion
With Melanin (0.5% active)

<u>Ingredients:</u>	<u>% w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	4.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Almond Oil	2.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	64.2
Sodium Chloride	0.8
Melanin (10% active)	5.0
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance.	
4. Homogenize.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation
Waterproof Sunscreen Lotion (SPF 15)

<u>Ingredients:</u>	<u>% by weight</u>
Part A:	
Deionized Water	72.75
Hydroxypropyl Methylcellulose (1% solution)	10.00
Quaternium-15	0.15
Disodium EDTA	0.05
Part B:	
Octyl Methoxy Cinnamate	7.00
Octyl Salicylate	3.00
Oxybenzone	2.00
C12-15 Alcohols Benzoate	4.00
Pemulen TR-1	0.25
Carbopol 2984	0.20
Methylparaben	0.15
Propylparaben	0.05
Part C:	
AMP-95	0.40

Combine A ingredients. Mix until homogeneous. Combine first four B ingredients in a separate vessel. Mix until oxybenzone has dissolved. Warming will hasten dissolution. Disperse last four B ingredients in B vessel. Mix to break up lumps. With moderate agitation, add B to A. Mix for 20-40 minutes or until a smooth, non-grainy dispersion is apparent. Add C and mix vigorously until until a smooth, lustrous product is obtained.

SOURCE: Angus Chemical Co.: Formula PF-0228:Formula:B.F. Goodrich

Section XIII

Miscellaneous

Antimicrobial Topical Gel

A sanitizing hand cleaner in a convenient gel form.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Distilled Water	46.00
2. Glycerin	1.50
3. Ucon 50HB-660	1.00
Part B:	
4. Isopropyl Alcohol	50.00
5. Acritamer 940	1.00
Part C:	
6. Isopropanolamine/Distilled Water (50/50)	+ -0.50

Compounding Procedures:

Part A: Combine materials with agitation until thoroughly mixed.
 Part B: Sift Acritamer 940 into the isopropyl alcohol with rapid agitation and mix until a thin, cloudy dispersion without lumps is attained. Part C: Combine isopropanolamine and distilled water and mix until thoroughly blended.

Slowly add Part A to Part B with moderate agitation. Continue mixing for 30 minutes to insure a uniform solution. Slowly add Part C with agitation until the pH of the solution is 6.0-6.2 and a clear gel is formed.

Initial Viscosity: 40,000 cps.

48 hour pH: 6.0

48 hour Viscosity: 57,000 cps.

Note: Isopropanyl used at 50% is considered to be a sanitizer.

SOURCE: R.I.T.A. Corp.: Formulation 101-71

Syndet Bar

<u>Ingredient:</u>	<u>Wt. %</u>
Sodium Cocoyl Isethionate (and	
Stearic Acid	Jordapon CI Flake
Soap Chip (80/20 Tallow/Coco)	83.5
Water	10.0
Fragrance, Pigments, etc.	5.0
	1.5

pH (10% Solution): 6.5-7.0

Procedure:

Blend all ingredients in amalgamator. Refine, extrude and stamp bars in normal fashion.

SOURCE: PPG Industries, Inc.: Formulation M-101

Eucalyptus + Mint Emulsion

A light lotion which provides temporary relief to areas sore from exercising.

<u>Ingredients:</u>	<u>Rich</u>
Part A:	
1. Distilled Water	46.25
Part B:	
2. Eucalyptamint	37.50
3. Pationic SSL	7.00
4. Supersat AWS 4	3.50
5. Ritasynt IP	1.75
6. Ritachol 1000	4.00

<u>Ingredients:</u>	<u>Super Rich</u>
Part A:	
1. Distilled Water	42.25
Part B:	
2. Eucalptamint	37.50
3. Pationic SSL	7.00
4. Supersat AWS 4	3.50
5. Ritasynt IP	1.75
6. Ritachol 1000	8.00

Compounding Procedure:

Weigh Part A in a container and heat to 71C. Weigh ingredients of Part B in another container and heat to 71C. Slowly add Part A to Part B. Mix for one hour. Cool stirred mixture to 35-45C. Pour into containers.

Eucalyptus + Mint Type Ointment

An unctuous lotion which has an analgesic effect when applied topically.

<u>Ingredients:</u>	<u>% W/W</u>
1. Menthol	16.00
2. Eucalyptus	4.00
3. Lanolin Anhydrous USP	80.00

Compounding Procedure:

Heat lanolin until melted, approximately 50C. Add remaining ingredients with mixing. Mix for one hour minimum. Fill hot.

Formulation 107-53

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Fluoride Dentifrice

<u>Ingredients:</u>	<u>% by weight</u>
Calcium pyrophosphate	45.00
Sorbitol, 70% aq. soln.	20.00
Sodium lauryl sulfate	1.20
Sodium carboxymethylcellulose	0.60
Sodium saccharine	0.10
Stannous fluoride	0.40
Hexetidine	0.20
Flavoring	0.75
Water	31.75

SOURCE: Angus Chemical Co.: Formulation PF-0214E: UK Patent
2,001,526A held by William R. Warner Co. Ltd. (1979)

Mouthwash

<u>Ingredients:</u>	<u>% by weight</u>
Ethanol	10.00
Glycerol	5.00
Ethoxylated high-purity castor oil (Cremophor EL)	0.25
Zinc Citrate	0.15
Hexetidine	0.20
Flavoring, saccharine	1.00
Water	to 100.00

SOURCE: Angus Chemical Co.: Formulation PF-0215E: European
Patent 0,049,830 A2 held by Professor Hans Muehlmann
(1982)

Gum-Massage Gel

<u>Ingredients:</u>	<u>% by weight</u>
Water	87.69
Allantoin	1.00
Panthenol	5.00
Cetylpyridinium chloride	0.01
Hexetidine	0.10
Methylcellulose	6.00
Peppermint oil	0.20

SOURCE: Angus Chemical Co.: Formulation PF-0216E: Swiss Patent
622,945 held by Hans Lukaschek and Professor Manfred
Maier (1981)

High Quality Dog Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	30.0
Stepanol AM-V	15.0
Glycerine	3.0
Ninol 55-LL	2.0
Ammonyx LO	1.0
Hydroxypropyl Methylcellulose	0.4
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Heat one third required amount of D.I. water to 70C. Add hydroxypropyl methylcellulose and mix until all particles are wetted. Cool to room temperature while adding the remainder of the D.I. water. Mix until solution is clear and particle free. Add the first five components from above, mixing well after each addition. Adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Clear, yellow liquid

pH (as is): 6.0-7.0

Passed three freeze/thaw cycles

Stable for two weeks at room temperature

Stable for four months at room temperature

Stable at 50C for two weeks

Stable for four months at room temperature

Viscosity Profile: as is: 680 cps

0.5% sodium chloride: 4,800 cps

1.0% sodium chloride: 10,450 cps

Evaluated in salon against leading brand. Formulation 484 was easier to comb (wet & dry) than leading brand.

Formulation No. 484

Mild Dog Shampoo

<u>Ingredient:</u>	<u>% by Weight</u>
Amphosol CA	25.00
Polysorbate 20	2.00
Propylene Glycol	2.00
Kessco PEG 6000 Distearate	0.50
Methyl Paraben	0.15
Citric Acid	Q.S.
Fragrance, Dye	Q.S.
D.I. Water	Q.S. to 100

Mixing Procedure:

Add first five components to D.I. water with mixing and heat to 60-65C until all components have melted. Cool with mixing to 40C. Adjust pH to 6.5-7.2 with citric acid. Add fragrance and dye, if desired.

Clear yellow liquid

pH (as is): 6.5-7.2

Viscosity @ 25C: 10 cps

Freeze/thaw stable

Stable at 50C for two weeks

Formulation No. 487

SOURCE: Stepan Co.: Suggested Formulations

Lipid- and Vitamin-Containing Liposome Gel

<u>Ingredients:</u>	<u>% by weight</u>
1. Phosphal 75 SA	4.0
2. Vegetable oils	2.0-10.0
3. Vitamin A palmitate	0.2
4. Vitamin E linoleate	0.2
5. Demineralized water	35.0
6. Demineralized water	to 100.0
7. Ethanol	16.0
8. Carbomer 980	0.8
9. AMP-95	0.5
10. Perfume oil	0.1

Procedure:

- A. Dissolve 1,2 and 3 homogeneously in 4.
- B. Add 5.
- C. Homogenize for 30 minutes at 3000 rpm (Stephen UMC 5 Mixer). Liposomes with a mean particle size of 250 nm should be produced.
- D. Testing for homogeneity:
dilute 0.5 ml liposome dispersion with 99.5 ml demineralised water in a measuring cylinder. After turning over a few times, a transparent homogeneous dispersion should form, which exhibits Tyndall scattering. If this is not the case, the preparation should be repeated.
- E. Disperse 8 in 6 and 7, add 10 and stir.
- F. Add the product from E to the liposome dispersion and stir for 2 minutes.
- G. Add 9 and stir for 2 minutes at 2100 rpm.

Formulation PF-0196E

Rheumagel With (Without) Camphor

<u>Ingredients:</u>	<u>% by weight</u>
Carbomer 940	1.0
Tris Amino	1.0
2-hydroxyethylsalicylate	10.0
(Camphor)	(1.0)
EDTA	0.05
Propanediol	20.0
Isopropanol	20.0
Water	to 100.0

Procedure:

- A. Disperse the Carbomer in the water, then add EDTA to the dispersion.
- B. Mix hydroxyethyl salicylate (and camphor if required), propanediol and isopropanol.
- C. Mix A and B homogeneously and if necessary de-gas.
- D. Slowly stir in Tris Amino.
- E. Packaging should protect against light.

Formulation PF-0197E

SOURCE: Angus Chemical Co.: Suggested Formulations

Oil in Water Cream Base

A simple oil in water ointment base suitable for modification or incorporation of medicaments.

<u>Ingredients:</u>	<u>% W/W</u>
Part A:	
1. Ritachol 1000	12.00
2. Ritaderm	2.00
3. Shebu Refined	3.00
Part B:	
4. Glycerin	5.00
5. Distilled Water	78.00

Compounding Procedures:

Combine Phase A and heat to 70C. Combine Phase B and heat to 70C. Slowly add Phase A to Phase B with agitation. Cool to 35C with agitation. Package.

Formulation HB-89-R-32

Anhydrous Ointment Base

An anhydrous ointment base for use with added water and medicaments.

<u>Ingredients:</u>	<u>% W/W</u>
1. Ritachol	36.00
2. Mineral Oil, 70 viscosity	16.00
3. Microcrystalline Wax MP-170	24.00
4. Lanolin, Cosmetic Grade	24.00

Compounding Procedure:

Combine all ingredients. Heat with agitation to 175F and mix until uniform. Begin cooling, continue agitation. Slowly cool stirred mixture to just above the set point. Package.

Formulation HB-89-R-31

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Oil/Water Emulsions With and Without PG-3 Beeswax

<u>Ingredients:</u>	<u>Emulsion A (without)</u>
Part A:	
Ceteareth-25	3.00
Ceteareth-6	2.00
Cetyl Alcohol	5.50
Propylene Glycol Dioctanoate	11.00
Dimethicone 200 cS	0.20
Part B:	
Preservative mixture	1.00
Water	67.00
Carbomer 940 (2% sol.)	5.00
Part C:	
Tris Amino	0.20
Water	4.80
Part D:	
Fragrance	0.30

<u>Ingredients:</u>	<u>Emulsion B (with)</u>
Part A:	
Ceteareth-25	3.00
Ceteareth-6	2.00
Cetyl Alcohol	5.50
PG-3 Beeswax	1.00
Propylene Glycol Dioctanoate	10.00
Dimethicone 200 cS	0.20
Part B:	
Preservative mixture	1.00
Water	67.00
Carbomer 940 (2% sol.)	5.00
Part C:	
Tris Amino	0.20
Water	4.80
Part D:	
Fragrance	0.30

SOURCE: Angus Chemical Co.; Formulation PF-0166 suggested by
Koster Keunen Inc.

Premium Mild Dog Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-130	30.0
Amphosol CA	20.0
Polysorbate-20	5.0
Kessco PEG 6000 Distearate	2.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

To D.I. water add Steol CS-130 and Kessco PEG 6000 Distearate. Heat to 60C with mixing, and mix until PEG 6000 Distearate is completely dispersed. Add Polysorbate-20 and Amphosol CA and blend well. Cool to 30C. Adjust pH to 6.5-7.3 with citric acid. Add fragrance, dye and preservative, if desired.

Physical Properties:

Light yellow liquid
 pH (as is): 6.5-7.3
 Passed three freeze thaw cycles
 Stable for two weeks at 50C
 Viscosity @ 25C: 100,000 cps
 Formulation No. 485

Premium Dog Shampoo

<u>Ingredients:</u>	<u>% by Weight</u>
Steol CS-330	45.0
Ninol 55-LL	5.0
Amphosol CA	5.0
Citric acid	Q.S.
Fragrance, dye, preservative	Q.S.
Sodium chloride	Q.S.
D.I. water	Q.S. to 100

Mixing Procedure:

Add the first three components to D.I. water and mix until clear. Adjust pH to 5.5-6.5 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Physical Properties:

Clear liquid
 pH (as is): 5.5-6.5
 Viscosity profile: as is: 750 cps
 0.5% sodium chloride: 5,050 cps
 1.0% sodium chloride: 11,450 cps
 2.0% sodium chloride: 27,350 cps
 Passed three freeze/thaw cycles
 Stable at 50C for two weeks
 Formulation No. 486
 SOURCE: Stepan Co.: Suggested Formulations

Water-In-Oil Emulsion Base

A non-beeswax water in oil emulsion which can be used at an acid pH. Has good rub-out for a w/o cream.

<u>Ingredients:</u>	<u>% W/W</u>
Part A - Oil Phase:	
1. Mineral Oil 80/90	21.00
2. Pationic CSL	7.20
3. Pationic ISL	0.80
4. Ritahydrox	1.00
5. Propylparaben	0.05
Part B - Water Phase:	
6. Glycerin	5.00
7. Distilled Water	64.65
8. Methylparaben	0.10
Part C:	
9. Glydant	0.20

Compounding Procedure:

Combine ingredients of Part A and heat to 72C. Combine the ingredients of Part B, heating to 72C. Add Part B to Part A while stirring and continue to mix. Cool to room temperature. Add Part C. Mix. Package.

Formulation HB-89-L-17/Ref. 104-6

All Purpose Aloe Vera Gels

A soothing gel to be applied for relief of irritation from sun, wind, detergents, minor burns and insect bites. Contains Panthenol and Aloe to soothe, relieve pain and promote healing.

<u>Ingredients:</u>	<u>% W/W</u>
1. Distilled Water	96.60
2. Ritaloe 200M	0.50
3. Ritapan DL	0.50
4. Germaben II	0.90
5. Acritamer 940	0.50
6. Triethanolamine (50%)	1.00

Compounding Procedure:

Dissolve in order items 2, 3, 4 and 5 into item 1, mixing between additions until uniform. Heat this mixture to 40C to get complete solution. Add item 6 to the stirred mixture.

Formulation HB-89-PA-24

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Section XIV

Trade-Named Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
AA USP	Castor Oil	Rheox
A-C Copolymer 400	Ethylene/Vinyl Acetate Copolymer	Allied-Signal
A-C Polyethylene	Polyethylene	Allied-Signal
A-C Polyethylene 617A	Polyethylene	Allied-Signal
Abil AV-20	Phenyl trimethicone	Goldschmidt
Abil B8839	Cyclomethicone	Goldschmidt
Abil B8851	Dimethicone copolyol	Goldschmidt
Abil B8852	Dimethicone copolyol	Goldschmidt
Abil B9950	Dimethicone propyl PG-betaine	Goldschmidt
Abil B88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil OSW-12 & OSW-13	Cyclomethicone (and) Dimethiconol (and) Dimethicone	Goldschmidt
Abil Quat 3270 & 3272	Quaternium-80	Goldschmidt
Abil S201	Dimethicone/Sodium Poly PG Propyl Dimethicone Thiosulfate	Goldschmidt
Abil Wax 2434	Stearoxy dimethicone	Goldschmidt
Abil Wax 2440	Behenoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801	Cetyl dimethicone	Goldschmidt
Abil Wax 9810	C24-28 alkyl methicone	Goldschmidt
Abil Wax 9814	Cetyl dimethicone	Goldschmidt
Abil WE-09	Polyglyceryl-4 Isostearate (and) cetyl dimethicone copolyol (and) hexyl laurate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil 100&350&500&1000&5000	Dimethicone	Goldschmidt
Acetulan	Acetylated lanolin alcohol	Amerchol
Acritamer 934	Carbomer 934	RITA
Acritamer 940	Carbomer 940	RITA
Acritamer 941	Carbomer 941	RITA
Adol 52	Cetyl alcohol	Sherex
Adol 64	Stearyl alcohol	Sherex
Adol 66	Isostearyl alcohol	Sherex
Aerosil R821 & 200	Silica	Degussa
Ajidew N-50	Sodium PCA	Ajinomoto
Alconate SBR-3		Rhone-
Aldo MSB & MSC & MSD	Glyceryl Stearate S.E.	Lonza
Alfonic 1412-A	Ammonium laureth sulfate, 60%	Vista
Allantoin	Allantoin	Sutton
Alpha-Step MC-48	Alpha sulfo methyl ester	Stepan
Aluminum Zirconium Tetrachlorohydrate-Gly		Reheis
Amercell Polymer HM-1500	Nonoxynol hydroxyethyl-cellulose	Amerchol
Amerchol C	Petrolatum (and) lanolin (and) lanolin alcohol	Amerchol
Amerchol L-101	Mineral oil and lanolin alcohol	Amerchol
Amerlate LFA	Lanolin acid	Amerchol
Amerlate P	Isopropyl lanolate	Amerchol
Ameroxol OE-20	Oleth-20	Amerchol
Amerscreen P	Ethyl dihydroxypropyl PABA	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amersil L-45/1000	Dimethicone	Amerchol
Amersil VS-7158	Cyclomethicone	Amerchol
Amidox C-5	Ethoxylated alkylolamide	Stepan
Ammonyx CDO&Cetac&KP LO&MO&SO&4	Amine oxide	Stepan
AMP-Regular&95	Aminomethyl propanol	Angus
Amphisol	DEA cetyl phosphate	Givaudan
Amphosol CA&CG	Cocamidopropyl betaine	Stepan
Antil 141 Liquid	Propylene glycol (and) PEG-55 propylene glycol oleate	Goldschmidt
Antil 171	PEG-18 glyceryl oleate/cocoate	Goldschmidt
Antil 208	Acrylates sterate-50 acrylate copolymer	Goldschmidt
Aqua Hamamelis	Witch hazel	
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 80	Polysorbate 80	ICI
Arlacel 129	Glyceryl stearate	ICI
Arlacel 165	Glyceryl stearate (and) PEG-100 stearate	ICI
Arlacel 186	Glyceryl oleate (and) propylene glycol	ICI
Arlatone 983S	PEG-5 glyceryl stearate	ICI
Armeen DM 18D	Dimethyl stearamine	Akzo
Ascorbyl Palmitate	Ascorbyl palmitate	Roche
Avanel S-150	Sodium C12-15 Pareth-15 sulfonate	PPG
AZG-368 Solution	Aluminum-zirconium tetrachloro- hydrex GLY/50% solution in water	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Beeswax	White, bleached beeswax	Ross
Bell Fragrance J-5226	Fragrance	
Bentone EW	Hectorite	Rheox
Bentone Gel SS-71	Petroleum distillate (and) quaternium-18 hectorite (and) propylene carbonate	Rheox
Bentone 38	Quaternium-18 hectorite	Rheox
Bernel Ester CO	Cetyl octanoate	Bernel
Biju Ultra UXD	Synthetic pearl pigment	Mearl
Biocare Polymer HA-24	Polyquaternium-24 (and) hyaluronic acid	
Biodynes TDF	Tissue respiratory factors	
Biomin Se/P/C	Selenium polypeptides	Brooks
Bio-Soft D-62		Stepan
Bioterge AS-40	Sodium C14-16 olefin sulfonate	Stepan
Bio-Terge 804	Olefin sulfonate	Stepan
Biotin, FCC (Code 63344)	Biotin	Roche
Boron Nitride		Carborundum
Bovinal-30	Serum albumin	RITA
Brij 56	Ceteth-10	ICI
Brij 72	Steareth-2	ICI
Brij 76	Steareth-10	ICI
Brij 78	Steareth-20	ICI
Brij 98	Oleth-20	ICI
Brij 721	Steareth-21	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Bronopol	Bactericide	Inolex
Brookswax D	Cetearyl alcohol (and) ceteareth 20	Brooks
Brown Iron Oxide C33-115&C33-5136	Iron oxide	Sun
Brown Oxide 7061	Iron oxide	
BTC 2125M (50% active)	Myristalkonium chloride (and) quaternium-14	Stepan
Butylated Hydroxytoluene (BHT)		Sherwin
Butyl Stearate		Amerchol
C12-15 Alcohols Benzoate		Finetex
C19-011 Rubine Lake	D&C Red #7	Sun
C33-115 Cosmetic Brown, C33-134 Cosmetic Black, C33-5136 Cosmetic Brown, C33-5138 Cosmetic Russet, C33-8073 Cosmetic Yellow, C33-8074 Cosmetic Russet, C33-8075 Cosmetic Russet	Iron oxides	Sun
C37-038 Permanent Pink	D&C Red #30, Al lake	Sun
C38-5410 Cosmetic Blue F	Ferric ammonium ferro- cyanide	Sun
C43-001 Mango Violet	Manganese violet	Sun
C43-1810 Cosmetic Blue	Ultramarine blue	Sun
C47-056	Titanium dioxide	Sun
C61-1245 Cosmetic Green	Chromium oxide green	Sun
Ca Lake C19-022	D&C Red #6	Sun

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
CB-11, 7.9% Disp.	D&C red #7, Ca lake	Gloss Tex
CB-70, 7.9% Disp.	D&C red #6, Ba lake	Gloss Tex
CB-91, 7.9% Disp.	D&C red #34, Ca Lake	Gloss Tex
Cab-O-Sil M-5	Silica	Cabot
Calcium Stearate Regular		Witco
Candelilla Wax Refined Flakes		Strahl&Pits
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carbopol 1382	Carbomer 1382	Goodrich
Carbopol 2984	Carbomer 2984	Goodrich
Carbowax	PEG-8	Union Carb.
Carbowax 3350	PEG-75	Union Carb.
Carnation White	Mineral oil	Witco
Castorwax	Hydrogenated castor oil	CasChem
Castorwax MP-80&70	Hydrogenated castor oil	CasChem
Cellosize Polymer PCG-10&QP-15,000H	Hydroxyethylcellulose	Union Carb.
Celquat SC-240	Polyquaternium-10	Nat. Starch
Cera Bellina	Polyglyceryl-3 beeswax	
Ceraphyl 41	C12-15 alcohols lactate	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ceraphyl 60	Quaternium 22	Van Dyk
Ceraphyl 65	Quaternium 26	Van Dyk
Ceraphyl 140-A	Isodecyl oleate	Van Dyk
Ceraphyl 368	Octyl palmitate	Van Dyk
Ceraphyl 375	Isostearyl neopentanoate	Van Dyk
Cerasynt D	Stearamide MEA-stearate	Van Dyk
Cerasynt GMS	Glyceryl stearate	Van Dyk
Cerasynt IP	Glycol stearate (and) other ingredients	Van Dyk
Cerasynt Q	Glyceryl stearate SE	Van Dyk
Cerasynt 840	PEG-20 stearate	Van Dyk
Cerasynt 945	Glyceryl stearate (and) laureth-23	Van Dyk
Cetal	Cetyl alcohol	Amerchol
Ceteareth-6		Alcolac
Ceteareth-25		BASF
Cetiol A	Hexyl laurate	Henkel
Cetiol LC	Coco-caprylate/caprates	Henkel
Cetiol V	Decyl oleate	Beruel
Cetrol A	Hexyl laurate	Henkel
Cetyl Alcohol		Sherex
Chempro 100C	Hydroxylated animal protein	
Cholesterol NF	Cholesterol	RITA
Cirami NI	Shea butter (and) beeswax (and) candelilla wax	Tri-K

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Citric Acid, USP-FCC (Code 69941)	Citric acid	Roche
Clearlan	Lanolin	Henkel
Cloisonne' Cerise Flambe 550Z,	Cosmetic pearl powders in deep colors	Mearl
Cloisonne' Green 828C,		
Cloisonne' Imperial Gold 222X,		
Cloisonne' Monarch Gold 233X,		
Cloisonne' Nu-Antique Blue 6,		
Cloisonne' Nu-Antique Green 828CB,		
Cloisonne' Rouge Flambe 440X,		
Cloisonne' Super Blue 636Z,		
Cloisonne' Super Bronze 240Z,		
Cloisonne' Super Copper 350Z,		
Cloisonne' Super Gold 232Z,		
Cloisonne' Super Red 434Z,		
Cloisonne' Supergreen 827C,		
Cloisonne' Violet 525C		
CMC-7LF	Cellulose gum	Aqualon
CO-1695	Cetyl alcohol	Proctor&
CO-1895	Stearyl alcohol	Proctor&
Cocoamphodiacetate		Miranol
Collasol	Soluble collagen	Croda
Cosmetic White C47-056	Titanium dioxide	Sun
Cosmol 222	Diisostearyl malate	NisshinOil
Cremogen Aloe Vera	Propylene Glycol (and) Ethoxy- diglycol (and) Aloe Extract	Haarman
Cremophor RH 40	PEG-40 Hydrogenated Castor Oil	BASF
Cremophor RH 60	PEG-60 Hydrogenated castor oil	BASF
Crill 6	Sorbitan Isostearate	Croda
Crodacid B	Behenic acid	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crodacol C-70	Cetyl alcohol	Croda
Crodacol S-95	Stearyl alcohol	Croda
Crodafos SG	PPG-5-Ceteth-10 phosphate	Croda
Crodamol MM	Myristyl myristate	Croda
Crodamol PMP	PPG-2 myristyl ether propionate	Croda
Crodamol W	Stearyl heptanoate	Croda
Crodapearl Liquid	Sodium laureth sulphate (and) hydroxyethyl stearamide-MIPA	Croda
Crodesta F-10	Sucrose distearate	Croda
Crodesta F-160	Sucrose stearate	Croda
Cromoist H4A	Hydrolyzed animal protein (and) hyaluronic acid	
Crosilk Liquid	Silk amino acids	Croda
Crosilkquat	Cocodimonium silk amino acids	Croda
Crosultaine C-50	Cocamidopropyl hydroxysultaine	Croda
Crotein SPA	Hydrolyzed animal protein	Croda
Crothix	Polyol alkoxy ester	Croda
Crovol A-70	PEG-60 almond glycerides	Croda
Crovol PK-70	PEG-45 palm kernel glycerides	Croda
Cutina CP	Cetyl palmitate	Henkel
Cutina GMS	Glyceryl stearate	Henkel
Cutina MD	Glyceryl stearate	Henkel
Cyprus Supra	Talc	Cyprus

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Delyl Extra	Isopropyl myristate	Givaudan
Delyl Prime	Isopropyl palmitate	Givaudan
Deodorized AAA Lanolin		Amerchol
Dermacryl-79	Acrylates/octylpropenamide copolymer	
Dermasome E	Lecithin (and) tocopheryl acetate	ChemMark
Dermasome RP	Vitamin A liposome	ChemMark
Dermasome SOD	Lecithin (and) superoxide dimutase	ChemMark
Dermasome TRF	Biodynes TRF liposome	ChemMark
Dexpanthenol (Code #63909)	Panthenol	Roche
Diazolidinyl Urea		Sutton
Dimethicone 200 cS		Dow Corning
Dimethicone Copolyol		Dow Corning
Diocetyl Maleate		Bernel
Dispersen G		
Distearyldimonium Chloride		Sherex
DL-Panthenol	Panthenol	Tri-K
dI-Panthenol, Cosmetic Grade (Code 63920)		Roche
DL Panthenol TK	Triethanolamine panthenol	Tri-K
DMDM Hydantoin		Lonza
Dow Corning 190	Dimethicone copolyol	Dow Corning
Dow Corning 200	Dimethicone	Dow Corning
Dow Corning 344 Fluid	Cyclomethicone	Dow Corning

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dowicil 200	Quaternium-15	Dow Chem
Drakeol 7&9&21&35	Mineral oil	Penreco
Drewpol 3-1-0	Polyglyceryl ester-emulsifier	Stepan
Dry Flo	Aluminum starch octenyl succinate	
Duochrome RY (Red/Gold) 224C	Iridescent color	Mearl
Duochrome YR (Gold/Red) 422C	Iridescent color	Mearl
EFA-Plex WGOFA	Wheat germ oil fatty acids (and) wheat germ oil (and) tocopherol	
EGMS-VA	Glycol stearate	Goldschmidt
Elastein	Hydrolyzed elastin	Hormel
Elastin CLR	Hydrolyzed animal elastin	Hormel
Emerest 2400	Glyceryl stearate	Henkel
Emerest 2715	PEG-40 stearate	Henkel
Emersol 120&132	Stearic acid	Henkel
Emersol 871	Isostearic acid	Henkel
Emsorb 2518	Sorbitan diisostearate	Henkel
Emulgator E-2568	Steareth-25	Goldschmidt
Emulgator 2155	Steareth-7 (and) stearyl alcohol (and) steareth-10	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emulsynt 1055	Polyglyceryl-4 oleate (and) PEG-8 propylene glycol cocoate	Van Dyk
Epikuron SH 200		
Ervol	Mineral oil	Witco
Ervol-125/135 SUS	Mineral oil	Witco
Escalol 507	Octyl dimethyl PABA	Van Dyk
Escalol 537Q	Dimethyl PABA ethyl cetearyl- dimonium tosylate	Van Dyk
Escalol 557	Octyl methoxycinnamate	Van Dyk
Escalol 567	Benzophenone-3	Van Dyk
Estol EHP 1543	Octyl palmitate	Unichema
Estol 1473	Glyceryl stearate	Unichema
Ethylflo 366 NF	Polydecene	Ethyl
Eumulgin B1	Ceteareth-12	
Eumulgin B2	Ceteareth-20	
Eusolex 232		EM Industries
Eutanol G	Octyldodecanol	Henkel
Evening Primrose Oil & Tocopherol		Brooks

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Finsolv TN	C12-15 alcohols benzoate	Finetex
Fitoderm	Squalane	Centerchem
Flamenco Pearl 110C, Flamenco Superpearl 120C, Flamenco Super Red 430Z, Flamenco Twilight Blue 620CB, Flamenco Twilight Gold 230ZB, Flamenco Twilight Green 820CB, Flamenco Ultra Silk, Flamenco Violet 120V, Flamenco Violet 520C	Pearl pigments	Mearl
Fluid AP		Union Carbide
Fluilan	Lanolin oil	Croda
Fomblin HC04 Emulsion	Perfluoropolymethyl/isopropyl ether&Glycerin&sodium laureth sulfate	Brooks
Fomblin HC/25	Perfluoropolymethyl/isopropyl ether	Brooks
Forlan	Petrolatum (and) lanolin alcohol (and) lanolin	RITA
Forlan C-24	Choleth-24 (and) ceteth 24	RITA
Forlan L	Petrolatum (and) lanolin (and) hydrogenated castor oil (and) sorbitan sesquioleate and stearyl alcohol (and) cetyl alcohol	RITA
Forlan 500	Petrolatum (and) lanolin (and) lanolin alcohol	RITA
Fragrance FR-30&KU70	Fragrance	Novarome
Frescolat	Menthyl lactate	HaarmanF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ganex V220	PVP/Eicosene copolymer	GAF
Gemtone Amber G001, Gemtone Garnet G009, Gemtone Goldstone G0014, Gemtone Moonstone G004, Gemtone Ruby G0010, Gemtone Sapphire G0011, Gemtone Sunstone G0012, Gemtone Tan Opal G005	Cosmetic pearl powders	Mearl
Germaben II & IIE	Propylene glycol (and) diazolidinyl urea (and) methyl paraben (and) propyl paraben	Sutton
Germall 115	Imidazolidinyl urea	Sutton
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam E-20 Distearate	Methyl gluceth-20 distearate	Amerchol
Glucam P-20	PPG-20 methyl glucose ether	Amerchol
Glucam P-20 Distearate	PPG-20 methyl glucose ether distearate	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesquistearate	Amerchol
Glucate DO	Methyl glucose dioleate	Amerchol
Glucate IS	Methyl glucose sesquiisosteate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glucquat 125	Lauryl methyl gluceth-10 hydroxylpropyldimonium chloride	Amerchol
Glycosomes	Glycoceramides (and) phospholipids (and) cholesterol	Pentapharm

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Grillocin CW-90	Zinc ricinoleate (and) solubilizers	RITA
Grillocin HY-77	Zinc ricinoleate and etc.	RITA
Grillocin P-176	Zinc ricinoleate (and) talc	RITA
Grillocin PY-88	Zinc ricinoleate	RITA
Grilloten LSE 65K & LSE 87K	Sucrose cocoate	RITA
Grilloten PSE 141G	Sucrose stearate	RITA
Hampene Na3T	Trisodium EDTA	Grace
Heliopan AV	UV-B	
Henkel Glycerin, 96%	Glycerol	Henkel
Hetester PCA	Propylene glycol ceteth-3 acetate	Heterene
Hexetidine		Angus
Homogeneous 30	Cocamidoproyl betaine	Croda
Hostapon KA	Sodium isethionate	Hoechst
Hydrocoll EN-55	Hydrolyzed animal protein	Brooks
Hydroxypropyl Methylcellulose		Aqualon
Hystrene 7018 & 9718	Stearic acid	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Igepon AC78	Sodium isethionate	Rhone-Poul
Imidazolidinyl Urea	Preservative	Sutton
Incrodet TD-7C	Trideceth-7 carboxylic acid	
Incromectant AQ	Acetamidopropyl trimonium chloride	Croda
Incromectant LAMEA	Acetamide MEA (and) Lactamide MEA	Croda
Incromide LR	Lauramide DEA	Croda
Incromine BB	Behenamidopropyl dimethylamine	Croda
Incromine Oxide C	Cocamidopropylamine oxide	Croda
Incropol CS-20	Ceteareth 20	Croda
Incroquat BA-85	Babassamidopropalkonium chloride	Croda
Incroquat Mink-85	Minkamidopropalkonium chloride	Croda
Indopol H-100	Polybutene	Amoco
Incrosul OMS	Disodium oleamido MEA-sulfo-succinate	Croda
Isohexadecane		Bayer AG
Isolan GI-34	Polyglyceryl-4 isostearate	Goldschmidt
Isolan GO-33	Polyglyceryl-3 oleate	Goldschmidt
Isopar H	C11-12 Isoparaffin	Amoco
Isopropylan 33	Isopropyl palmitate (and) lanolin oil	Amerchol
Isostearyl Benzoate		Finetex
Ivarlan 3100	Lanolin oil	Brooks

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Jordapon ACI-30	Ammonium cocoyl isethionate	PPG
Jordapon CI Disp.	Sodium cocoyl isethionate	PPG
Kathon	Fungicide	Rohm&Haas
Keltrol & Keltrol T	Xanthan gum	Kelco
Kelzan	Xanthan gum	Kelco
Kessco Cetyl Alcohol		Stepan
Kessco Ethylene Glycol Distearate (EGDS)		Stepan
Kessco Ethylene Glycol Monostearate (EGMS)		Stepan
Kessco Glycerol Monooleate		Stepan
Kessco Glycerol Monostearate SEAS		Stepan
Kessco Isopropyl Myristate		Stepan
Kessco Isopropyl Palmitate		Stepan
Kessco Octyl Isonanoate		Stepan
Kessco Octyl Palmitate		Stepan
Kessco PEG-400 Monolaurate (PEG-8 Dioleate)		Stepan
Kessco PEG 400 Monooleate (PEG-8 Distearate)		Stepan
Kessco PEG 1000 Monostearate (PEG-20 Stearate)		Stepan
Kessco PEG 6000 Distearate (PEG-150 Distearate)		Stepan
Klearol	Mineral oil	Witco
Klucel HF	Hydroxypropyl cellulose	Aqualon
Kytamer PC	Chitosan PCA	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lactil	Sodium lactate and etc.	Goldschmidt
Lanaetex 75	Acetylated lanolin alcohols	Lanaetex
Laneto-AWS	PEG-12-PEG-50 Lanolin	RITA
Laneto-50	PEG-75 lanolin	RITA
Laneto-60	PEG-60 lanolin	RITA
Laneto-100	PEG-75 lanolin	RITA
Lanette O	Cetearyl alcohol	Henkel
Lanette 18 DEO		Henkel
Lanogene	Lanolin oil	Amerchol
Lanolin, Cosmetic		PPG & RITA
Lanolin Wax		RITA
Lantrol	Lanolin oil	Henkel
Lexaine C&CG-30&CS	Cocamidopropyl betaine	Inolex
Lexaine CSB-50	Cocamidopropyl hydroxysultaine	Inolex
Lexaine IS	Isostearamidopropyl betaine	Inolex
Lexaine LM	Lauramidopropyl betaine	Inolex
Lexaine O	Oleamidopropyl betaine	Inolex
Lexamine L-13	Lauramidopropyl dimethylamine	Inolex
Lexamine LM	Lauramidopropyl betaine	Inolex
Lexamine O-13	Oleamidopropyl dimethylamine	Inolex
Lexamine S-13	Stearamidopropyl dimethylamine	Inolex
Lexate BPQ	Lauramidopropyl Betaine & etc	Inolex
Lexate CRC		Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lexein QX3000	Quaternium-76 hydrolyzed animal protein	Inolex
Lexein X250	Hydrolyzed animal protein	Inolex
Lexemu1 EGDS	Glycol distearate	Inolex
Lexemu1 EGMS	Glycol stearate	Inolex
Lexemu1 55G	Glyceryl stearate	Inolex
Lexgard M	Methylparaben	Inolex
Lexgard P	Propylparaben	Inolex
Lexol IPM	Isopropyl myristate	Inolex
Lexol IPP	Isopropyl palmitate	Inolex
Lexol PG-865	Lauramidopropyl dihydroxypropyl dimonium chloride	Inolex
Lexol PG-900	Propylene glycol dipelargonate	Inolex
Lexquat AMG-BE0	Behenamidopropyl dihydroxypropyl dimonium chloride	Inolex
Lexquat AMG-IS	Isostearylamidopropyl dihydroxypropyl dimonium chloride	Inolex
Lexquat AMG-M	Lauramidopropyl dihydroxypropyl dimonium chloride	Inolex
Lexquat AMG-O	Oleamidopropyl dihydroxypropyl dimonium chloride	Inolex
Lexquat AMG-WC	Cocamidopropyl dihydroxypropyl dimonium chloride	Inolex
Lipovol O-20	Oleth-20	Lipo
Lipolan	Hydrogenated lanolin	Lipo
Liponic EG-1	Glycereth-26	Lipo
Lipopeg 200 DL	PEG-4 dilaurate	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Liposorb SQ0	Sorbitan sesquioleate	Lipo
Lipovol ALM	Acetylated lanolin alcohol	Amerchol
Liquiwax DICDD	Diisocetyl dodecandioate	Brooks
Lo-Micron Talc #1	Talc	Whittaker,
Lubragel MS	Polyglycerylmethacrylate (and) propylene glycol	
Lustabrite S-70	Tosylamide/epoxy resin	Telechinische
Macol CPS	Cetearyl alcohol and etc.	PPG
Macol CSA-20	Ceteareth-20	PPG
Macol E1450	PEG-32	PPG
Macol E8000	PEG-150	PPG
Macol NP-95	Nonoxynol-9	PPG
Macol OA-2	Oleth-2	PPG
Macol P-500	PPG-9	PPG
Macol 18	Meroxapol 171	PPG
Macol 57	PPG-10 butanediol	PPG
Macol 108	Poloxamer 338	PPG
Macol 124	Cetearyl alcohol (and) ceteareth-20	PPG
Macol 125	Stearyl alcohol (and) ceteareth-20	PPG
Macol 159	PEG 7 Glyceryl cocoate	PPG
Mafo CAB	Cocamidopropyl betaine	PPG

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mafo CSB-50	Cocamidopropyl hydroxysultaine	PPG
Mapeg EGDS	Ethyl glycol distearate	PPG
Mapeg EGMS	Ethylene glycol monostearate	PPG
Mapeg 400DL	PEG 400 dilaurate	PPG
Mapeg 6000DS	PEG 150 distearate	PPG
Maprofix ES-1	Sodium laureth sulfate	PPG
Masil SF-V	Cyclomethicone	PPG
Masil SF-20	Dimethicone	PPG
Masil SF-V	Cyclomethicone	PPG
Masil SF 100	Dimethicone	PPG
Masil SF 556	Phenyl trimethicone	PPG
Masil SF-1000	Dimethicone	PPG
Masil 280 & 280LP	Dimethicone copolyol	PPG
Masil 756	Tetrabutoxypropyl methicone	PPG
Masil 1066C	Dimethicone copolyol	PPG
Masilwax 135	Methyl stearoxy dimethicone	PPG
Mattina Red 424F		Mearl
Maypon 4C	Potassium coco-hydrolyzed animal protein	Inolex
Maypon 4CT	TEA-coco-hydrolyzed animal protein	Inolex
Mazamide CMEA	Cocamide MEA	PPG
Mazamide JT-128 & 80	Cocamide DEA	PPG
Mazol 159	PEG-7 glycerol cocoate	PPG

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mazol 165C	Glyceryl stearate (and) PEG-100 stearate	PPG
Mazol 1400	Capric/caprylic triglyceride	PPG
Mazon AL-300	Ammonium lauryl sulfate	PPG
Mazon EE-1	Benzyl laurate	PPG
Mazon ES-60	Sodium lauryl ether sulfate	PPG
Mazon SL-300	Sodium lauryl sulfate	PPG
Mazox CAPA	Cocamidopropyl amine oxide	PPG
Mazox LDA	Lauramine oxide	PPG
Mazox SDA	Stearamine oxide	PPG
Mearlite GBU, Mearlite LBU	Synthetic pearl pigments	Mearl
Mearlmaid AA & PLN	Natural pearl essence	Mearl
Mearmica CF & SVA	Cosmetic mica powder	Mearl
Mearltalc TCA		Mearl
Merquat 550	Polyquaternium-7	Merck
Methocel E4M & F4M & 40-100 & 60HC (4000)	Hydroxypropylmethylcellulose	Dow Chem.
Methyl Parasept	Methyl paraben	Kalama
MGK Intermediate 5734	N,N-diethyltoluamide (95% meta)	MGK
MGK 264	N-octyl bicycloheptene dicarboxymide	MGK
MGK Repellent 326	Di-n-propyl isocinchomerate	MGK
Microspheres M-100	Polymethyl Methacrylate	Toyomenca
Mineral Oil (Light) 125/135 SUS		Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Miranol BT	Lauroamphocarboxyglycinate (and) sodium trideceth sulfate	Miranol
Miranol CM Conc., N.P.	Cocoamphoglycinate	Miranol
Miranol C2M-NP	Cocoamphocarboxyglycinate	Miranol
Modulan	Acetylated lanolin	Amerchol
Monamate CPA-40	Disodium cocamido Nipa- sulfosuccinate	Mona
Monamate LNT-40	Diammonium lauryl sulfo- succinate	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 716 & 1034	Lauramide DEA	Mona
Monaquat P-TS	Stearamidopropyl PG-Dimonium chloride phosphate	Mona
Monaquat TG	Dihydroxyethyl dihydroxyprop- yl stearammonium chloride	Mona
Monaterge 1164	Sodium lauryl sulfate (and) Disodium lauryl sulfosuccinate	Mona
Monateric CAB	Cocamidopropyl betaine	Mona
Monateric CAB-LC	Cocamidopropyl betaine	Mona
Monateric ISA-35	Amphoteric-12	Mona
Monateric LMAB	Lauramidopropyl betaine	Mona
Monateric 805	Cocamphodiacetate (and) Di- sodium cocamido MIPA sulfosuccinate	Mona
M-Quat Dimer 18	Hydroxypropyl bis stearyl- dimonium chloride	PPG
M-Quat Dimer 18PG	Hydroxypropyl bis-stearyl dimonium chloride	PPG
M-Quat JO-50	Olealkonium chloride	PPG
M-Quat JS-25	Stearalkonium chloride	PPG

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
M-Quat 522	Isostearamidopropyl ethyl-dimonium ethosulfate	PPG
M-Quat 1033	Soya ethyldimonium ethosulfate	PPG
Multiwax 180W	Microcrystalline wax	Witco
Myracet 9-40	Glyceryl mono/distearate	Eastman
Myristyl Myristate		Van Dyk
Myrj 52	PEG-50 Stearate	ICI
Myrj 52S	PEG-40 Stearate	ICI
Myverol 18-00	Hydrogenated animal glyceride	Eastman
Myverol 18-06	Hydrogenated soy glyceride	Eastman
Natrosol 250 HHR & 250 HR & 250R	Hydroxyethylcellulose	Aqualon
Natural Beeswax	Beeswax	RITA
Neobee M5	Caprylic/capric triglyceride	Stepan
Neo Heliopan AV	Octyl methoxycinnamate	Haarman
Neo Heliopan Hydro	Phenylbenzimidazole sulfonic acid	Haarman
Neo Heliopan MA	Menthyl anthanilate	Haarman
Ninol 30LL	Lauramide DEA	Stepan
Ninol 40 CO	Cocamide DEA	Stepan
Ninol 49-CE&50-LL&55-LL&96-SL&201 LMP	Alkylolamide	Stepan
Noville #24093	Fragrance	Henkel
Novol	Oleyl alcohol	Lonza

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Octyldodecyl Stearoyl stearate		VanDyk
Octyl Hydroxystearate		CasChem
Octyl Palmitate (and) Titanium Dioxide		Tioxide
Ohlan	Hydrogenated lanolin	Amerchol
Oleth-10		Protamean
Olympic Talc	Talc	Cyprus
Orgasol 2002D Natural Extra Cos	Nylon-12	Atochem
Oxaban A	Preservative	Angus
Oxybenzone	Benzophenone-3	
Ozokerite 170-D		Strahl&Pit-
Ozokerite Wax 77W	Ozokerite wax	Ross
Pale Gold Glitter	(.004X.004X.001)	Meadowbrook
Panalane	Hydrogenated Polybutene	Amoco
Paraffin Wax Fully Refined 130		Ross
Parso1 MCX	Octyl methoxycinnamate	Givaudan
Parso1 1789	Butyl methoxydibenzoylmethane	Givaudan
Pationic CSL	Calcium stearoyl lactylate	RITA
Pationic ISL	Sodium isostearoyl lactylate	Patco
Pationic SBL	Sodium behenyl lactylate	Patco
Pationic SCL	Sodium cocoyl lactylate	Patco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pationic SSL	Sodium stearoyl lactylate	Patco
Pationic 122A	Sodium caproyl lactylate	Patco
Pationic 138C	Sodium lauroyl lactylate	Patco
Patlac IL	Isostearyl lactate	Patco
Patlac LA	Lactic acid	Patco
Patlac NAL	Sodium lactate	Patco
PEG-1 Glyceryl Oleostearate + Paraffin Wax		ICI
PEG-35 Hydrogenated Castor Oil		ICI
Pemulen TR-1 & TR-2	Acrylates C10-30 alkyl acrylate cross polymer	Goodrich
Penreco No. 15	Mineral jelly	Penreco
Penreco Snow & Ultima	White petrolatum USP	Penreco
Peptein 2000	Hydrolyzed animal protein	Hormel
Perfume 673-146		Perry
Perfume M-45790		ShawMudge
Perfume Oil		Novarome
Perfume Oil	Fragrance	Givaudan
Perfume #2478		Norda
Perfume 72979		Haarman
Perfume 802169U		PFW
Permethyl 102A (and) Permethyl 104A	Isoeicosane (and) Isooctahexacontane	
PG-3 Beeswax		KosterKuen-
Phenonip	Phenoxyethanol and etc.	Nipa
Phenyl Dimethicone		Wacker

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Phosphal 75 SA		
Phospholipid EFA	Linolamidopropyl PG-Dimonium chloride phosphate	Mona
Phospholipid P-TS	Stearamidopropyl PG-Dimonium chloride phosphate	Mona
Phosphoteric QL-38	Trisodium lauroampho PG acetate chloride	Mona
Placenta Liquid		CLRRicht
Polowax		Croda
Polyglyceryl-10 Decaoleate		Karls-
Polymer ACP-1018	Vinyl caprolactam/PVP/Dimethyl- amonoethylmethacrylate copolymer	
Polymer JR30M		UnionCar
Polyox WSR-205	PEG-14M	UnionCar
Polysorbate 60	Polyoxyethylene (20) sorbitan monostearate	ICI
Pot Marigold LS	Calendula extract	Tri-K
PPG Methyl Gluceth-20		Amerchol
Promulgen D	Cetearyl alcohol and cetareth-20	Amerchol
Promulgen G	Stearyl alcohol and cetareth-20	Amerchol
Propal	Isopropyl palmitate	Amerchol
Propoxyol-5	PPG-5 lanolin wax	Henkel
Propyl Parasept	Propylparaben	Tenneco
Propylene Glycol Dioctanoate		Henkel
Prosolal S9		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Protectein	Propyltrimonium hydrolyzed collagen	
Pseudocollagen	Plant pseudocollagen	Brooks
Pur-Cellin Liquid		Dragoco
Pur-Cellin Solid		Dragoco
PVP/VA E735	PVP/VA copolymer	GAF
PVP-K30	PVP	GAF
PVP K-90	Polyvinylpyrrolidone	GAF
Pyridoxine Hydrochloride, USP-FCC (Code 60650)		Roche
Quamectant AM-50	6-(N-Acetylamino)-4-Oxahexyl trimonium chloride	Brooks
Quaternium-15		Dow
Quat-Pro S	Steartrimonium hydrolyzed animal protein	Amerchol
Red Iron Oxide A6205		HK Color
Red Oxide 7060	Iron oxide	
Red Oxide 7067	Iron oxide	
Refined Candelilla Wax		Ross
Refined Paraffin 130/135		Ross
Rezal 36GP	Al Zr tetrachlorohydrox Gly	Reheis
Ritabate 20	Polysorbate-20	RITA
Ritabate 40	Polysorbate-40	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ritabate 60	Polysorbate-60	RITA
Ritabate 80	Polysorbate-80	RITA
Ritacet-20	Cetareth-20	RITA
Ritaceti	Cetyl esters	RITA
Ritacetyl	Acetylated lanolin	RITA
Ritachlor 50%	Aluminum chlorohydrate	RITA
Ritachol	Mineral oil (and) lanolin alcohol	RITA
Ritachol SS	Stearyl stearate	RITA
Ritachol 1000	Cetearyl alcohol (and) polysorbate 60 (and) PEG-150 stearate (and) steareth-20	RITA
Ritachol 2000	Cetearyl alcohol (and) polysorbate 60	RITA
Ritachol 5000	Cetearyl alcohol and etc.	RITA
Ritacollagen BA-1&S-1	Soluble collagen	RITA
Ritaderm	Petolatum (and) lanolin (and) sodium PCA (and) Polysorbate 85	RITA
Rita EGDS	Glycol distearate	RITA
Rita EGMS	Glycol stearate	RITA
Rita GMS	Glyceryl stearate	RITA
Ritahydrox	Hydroxylated lanolin	RITA
Ritalafa	Lanolin acid	RITA
Ritalan	Lanolin oil	RITA
Ritalan AWS	PPG-12-PEG-65 lanolin oil	RITA
Ritalan C	Isopropyl palmitate (and) lanolin oil	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ritalastin EL-10	Hydrolyzed elastin	RITA
Ritalastin EL-30	Hydrolyzed elastin	RITA
Ritaloe 1X & 200M	Aloe vera gel	RITA
Ritamectant K2	Dipotassium glycyrrhizinate	RITA
Ritapan D & DL	Panthenol	RITA
Ritapan TA	Panthenyl triacetate	RITA
Ritamectant PCA	Sodium PCA	RITA
Ritamide C	Cocamide DEA	RITA
Ritapeg 150 DS	PEG-150 Distearate	RITA
Ritaplast	Mineral oil (and) polyethylene	RITA
Ritapro 100	Cetearyl alcohol (and) Stear- eth-20 (and) Steareth-10	RITA
Ritapro-165	Glyceryl stearate (and) PEG-100 Stearate	RITA
Ritapro 200	Stearyl alcohol (and) Ceteareth-20	RITA
Ritapro 300	Cetearyl alcohol (and) Ceteareth-20	RITA
Ritasol	Isopropyl lanolate	RITA
Ritasynt IP	Glycol stearate (and) other ingredients	RITA
Ritawax	Lanolin oil	RITA
Ritawax AEO	Polysorbate 80 (and) Acety- lated lanolin alcohol (and) cetyl acetate	RITA
Ritawax ALA	Cetyl acetate (and) acetyl- ated lanolin alcohol	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ritawax Super	Lanolin oil	RITA
Ritaleth-2	Oleth-2	RITA
Ritaleth-5	Oleth-5	RITA
Ritaleth-10	Oleth-10	RITA
Ritaleth-20	Oleth-20	RITA
Ritox 52	PEG-40 stearate	RITA
Robane	Squalane	Robeco
Sandoxylate SX-424	PPG-1-Isodeceth-12	Sandoz
Schercemol CO	Cetyl octanoate	Scher
Schercemol DIA	Diisopropyl adipate	Scher
Schercemol DID	Diisopropyl dimerate	Scher
Schercemol GMS	Glyceryl stearate	Scher
Schercemol LL	Lauryl lactate	Scher
Schercemol TIST	Triisostearyl trilinoleate	Scher
Schercemol 185	Isostearyl neopentanoate	Scher
Sequestrene Na2	Disodium EDTA	Ciba-Geigy
Sequestrene Na3	Trisodium EDTA	Ciba-Geigy
Sesame Oil, USP	Sesame oil	Welch, Holm
Sesame Seed Oil Super Refined		Nisshin
SF-96-5		GE
SF-96-50		GE

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
SF-96-100	Dimethicone	GE
SF 1173	Cyclomethicone	GE
SF 1188	Dimethicone copolyol	GE
SF 1202	Cyclomethicone	GE
SF 1204	Cyclomethicone	GE
SF 1214	Cyclomethicone (and) dimethicone copolyol	GE
SF 1228	Cyclomethicone (and) dimethicone copolyol	GE
SF 1312	Lauroyl trimethylpropane siloxo silicate	GE
SF 1318	Isostearyl trimethylolpropane siloxo silicate	GE
SF 1708-D1	Trimethylsilylamodimethicone	GE
Shebu, Refined	Shea butter	RITA
Shebu, WS	PEG-50 Shea butter	RITA
Shell-Sol-71	Petroleum distillate	Shell
Shniju White 100T		Mearl
Silicone 200 Fluid	Dimethicone	DowCorning
Silicone Fluid 344	Cyclomethicone	DowCorning
Silicone Fluid 345	Cyclomethicone	DowCorning
Silicone Oil		Wacker
Silicone SF 96	Dimethicone	GE
Silk-Pro CM-1000	Hyrolyzed silk protein	Ikeda
Simchin, Natural	Jojoba oil	RITA
Simchin, WS	PEG-40 Jojoba oil	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sipon ES-2 & ESY	Sodium laureth sulfate	RhonePoul-
Sipon L-22	Ammonium lauryl sulfate	RhonePoul-
Sipon LSB	Sodium lauryl sulfate	RhonePoul-
Sipon LT-6	TEA lauryl sulfate	RhonePoul-
Siponate DDB-40	Alkyl aryl sulfonate	RhonePoul-
S-Maz 20	Sorbitan stearate	PPG
S-Maz 60	Sorbitan monostearate	PPG
S-Maz 80	Sorbitan laurate	PPG
SM2115	Trimethylsilylamodimethicone	GE
SM2115-D1	Trimethylsilylamodimethicone	GE
Snow White USP	Petrolatum	Penreco
Sodium Isethionate 55		RhonePoul
Sodium Stearate C-1		Witco
Softisan 378	Caprylic/capric/stearic triglycerides	Huls
Sollagen	Soluble collagen	Hormel
Soltrol 100	C9-11 Isoparaffin	Phillips
Solulan L-575	PEG-75 Lanolin, 50%	Amerchol
Solulan 5	Laneth-5 & Ceteth-5 & Oleth-5 & Steareth-5	Amerchol
Solulan 16	Laneth-16 & Ceteth-16 & Oleth-16 & Steareth-16	Amerchol
Solulan 25	Laneth-25 & Ceteth-25 & Oleth-25 & Steareth-25	Amerchol
Solulan 75	PEG 75 lanolin	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Solulan 98	Laneth-16 & Ceteth-16 & Oleth-16 & Steareth-16	Amerchol
Sorbitol Solution		Pfizer
Span 80	Sorbitan oleate	ICI
Spermwax	Cetyl esters	Robeco
Spherica P-1500	Silica	Ikeda
SS4267		
Standamul CTA	Hexyl laurate	Henkel
Standapol A	Ammonium lauryl sulfate	Henkel
Standapol ES-2 & ES-3	Sodium laureth sulfate	Henkel
Standapol SH-100	Disodium oleamide PEG-2 sulfosuccinate	Henkel
Standapol SL-60	Sodium lauryl ether sulfate	Henkel
Standapol T	TEA-lauryl sulfate	Henkel
Steol CA-460	Ammonium laureth sulfate	Stepan
Steol CS-130		Stepan
Steol CS-230		Stepan
Steol CS-330	Sodium laureth sulfate	Stepan
Steol CS-460		Stepan
Stepan-Mild LSB		Stepan
Stepan-Mild SL3		Stepan
Stepan TAB-2		Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Stepanol AM		Stepan
Stepanol AM-V	Ammonium lauryl sulfate	Stepan
Stepanol WA-Extra		Stepan
Stepanol WAC	Alkyl sulfate	Stepan
Stepanol WAT	TEA-lauryl sulfate	Stepan
Stepanquat 6585	Dipalmethyl hydroxyethylmonium methoxysulfate	Stepan
Ster-O-Pro	Oat flour	QO
Sulframin AOS Liquid	Sodium C-14 olefin sulfonate	Witco
Sunarome WMO	Octyl salicylate	Felton
Super Amide 128T	Lauramide DEA	Onyx
Super Anatol	Lanolin alcohol	Lanaetex
Super Hartolan	Lanolin alcohol	Croda
Superol	Glycerin	Proctor&
Supersat	Hydrogenated lanolin	RITA
Supersat AWS4	PEG-20 hydrogenated lanolin	RITA
Supersat AWS24	PEG-24 hydrogenated lanolin	RITA
Supra	Talc	Cyprus
Supra A	Talc	Cyprus
Suspending Lacquer SLF-2		Mearl
Suttocide A	Sodium hydroxymethyl glycinate	Sutton
Syncrowax ERLC	C18-36 acid glycol ester	Croda
Syncrowax HR-C	Glyceryl tribehenate	Croda
Synthetic Candelilla	Candelilla wax	Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tagat L-2	PEG-20 glyceryl laurate	Goldschmidt
Tagat R-40	PEG-40 hydrogenated castor oil	Goldschmidt
Tagat S2	PEG-20 glyceryl stearate	Goldschmidt
Tagat T0	PEG-25 glyceryl trioleate	Goldschmidt
Talc 5251	Talc	
Talc Lake C37-5290	D&C Red #30	Sun
Tauranol WSP	Sodium methyl cocoyl taurate	Finetex
TEA 99%	Triethanolamine	Dow
Tegamine Oxide WS-35	Cocamidopropylamine oxide	Goldschmidt
Tegamine 18	Stearamidopropyl dimethylamine	Goldschmidt
Tegin & Tegin M	Glyceryl stearate SE	Goldschmidt
Teginacid H	Glyceryl stearate(and)Ceteth-20	Goldschmidt
Tego Betaine L-7	Cocamidopropyl betaine	Goldschmidt
Tego Betaine L-90	Lauramidopropyl betaine	Goldschmidt
Tego Betaine S	Cocamidopropyl betaine	Goldschmidt
Tego Care 150	Glyceryl stearate (and) steareth-25(and)ceteth-20 (and)stearyl alcohol	Goldschmidt
Tego Pearl B-48	Cocamidopropyl Betaine(and) Glycol Distearate(and) Cocamide MEA(and)Cocamide DEA	Goldschmidt
Tegosoft CI	Cetearyl isononoate	Goldschmidt
Tegosoft CO	Cetyl octanoate	Goldschmidt
Tegosoft CT	Caprylic/capric triglycerides	Goldschmidt
Tegosoft D0	Decyl oleate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tegosoft EE	Octyl octanoate	Goldschmidt
Tegosoft GC	PEG-7 glyceryl cocoate	Goldschmidt
Tegosoft Liquid	Cetearyl octanoate	Goldschmidt
Tegosoft M	Isopropyl myristate	Goldschmidt
Tegosoft OP	Octyl palmitate	Goldschmidt
Tegosoft OS	Octyl stearate	Goldschmidt
Tegosoft S	Isopropyl stearate	Goldschmidt
Tenox BHA	BHA	Eastman
Tenox BHT	BHT	Eastman
Tenox-6	Antioxidant	Eastman
Timica Extra Large Sparkle 110S, Timica Gold Sparkle 212P, Timica Golden Bronze 240A, Timica Silkwhite 110W, Timica Sparkle 110P.	Cosmetic pearl powders	Mearl
T-Maz 20	Polysorbate 20	PPG
T-Maz 60	POE 20 Sorbitan Monostearate	PPG
Tris Amino	Tris(hydroxymethyl)amino-methane	Angus
Triton N-101	Nonoxynol-10	Rohm&Haas
Trivent NP-13	Tridecyl neopentanoate	
Trivent OC-16	Cetyl octanoate	
Tween 20	Polysorbate 20	ICI
Tylose H20	Hydroxyethylcellulose	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ucare Polymer JR-30M & SR-10	Polyquaternium-10	UnionCarbide
Ucon LB-1715	PPG-40 butyl ether	UnionCarbide
Uniderm HOMSAL	Homosalate	UniversalPres
Uvinul D50		BASF
Uvinul M-40	Benzophenone-3	BASF
Uvinul MS-40	Benzophenone-4	BASF
Varisoft CRC	Concentrate	Sherex
Veegum & Veegum HV & Veegum R	Magnesium aluminum silicate	Vanderbilt
Veragel Liquid, 1:10	Aloe vera gel	Dr. Madis
Versene Na2	Disodium EDTA	Dow
Viscasil 60M	Dimethicone	GE
Vitamin A Palmitate	Retinyl palmitate	Roche
Vitamin A Palmitate P1MO/BH	Corn oil (and) retinyl Palmitate	Roche
Vitamin A&D3 Blend (5:1Ratio)(Code63857)	Retinyl palmitate(and) cholcalciferol(and) corn oil	Roche
Vitamin B Complex CLR		CLRRichter
Vitamin E, USP-FCC (Code 60524)	Tocopherol	Roche
Vitamin E Acetate	Tocopherol acetate	Roche
Vitamin E Acetate, USP-FCC(Code 60526)	Tocopherol acetate	Roche

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Vitamin E	Alpha tocopherol	Goldschmidt
Vitamin E Alcohol	Tocopherol	Roche
Vitamin E Linoleate	Tocopherol linoleate	
Vitamin E TPGS	Tocophersolan, 20% solution	
Volpo 10	Oleth-10	Croda
Volpo 20	Oleth-20	Croda
Wecobee M & S	Hydrogenated vegetable oil	Stepan
White Beeswax, NF		Ross
White Bleached Beeswax		Ross
White Ozokerite 77W	Ozokerite	Ross
White Perfecta Petrolatum		Witco
Wickenol 151	Isononyl isononoate	CasChem
Wickenol 155	Octyl palmitate	CasChem
Witcamide MAS	Stearamide MEA-Stearate	Witco
Witcodet AEG	Ammonium lauryl sulfate & etc.	Witco
Yellow Iron Oxide CV33-8073		Sun
Yellow Oxide 7055	Iron oxide	
Zinc Oxide USP		Whittaker,
Zonester 85	Tall Oil glycerides	Arizona
#1 Yellow Carnauba	Carnauba wax	Ross
62050 Red Iron Oxide		HK Color

Section XV

Suppliers' Addresses

Ajinomoto USA, Inc.
Glenpoint Ctr, W
500 Frank W. Burr Blvd.
Teaneck, NJ 07645
(201)-907-3244

Akzo Chemicals, Inc.
300 S. Riverside Plaza
Chicago, IL 60606
(312)-906-7500/(800)-257-8292

Alcolac Inc.
Rhone-Poulenc
3440 Fairfield Rd.
Baltimore, MD 21226
(301)-355-2600/(800)-ALCOLAC

Allied-Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-455-2000/(800)-526-0717

Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000

Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(708)-215-8600/(800)-323-6209

Amoco Chemical Co.
200 E. Randolph Dr.
Chicago, IL 60601
(312)-856-3200/(800)-621-4567

Aqualon
1313 N. Market St.
Wilmington, DE 19899
(302)-594-5000/(800)-345-8104

Arizona Chemical Co.
1001 E. Business Hwy. 98
Panama City, FL 32401
(904)-785-6700/(800)-526-5294

Atochem North America
900 Milk St.
Cartaret, NJ 07008
(908)-541-4414

BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072

Bernel Chemical Co., Inc.
174 Grand Ave.
Englewood, NJ 07631
(201)-569-8934

Brooks Industries, Inc.
70 Tyler Place
South Plainfield, NJ 07080
(908)-561-5200

Cabot Corp.
Cab-O-Sil Div.
Rte. 36W
Tuscola, IL 61953
(217)-253-3370/(800)-222-6745

Carborundum Co.
168 Creekside Dr.
Amherst, NY 14228
(716)-691-2052

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem, Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

ChemMark Development
70 Tyler Pl.
South Plainfield, NJ 07080
(908)-412-6192

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

Croda, Inc.
7 Century Dr.
Parsippany, NJ 07054
(201)-644-4900

Cyprus Industrial Minerals
P.O. Box 3419
Englewood, CO 80155
(800)-325-0299

Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660
(201)-641-6100

Dow Chemical USA
2020 Dow Center
Midland, MI 48674
(800)-258-CHEM

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000

Dragoco, Inc.
10 Gordon Drive
Totowa, NJ 07512
(201)-256-3850

Eastman Chemical Co.
P.O. Box 431
Kingsport, TN 37662
(615)-229-4006/(800)-EASTMAN

EM Industries, Inc.
5 Skyline Drive
Hawthorne, NY 10532
(914)-592-4660

Ethyl Corp.
451 Florida St.
Baton Rouge, LA 70801
(504)-388-7040/(800)-535-3030

Felton Worldwide
599 Johnson Ave.
Brooklyn, NY 11237

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

GAF Chemicals
International Specialty Products
1361 Alps Rd.
Wayne, NJ 07470
(201)-628-3000/(800)-848-7659

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Givaudan-Roure Corp.
100 Delawanna Ave.
Clifton, NJ 07015
(201)-365-8000

Gloss Tex Industries, Inc.
114 Iron Mountain Rd.
Mine Hill, NJ 07081
(201)-328-1010

Goldschmidt Chemical Corp.
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-445-1809

B.F. Goodrich Co.
9911 Brecksville Rd.
Cleveland, OH 44141
(216)-447-5000/(800)-331-1144

W.R. Grace & Co.
55 Hayden Ave.
Lexington, MA 02173
(617)-861-6600/(800)-354-5414

Haarman & Reimer Corp.
60 Diamond Rd.
Springfield, NJ 07091
(201)-912-5707/(800)-432-1559

Henkel Corp.
11501 Northlake Dr.
Cincinnati, OH 45299
(513)-530-7300/(800)-543-7370

Heterene Chemical Co., Inc.
295 Vreeland
P.O. Box 247
Paterson, NJ 07543
(201)-278-2000

HK Color Group
Warner-Jenkinson Co.
3 Century Lane
S. Plainfield, NJ 07080
(219)-769-1122/(800)-543-HKCG

Hoechst Celanese Corp.
3340 W. Norfolk Rd.
Portsmouth, VA 23703
(804)-483-7530/(800)-526-4960

Hormel
P.O. Box 800
Austin, MN 55912
(507)-437-5676

Huls America, Inc.
80 Centennial Dr.
Piscataway, NJ 08854
(908)-980-6946/(800)-526-0339

ICI Americas Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897
(302)-575-3034/(800)-822-8215

Ikeda Corp.
New Mexico Bldg. 3-1,
Marunouchi 3-Chome,
Chiyoda-Ku, Tokyo 100, Japan
03-3212-8791

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148
(215)-271-0800/(800)-521-9891

Kalama Chemical Inc.
Suite 1110
Bank of California Center
Seattle, WA 98164
(206)-682-7890

Karlshamms USA, Inc.
501 W. First Ave.-P.O. Box 569
Columbus, OH 43201
(614)-299-3131

Kelco Div.
Merck & Co., Inc.
8355 Aero Dr.
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Koster Keunen, Inc.
P.O. Box 447
90 Bourne Blvd.
Sayville, NY 11782
(516)-589-0456

Lanaetex Products, Inc.
151 3 Ave.
Elizabeth, NJ 07206
(908)-351-9700

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504
(201)-345-8600

Lonza, Inc.
17-17 Rte. 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-777-1875

Dr. Madis Labs Inc.
375 Huyler St.
South Hackensack, NJ 07606
(201)-440-5000

Meadowbrook Corp.
30 Rockefeller Plaza
New York, NY 10112
(212)-582-0420

Mearl Corp.
41 E. 42 St.
New York, NY 10017
(212)-573-8500

Merck & Co., Inc.
P.O. Box 2000
Rahway, NJ 07065

Miranol Inc.
Rhône-Poulenc
South Brunswick, NJ 08810
(201)-329-3900/(800)-848-7659

Mona Industries, Inc.
76 E. 24 St.
P.O. Box 425
Paterson, NJ 07544

National Starch & Chemical Co.
10 Funderne Ave.
Bridgewater, NJ 08807
(908)-685-5000/(800)-532-1115

Nipa Laboratories, Inc.
104 Hagley Bldg.
Concord Plaza
3411 Silverside Rd.
Wilmington, DE 19810
(302)-478-1522

NL Chemicals, Inc.
P.O. Box 700
Hightstown, NJ 08520
(609)-443-2500

Novarome Inc.
30 Stewart Pl.
Fairfield, NJ 07004
(201)-575-4550

Patco Polymer Additives Div.
3947 Broadway
Kansas City, MO 64111
(816)-561-9050/(800)-821-2250

Penreco
138 Petrolia St.
Karns City, PA 16041
(412)-283-5600/(800)-245-3952

Pentapharm Ltd./Centerchem Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Perry Industries
1163 Glory Rd.-P.O. Box 19043
Green Bay, WI 54307
(414)-336-4343

Pfizer, Inc.
235 E. 42nd St.
New York, NY 10017
(212)-573-2762/(800)-231-1590

PPG Industries
3938 Porett Drive
Gurnee, IL 60031
(708)-244-3410/(800)-CHEM-PPG

Proctor & Gamble
P.O. Box 599
Cincinnati, OH 45201
(513)-983-5607/(800)-543-1580

Protameen Chemicals, Inc.
375 Minnisink Rd.
Totowa, NJ 07511
(201)-256-4374

QO Chemicals
P.O. Box 2500
West Lafayette, IN 47906
(317)-497-6300/(800)-621-9521

Reheis, Inc.
235 Snyder Ave.
Berkeley Heights, NJ 07922
(908)-464-1500

Rheox, Inc.
P.O. Box 700
Hightstown, NJ 08520
(609)-443-2320

Rhône Poulenc Inc.
Prospect Plains Rd.
Cranbury, NJ 08512
(609)-860-3025

Dr. K. Richter GmbH
Chemisches Laboratorium
Bennigonstrabe 25,
D-1000 Berlin

RITA Corp.
1725 Kilkenny
Woodstock, IL 60098
(815)-337-2500/(800)-426-7759

Robeco Inc.
99 Park Ave.
New York, NY 10016
(212)-986-6410

Roche Chemical Division
Hoffman-LaRoche, Inc.
Nutley, NJ 07110
(201)-235-8077/(800)-526-0189

Rohm & Haas Co.
Independence Mall W
Philadelphia, PA 19105
(215)-592-3000

Frank B. Ross Co., Inc.
P.O. Box 4085
Jersey City, NJ 07304
(201)-433-4512

Sandoz Chemicals Corp.
4000 Monroe Rd.
Charlotte, NC 28205
(704)-331-7234/(800)-631-8077

Scher Chemicals Corp.
Industrial W.
Clifton, NJ 07012
(201)-471-1300

Shaw Mudge & Co.
P.O. Box 1375
Stamford, CT 06904
(203)-327-3132

Shell Chemical Co.
P.O. Box 2463
Houston, TX 77002
(713)-241-6161

Sherex Chemical Co., Inc.
5777 Frantz Rd.
P.O. Box 646
Dublin, OH 43017
(614)-764-6500/(800)-366-6500

Stepan Co.
22 W. Frontage Rd.
Northfield, IL 60093
(708)-446-7500

Strahl & Pitsch, Inc.
230 Great E Neck Rd.
W. Babylon, NY 11704
(516)-587-9000

Sun Chemical Corp.
411 Sun Ave.
Cincinnati, OH 45232
(513)-681-5950/(800)-343-2583

Sutton Laboratories, Inc.
116 Summit Ave.
Chatham, NJ 07928
(201)-635-1551

Tioxide Specialties Ltd.
Billingham, Cleveland TS23 1PS
United Kingdom
0642-370300

Toyomenka (America) Inc.
Pacific Gateway Co.
444 Market St.-10th Floor
San Francisco, CA 94111
(415)-788-4410

Tri-K Industries, Inc.
P.O. Box 312
27 Bland St.
Emerson, NJ 07630
(201)-261-2800/(800)-526-0372

Union Carbide Chemicals and
Plastics Co., Inc.
39 Old Ridgebury Rd.
Danbury, CT 06817
(203)-794-5300

Unichema North America
4650 S. Racine Ave.
Chicago, IL 60609
(312)-376-9000/(800)-833-2864

R.T. Vanderbilt Co., Inc.
30 Winfield St.
P.O. Box 5150
Norwalk, CT 06856
(203)-853-1400

Van Dyk
Main & William Sts.
Belleville, NJ 07109
(201)-450-3264

Vista Chemical Co.
P.O. Box 19029
900 Threadneedle
Houston, TX 77224
(713)-588-3000/(800)-231-3216

Wacker Silicones Corp.
3301 Sutton Rd.
Adrian, MI 49221
(517)-264-8500/(800)-248-0063

Welch, Holme & Clark Co.
7 Avenue L
Newark, NJ 07105
(201)-465-1200

Whittaker, Clark & Daniels, Inc.
1000 Coolidge St.
South Plainfield, NJ 07080
(908)-561-6100

Witco Corp.
520 Madison Ave.
New York, NY 10022
(212)-605-3600

COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 4

by

Ernest W. Flick



NOYES PUBLICATIONS

Park Ridge, New Jersey, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN: 0-8155-1383-6 (v. 4)

Printed in the United States

Published in the United States of America by

Noyes Publications

Mill Road, Park Ridge, New Jersey 07656

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data
(Revised for vol. 4)

Flick, Ernest, W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55 1989 668'.55 89-39099

ISBN 0-8155-1218-X (v. 1)

ISBN 0-8155-1306-2 (v. 2)

ISBN 0-8155-1367-4 (v. 3)

ISBN 0-8155-1383-6 (v. 4)

Preface

This book contains 959 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 4 of the Second Edition of this work; Volume 1 was published in 1989, Volume 2 in 1992, and Volume 3 in early 1995. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances. The 1995 market for cosmetic raw materials is estimated at \$2 billion.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 12 sections:

- I. Antiperspirants and Deodorants
- II. Baby Products
- III. Bath and Shower Products
- IV. Beauty Aids
- V. Creams
- VI. Hair Care Products
- VII. Lotions
- VIII. Shampoos
- IX. Shaving Products
- X. Soaps and Hand Cleaners
- XI. Sun Care Products
- XII. Miscellaneous

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

- XIII. Trade-Named Raw Materials. Each raw material is listed with a brief chemical description and the name of the raw material supplier.
- XIV. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same of similar raw materials by consulting the Trade-Named Raw Materials section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

September 1995

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instructions, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users read and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I

**Antiperspirants and
Deodorants**

Aluminum Chlorohydrate Antiperspirant Stick

<u>Ingredients:</u>	<u>% W/W</u>
A Dow Corning 345 fluid	45.00
Arlamol ISML	10.00
Stearyl alcohol	15.00
Aluminum chlorohydrate powder	25.00
Hydrogenated castor oil	5.00
B *Fragrance	
* q.s. these ingredients.	

Procedure:

Heat all ingredients till they are all liquid (app. 72C) and mix thoroughly. Cool to just above set point and package in antiperspirant stick containers.

Formula CP 1085

Aluminum Chlorohydrate Antiperspirant Stick

<u>Ingredients:</u>	<u>% W/W</u>
A Dow Corning 345 fluid	45.00
Stearyl alcohol	25.00
Aluminum chlorohydrate powder	25.00
Hydrogenated castor oil	5.00
B *Fragrance	
* q.s. these ingredients.	

Procedure:

Heat all ingredients till they are all liquid (app. 72C) and mix thoroughly. Cool to just above set point and package in antiperspirant stick containers.

Formula CP 1086

Aluminum Chlorohydrate Antiper

<u>Ingredients:</u>	<u>% W/W</u>
A Dow Corning 344 fluid	45.00
Arlamol ISML	10.00
Stearyl alcohol	15.00
Reheis micro dry	25.00
Castorwax, hydrogenated castor oil	5.00

Procedure:

Heat all ingredients till they are all liquid (app. 72C) and mix thoroughly. Cool to just above set point and package in antiperspirant stick containers.

Formula PC 8220

SOURCE: ICI Surfactants: Suggested Formulations

Antiperspirant

<u>Ingredients:</u>	<u>%W/W</u>
Volatile silicone, D.C. 344 fluid	45.00
Arlamol ISML	10.00
Stearyl alcohol	15.00
Aluminum chlorohydrate powder, Micro-dry	25.00
Castor wax	5.00

Procedure:

Heat all ingredients till they are all liquid (app. 72C) and mix thoroughly. Cool to just above set point and package in antiperspirant stick containers.

Antiperspirant

<u>Ingredients:</u>	<u>%W/W</u>
Volatile silicone, D.C. 344 fluid	48.50
Arlamol ISML	10.00
Al Zr Tetrachlorohydrate-gly, Rezal 36 GP, super ultrafine	20.00
Stearyl alcohol	16.00
Hydrogenated Castor Oil	5.00
Fragrance, Spicy lime #4851-AN, IFF	0.50

Procedure:

Heat all ingredients till they are all liquid (app. 72C) and mix thoroughly. Cool to just above set point and package in antiperspirant stick containers.

Aerosol Antiperspirant

<u>Ingredients:</u>	<u>%W/W</u>
A Quaternium-18 hectorite gel	8.00
Arlamol E	3.00
Cyclomethicone, Volatile silicone 7207	3.00
Arlacel 80	0.50
B Aluminum chlorohydrate, Macrospherical 95	6.00
C Hydrocarbon propellant, propellant A-46	79.50

Procedure:

Mix (A) thoroughly with medium sheer equipment. Add (B) at a slow steady rate and mix thoroughly. Fill, vacuum crimp and charge aerosol units with (C).

SOURCE: ICI Surfactants: Suggested Formulations

4 *Cosmetic and Toiletry Formulations*

Anti-Perspirant Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlachel 165, acid stable g.m.s.	5.00
Cetyl alcohol	5.00
B Water, deionized	50.00
Aluminum chlorhydroxide complex, 50% solution	40.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

Anti-Perspirant Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlachel 165	18.00
Spermaceti	5.00
B Glycerol	5.00
Water, deionized	53.00
C Titanium dioxide	1.00
D Aluminum chlorhydroxide complex	18.00
E *Perfume	

* q.s. these ingredients.

Procedure:

Heat (A) and (B) to 80C. and add (B) to (A) with agitation. Stir for 15 minutes and add (C) slowly, continue to agitate and cool to 40C. Add (D) and continue to agitate until mixture is homogenous. Add (E) and stir.

Oil/Water Antiperspirant Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	14.00
Beeswax	2.00
Mineral oil	1.00
Arlachel 60	5.00
Tween 60	5.00
B Water, deionized	33.00
C Aluminum Chlorhydrate, 50% sol.	40.00
*Perfume	

*q.s. these ingredients.

Procedure:

Heat (A) to 85 deg. C and (B) to 85 deg. C. Add (B) to (A) while stirring. Mix while cooling to 40 deg. C. Add (C) and continue mixing until cool.

SOURCE: ICI Surfactants: Suggested Formulations

Antiperspirant Roll-On

<u>Ingredients:</u>	<u>% W/W</u>
A Arlamol E	3.00
Arlamol ISML	4.00
Brij 721	1.50
Brij 72	2.50
B Water	49.00
C Aluminum Zirconium Tetra Chlorohydrax-GLY (50% aqueous solution)	40.00
D *Preservative	
*Fragrance	
* q.s. these ingredients.	

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) using propeller type agitation. Add (C) at about 50C and (D) at about 45C. Add water at 35C to compensate for loss due to evaporation. Package. Formula AD-3

Roll-On Antiperspirant

<u>Ingredients:</u>	<u>% W/W</u>
A Arlamol ISML	3.00
Arlamol E	3.00
Brij 721	1.50
Brij 72	2.50
B Water, deionized	49.00
C Aluminum chlorohydrate (50% solution), Wickeno1 303	40.00
D Germaben II	1.00
* q.s. these ingredients.	

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) using propeller type agitation. Add (C) at about 50C and (D) at about 45C. Add water at 35C to compensate for loss due to evaporation. Package.

SOURCE: ICI Surfactants: Suggested Formulations

Antiperspirant Stick

<u>Ingredients:</u>	<u>%W/W</u>
A Brij 721	2.30
Arlamol E	11.50
Isopropyl myristate & stearylalkonium hectorite	5.70
Ozokerite wax	22.40
Myristyl alcohol	17.20
B Aluminum-Zirconium trichlorohydrate	23.00
C Cyclomethicone	17.90

*q.s. these ingredients.

Procedure:

Heat (A) to 65 deg. C and (B) to 68 deg. C. Add (B) to (A) with agitation and immediately add (C). Stir to 50 deg. C and pour into molds.

Oil-In-Water Antiperspirant Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	0.50
Arlamol E	3.00
Brij 72	2.00
Brij 721	1.00
B Water	58.50
*Preservative	
C Aluminum chlorhydroxide, 50% aqueous solution	35.00

*q.s. these ingredients.

Procedure:

Heat (A) to 85 deg. C and (B) to 85 deg. C. Add (B) to (A) while stirring. Mix while cooling to 40 deg. C. Add (C) and continue mixing until cool.

Formula AD-5

Anti-Perspirant Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlancel 165, acid stable g.m.s.	15.00
Water, deionized	45.00
B Aluminum chlorhydroxide complex, 50% solution	40.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with rapid agitation. Cool to room temperature with stirring.

SOURCE: ICI Surfactants: Suggested Formulations

Deodorant

	<u>Wt%</u>
A. Imwitor 960 flakes	6.0
Softisan 645	5.0
Hostaphat KL 340 N	5.0
Cetyl alcohol	2.0
Raluben TL	0.5
Aluminum acetate	0.5
B. Karion F	5.0
Hostacerin gel 1%*	12.0
Benzyl alcohol	1.0
Water	to 100.0
C. Perfume	qs

Preparation:

The ingredients of A. are heated to 75-80C. Those of B. are brought to the same temperature and added slowly to A. with stirring. C. is added at approx. 30C.

*Preparation of the Hostacerin gel: Hostacerin PN 73 1.0%
Water to 100.0%

The Hostacerin is mixed with water until homogeneous and the mixture stirred until the gel is clear.

Deodorant Stick

	<u>Wt%</u>
A. Miglyol 812	30.0
Dynasan 114	20.0
Dynasan 110	18.5
Imwitor 960 flakes	10.0
Beeswax	20.0
B. Perfume	qs
Active ingredient	qs

Preparation:

The ingredients of A. are melted at 75C and at about 40C perfume is added, the mix is homogenised and cast into moulds.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Dry Antiperspirant Stick

<u>Materials:</u>	<u>% by Weight</u>
1. Cyclomethicone	39.7
2. Stearyl Alcohol	22.0
3. Arlacel 165	2.0
4. Titanium Dioxide 3328	0.2
5. Bentone Gel VS-5 Rheological Additive	10.0
6. Aluminum Chlorohydrate (Micronized)	25.0
7. Talc	1.0
8. Fragrance	0.1

Manufacturing Directions

- A. Heat the Cyclomethicone to 65C.
- B. With stirring, slowly add ingredient 2, maintaining the temperature at 65C thru step E.
- C. When all of ingredient 2 is melted, add ingredients 3 and 4. Mix for 15 minutes.
- D. Add Bentone Gel VS-5 Rheological Additive and mix for 30 minutes.
- E. Add ingredients 6 and 7, mix for 30 minutes.
- F. Allow the batch to cool to 55C, add Fragrance, mix for 5 minutes and pour into suitable containers.

Formula TS-289

Quick Drying Roll-On Antiperspirant

<u>Materials:</u>	<u>% by Weight</u>
1. Bentone Gel VS-5 Rheological Additive	15.0
2. Cyclomethicone	54.0
3. SDA Alcohol 40	3.0
4. Isopropyl Myristate	2.0
5. Aluminum Chlorohydrate	25.0
6. Fragrance	1.0

Manufacturing Directions:

- A. Combine the Bentone Gel VS-5 with ingredients 2 and 3 using vigorous agitation. Mix until uniform.
- B. Add ingredient 4, then ingredient 5, with constant agitation. Mix until the powder is uniformly distributed.
- C. Add ingredient 6.

Formula TS-288

SOURCE: Rheox, Inc.: Suggested Formulations

Dry Roll-On Antiperspirant

<u>Materials:</u>	<u>% by Weight</u>
1. Bentone Gel IPM rheological additive	15.0
2. SDA 40	3.0
3. Isopropyl Myristate	2.0
4. Cyclomethicone	54.0
5. Aluminum Chlorohydrate	25.0
6. Fragrance	1.0

Manufacturing Directions:

1. Combine the Bentone Gel IPM additive with ingredients 2,3 and one-half of ingredient 4 in a mixing kettle. Mix until uniform. Add the remaining portion of ingredient 4, continue mixing.
2. Add ingredient 5 with agitation, stirring until the powder is uniformly distributed.
3. Add the fragrance, mix, fill units.

Formula TS-237

Talc Spray Antiperspirant

<u>Materials:</u>	<u>% by Weight</u>
1. Bentone Gel IPM rheological additive	8.0
2. SDA 40	2.0
3. Isopropyl Myristate	1.5
4. Cyclomethicone	5.0
5. Aluminum Chlorohydrate	6.0
6. Talc	2.0
7. Fragrance	0.5
8. Propellant A-46	75.00

Manufacturing Directions:

1. Combine ingredients 1 through 4 and thoroughly mix using medium shear equipment.
2. Add ingredients 5 and 6 at a slow rate and mix in thoroughly.
3. Add fragrance and mix.
4. Fill, vacuum crimp and gas aerosol units.

Formula TS-245

SOURCE: Rheox, Inc.: Suggested Formulations

General Purpose Stick Formulation-1

<u>Ingredients:</u>	<u>Wt%</u>
A-C Polyethylene 617A	8
Acetylated Lanolin Alcohol*	16
Ozokerite (170D)**	16
Mineral Oil (70 ss)***	55
Span 60	5

Cloud Point, C: 80

General Purpose Stick Formulation-2

<u>Ingredients:</u>	<u>Wt%</u>
A-C Polyethylene 617A	7
Acetylated Lanolin Alcohol*	14
Ozokerite (170D)**	14
Mineral Oil (70 ss)***	60
Span 60	5

Cloud Point, C: 76

Procedure:

Heat all ingredients with slow agitation 2-5C above its cloud point until solution turns clear. Around 60-70C, add perfume, aluminum chlorohydrate and preservative. Deaerate and package.

Manufacturers:

- * Malmstrom Chemical, Acetol, or Amerchol, Acetulan
- ** Ross Wax or equivalent
- *** Witco Chemical, Carnation Mineral Oil, or equivalent

Stick Antiperspirant

<u>Ingredients:</u>	<u>Parts, Wt.</u>
1. A-C 400	15
2. Isopropyl Palmitate	50
3. Dow Corning Silicone 344	15
4. Stearyl Alcohol	20
5. Aluminum Chlorohydrate	15
6. Perfume	Q.S.

Procedure:

Weigh 1-4 and heat until A-C 400 has dissolved or melted. Stir until wax blend is uniform. Add 5 and stir in. Cool mixture down to 55C and add Perfume.

SOURCE: Allied Signal Inc.: Suggested Formulations

Roll-On Antiperspirant

This low viscosity emulsion is stabilized with Veegum HV which also provides moderate thickening and excellent, dry after-feel. The Aluminum/Zirconium Complex has higher anti-perspirant efficacy than aluminum chlorohydrate.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum HV, Magnesium Aluminum Silicate	1.00
Deionized Water	29.00
B Glyceryl Stearate (and) PEG-100 Stearate (2)	8.00
C Aluminum Zirconium Tetrachlorohydrate GLY, 30% Soln. (3)	33.00
Aluminum Chloride, 32 Baume Soln.	5.50
Aluminum Chlorhydrate, 50% Soln. (4)	16.50
D Cyclomethicone (5)	7.00
E Fragrance, Dye, Preservative	q.s.
(2) Arlacel 165	
(3) Rezal 36G	
(4) Chlorhydrol, 50% Solution	
(5) Rhodorsil 700 45V2	

Preparation:

Add Veegum HV to water at 75C and mix with maximum available shear until smooth, uniform and completely free of undispersed particles. In another container, heat B to 75C. Heat C to 55C in a third container. Add B to A with slow mixing and cool to 50C. Add C to A&B. Mix at slow speed until the temperature reaches 25C. Add D and homogenize for 5 minutes. Add E. Mix until uniform and package.

Consistency:

Viscosity measured after 30 days at room temperature is 600-800 cps.

Suggested Packaging: Roll-On Containers

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 443

Roll-On Antiperspirant

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	4.00
Brij 721	0.75
Brij 72	3.25
B Water, deionized	34.55
Allantion	0.20
C Aluminum Zirconium Tetrachlorohydrax Gly, Wickeno1 386	57.25
D *Perfume and Preservative	

*q.s. these ingredients.

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) using propeller type agitation. Add (C) at about 50C and (D) at about 45C. Add water at 35C to compensate for loss due to evaporation. Package.

Quick Dry Roll-On Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cyclomethicone	10.00
Brij 72	2.00
Brij 721	0.70
B Water, deionized	52.30
C Aluminum chlorhydrate, 50% aqueous solution	35.00
D *Perfume	

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with agitation. Cool to 35-40C with stirring and slowly add the remainder of ingredients.

Clear Roll-On A.P. Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Ethyl alcohol	69.00
Hydroxypropyl cellulose, Klucel GF	1.00
B Arlamol E	10.00
C Aluminum chlorhydroxide-propylene glycol complex	20.00

Procedure:

Mix (A) thoroughly using high shear if necessary. Add Arlamol E and stir until homogeneous. Add (C) and stir until clear.

SOURCE: ICI Surfactants: Suggested Formulations

Spray Powder Anti-Perspirant

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Ethanol (SD 40)	2.0
(2) Bentone Gel IPM	8.0
(3) Isopropyl Myristate	1.5
(4) Cyclomethicone	5.0
(5) Aluminum Chlorohydrate	6.0
(6) Kaopolite TLC	2.0
(7) Fragrance	0.5
(8) Propellant A46	75.0

Procedure:

Add (1) to (2) and mix for 5 minutes. Add (5) and mix for 5 minutes. At high speed, add (3), (4), (6), and (7). Mix with (8) and fill.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

SOURCE: Kaopolite, Inc.: Suggested Formulation

Deodorant Stick

	<u>% by Weight</u>
Stearic Acid	8.00
Ethanol	74.13
Propylene Glycol	10.00
Isopropyl Palmitate	5.00
Phospholipid PTC	0.50
Sodium Hydroxide 50%	2.37

Procedure:

Blend ingredients together except the sodium hydroxide. Heat and agitate to 65-70C, then slowly neutralize the stearic acid with the sodium hydroxide 50% and continue mixing until clear. Cool slightly to 70C. Add fragrance and color, and package.

Properties:

Physical Appearance: Translucent Solid

SOURCE: Mona Industries, Inc.: Suggested Formulation

Stick Formulation

	<u>Wt%</u>
1. A-C Copolymer 400	15
2. Isopropyl Myristate	50
3. Dow 344 Fluid	15
4. Stearyl Alcohol	20

Procedure:

Weigh all ingredients and heat with agitation. The cloud point of this blend is 72C. Above the cloud, the polyethylene will eventually dissolve in the blend. If a higher solvating temperature is used, solvation is much faster. Care must be taken, however, not to volatilize the Dow 344 Fluid. When all ingredients are dissolved, add 15% aluminum chlorhydrate and quick cool, with agitation, to 45C. Pour into container and allow to cool further.

Ref: 5189-12-2

Stick Formulation

	<u>Wt%</u>
A-C 400	20
2-Ethyl Hexyl Stearate	43
Myristyl Myristate	18
Dow Corning C344	16
Cetyl Alcohol	2.5
Span 65	0.5

Stick Formulation

	<u>Wt%</u>
A-C 400	20
2-Ethyl Hexyl Stearate	40
Myristyl Myristate	18
Dow Corning C344	16
Glycerol Mono Stearate	3
Cetyl Alcohol	2.5
Span 65	0.5

Stick Formulation

	<u>Wt%</u>
R762D	15
Isopropyl Palmitate	45
Dow Corning 344	15
Stearyl Alcohol (Alfol 18)	25

Procedure:

The ingredients are mixed and heated until they form a clear solution. Cloud point of this stick is 76C. It can be poured at 65C.

Antiperspirant Stick:

For antiperspirant stick to this base formulation add 25% aluminum chlorhydrate (particle size 12) and mix in hot. Perfume is added just prior to pouring.

Deodorant Stick:

For deodorant stick to this base formulation, add deodorant 1% just prior to pouring.

SOURCE: Allied Signal Inc.: Suggested Formulations

Section II

Baby Products

Baby Bath

	%
A. Marlinat 242/28	22.0
Marlinat CM 105	20.0
Ampholyt JB 130	12.0
Marlamid M 1218	2.0
Water	to 100.0
B. Camomile Special	0.5
Avocado Special	1.0
Perfume	qs
Preservative	qs
Magnesium sulphate x 7H ₂ O	qs

Preparation:

The components under A. are added together in sequence, warmed and stirred until homogeneous. The components in B. are added to A. at approx. 30C. The pH is adjusted to 5.5-6.6.

Baby Bath

	%
Marlinat 242/28	21.0
Ampholyt JB 130	17.0
Marlinat SL 3/40	8.0
Dionil OC/K	3.0
Lime Blossom Special	0.5
Camomile Special	0.5
Perfume	qs
Colour	qs
Preservative	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huils America Inc.; Formulations for Cosmetics:
Suggested Formulations

Baby Lotion Mousse

Phase A:	<u>%(W/W)</u>
Incroquat Behenyl TMS	1.17
Polawax	1.00
Crodacol S-95	0.33
Crodamol PMP	1.00
Crodamol PTC	0.67
Carnation Mineral Oil	1.00
Protopet 1S Petrolatum	2.00
Dimethicone 35 cs (200f1)	0.50

Phase B:	
Water, deionized	83.33
Glycerine	8.00
Germaben II	1.00

Procedure:

Combine "A" and heat to 75C. Combine "B" and heat to 75C. Slowly add "B" to "A" with mixing. Cool. Fill into aerosol containers and add propellant (pH 5.7).

Fill ratio: Concentrate 95%, Propellant A31 5%.

Baby Oil

<u>Ingredients:</u>	<u>%/W/W</u>
1. Carnation, Light Mineral Oil NF	QS100.00
2. Ritalan	5.00
3. Ritacetyl	2.50
4. Propylparaben	0.10
5. Perfume	QS

Manufacturing Procedure:

Weigh and add all the ingredients into a container and begin stirring while warming, until all ingredients which are solids at ambient temperatures have melted (approximately 55C). Stir until completely homogeneous and begin cooling. Stir continuously, allow to remain undisturbed for 24 hours, and filter.

Baby Oil

<u>Ingredients:</u>	<u>%/W/W</u>
1. Carnation, Light Mineral Oil NF	QS100.00
2. Ritalan "C"	1.00
3. Perfume	QS
4. Propylparaben	0.10

Manufacturing Procedure:

Weigh and add #1 into a container and begin stirring. Add #2, 3 and 4 and mix until a homogeneous dispersion occurs. Filter, if necessary, and package fill into suitable containers.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Baby Shampoo

This baby shampoo features Crovol A-70 and Crosultaine C-50, natural derived surfactants which give this formula its mildness. Using a fragrance with a "baby-fresh" smell adds to its appeal.

<u>Ingredients:</u>	<u>%</u>
Part A:	
SLES (3 mole)	20.0
Crosultaine C-50 (Cocamidopropyl Hydroxysultaine)	12.0
Deionized Water	51.3
Part B:	
Crovol A-70 (PEG-60 Almond Glycerides)	15.0
Crothix* (PEG-150 Pentaerythrityl Tetrastearate)	0.5
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.0
Florasynt AB5697 (Powder Type)	0.2

Procedure:

Combine the ingredients of Part A with mixing. Combine the ingredients of Part B with mixing and heat to 65C. Add Part B to Part A with mixing. Add the ingredients of Part C individually with mixing. Adjust pH if needed with a 10% HCl aqueous solution. Cool with mixing to desired fill temperature.

pH: 7.0+-0.5

Viscosity: 5,000cps+-10% (@25C)

**Germaben II

N.A.T.C. Approved

*The use of Crothix in cosmetic and other formulations is covered under U.S. Patent #5,192,462.

SOURCE: Croda Inc.: Formulation SH-86

Baby Shampoo

	<u>Weight, %</u>
Mackadet BSC (Baby Shampoo Concentrate)	20.0
Mackstat DM (DMDM Hydantoin)	q.s.
Citric Acid to pH = 6.5-7.0	
Sodium Chloride qs to viscosity = 2000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackstat BSC to water and heat to 40 degrees C.
2. Add Mackstat DM.
3. Adjust pH with citric acid and viscosity with sodium chloride.
4. Add dye, fragrance and cool to room temperature.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Baby Shampoo

	<u>Wt%</u>
A. Marlinat CM 105	55.0
Marlinat 243/28	14.0
Ampholyt JA 140	7.0
Glucamate DOE 120	qs
Water	to 100.0
B. Lime-blossom Special	0.3
Camomile Special	0.2
Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are brought together in sequence and stirred while warm until homogeneous. The ingredients of B. are added to A. at approx. 30C. The pH is adjusted to 5.5-6.6.

Baby Shampoo

	<u>Wt%</u>
Marlinat 242/28	29.0
Ampholyt JA 140	7.5
Ampholyt JB 130	10.0
Softigen 767	3.0
Lamepon S	5.0
Camomile Special	1.0
Lime-blossom Special	1.0
Preservative	qs
Antil 141 liquid	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics; Formulas

Baby Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A Tween 20	6.00
Cocoamphodiacetate	6.00
Sodium lauryl sulfate	3.00
Sodium laureth sulfate	3.00
PEG-150 distearate	4.00
Propylene glycol	3.00
Water	75.00

B *Citric acid

*q.s. these ingredients.

Procedure:

Mix (A) with gentle stirring and heat until homogeneous.
Adjust pH to 5.0 to 5.5 with (B).

Baby Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A G-4280	20.00
Sodium trideceth sulfate	12.00
Lauramphodiacetate	5.00
Cocamidopropyl hydroxysultaine	2.50
Sodium laureth-13 carboxylate	2.00
Water	53.50
*Preservative	

B PEG-150 distearate 5.00

C *Citric acid

*q.s. these ingredients.

Procedure:

Mix (A) with gentle stirring and heat until homogeneous.
Heat to around 60C and add (B) and continuing stirring. When
clear, cool and adjust pH to 6.8 with (C).

SOURCE: ICI Surfactants: Suggested Formulations

Baby Shampoos

B 42/6:	
Zetesol MS	25.0%
Amphotensid GB 2009	9.0%
Purton SFD	2.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 42/7:	
Zetesol MS	27.0%
Zetesol 2056	7.0%
Purton CFD	2.0%
Perfume	0.3%
Sodium chloride	2.0%
Water, preservative	q.s. to make 100.0%

Baby Foam Baths

B 70/139:	
Zetesol MS	43.0%
Purton SFD	1.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 70/129:	
Extrakt 52	24.0%
Purton SFD	1.0%
Herbaliquid Kamille Spezial	5.0%
Water, perfume, preservative	q.s. to make 100.0%
Adjustment to approx. pH 7 by lactic acid or citric acid	

B 70/101:	
Amphotensid 9 M	40.0%
Setacin 103 Spezial	20.0%
Purton CFD	2.0%
Mulsifan RT 203/80	3.0%
Oxypon 2145	1.0%
Water, perfume, preservative	q.s. to make 100.0%
Adjustment to pH 6.5-7.0 by lactic or citric acid	

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Tear Free Baby Bath

	<u>Weight, %</u>
Mackam 2C (Cocoamphodiacetate)	35.0
Mackol 70NS (Sodium Laureth Sulfate)	5.5
Mackam 35HP (Cocamidopropyl Betaine)	6.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	4.0
Mackam CET (Cetyl Betaine)	1.5
Paragon (DMDM Hydantoin (and) Methyl Paraben)	0.7
Citric Acid q.s. to pH	5.0-5.5
Water q.s. to	100.0

Procedure:

1. Blend components and heat to 50C.
2. When product is clear adjust pH to 5.0-5.5 with citric acid.
pH: 5.3
Viscosity (cps, 25C): 500 cps
Formula BN-127C

Baby Wipes

	<u>Weight, %</u>
Propylene Glycol	4.0
Mackam 2C (Cocoamphodiacetate)	2.0
Paragon (DMDM Hydantoin (and) Methyl Paraben)	q.s.
Citric Acid q.s. to	pH=6.0
Fragrance	q.s.
Water q.s. to	100.0

Procedure:

1. Blend components until clear.
2. Adjust pH with citric acid.
This solution is combined with baby wipe tissues. It is very mild to skin and eyes.

Mild Children's Bubble Bath

	<u>Weight, %</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	10.0
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	10.0
Sodium Laureth Sulfate (30%)	9.0
Natrosol 250HHR	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Disperse Natrosol 250HHR in cold water.
2. Blend until completely dispersed.
3. Heat to 40 degrees C. and add remaining components.
4. Blend until clear.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Section III

Bath and Shower Products

Aerosol Bath Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Oleyl alcohol	15.00
Atlas G-1795	1.00
Alcohol, SDA No. 40	52.00
Perfume	2.00
B Propellant 12/114 (57/43)	30.00

Procedure:

Heat (A) and (B) to 90C. Add (B) to (A) with gentle stirring. Cool to 70C and add (C). Stir until uniform and pour while still fluid.

Dispersible Bath Oil

<u>Ingredients:</u>	<u>%W/W</u>
Mineral oil, Blandol	60.00
Active #4	20.00
Brij 93	13.00
Foam stabilizer, Ninol AA-62 Extra	2.00
Perfume	5.00

Procedure:

Mix all ingredients. Use slight heat if necessary and stir. Filter if necessary.

Bath Gel

<u>Ingredients:</u>	<u>%W/W</u>
G-9600	35.00
NaCl	0.80
*Color	
Fragrance	0.20
Preservative	0.10
Water	63.90

*q.s. these ingredients.

Procedure:

Mix well at room temperature.

SOURCE: ICI Surfactants: Suggested Formulations

Bath Gelee with Natural Lipid Protein

	<u>Weight, %</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide CS (Cocamide DEA)	20.0
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	20.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	4.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackamide CS to sodium laureth sulfate and blend.
2. Add remaining components and heat to 45 degrees C.
3. Blend until homogenous and adjust pH to 6.5-7.0 with citric acid.
4. Cool and fill.

Bath Gelee

	<u>Weight, %</u>
Sodium Laureth Sulfate (60%)	34.6
Mackamide C (Cocamide DEA)	20.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	45.0
Lactic Acid to pH = 6.0-6.5	
Mackstat DM (DMDM Hydantoin)	qs
Dye, Fragrance, qs to	100.0

Procedure:

1. Add components in order and heat to 45 degrees C.
2. Blend until homogeneous.
3. Adjust pH with lactic acid.
4. Add fragrance and cool to room temperature.

Emollient Bath Gelee

	<u>Weight, %</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide LLM (Lauramide DEA)	20.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	20.0
Mackanate WGD (Disodium Wheatgermamido PEG-2 Sulfosuccinate)	10.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackamide LLM to sodium laureth sulfate.
2. Add the remaining components and heat to 45 degrees C.
3. Blend until homogeneous.
4. Adjust pH to 6.5-7.0 with citric acid.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Bath Milk

	%
A. Imwitor 960 flakes	5.0
Miglyol 812	15.0
Miglyol 840	10.0
Marlophor T10 Na Salt	8.0
B. Glycerol	3.0
Water	to 100.0
C. Extrapon Hamamelis Spec.	1.0
Perfume	qs
Preservative	qs

Preparation:

The ingredients of A. are mixed and heated to 75-80C. B. is heated to the same temperature and emulsified in A. C. is added at 30C.

Washing Lotion

	%
Marlinat 242/28	22.0
Marlinat CM 105	6.0
Dionil OC/K	3.0
Marlamid PG 20	3.0
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.: *Formulations for Cosmetics: Suggested Formulations*

Bath Oil, De Luxe with Plant Oils

	%
A. Miglyol 812	15.0
Miglyol 840	15.0
Softigen 767	10.0
Softisan 645	10.0
Soya bean oil	37.0
Hostaphat KL 340 N	13.0
Colour	qs
Antioxidants	qs
Perfume	qs

Viscosity: very low-viscous

Preparation:

All the components are mixed together and stirred at room temperature until homogeneous.

Foam Bath with Almond Oil

	%
A. Marlowet OA 4/1	30.0
Isopropyl myristate	22.0
Almond oil	8.0
B. Marlinat 242/70	25.0
Glycerol DAB 9	10.0
Marlamid DF 1218	3.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

Heat A. and B. to 70-75C. Add B. slowly to A. with stirring. Add perfume and preservative at 30C.

Foam Bath Oil

	%
A. Marlowet R 11/K	30.0
Pine-needle oil	30.0
B. Marlinat 242/70	11.0
Lipoxol 600 MED	13.0
Water	to 100.0
C. Preservative	qs

Preparation:

Heat A. and B. to 70-75C. Add B. slowly to A. with stirring. Add perfume and preservative at 30C.

SOURCE: Huls America Inc.; Formulations for Cosmetics:
Suggested Formulations

Bubble Bath & Bath Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Fragrance 2991 H, IFF Inc.	4.40
Tween 20	22.20
Foaming agent, Lanthanol LAL	10.00
B Water, deionized	62.20
C Foam stabilizer, Ninol AA-62 Extra	1.00
Preservative	0.20

Procedure:

Add (B) to (A) with good agitation. Add (C) with stirring with slight heat to facilitate solution when necessary. Adjust the final product to a pH of less than 7.0 with an acid such as citric. Filter if necessary.

Bubble Bath

<u>Ingredients:</u>	<u>%W/W</u>
G-9600	20.00
NaCl	0.90
Sulfo succinate	7.00
Fragrance	0.20
Preservative	0.10
*Color	
Water	71.80

*q.s. these ingredients.

Procedure:

Mix well at room temperature.

Bubble Bath

<u>Ingredients:</u>	<u>%W/W</u>
A Triethanolamine lauryl sulfate, Mapprfox TLS-500	20.00
Coconut fatty acid diethanolamide, Super Amide L-9	7.50
B Perfume	5.00
C Water, deionized	57.50
Propylene glycol	5.00

Procedure:

Warm (A) and mix until clear. Cool and add perfume, stirring until dissolved. Add (C) and stir.

SOURCE: ICI Surfactants: Suggested Formulations

Clear Gel

This clear gel is a classic formula that is based on Volpo and Crodafos surfactants. It exhibits the "ringing gel" phenomenon, characteristic of many clear microemulsions. This effect is achieved by a system of water, oil and surfactant formulated in a ratio that forms a rigid micelle structure. The Volpos and Crodafoses are used as co-emulsifiers. (For laboratory preparation, a minimum batch size of 400 grams is recommended because they cool slower, allowing more time before the set point temperature is reached).

<u>Ingredients:</u>	<u>%</u>
Part A:	
Deionized water	54.0
Propylene Glycol	12.0
Part B:	
Crodafos N3 Neutral (DEA Oleth-3 Phosphate)	2.0
Crodafos N10 Neutral (DEA Oleth-10 Phosphate)	4.0
Volpo 5 (Oleth-5)	4.0
Volpo 3 (Oleth-3)	7.0
Mineral Oil (70ssu)	17.0

Procedure:

Combine ingredients of Part A with mixing and heat to 90-95C. Combine ingredients of Part B with mixing and heat to 90-95C. Add Part A to Part B with mixing and cool to desired fill temperature (above set point). Set point approximately 85C.

N.A.T.C. Approved

Formula CG-8R

High Foaming Shower Gel

This formula uses an optimized combination of Crosultaine C-50, Incrodet TD-7C and SLES (3 mole) to produce a clear, high foaming, low color, and low odor bath and shower gel. Crothix is used to provide the body and viscosity seen in the formula, and Crovol A-70 is used to solubilize the fragrance and maintain the clarity of the product.

<u>Ingredients:</u>	<u>%</u>
Part A:	
SLES (3 mole)	20.0
Incrodet TD-7C (Trideceth-7 Carboxylic Acid)	7.0
Crosultaine C-50 (Cocamidopropyl Hydroxysultaine)	20.0
Disodium EDTA	0.1
Deionized water	48.3
Germaben II	1.0
Part B:	
Crothix (PEG-150 Pentaerythrityl Tetrastearate)	1.0
Crovol A-70 (PEG-60 Almond Glycerides)	2.0
BHT	0.1
Part C:	
Perfume (BBA 860753)	0.5

Procedure:

Combine ingredients of Part A with mixing. Combine ingredients of Part B with mixing and heat to 65-70C. Continue mixing and cool to 50C. Add Part C to Part B with mixing. When clear, add Part B to Part A with mixing. Adjust pH with 10% NaOH solution.

Formula BP-41

SOURCE: Croda Inc.: Suggested Formulations

Foam Baths, Clear

B 70/136:	
Zetesol NL	46.0%
Purton SFD	2.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 70/123:	
Zetesol 2056	27.0%
Purton CFD	2.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 70/117:	
Zetesol 856T	35.0%
Setacin 103 Spezial	5.0%
Oxypon 2145	2.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 70/148:	
Zetesol 2056	40.0%
Oxypon 288	2.0%
Perfume	1.5%
Water, preservative	q.s. to make 100.0%

B 70/161:	
Zetesol 856 T	35.0%
Oxypon 328	4.5%
Jojoba oil	0.5%
Purton CFD	2.0%
Perfume	1.0%
Water, sodium chloride, preservative	q.s. to make 100.0%

Foam Baths, Pearlescent

B 71/16:	
Zetesol 2056	27.0%
Perlglanzmittel GM 4175	3.0%
Perfume	0.8%
Sodium chloride	2.5%
Water, preservative	q.s. to make 100.0%

B71/4:	
Zetesol 856T	37.0%
Setacin 103 Spezial	6.0%
Perlglanzmittel GM 4055	7.5%
Oxypon 2145	3.0%
Water, perfume, preservative	q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Herbal Foam Bath

A. Marlon PS 65	5.0
Marlinat 242/28	35.0
Dionil OC/K	3.0
Ampholyt JB 130	10.0
Marlinat CM 105	9.0
Water	to 100.0
B. Perfume	qs
Extrapon 3-Special	2.0
Preservative	qs
Colour	qs
NaCl	qs

Preparation:

The components under A. are mixed together in sequence and stirred while warmed until homogeneous. The components under B. are added to those of A. at about 30C. The pH is adjusted to 5.5-6.6.

Foam Bath, Transparent

Marlinat 242/28	35.0
Marlinat SL 3/40	10.0
Marlamid DF 1218	2.0
Magnesium sulphate x 7H ₂ O	0.5
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.: Formulations for Cosmetics:
Suggested Formulations

Mild Shower Gel

	%
Marlinat 242/28	22.0
Marlinat DFN 30	6.0
Ampholyt JB 130	16.0
Lamepon S	5.0
Camomile Special	2.0
Perfume	qs
Colour	qs
Preservative	qs
Antil 141 liquid	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Shower Bath Gel with Pearl Lustre

	%
Marlinat 242/28	43.0
Marlinat CM 105	10.0
Marlinat SL 3/40	5.0
Dionil OC/K	3.0
Marlamid PG20	3.0
Panthenol	0.2
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Procedure:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Clear, Mild to the Skin Shower Bath

	%
Ampholyt JB 130	18.0
Marlinat 242/28	14.0
Marlinat SL 3/40	11.0
Dionil OC/K	1.5
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.6-6.5.

SOURCE: Huls America Inc.: Formulations for Cosmetics:
Suggested Formulations

Refreshing Shower Gel

	%
Marlinat CM 105	32.0
Marlinat DFK 30	17.0
Ampholyt JB 130	11.5
Dionil OC/K	2.0
Rosemary Special	0.5
Stinging Nettle Special	0.5
Hamamelis Special	0.5
Marlowet R40/K	1.0
Menthol	0.5
Perfume	qs
Colour	qs
Preservative	qs
Antil 141 liquid	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Shower Gel

	%
Marlinat 242/28	28.0
Marlinat SL 3/40	15.0
Ampholyt JA 140	5.0
Dionil OC/K	3.0
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics:
Suggested Formulations

Shower Bath for Everyday Use

	%
Marlinat 242/28	35.0
Marlinat CM 105	16.0
Ampholyt JB 130	8.0
Dionil OC/K	2.0
Marlamid PG 20	1.0
Panthenol	0.1
Vitamin F	0.1
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Mild Foam Bath

	%
Marlinat 242/28	30.0
Marlinat CM 105	18.0
Dionil OC/K	3.0
Ivy Special	0.3
Rosemary Special	0.1
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics:
Suggested Formulations

Shower Baths, Clear

B 75/26:	
Zetesol 2056	25.0%
Setacin 103 Spezial	9.0%
Purton CFD	1.0%
Perfume	1.0%
Sodium chloride	2.5%
Water, preservative	q.s. to make 100.0%

B 75/5:	
Zetesol 856 T	21.5%
Amphotensid GB 2009	8.0%
Purton SFD	2.0%
Oxypon 2145	1.0%
Perfume	1.0%
Water, preservative, sodium chloride	q.s. to make 100.0%

Shower Baths, Pearlescent

B 75/6:	
Extrakt 52	42.0%
Perlglanzmittel GM 4055	5.0%
Purton SFD	2.0%
Water, perfume, preservative	q.s. to make 100.0%

B 75/27:	
Zetesol 2056	27.0%
Perlglanzmittel GM 4175	4.0%
Purton CFD	2.0%
Oxypon 2145	1.0%
Perfume	1.0%
Sodium chloride, water, preservative	q.s. to make 100.0%

B 75/56:	
Zetesol 856 T	22.0%
Perlglanzmittel GM 4055	5.0%
Oxetal VD 20	2.0%
Oxypon 2145	1.0%
Perfume	1.0%
Water, preservative	q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Shower Gel Cleanser

A gentle foaming gel cleanser designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	50.150
Polyquaternium-10	0.200
Citric Acid	0.100
Tetrasodium EDTA	0.100
Methylparaben	0.150
Sodium PCA/Ajidew N-50	0.500
Part B:	
Sodium Laureth Sulfate	30.000
TEA-Cocoyl Glutamate/Amisoft CT-12	10.000
Cocamidopropyl Betaine	5.000
PEG-150 Distearate	0.700
Lauramide DEA	2.000
Part C:	
Fragrance/#IY-67	0.250
Methylchloroisothiazolinone and Methylisothiazolinone	0.050
Part D:	
Sodium Chloride	0.800

Procedure:

Disperse Polymer JR-125 in deionized water. Heat to 70C. Add remaining part A ingredients. Mix until uniform. Add part B ingredients in order. Mix at 70C until completely homogeneous. Cool to 40C. Add part C. Mix well. Add part D as needed to increase viscosity. Continue mixing and cooling to 35C. Appearance: Clear liquid/pH: 5.20-5.70/Viscosity: 4,000-6,000 cps

Bath Crystals

A gentle milky bath crystal formulation that will relax your senses with the aroma of the hot baths of Japan. It will leave your skin clean and smooth while taking your mind to far and exotic places.

<u>Ingredients:</u>	<u>% by Weight</u>
Sodium Chloride	86.00
Cocoyl Glutamate/Amisoft CA	7.00
Fragrance/Takasago	1.50
Cabosil M-5	0.50

Blend ingredients 1,2,3. Premix ingredients 4 and 5. Add premix to pre-blend and mix until homogeneous and uniform.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Silky Bath Gel

Rhodigel is used as a thickener and foam stabilizer for this silky bath gel formula. Vanseal NALS-30 provides foam enhancement and skin conditioning properties. The cocoamidopropyl betaine and sodium laureth sulfate surfactants provide good cleaning and rinsing properties for this formula. The glycerin and PPG-3 myristyl ether are emollients which contribute to the elegant after feel.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Rhodigel	0.50
Deionized Water	55.00
Glycerin	1.00
B Vanseal NALS-30	8.00
Cocoamidopropyl betaine (2)	16.00
Sodium laureth sulfate (3)	16.00
C PPG-3 myristyl ether (4)	3.50
Preservative, color, fragrance	q.s.
(2) Lexaine C	
(3) Sipon ES-2	
(4) Promyristyl PM-3	

Preparation:

Add Rhodigel to the water slowly, while agitating at high shear. Rhodigel will become uniformly distributed throughout the water and thickening will begin. At this time, adjust to gentle mixing. Gentle, uniform mixing will solubilize the Rhodigel in time and will also minimize air entrapment. Add glycerin and mix until uniform. Add A to 50C and hold this temperature while adding remaining ingredients. Add B ingredients in order using gentle mixing to avoid air entrapment. Addition of C will thicken formula to a gel consistency.

Consistency: Flowable gel. (Viscosity: 8000-10,000 cps)

Suggested Packaging: Squeeze bottle or tube.

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 429

Water White Shower Gel

Sandopan DTC acid, used as the secondary surfactant, contributes to the mildness of the surfactant system. Velsan P8-3 is an emollient ester that adds a velvety feel to the skin. This crystal clear, water white shower gel has good viscosity and foaming characteristics.

<u>Ingredients:</u>	<u>%W/W</u>
Standapol ES-3	41.25
Sandopan DTC Acid	10.00
Lauramide DEA	3.30
Velsan P8-3	2.00
Glucamate DOE-120	1.70
Germaben II	1.00
Versene NA	0.10
Fragrance	0.05
Deionized Water	qs

Procedure:

Phase A: Hydrate Glucamate DOE-120 and Versene NA in all of the deionized water.

Phase B: Add remaining ingredients in order. Combine Phase A&B, adjust pH to 6.0.

Properties:

Viscosity: 8500 cps % Solids: 29.0% pH: 6.0
Formulation CHS-51

Shower Gel

Sandobet SC and Sandopan DTC acid contribute to the mildness of the surfactant system and add to the foaming properties of the shower gel. Velsan P8-3 is an emollient ester that adds a velvety feel to the skin. This crystal clear shower gel has good viscosity and foaming characteristics.

<u>Ingredients:</u>	<u>%W/W</u>
Standapol ES-3	46.40
Sandobet SC	10.00
Sandopan DTC Acid	5.60
Lauramide DEA	3.30
Velsan P8-3	2.00
Glucamate DOE-120	1.70
Germaben II	1.00
Versene NA	0.10
Fragrance	0.05
Deionized Water	qs

Procedure:

Phase A: Hydrate Glucamate DOE-120 and Versene NA in all of the deionized water.

Phase B: Add remaining ingredients in order. Combine Phase A&B, adjust pH to 6.0

Formulation CHS-52

SOURCE: Sandoz Chemicals Corp.: Suggested Formulations

Section IV

Beauty Aids

Aloe Vera Skin Freshner

<u>Ingredients:</u>	<u>Percent</u>
A. Deionized water	49.50
Stearic acid triple pressed	18.00
Glycerol	5.00
B. Potassium hydroxide	1.20
C. Deionized water	5.00
Veragel 200 powder	0.25
D. Witch Hazel Extract	25.80

Procedure:

Heat Part A to 70C. with stirring. Slowly add Part B to Part A. Cool to 40C. with stirring. Combine Part C and add to Part A and Part B. Add Part D with stirring, cool to 25C. Package at room temperature.

Powder Mask Activator

<u>Ingredients:</u>	<u>Percent</u>
Deionized Water	95.3
Croquat M (Cocodimonium Hydrolyzed Animal Protein)	0.5
Incronam AL-30 (Almondamidopropyl Betaine)	0.5
Honey	1.2
Aloe Veragel Liquid	1.0
Lipofruit Cucumber	0.5
Germaben II	1.0

Procedure:

Dissolve Germaben II in water. When uniform, add Incronam AL-30. Next dissolve aloe, honey and cucumber extract. Mix well. Add Croquat M. Adjust pH to pH 4.2+/-0.1 with 10% TEA. Immediately prior to application mix the two components to form a thick paste. Recommended use 1:1 ratio.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Blemish/Scar Concealer

Protopet 1S Petrolatum	9.80%
Carnation Mineral Oil	16.00
Octyldodecanol	6.00
Ozokerite	2.50
Phenyl dimethicone	1.60
Hydrogenated castor oil	2.00
Synthetic resin	0.50
Propylparaben	0.20
Antioxidant	0.10
Talc	8.00
Clay	8.00
Silica	0.30
Titanium dioxide	41.00
Iron oxides	4.00

Skin Cleanser with Porous Cellulose Particles

Beeswax	3.00%
Paraffin	5.00
Protopet 1S Petrolatum	15.00
Carnation Mineral Oil	41.00
Sorbitan Sesquioleate	4.20
Polyoxyethylene sorbitan monooleate	0.80
Water	25.00
Fragrance	1.00
Porous Cellulose particles	5.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Body Scrub

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Bentonite (NF grade)	3.0
(2) Deionized Water	60.2
(3) Beeswax	1.4
(4) Spermacetic, synthetic	1.4
(5) Sorbitol Monopalymatate	3.3
(6) Polysorbate 60	3.3
(7) Cetyl Alcohol	2.8
(8) Light Mineral Oil	18.6
(9) Siltex -50 +100 Mesh	6.0
Preservative, Color, & Perfume	q.s.

Procedure:

Disperse (1) into (2) and heat to 70C. In separate container, mix and heat (3), (4), (5), (6), (7), and (8) to 80C. Add to water phase with high agitation. Slow mixer and add (9). Cool before filling containers.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

Body Powder

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Zinc Stearate	5.0
(2) Zinc Oxide	5.0
(3) Magnesium Carbonate (light)	15.0
(4) Kaopolite TLC	75.0
(5) Fragrance, Pigments, & Preservative	q.s.

Procedure:

Mix fragrance with (3) and allow to stand for approximately 16 hours. Dry mix remaining ingredients.

Follow recommended practices of the supplier of each product used.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Cheek Rouge

<u>Materials:</u>	<u>% by Weight</u>
1. Mineral Oil SUS 65/75	17.00
2. Ceraphyl 368	15.00
3. Castorwax	2.50
4. Beeswax	6.00
5. Super Corona Lanolin	10.00
6. Lexgard P	0.15
7. Bentone Gel MIO rheological additive	15.00
8. Pigment Concentrate*	3.00
9. Timiron Pearl Sheen MP-30	4.00
10. Talc 1623	18.00
11. 328 Titanium Dioxide CTFA	6.00
12. Color No. 7055 Pur Oxy Yellow B.C.	1.50
13. Color No. 7153 Lo-Micron Pink B.C.	1.50
14. Perfume	0.35
 *Pigment Concentrate:	
Color No. 3121 D & C Red. No. 21	30.00
Castor Oil	70.00

Manufacturing Directions:

1. Weigh items 1 through 5 into a stainless steel jacketed kettle. Heat to 85C until melted clear.
2. Bring temperature down to 80C. Add and mix in item 7 until it is homogeneous. Mix for 10 minutes.
3. Add and mix item 8 for 5 minutes or until dispersed.
4. Add items 9 through 13. Add each powder separately, making sure that each pigment is properly dispersed before the next addition.
5. Add item 14 and mix.

Note:

Items 10 through 13 should be micropulverized to achieve a smooth, homogeneous finished product.

SOURCE: Rheox, Inc.: Formula TS-129

Concealing Stick

This product covers fine facial lines and blemishes naturally, leaving a flexible barrier which also retains moisture and conditions the skin. Cera Bellina (Pg-3 Beeswax) is used as a pigment disperser which makes this formulation easier and thereby avoiding the expense of milling.

Phase A:

Castor Oil (Caschem)	27.3%
Petrolatum, White (Witco)	22.0%
Synthetic Candelilla (Koster Keunen)	10.0%
Isopropyl Palmitate (Unichema)	6.0%
Carnauba Wax (Koster Keunen)	5.0%
Orange Wax (Koster Keunen)	5.0%
Jojoba Wax (Flora Tech)	4.0%
Paraffin Wax 130/135 (Koster Keunen)	1.5%
Ozokerite 170 (Koster Keunen)	1.0%
Squalane (Barnet)	1.0%
Vitamin E (Roche)	0.5%

Phase B:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	9.0%
Titanium Dioxide (Whittaker C & D)	5.0%
Cosmetic Tan Iron Oxide (Sun Chemical)	1.5%
Brown Iron Oxide (Sun Chemical)	0.2%

Phase C:

Liquipar (Sutton)	1.0%
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Procedure:

Heat and mix Phase B till pigments are evenly dispersed. Weigh Phase A and individually add to Phase B while mixing. Heat AB till homogeneous, add Phase C, cool and pour at 60C.

Adaption of formula and its influence on the product:

By reducing the wax concentration this product can be poured into a compact tray. Large variations can be made in wax and oil concentrations that are incorporated in stick products and still produce a similar finished product.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Cream Eye Shadow

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Bentonite (NF grade)	2.0
(2) Carboxymethyl Cellulose (low viscosity)	0.2
(3) Deionized Water	49.3
(4) Sodium Lauryl Sulfate	0.3
(5) Propylene Glycol	5.0
(6) Triethanolamine	0.4
(7) Kaopolite TLC	20.0
(8) Titanium Dioxide (cosmetic grade)	5.5
(9) Iron Oxides (cosmetic grade, for desired color)	4.5
(10)Stearic Acid	0.8
(11)Glyceryl Monostearate	2.0
(12)Lanolin	4.0
(13)Sesame Oil	2.0
(14)Olive Oil	1.0
(15)Isopropyl Myristate	3.0
(16)Fragrance and Preservative	q.s.

Procedure:

Mix (1) into (3) with high shear until dispersed. Add (2) and continue to disperse. Slowly add (4), (5), (6), (7), (8), and (9). Continue mixing at high speed until well dispersed. Heat this mixture to 65C and deaerate. In a separate container mix (10), (11), (12), (13), (14), and (15), and heat to 70C until uniform. Add this mixture slowly to (1-9) while under agitation. Continue to mix until cool. (16) can be added to either (1-9) mixture or at the end depending on the recommendations of the supplier.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

Dry Powder Rouge Base

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Lanolin Alcohol Acetate	4.0
(2) Zinc Stearate	6.0
(3) Kaopolite TLC	88.0
(4) Magnesium Stearate	2.0
(5) Fragrance, Preservatives, & Pigments	q.s.

Procedure:

Dry mix and press as required.

Follow recommended handling practices of the supplier of each product used.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Cream Facial Scrub

	Wt%
Part A:	
Glyceryl Stearate SE*	5.0
Mineral Oil	5.0
Safflower Oil	1.0
Sesame Oil	1.0
Squalene	1.0
Dioctyl Adipate (and) Octyl Stearate (and) Octyl Palmitate**	1.0
Stearic Acid	2.5
Cetyl Alcohol	0.5
Hydroxypropyl Methylcellulose***	0.5
Part B:	
Water	68.7
Aloe Vera Gel	1.0
Germaben II	1.8
Part C:	
Triethanolamine	1.0
Part D:	
Acuscrub 44	10.0

Procedure:

Separately combine Part A and Part B ingredients and heat to 80C with agitation. Slowly add Part A to Part B with agitation. Add Part C and begin to cool. At 50C, moderately add Acuscrub 44 and stir until smooth and uniform.

* Henkel/Emery (Emerest 2407)

** Caschem (Wickenol 163)

*** Dow Chemical Co. (Methocel 40-100)

Oil-In-Water Cream and Its Scrub Derivative

	%
1. A-C 617 Polyethylene	2.0
2. Stearic Acid	0.5
3. Lanogene (lanolin alcohol & mineral oil)	6.0
4. Isopropyl palmitate	12.5
5. Sorbitan Monostearate	1.3
6. Polyoxyethylene 20 Sorbitan Monostearate	1.8
7. Sorbo (sorbitol 70%, water 30%)	5.0
8. Carbopol 940	1.0
9. Germaben II	0.8
10. Water	68.35
11. Triethanolamine	0.75
12. Perfume	Q.S.

Procedure:

Weigh 1-6, then weigh 7-10. Heat 7-10 with agitation using a homomixer or colloid mill. When the aqueous solution reaches 85C, heat oil phase to 90-95C with slow agitation until all the wax has dissolved. Combine 1-10 and shear until mixture is homogeneous. Add 11 and shear well. Cool to 55C and add 12.

SOURCE: AlliedSignal Inc.; Suggested Formulations

Cream-to-Powder Eye Shadow with Dry-Floc PC

Dry Floc PC, a highly water resistant starch, provides a silky smooth elegant feel, and is talc free.

Dermacryl LT provides water resistance, increased moisture protection as well as improved coverage.

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Eutanol G	13.00
Dermacryl LT	1.00
Phase B:	
Multiwax W-835	0.30
Bentone Gel VS-5 PC	30.00
Phase C:	
Myritol 318	3.00
Trivent SS-20	0.50
Emerest 2452	4.00
Vitamin E Acetate	0.10
Isopar H	7.40
Cab-O-Sil TS-530	0.50
Spectrapearl BLG	10.00
Dry-Flo PC	30.00
Phenoxyethanol	0.20

Procedure:

Phase A, slowly sift Dermacryl LT into Octyl Dodecanol, heat to 80C, mix until complete. Add Phase B, mix thoroughly. Combine Phase C. Add Phase C to A/B mix thoroughly. Cool to room temperature.

Formula 8302-115

Liquid Talc

Tapioca Flour gives a soft powdery after feel and is talc free.

<u>Ingredients:</u>	<u>%W/W</u>
SD Alcohol 40 (190 Proof)	54.00
Crodacol S-95NF	0.75
Vitamin E	1.00
Dexpanthenol	1.00
Tween 80	0.75
Fancol ALA	1.00
Estalan 430	10.00
Dermol 89	6.00
Dermol 105	4.00
Ceraphyl 375	0.75
Ethomeen C-25	2.00
Carbopol 1382	0.75
Tapioca	18.00
Ethomeen C-25	qs pH 7.00

Combine all ingredients except Carbopol 1382 and Tapioca. Mix with good agitation until uniform. Slowly sift in Carbopol 1382. Mix until completely dispersed. Sift in Tapioca. Mix until uniform. Add Ethomeen C-25 to obtain pH of 7.0 package.

Formula 7915-68

SOURCE: National Starch and Chemical Co.: Suggested Formulas

Creamy Eye Shadow

<u>Materials:</u>	<u>% by Weight</u>
1. Isopropyl Lanolate-Distilled	2.0
2. Stearyl Alcohol	3.0
3. Beeswax	6.0
4. Ganex V-220	5.0
5. Cyclomethicone	3.0
6. Soltrol 100	5.0
7. Hi-Sil T-600	0.8
8. Bentone Gel SS71 rheological additive	45.0
9. Chroma-lite Dark Blue	6.0
10. 50% 328 Titanium Dioxide CTFA Extended with Talc 141	20.0
11. Flamenco Velvet-100	4.0
12. Preservative	0.2

Manufacturing Directions:

1. Weigh items 1 to 4 into a stainless steel jacketed kettle. Heat to 70C until melted clear.
 2. Bring temperature down to 65C. Add 5 and slowly while mixing to avoid sudden cooling. Mix for 5 minutes.
 3. Maintain temperature to 65C. Add and mix items 7 and 8 using a homomixer at medium speed. Mix until homogeneous (lump free)
 4. Add items 9 and 10. Mix thoroughly after each addition to disperse pigments uniformly.
 5. Add items 11 and 12 and mix for 5 minutes.
 6. Pour at 62-63C just before it starts congealing.
- Formula TS-249

Waterproof Eye Liner

<u>Materials:</u>	<u>% by Weight</u>
1. Beeswax	16.5
2. Ganex V-220	5.0
3. Shell Sol 71	35.0
4. Bentone Gel SS71 rheological additive	33.5
5. Preservative	0.2
6. Chroma-lite Black	9.8

Manufacturing Directions:

1. Weigh items 1 and 2 into a stainless steel jacketed kettle. Heat to 70C and hold until melted clear.
 2. Bring temperature down to 65C. Add item 3 slowly, while mixing, to avoid sudden cooling. Mix for 5 minutes.
 3. Maintain temperature at 60C. Add and mix in item 4 using a homomixer at medium speed. Mix until homogeneous.
NOTE: A clean chrome spatula dipped into the gel mass will show an even surface sheen, with no agglomerates when properly dispersed.
 4. Add items 5 and 6 separately. Mix thoroughly after each addition.
 5. Pour at 55-60C just before it starts congealing.
- Formula TS-189

SOURCE: Rheox, Inc.: Suggested Formulations

Creamy Matte Make Up Base

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	54.20
(2) Bentonite (NF grade)	3.00
(3) Carboxymethyl Cellulose (medium viscosity)	0.50
(4) Tamol N	0.30
(5) Propylene Glycol	5.00
(6) Kaopelite TLC	19.80
(7) Titanium Dioxide	3.70
(8) Iron Oxide (micronized)	1.50
(9) Isopropyl Myristate	5.00
(10) Sorbitol Monolaurate	0.75
(11) Polysorbate 20	2.25
(12) Stearyl Alcohol	2.00
(13) Amerchol-L-101	2.00
Perfume & Preservative	q.s.

Procedure:

Mix with high shear (1), (2), and (3) until well dispersed (approximately 20 minutes). Add (4), (5), (6), (7), and (8) and heat to approximately 60C. In a separate container, mix (9), (10), (11), (12), and (13) and heat to 70C while mixing. Add to the other mix and continue mixing until cool.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

Liquid Make-Up

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	66.6
(2) Bentonite (NF grade)	1.5
(3) Carboxymethyl Cellulose (medium viscosity)	0.5
(4) Triethanolamine	1.0
(5) Tamol-N	0.4
(6) Lexanol PG 900	5.0
(7) Kaopelite TLC	7.0
(8) Titanium Dioxide (cosmetic grade)	2.0
(9) Iron Oxide (micronized)	1.0
(10) Lexmul P	0.5
(11) Isopropyl Myristate	5.0
(12) Lexate IL	4.5
(13) Stearic Acid	2.0
(14) Mineral Oil	3.0
Preservative & Fragrance	q.s.

Procedure:

Disperse (2) into (1) at high speed. Add (3) and continue to disperse until uniform. Reduce speed and add (4), (5), (6), (7), (8), and (9). Heat to 70C. In a separate container, heat and mix (10), (11), (12), (13) and (14) to 70C. Continue mixing until dissolved. Add this to the aqueous phase. Continue mixing and cool to 30C.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

SOURCE: Kaopelite, Inc.: Suggested Formulations

Creamy Roll-On Lip GlossMaterials:

	<u>% by Weight</u>
1. Indopol H-100	52.0
2. Isopropylan 50	24.5
3. Propylparaben	0.1
4. Tenox 4	0.1
5. Bentone Gel LOI Rheological Additive	20.0
6. Pigment Concentrate*	0.2
7. Timiron Super Red	3.0
8. Perfume	0.1

*Pigment Concentrate:

Castor Oil	60.0
Color No. 3106 D&C Red No. 6	40.0

Manufacturing Directions:

1. Weigh items 1 through 4 into a stainless steam jacket kettle. Heat to 80C and hold until melted clear.
2. Bring temperature down to 75C; add and mix in item 5 using homomixer at medium speed. Mix for 10 minutes at 75C.
3. Add item 6 and mix for 5 minutes or until dispersed; then add item 7 and mix for another 5 minutes.
4. Continue mixing at medium speed and lower temperature to 60C. Add item 8. Remove heat and allow mass to come to room temperature.

Pigment Concentrate Preparation:

1. Weigh dry powder into the castor oil using a slow speed Hobart type mixer until uniform.
2. Give this concentrate two passes over a three roll mill at room temperature.

SOURCE: Rheox, Inc.: Suggested Formula TS-190

Deep Extra Body Conditioner

This formula utilizes the gelling properties of the Hexanediol Behenyl Beeswax in a silicone oil and conditioning effects of Bee's Milk.

Oil Phase A:

Emulsifying Wax NF (Koster Keunen)	3.0%
Silicone Oil 245 (Dow)	2.5%
Silicone Oil 556 (Dow)	2.0%
Hexanediol Behenyl Beeswax (Koster Keunen)	1.0%
Lecithin (Am. Lecithin)	1.0%
Liquapar (Sutton)	0.5%
Propyl Paraben (Sutton)	0.2%

Water Phase B:

Carbopol 940 2% Solution (BF Goodrich)	10.0%
Sodium Lauryl Sulfate (DuPont)	0.5%
Triethanolamine (Dow)	0.1%
Cocamide (Croda)	0.1%
Silk Powder (Dasco)	0.1%
Marine Dew (Ajinomoto)	0.1%
Silk Soluble Liquid (Dasco)	0.1%
Water (Distilled)	68.3%
Methyl Paraben (Sutton)	0.3%

Phase C:

Bee's Milk (Koster Keunen)	10.0%
Fragrance (Aroma Tech)	0.2%

Procedure:

Mix and heat water phase to 70-75C. Melt oil phase and add to water phase at 70-75C under agitation. Continue mixing while cooling. At 40C add phase C and pour into container at 35C.

Adaptation of formula and its influence on the product:

Changes in the actives and the conditioners are straight forward, simple replacements. Gafquat's would be a class of conditioners which would fit this formula well.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Emollient Liquid Make-up

Conceals minor skin imperfections yet moisturizes, giving skin a soft dewy finish. This product has tremendous endurance through very vigorous activities.

Phase A:

Xanthan Gum (Kelco)	0.33%
Cellulose Gum (Aqualon)	0.23%
Water (Distilled)	50.55%
Triethanolamine (Dow)	0.70%
PEG 1450 (Union Carbide)	2.35%
Methyl Paraben (Sutton)	0.28%
Propylene Glycol (Dow)	1.88%
Polysorbate 60 (Gallard & Schlesinger)	0.47%

Phase B:

Titanium Dioxide (Whittaker C&D)	8.44%
Brown Iron Oxide (Warner-Jenkinson)	2.35%
Yellow BC Iron Oxides (Warner-Jenkinson)	0.94%
Orange Wax (Koster Keunen)	6.10%
Cera Bellina (Koster Keunen)	4.69%

Phase C:

Octyl Palmitate (Barnel)	6.57%
Silicone 245 (Dow)	2.00%
Isopropyl Palmitate (Unichema)	6.10%
Hydrogenated Castor Oil (Acme)	1.41%
Isostearic Acid (Unichema)	1.50%
Jojoba Oil (Jojoba Growers)	0.94%
Propylene Glycol Stearate (Inolex)	1.89%
Propylparaben (Sutton)	0.28%

Procedure:

Disperse pigments in the Orange Wax and Cera Bellina in a beaker with a glass stirring rod, allow to solidify. Repeat so-as-to break up visible applomerations. Mix and heat to 75C phase C until uniform, add to phase B under agitation, maintaining the temperature till homogeneous. Add the mixed and melted phase B and C to the mixed and melted phase A. Continue mixing while cooling, pour into containers at approximately 50C.

Adaption of formula and its influence on the product:

Sunscreens, vegetable oils and branched oils can be substituted in minor amounts since products such as these are sensitive to small changes that will affect stability.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Emulsion Makeup**Part A:**

Amerchol L-101	4.5%
Amerlate	0.9
Stearic acid, XXX	2.7
Glyceryl monostearate, neut.	1.8
Carnation Mineral Oil	4.5

Part B:

Propylene glycol	4.5
Triethanolamine	0.9
Water	70.2
Titanium dioxide, talc & pigments	10.0
Perfume and preservative	q.s.

Procedure:

Add Part B to 85 celsius to Part A at 95 celsius while stirring. Continue mixing and cool to 30 celsius. Add to the micronized powder blend in increments, mixing well after each addition.

Water-in-Oil Lotion Makeup

	<u>Percent</u>
Magnesium aluminum silicate	1.2
Deionized water	37.9
Magnesium sulfate	0.4
Talc	1.5
Kaolin	1.5
Titanium dioxide	5.0
Iron Oxides	3.0
Carnation	15.0
Hydrogenated polyisobutene	8.0
Carnation (and) lanolin alcohol	8.0
Sorbitol 70%	5.0
Isopropyl lanolate (and) lecithin	7.0
Oleamide DEA	2.5
Preservative	q.s.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Eye Contour Balm

The skin around the eye is thinner, more sensitive and rapidly shows the signs of aging and fatigue such as; crow's feet, sagging skin, dark circles and puffiness. This is designed using nature as a starting point. Much of the product's activity comes from mildly refined raw materials that keeps intact the natural properties, producing a non-oily, quick penetrating and fragrance free product. A low concentration of synthetic preservative is needed due to the minor components of a few of the raw materials. With regular use the appearance of aging will be reduced.

Oil Phase:

Sweet Almond Oil (Croda)	4.0%
Propolis Wax (Koster Keunen)	5.0%
Rice Bran Oil Filtered (Koster Keunen)	4.0%
Safflower Oil (Arista)	2.0%
Orange Wax (Koster Keunen)	1.0%
Hydrogenated Castor Oil (CasChem)	0.5%
Vitamin A Palmitate (BASF)	0.5%
Vitamin E (Roche)	0.5%
Isostearic Acid (Unichema)	2.5%
Cetylstearyl Alcohol (P&G)	1.5%
Squalene (Polyester)	1.0%
Isopropyl Palmitate (Unichema)	2.0%
Glycerol Monostearate (Henkel)	2.0%

Water Phase:

Water (Distilled)	69.6%
Ginkgo Biloba (Vernin)	0.5%
Allantoin (Sutton)	0.5%
Triethanolamine (Dow)	1.0%
Xanthan Gum (Kelco)	1.0%
Magnabrite S (Whittaker C & D)	0.4%
Polysorbate 60 (Gellard & Schlesinger)	0.2%
Methyl Paraben (Sutton)	0.3%

Procedure:

Mix and heat oil phase to 80C. Add components of water phase under agitation and heat and homogenize to 75C. Add oil phase to water phase under agitation. Cool and pour into container at 45 to 50C.

Adaption of formula and its influence on the product:

With only slight changes this product can be all natural and free of synthetics preservatives.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Eye Mascara

<u>Ingredients:</u>	<u>Wt%</u>
1. A-C Polyethylene 617	12.0
2. A-C Copolymer 540	2.0
3. Mineral Spirits	68.0
4. Dihydroabietyl Alcohol	5.0
5. Candelilla Wax	2.4
6. Aluminum Stearate	0.5
7. Butyl Parahydroxy Benzoate	0.1
8. Iron Oxide	10.0

Procedure:

Mix 1-5 and heat with agitation until all solid waxes have dissolved. Then sprinkle with stirring 6 and 7; when all is dissolved, add 8 and shear with homomixer or grind in with 3 roll mill.

Eye Mascara

<u>Ingredients:</u>	<u>Wt%</u>
1. Mineral Spirits	70
2. A-C 617A	12
3. Dihydroabietyl Alcohol	5
4. Candelilla Wax	2.4
5. Aluminum Stearate	0.5
6. Butyl Parahydroxy Benzoate	0.1
7. Iron Oxide	10

Procedure:

Mix 1-4 and heat with agitation until all solid waxes have dissolved. Then sprinkle with stirring 5 and 6, when all is dissolved add 7 and shear with homomixer or grind in with a 3 roll Mill.

SOURCE: Allied Signal Inc.: Suggested Formulations

Eye Mascara

This formula demonstrates the stability, dispersive and rheological properties of Cera Bellina. The product is quick drying on the eye lash and uses a multi-phase emulsion system.

Oil Phase:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	15.0%
Glycerol Monostearate (Henkel)	3.5%
Orange Wax (Koster Keunen)	2.0%
Isostearic Acid (Unichema)	1.0%
Propyl Paraben (Sutton)	0.3%

Water Phase:

Water (Distilled)	63.6%
Sodium Borate (Borax)	1.5%
Propylene Glycol (Dow)	1.0%
Carboxy Methyl Cellulose (Hercules)	0.2%
Methyl Paraben (Sutton)	0.3%

Alcohol Phase:

SDA-30 (Quantum)	9.0%
Purified Black Oxide (Whittaker)	2.6%

Procedure:

Melt Cera Bellina to a maximum of 75C. Then add the rest of the oil phase while mixing. Make sure all ingredients are melted. In a separate vessel dissolve the components of the water phase. Add the water phase to the oil phase, maintaining the temperature of 75C for approximately 15 minutes. Allow to cool slowly. When the temperature is 35-40C, add the alcohol phase under high shear.

Adaptation of formula and its influence on the product:

Changing the concentrations of water (increase) and solids (decrease) by small amounts will control the viscosity. A variety of pigments can be substituted to suit products needs.

Eyeliner Stick/Pencil

This product incorporates a large pigment load at the same time as having a smooth, even application to the skin. The texture is ridged, highly colored for long wear characteristics, will not bleed and is very stable.

1. Titanium Dioxide (Whittaker C & D)	25.0%
2. Ceresine Wax 140/150 (Koster Keunen)	15.0%
3. Red D&C #7 (Warner-Jenkinson)	12.5%
4. Purified Navy Blue (Whittaker C & D)	12.5%
5. Cera Bellina (Pg-3 Beeswax, Koster Keunen)	10.0%
6. Glycerol Trioctanoate (Barnet)	10.0%
7. Ethylene Glycoldistearate (Henkel)	5.0%
8. Glycerol Tribehenate (Croda)	5.0%
9. Hydrogenated Castor Oil (CasChem)	5.0%

Procedure:

Add 2,5,6,7,8 and 9 into a vessel. Melt, mix and maintain a temperature of 75C, add 1,3 and 4 under high shear. Maintain high shear mixing for 30-40 minutes. Cool and pour into molds.

Lower pigment load and higher wax and oil concentrations can be substituted so-as-to facilitate the greatest cost effectiveness and at the same time, produce a luxurious product.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Face and Body Milk

	<u>Wt%</u>
A. Miglyol 840	12.0
Imwitor 900	3.0
Marlowet TA 6	1.2
Marlowet TA 25	2.1
Jojoba oil	4.0
Beeswax	2.0
Propylene glycol monostearate	1.0
B. Keltrol gel 1%	15.0
d-Panthenol USP	3.0
Karion F	5.0
Water	to 100.0
C. Vitamin E	0.2
D. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are added together and heated to 75-80C. B. is stirred while heated to the same temperature. B. is emulsified in A. C. and D. are added at approx. 30C. Preparation of the Keltrol gel: Keltrol F 1.0%

Water to 100.0%

Both components are added together at room temperature and stirred until the homogeneous mix forms a clear gel.

Lip Care Stick

	<u>Wt%</u>
A. Softisan 100	20.0
Dynacerin 660	8.0
Miglyol 812	6.0
Softisan 649	5.0
Vaseline	30.0
Beeswax	20.0
Hard paraffin	5.0
Cetyl alcohol	5.0
Carnauba wax	1.0
B. Antioxidants	qs
Perfume	qs

Preparation:

All ingrediants are melted, stirred to a creamy consistency until cold, perfume incorporated before casting into moulds.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Face-Lotion

Ethanol 96%	5.0
Softigen 767	3.0
Hamamelis Special	10.0
Marlowet R40/K	0.3
Glycerol	2.0
Ampholyt JB 130	0.2
Panthenol	0.2
Camomile Special	2.0
Perfume	qs
Preservative	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Skin Tonic Water without Alcohol

Softigen 767	5.0
1,2-Propylene glycol	3.0
Extrapon 3-Special	4.0
Allantoin	0.5
Marlowet R40/K	0.5
Menthol	0.3
Vitamin F	0.2
Perfume	qs
Preservative	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics:
Suggested Formulations

Facial Cleanser

	<u>Weight, %</u>
Mackanate LO-Special (Disodium Lauryl Sulfosuccinate)	88.0
Mackol 16 (Cetyl Alcohol)	2.0
Brij 52	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance	qs to 100.0

Solids, %: 40.0

pH (as is): 5.5

Appearance: Pearly Cream

Procedure:

1. Add Mackol 16, Brij 52 and water to Mackanate LO-Special and heat to 70 degrees C.
2. Blend until homogeneous.
3. Adjust pH to 5.5 to 6.0 with sodium hydroxide.
4. Cool to 50 degrees C. and add Mackstat DM and fragrance.
5. Adjust solid to 40.0+-1.0 at this point.
6. Cool and fill.

Sting Free Facial Cleanser

	<u>Weight, %</u>
Mackam 2C	40.0
Sodium Laureth-1 Sulfate (25%)	15.0
Mackernium 007	1.5
Mackanate DC-30	4.0
Mackester SP	2.0
Mackstat DM	q.s.
Water, Dye, Fragrance	q.s. to 100.0

Procedure:

1. Add Mackam 2C, Sodium Laureth-1 Sulfate, Mackanate DC-30 and Mackester SP to water.
2. Heat to 70C. and blend until homogeneous.
3. Cool to 50C. and slowly add Mackernium 007.
4. When completely dispersed, add the remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Fluid Make-Up

	<u>Wt%</u>
A. Miglyol 812	7.0
Miglyol 840	5.0
Imwitor 960 flakes	3.0
Imwitor 900	2.0
Marlophor T10 Na salt	2.0
Paraffin oil	5.0
B. Keltrol gel 1%*	15.0
Water	43.0
Karion F	5.0
Glycerol	3.0
C. Perfume	qs
Preservative	qs
D. Titanium dioxide	3.0
Talc	3.0
Zinc oxide	3.0
Sicomet Brown 70 C.I. 77491	1.0

Preparation:

The ingredients of A. are melted and heated to 75-80C. The finely mixed pigments D. are homogenised together with A. The ingredients of B. are mixed, heated to 80C and slowly emulsified in A. + D. Perfume is added at around 35C.

*Preparation of the Keltrol gel: Keltrol F 1.0%
Water to 100.0%

The Keltrol is mixed with the water until homogeneous and the mixture stirred until the gel is clear.

Compact Make-Up

	<u>Wt%</u>
A. Miglyol 812	18.0
Miglyol 840	10.0
Imwitor 900	8.0
Softisan 100	10.0
Softisan 649	4.0
Beeswax	7.0
Hard paraffin	10.0
Stearic acid	3.0
B. Sicomet Brown 70 C.I. 77491	0.5
Sicomet Brown 75 C.I. 77491	0.5
Talc	8.0
Zinc oxide	8.0
Titanium dioxide	8.0
C. Perfume	qs
D. Karion F	5.0

Preparation:

The ingredients of A. and D. are melted together and gradually added to the stirred-until-homogeneous phase B. The mix is then again heated to approx. 70C and stirred until cold. C is added and the whole mix is homogenised.

SOURCE: Huls America Inc.; Formulations for Cosmetics; Formulas

Fluid Make Up

<u>Ingredients:</u>	<u>% w/w</u>
A) Cutina GMS	4,00
Eumulgin B1	4,00
Eutanol G	10,00
Miglyol 812	6,00
Phenonip	0,30
B) Water demineralized	63,66
Euxyl K-200	0,20
Citric acid	0,04
Hyasol-BT	3,00
Bentone EW	0,60
Pigment paste white: Nr. 93975	5,00
Pigment paste yellow: Nr. 75577	1,50
Pigment paste red: Nr. 68775	1,00
Pigment paste black: Nr. 78375	0,40
C) Perfume Oil: Beauty 0/239870	0,30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. x 004.A/11.92

Regenerating Lipcare-Stick

<u>Ingredients:</u>	<u>% w/w</u>
1 Wax premix No. 1	72,25
2 Pigments	7,60
3 Arlace1 582	10,00
4 Imidazolidinyl Urea	0,15
5 Phytaluronate	5,00
6. Cephalipin	5,00

Procedure:

Melt Wax-Premix (1) at 80C in the main-mixer while mixing with paddles.

Incorporate item 2 and homogenize well.

Melt apart item 3 at 80C and slowly add the preheated (80C) items 4-6.

Add the obtained emulsion (4-6) to the pigmented wax-base while mixing at 80C.

Then pour into the moulds.

Application No. X 025.0/02.93

SOURCE: Pentapharm Ltd.: Suggested Formulations

Gelled Aloe Vera with Sunscreen

<u>Ingredients:</u>	<u>Percent</u>
A. DI water	81.18
Carbopol 940	0.92
Aloe Verage1 Liquid 1:1	2.3
B. Triethanolamine	
C. DI water	10.0
Phenylbenzenimidazole Sulfonic Acid	2.0
Triethanolamine	to pH 7.0
D. DMDM Hydantoin	0.3
E. Disodium EDTA	0.1

Procedure:

Disperse Carbopol resin into water (under high agitation). Add Aloe Verage1 extract. Neutralize with triethanolamine. Combine C, add triethanolamine to adjust pH to 7.0. Add C to neutralized A (moderate agitation). Add preservative and chelating agent.

Aloe Vera Jelly

<u>Ingredients:</u>	<u>Percent</u>
A. Water	91.94
Citric Acid (granular)	0.2
Glydant	0.3
Germall 115	0.25
Versene-220	0.05
Propyl Gallate	0.05
B. Propyl Glycol	4.5
Xanthan Gum	0.75
Aubyge1 x-125	1.5
C. Aloe vera 200 powder	0.46

Procedure:

Heat Phase A to 80C. Pre mix Phase B with good agitation and add Phase B to A. Mix slowly and cool to 55C. Add phase C, and mix until uniform. Package at between 35-45C.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Gentle Beauty Wash

This elegant beauty wash is based on mild surfactants that result in a mild cleansing product. Its non-alkaline pH and combination of ingredients are designed to leave the skin clean and smooth without harsh soap effects.

<u>Materials:</u>	<u>% by Weight</u>
1. Deionized Water	46.20
2. Propylene Glycol	8.00
3. 50% Sodium Hydroxide	0.60
4. Bentone EW	0.40
5. Stearic Acid, triple pressed	8.00
6. Igepon AC78	11.00
7. Sipon ESY	11.00
8. Siponate DDB-40	5.00
9. Alconate SBR-3	2.50
10. Sodium SETHIONATE 55	6.50
11. Oxaban A	0.05
12. Fragrance KU 70	0.75

Manufacturing Directions:

Disperse the Bentone EW in the deionized water, sodium hydroxide and propylene glycol with rapid agitation. Start heating. Decrease agitation and add the stearic acid and Igepon AC78. Continue heating until the Igepon AC78 has dissolved (70 degrees celsius). Add the Sipon ESY, Siponate DDB-40, Alconate SBR-3 and Sodium Isethionate 55. Start cooling. Add the preservative and fragrance at 35C. The viscosity and pearl will develop upon standing.

Ingredient Label:

Water, Sodium cocoyl isethionate, Stearic acid, Propylene glycol, Sodium isethionate, Sodium laureth sulfate, Sodium dodecyl benzene sulfonate, Disodium ricinoleimido, MEA-sulfosuccinate, Fragrance, Hectorite, Sodium hydroxide, 4,4-Dimethyl-oxazolidine, 3,4,4-Trimethyl-oxazolidine.

Physical Properties:

pH: 5.8-6.1

Viscosity: Brookfield LV4 @ 25 degrees C (at rest 12 hours):
 @ 3 RPMs 80,000-110,000 cp
 @ 6 RPMs 50,000- 70,000 cp
 @ 12 RPMs 30,000->50,000 cp

Appearance: White, pearled, pumpable cream

SOURCE: Rheox, Inc.: Rhone Poulenc Prototype Formulation 91-0401

Hair and Skin Moisturizing Mist

A refreshing spray containing special humectants to replenish much needed moisture to hair and skin. Contains Sodium PCA to help restore normal moisture balance and keep the skin young looking and fresh. Also contains Aloe Vera Gel and Panthenol to soothe, condition and protect the skin and hair from drying out. Recommended for use under dry climatic conditions, dry heat or during sun exposure.

<u>Ingredient/Trade Name:</u>	<u>%</u>
Part A:	
Deionized Water	91.13
Polyquaternium-4/Celquat H-100	0.05
Citric Acid	0.01
Propylene Glycol	2.00
Methylparaben	0.20
Part B:	
Sodium PCA/Ajidew N-50	2.00
Sorbitol & Sodium Lactate & Proline & Sodium PCA & Hydrolyzed Collagen/Prodew 100	2.00
Panthenol	0.10
Aloe Vera Gel/Aquasol 104	1.00
Dimethicone Copolyol/Dow Corning 193	0.30
Diazolidinyl Urea/Germall II	0.20
Part C:	
Tea-Cocoyl Glutamate/Amisoft CT-12	0.50
Polysorbate 20/Tween 20	0.50
Fragrance #X3110	0.01

Procedure:

Disperse Celquat H100 into rapidly agitating deionized water. Heat to 70 degrees Centigrade. Add remaining Part A ingredients. Mix until completely clear and uniform. Start cooling. At 50 degrees Centigrade, add Part B ingredients. Mix well after each addition. Premix Part C. At 40 degrees Centigrade add premixed Part C to Part A. Continue mixing and cooling to 35 degrees Centigrade.

Appearance: Clear, light yellow, water-thin liquid
pH: 5.00-5.40

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Hair and Skin Moisturizing Spray

A refreshing spray containing special humectants to replenish much needed moisture to hair and skin. Contains Sodium PCA to help restore normal moisture balance and keep the skin young and fresh. Also contains Aloe Vera Gel to soothe dryness, and emollients to condition and protect the skin and hair from drying out. Recommended for use under dry climatic conditions, dry heat or during sun exposure.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	88.95
Sodium PCA/Ajidew N-50	3.00
Aloe Vera Gel Decolorized 1x	5.00
Dimethicone Copolyol/Dow Corning 193 Surfactant	0.30
Diazolidinyl Urea/Germall II	0.10
Part B:	
Propylene Glycol	2.00
Methylparaben	0.15
Part C:	
TEA-Cocoyl Glutamate/Amisoft CT-12	0.50

Procedure:

Mix part A ingredients until everything is completely dissolved. Heat part B to 50 degrees Centigrade and mix until clear. Add part C. Mix well.

Appearance:

Clear, colorless, water-thin liquid.
pH: 5.30-5.60

Hair Liquid (Soft Type)

	<u>Wt%</u>
(O) Pyroter GPI-25	9.0
2-Hexyldecyl Alcohol	1.0
Ethyl Alcohol	40.0
Methylparaben	0.1
Perfume	q.s.
(W) Ajidew T-50	4.0
Water	45.9

Procedure:

1. Dissolve (O) and (W) separately at room temperature to be clear solutions.
2. Add (W) to (O) with stirring.
pH: 7.0
Viscosity: 6 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

High Shine Lipstick

High gloss, firm lipstick with good moisturizing qualities. Liquefies instantly to an oil, slippery film while depositing very little sheer color and high pearlescence.

	%
Castor Oil	59.4
Candelilla Wax	8.0
Acetulan	7.5
Ross Wax 1275W	5.0
Propylene Glycol Monolaurate	5.0
Lanogene	5.0
Carnauba Wax	2.0
Propylparaben	0.1
Timiron MP-10	7.0
D & C Red #9 (31-3009)	0.6
D & C Red #7 Ca Lake (3107)	0.3
Pur. Navy Blue #7110	0.1
Fragrance	q.s.

Procedures:

Grind the pigments in part of the Castor Oil using either a 3-roll mill or mortar/pestle. Add all other ingredients (except for pearlescent pigment and fragrance and heat gently on steam bath to 80-85C. Add pearl, mix until homogeneous. Fragrance should be added at lowest possible temperature. Cast into molds.

Lipstick Formulation

	%
Ross Synthetic Candelilla Wax	10.9
Isopropyl Myristate	9.5
Lanolin N.F.	4.4
Ross White Beeswax N.F.	3.3
Ross Refined Paraffin Wax 130/35	2.0
Ross White Ozokerite Wax 77W	0.9
Castor Oil	54.3
Pigment	12.0
Teg. "P"	0.1

*Formulation developed by Precision Cosmetic of Mount Vernon, NY, in conjunction with the Frank B. Ross Company.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Lip Balm White

	%
Rosswax 2639	85.0
Mineral Oil #7	13.5
Solar Chem O	1.5
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F in a stainless steel vessel. Mix thoroughly with agitation, cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

Lip Balm I

	%
Castor Oil Crystal O	46.0
Emery IPP	17.0
Emery 1723	10.4
Rosswax 2640	19.6
Acetulan	2.5
SDA Alcohol #40	2.0
Solar Chem O	1.5
Propylene Glycol	1.0
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F in a stainless steel vessel. Mix thoroughly with agitation. Cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

Lip Balm II

	%
Rosswax Base Oil 2539	55.4
Emery 1723	10.8
Rosswax 2641	29.3
SDA Alcohol #40	2.0
Solar Chem O	1.5
Propylene Glycol	1.0
Fragrance GP-58	q.s.

Procedure:

Melt all ingredients to 190F in a stainless steel vessel. Mix thoroughly with agitation, cool to 165F, fragrance and pour into a container. Note: Capping may be necessary.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Lip Gloss (Souffle)

<u>Materials:</u>	<u>% by Weight</u>
1. Beeswax	7.0
2. Ceraphyl 140A	12.7
3. Propylparaben	0.1
4. Tenox 4	0.1
5. Bentone Gel LOI rheological additive	70.0
6. Timeron Pearl Sheen MP-30	5.0
7. Pigment Concentrate**	0.4
8. Perfume	0.2
**Pigment Concentrate	
Castor Oil	60.0
Color No. 3106 D&C Red No. 6	40.0
1. Weigh item 1 through 4 into a stainless steel steam jacketed kettle. Heat to 85C until melted clear.	
2. Bring temperature down to 78C. Add and mix in item 5 using a homomixer at medium speed. Mix for another ten minutes.	
3. All item 6 and mix for five minutes or until dispersed; then add item 7 and mix for another five minutes.	
4. Continue mixing at medium speed and lower temperature to 60C. Add item 8. Remove heat and stir slowly until congealed or pour into container.	
Pigment Concentrate Preparation:	
1. Weigh dry powder into castor oil using a slow speed Hobart type mixer until uniform.	
2. Give this concentrate two to three passes over a three roll mill at room temperature.	

Roll-On Lip Gloss

<u>Materials:</u>	<u>% by Weight</u>
1. Sucrose Acetate Isobutyrate	30.0
2. Isopropylan 33	44.5
3. Propylparaben	0.1
4. Tenox 4	0.1
5. Bentone Gel LOI rheological additive	22.5
6. Pigment concentrate*	0.2
7. Pearl White	2.5
8. Perfume	0.1
*Pigment Concentrate	
Castor Oil	60.00
Color No. 3106 D&C Red No. 6	40.00
1. Weigh items 1 through 7 into a stainless steam jacketed kettle. Heat to 80C until melted clear.	
2. Bring temperature down to 75C; add and mix in item 5 using homomixer at medium speed. Mix for 10 minutes at 75C.	
3. Add item 6 and mix for 5 minutes or until dispersed; then add item 7 and mix for another 5 minutes.	
4. Continue mixing at medium speed and lower temperature to 60C. Add item 8. Remove heat and allow mass to come to room temp.	
Pigment Concentrate Preparation:	
1. Weigh dry powder into the castor oil using a slow speed Hobart type mixer until uniform.	
2. Give this concentrate two passes over a 3 roll mill at room temperature.	
SOURCE: Rheox, Inc.: Formulas TS-135 & TS-184	

Lip Pencil

This product utilizes the dispersive properties of Cera Bellina to produce a product which glides on easily, leaves silky lasting colour that is water resistant.

Phase A:

Castor Oil (Caschem)	51.5%
Candelilla Wax (Koster Keunen)	8.0%
Carnauba Wax (Koster Keunen)	7.0%
Microcrystalline Wax (Koster Keunen)	5.0%
Ceresine 130/135 Wax (Koster Keunen)	3.0%
Mineral Oil (Witco)	3.0%
Cetyl Alcohol (P&G)	1.5%

Phase B:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	8.0%
Iron Oxide Brown (Warner-Jenkinson)	2.0%
Titanium Dioxide (Whittaker C&D)	8.0%
D&C Red #6 (Whittaker C&D)	3.0%

Heat and mix Phase B, dispersing pigments and breaking up visible agglomeration. Add Phase A to Phase B, heat and mix together under agitation. Allow to cool to 65C and pour into molds. Changing the concentration of waxes and or oils will soften and harden the product to maintain consistency when changing pigments and colours. Different pigments will affect the gelling properties of the base and is compensated for with changes in concentrations of waxes and oils used. Sunscreens can also be incorporated without difficult formula changes.

New Look Lipstick

This red lipstick has a creamy texture and is long wearing. The lipstick is very stable, although it has a high oil concentration. By using synthetic replacements of natural products this formula is of very low cost but looks and performs like a high end product.

1. NF Yellow Beeswax (Koster Keunen)	5.0%
2. Synthetic Candelilla (Koster Keunen)	9.9%
3. Ozokerite 170 (Koster Keunen)	10.6%
4. Synthetic Carnauba (Koster Keunen)	1.5%
5. Castor Oil (Caschem)	20.0%
6. Paraffin Oil (Kydol-Witco)	15.3%
7. Edible Coconut Oil (Cocochem)	32.7%
8. D&C Red #30 (Warner-Jenkinson)	4.5%
9. Titanium Dioxide (Whittaker C & D)	0.5%

Add 1, 5, 8 and 9 into a vessel large enough that will allow the other components to be added after the beeswax, castor oil and pigments have been melted (75C.) and mixed together with the intention of breaking down as many of the visible agglomerations. After the visible agglomerations have been separated, add 2, 3 and 4 to the dispersion while mixing. Increase the temperature slightly if needed to melt the synthetic carnauba. Then the remainder of the components can be added and mixed at a temperature of 70C. After the product is homogeneous use a shear mixer at low speed for 45 to 60 minutes, maintaining a similar temperature.

Slight changes in oils and waxes will not alter the products appearance or performance. Sunscreens are easily incorporated.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Lipstick

Dermacryl LT provides increased moisture protection, rub-off resistance and water resistance.

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Eutanol G	6.00
Prisorine 3515	20.00
Ceraphyl ICA	2.70
Ceralan	5.00
Dermacryl LT	2.00
Phase B:	
Fluilan	10.00
Candelilla Wax	12.00
Ozokerite Wax	5.00
Cutina LM	10.00
Drakeol 35	5.00
Tenox BHA	0.10
Propylparaben	0.20
Phase C:	
DC Red #6 (Dispersion in Castor Oil)	15.00
Flamenco Superpearl	5.00
Phase D:	
Vitamin E Acetate	1.00
Vitamin E Palmitate	1.00

Procedure:

Combine Phase A, except Dermacryl LT. Heat to 80C. With good agitation, slowly sift in Dermacryl LT, mix until complete. Combine Phase B, heat to 80C. Add Phase B to Phase A at 80C, mix thoroughly. Phase C: Mix pigments together, add to A and B at 80C. Cool to 60C. Add Phase D, mix thoroughly. Pour into molds and cool to room temperature.

SOURCE: National Starch and Chemical Co.: Formula 7661-144B

Lipstick

	<u>Wt%</u>
A. Softisan 645	10.0
Dynacerin 660	8.0
Softisan 100	7.0
Miglyol 812	7.0
Beeswax	11.0
Eutanol G	9.0
Prosolal S9	5.0
PCL liquid	5.0
Protegin X	4.0
B. Carnauba wax	9.0
Castor oil	6.0
Hexylene glycol	3.0
Stearic acid	2.0
Timiron Starlustre MP-115	10.0
Perfume oil Tendresse	1.0
D. Colours:	qs
Pink: Sicomet Rot P 15630 CA	0.5
Red: Sicomet Rot P 15630 CA	3.0
Violet: Sicomet Violet P 77007 G	0.5

Preparation:

All ingredients are heated to 75C and homogenised with a high speed stirrer. The mix is poured into moulds before it has got cold.

Lip-Gloss

	<u>Wt%</u>
A. Softisan 645	44.5
Softisan 649	10.0
Rewopal PIB 1000	30.0
Lanfrac	10.0
Candelilla wax	2.5
B. Pearl lustre pigment*	3.0
Colour	qs
Perfume	qs

*Timiron Starlustre MP 115

Preparation:

A. is melted at 60C and stirred until cooled down to 40C. The ingredients of B. are mixed together and added to A. Finally, the mix is homogenised.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Lipstick

	<u>Wt%</u>
A. Miglyol Gel B	10.0
Miglyol 812	7.0
Miglyol 840	5.0
Softigen 701	7.0
Paraffin oil	7.0
Isopropyl myristate	5.0
Castor oil	9.0
Eutanol HD	5.0
B. Carnauba wax	8.0
Wool wax alcohol	5.0
Beeswax	10.0
Imwitor 900	4.0
Oxydex 2004	0.20
C. Perfume oil GC 10776	0.28
D. Talc	3.0
Titanium dioxide	3.0
Zinc oxide	3.0
Timiron Starlustre MP-115	5.0
Flame Orange 5305 No. 5 C.11994	1.7
Lo Micron Tan 3088 C. 11997	3.0

Preparation:

A. is mixed, B. is added and heated to 75-80C. D is finely ground with A, the being stirred into D. in small portions. Perfume is added to the mix and at 60C. it is poured into the mould, which is not cooled. The mix is set by storing the mould one hour in a refrigerator.

Lipstick, Glossy

	<u>Wt%</u>
A. Miglyol Gel B	20.0
Softisan 645	15.0
Imwitor 780K	6.0
Miglyol 829	6.0
Lanfrax	10.0
Beeswax	5.0
Candelilla wax	5.0
Castor oil	4.5
Sodium stearate	1.0
B. Rewopal PIB 1000	15.0
Antioxidants	qs
C. Perfume	qs
D. Sicomet Erythrosinlack E 127	0.5
Timiron Starlustre MP-115	10.0

Preparation:

A. and B. are mixed together and heated to approx. 80C. D. is added and the mix is homogenised. Perfume is incorporated at approx. 30C.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Lipstick

This red lipstick has a creamy texture and is long wearing. The lipstick is very stable, although it has a high oil concentration. Cera Bellina allows for high coloration without large pigment load and imparts a satin like feel to the lips.

Formula:

1. Cera Bellina (Pg-3 Beeswax, Koster Keunen)	16.70%
2. Candelilla (Koster Keunen)	3.10%
3. Ozokerite 160/164 (Koster Keunen)	4.20%
4. Carnauba #1 Yellow (Koster Keunen)	1.20%
5. Castor Oil (Caschem)	43.45%
6. Paraffin Oil (Kydol-Witco)	16.30%
7. Octyl Palmitate (Inolex)	6.20%
8. Jojoba Oil (Jojoba Growers)	1.00%
9. Vitamin E (Freeman)	0.50%
10. D&C Red #7 (Warner-Jenkinson)	4.00%
11. Orange Wax (Koster Keunen)	3.00%
12. Titanium Dioxide (Whittaker C&D)	0.25%
13. Propyl Paraben (Sutton)	0.10%

Procedure:

Add 1, 10, 11, and 12 into a vessel large enough that will allow the other components to be added after the Cera Bellina (Pg-3 Beeswax), Orange Wax and pigments have been melted (75C) and mixed together with the intention of breaking down as many of the visible agglomerations. After the visible agglomerations have been separated add 2, 3 and 4 to the dispersion while mixing. Increase the temperature slightly if needed to melt the carnauba. Then the remainder of the components can be added and mixed at a temperature of 70C. After the product is homogeneous, use a shear mixer at low speed for 45 to 60 minutes, maintaining a similar temperature.

Adaptation of formula and its influence on the product:

Other oils natural or synthetic can easily be substituted to meet the formulators needs, cost, availability, etc. without significantly changing the characteristics. Higher melting points can easily be achieved with only slight alterations in wax concentration. Biologically active compounds are easily incorporated into the formulas. Depending on the desired color and the blend of pigments used, there will be a need for small ingredient concentration changes in the formula due to the pigment's effect on the gelling properties of the mixture.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Lipstick

	<u>Wt%</u>
A. Carnauba Wax	2.0
Candelilla Wax	6.5
Beeswax	5.5
Hydrogenated Castor Oil	2.0
Liquid Lanolin	16.8
Microcrystalline Wax	3.0
2-Octyldodecanol	15.0
2-Octyldodecyl Myristate	10.0
Castor Oil	23.2
B. Pearl Pigment	4.5
Titanium Dioxide	4.5
Amihope LL	3.5
Red Oxide of Iron	1.3
Organic Pigment (Red)	2.2

Procedure:

1. Mix (A) and (B), and dissolve at 80C.
2. Knead them with a roll.
3. Dissolve at 80C.
4. Remove small bubbles in a vacuum, and then press.

Note: This lipstick has smooth touch, and spreads well.

Lipstick Formulae

The addition of Eldew CL-301 results in a preparation with remarkable spreadability, improved luster and excellent color without reducing the strength.

	<u>Wt%</u>
A Castor Oil	55.0
Candelilla	4.8
Carnauba	2.0
Ozokerite	4.0
Caprylic/capric triglyceride	15.0
Eldew CL-301	5.0
B Mica	7.4
Yellow iron oxide	2.2
D&C Red #7	3.0
Amihope LL	1.6

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Liquid Foundation

	<u>Weight%</u>
Part A:	
Hydroxypropyl Methyl Cellulose	0.4
Magnabrite	0.4
Water	56.26
Talc	3.00
Part B:	
Ceteareth 15	5.00
Propylene Glycol	5.00
Glyceryl Stearate	3.00
Isopropyl Palmitate	5.00
Cetyl Alcohol	4.00
Isostearic Acid	4.00
Carnation Mineral Oil	6.00
Part C:	
Titanium Dioxide	6.00
Iron Oxides	0.94
Part D:	
Germaben II	1.00

Procedure:

Blend together Magnabrite and hydroxypropyl methyl cellulose and sift into vortex of water with maximum shear. When dispersed, add talc. Heat to 80C. Add oil phase, stir until uniform. Add titanium dioxide and iron oxides. Mill to disperse pigments. Add D. Cool with mixing to 32C.

Powder Foundation

Talc	17.0%
Titanium dioxide	10.0
Sericite	40.0
Spherical silica	10.0
Polytetrafluoroethylene powder	10.0
Red iron oxide	0.5
Yellow iron oxide	1.0
Black iron oxide	0.1
Dimethylpolysiloxane	1.0
Carnation Mineral Oil	9.0
Sorbitan sesquioleate	1.0
Preservative	0.3
Fragrance	0.1

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Liquid Make-Up

This formula demonstrates the stability, dispersive qualities and rheological properties of Cera Bellina in a high pigment load, vegetable oil and hydrocarbon oil free product. The product is quick drying on the skin leaving a soft velvet like feel, for a flawless, long wearing natural look.

Oil Phase:

Isopropyl Palmitate (Unichema)	14.50%
Cera Bellina (Pg-3 Beeswax, Koster Keunen)	6.00%
Silicone Oil 556 (Dow)	4.50%
Ceresine Wax 130/135 (Koster Keunen)	1.50%
Glycerol Monostearate (Witco)	0.80%
Emulsifying Wax NF (Koster Keunen)	0.70%
PEG-100 Stearate (Lipo)	0.50%
Orange Wax (Koster Keunen)	0.30%
Propyl Paraben (Sutton)	0.20%

Water Phase:

Water (Distilled)	51.05%
Sodium Hydroxide (Aldrich)	0.60%
Citric Acid (Aldrich)	0.50%
Bermocall E230 (Whittaker C&D)	0.20%
Methyl Paraben (Sutton)	0.20%

Pigment Phase:

Titanium Dioxide (Whittaker C&D)	13.50%
Iron Oxide Yellow 7055 (Warner-Jenkinson)	2.70%
Iron Oxide Brown 7058 (Warner-Jenkinson)	1.20%
Mica (Rona)	1.00%
Iron Oxide Red 7067 (Warner-Jenkinson)	0.50%

Procedure:

Melt oil phase to a maximum of 75C and mix, making sure all ingredients are melted. In a separate vessel dissolve the components of the water phase. Add the oil phase to the water phase, maintaining the temperature of 75C for approximately 15 minutes. Allow to cool slowly. When the temperature is 55 to 60C, add the pigment phase under high shear.

Adaptation of formula and its influence on the product:

Changing the concentrations of water (increase) and solids (decrease) by small amounts will control the viscosity. A variety of pigments can be substituted to suit products needs.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Liquid Makeup

<u>Materials:</u>	<u>% by Weight</u>
1. Talc 1623	5.00
2. 328 Titanium Dioxide CTFA	5.00
3. Color No. 3170 Pur Oxy Yellow B.C.	0.40
4. Color No. 3315 Pur Oxy Umber B.C.	0.20
5. Color No. 2511 Lo-Micron Pink B.C.	0.40
6. Water (deionized)	79.95
7. Methylparaben	0.25
8. Propylene Glycol	5.00
9. Cerasynt 840	2.00
10. Bentone LT rheological additive	1.50
11. Perfume	0.30

Manufacturing Directions:

1. Part 1-In a powder blender, add items 1 through 5 and mix together for 20 minutes. Remove powder from blender and put through a micropulverizer.
2. Part 2-Add items 6 through 9 to a stainless steel vessel and heat to 65C. Using a homomixer at medium speed, add and mix in item 10. Continue mixing for 20 to 30 minutes until completely dispersed.
3. Cool Part 2 to 40C and add and mix in item 11.
4. With continuous mixing at medium speed, add Part 1 to Part 2 and mix together for 15 minutes.
5. Put entire mixture through a colloid mill for uniform pigment grinding.

Formula TS-116

Silky Facial Mask

<u>Materials:</u>	<u>% by Weight</u>
<u>Part A:</u>	
1. D.I. Water	76.3
2. Propylene Glycol	5.0
3. Miranol 2MHT Modified	3.0
4. Methyl Paraben	0.1
<u>Part B:</u>	
5. Paricin 9	2.0
6. Isopropylan 50	4.0
7. Propyl Paraben	0.1
<u>Part C:</u>	
8. Bentone MA Rheological Additive	4.0
9. Zinc Oxide	3.0
10. 328 Titanium Dioxide	2.5

Manufacturing Directions:

1. Weigh items 1 through 4 into a stainless steel steam jacketed kettle. Heat Part A to 65C.
2. In a separate vessel, add items 5 through 7 and heat to 65C. Mix until completely melted and homogeneous.
3. Mix Part B slowly into Part A while mixing. Mix for 15 to 20 min., and bring temperature down to 55C while mixing.
4. Mix Part C separately using a homomixer and add to above mixture while stirring. Mix it for 15 minutes. Maintain temperature and pass through Colloid Mill.

Formula TS-252

SOURCE: Rhone Poulenc Inc.; Suggested Formulations

Lotion Scrub

Part A:	Wt%
Water	36.2
Aloe Vera Gel	1.0
Germaben II	1.8
Magnesium Aluminum Silicate (1)	1.0
Part B:	
Glycol Stearate (2)	5.0
Safflower Oil	0.5
Sesame Oil	0.5
Hydroxypropyl Methylcellulose (3)	0.5
Part C:	
Sodium Lauryl Ether Sulfate (4)	20.0
Sodium Lauryl Sulfate (4)	18.0
Cocamide DEA (5)	0.5
Cocamidopropyl Betaine (6)	5.0
Part D:	
Acuscrub 44	10.0

Procedure:

Slowly add thickener (2) with agitation to Part A ingredients until dissolved. Heat to 70C. Separately combine Part B and Part C ingredients, then add to Part A, mixing well between additions. At 50C, moderately add Acuscrub 44 and stir until smooth & uniform.

1. Veegum
2. Emerest 2350
3. Methocel 40-100
4. Sipun ES, Sipun LCP
5. Ninol 49-CE
6. Lexaine C

Lotion Hand Scrub

Part A:	Wt%
Sodium C14-16 Olefin Sulfonate (1)	30.0
Cocamidopropyl Betaine (2)	6.7
Cocamide DEA (3)	2.0
Glycol Stearate	1.0
Ammonium Chloride	2.5
Germaben II	0.8
Water	50.0
Part B:	
Hydrolyzed Animal Protein (4)	2.0
Part C:	
Acuscrub 44	5.0

Procedure:

Heat water to 70C, then slowly add remaining Part A ingredients. Cool to 55C, add Part B with agitation. Add Part C with agitation and mix until homogeneous.

- | | |
|-------------------|-----------------|
| (1) Witconate AOS | (3) Ninol 49-CE |
| (2) Lexaine C | (4) Crotein SPA |

SOURCE: AlliedSignal Inc.: Suggested Formulations

Low Cost, Extended Wear Lipstick

Resulting lipstick has exceptional shine, adherence and wear attributes. When applied to lips, the formula produces a comfortable non-waxy film, which resists migration and feathering. The shade of this formula is a clean, true, high chroma red with moderate opacity.

	%w/w
A. Castor Oil NF (Crystal O)	61.66
Candelilla Wax (S&P 75)	8.30
Carnauba Wax (S&P #1 Yellow 73)	2.05
Microcrystalline Wax (S&P 18)	4.20
Beeswax (S&P White NF 422P)	1.87
Tocopherol (Copherol F-1300)	0.12
Propylparaben (Lexgard P)	0.08
Butylparaben (Lexgard B)	0.05
B. D&C Red No. 6 Barium Lake, CI #15850:2 (C19-012)	1.38
D&C Red No. 7 Calcium Lake, CI #15850:1 (C19-011)	0.97
FD&C Yellow No. 5 Aluminum Lake, CI #19140:1 (C65-4429)	2.74
Castor Oil (Crystal O)	11.88
C. Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	4.70

Procedure:

1. Combine section "A" heating to 90C. Mix slowly (be sure not to entrap air) until the phase is clear and homogeneous, then reduce temperature to 80 to 85C. Continue slow mixing.
2. Disperse pigments in section "B" in the castor oil contained in Phase "B" by adding the dry pigments to the castor oil and blending with a spatula, then disperse using a Cowles dissolver and finally pass the blend through a three roller mill three times or until the particle size of the pigments are less than number 7 on a Haggeman gauge.
3. When section "B" is adequately dispersed, add section "B" to section "A". Continue slow agitation and maintain a temperature of 80 to 85C.
4. When sections "AB" is homogenous add section "C" to "AB". Maintain a temperature of 80 to 85C and mix slowly until homogeneous.
5. Mold sticks at 80-85C.

SOURCE: Inolex Chemical CO.: Formulation 398-152-1

Low Cost Lipstick

Resulting lipstick is a low cost formulation that exhibits good application characteristics and is comfortable on lips. Wearability of the lipstick is limited. Feathering and migration of the lipstick film would be expected. The shade of this formula is a clean, true, high chroma red with moderate opacity.

	<u>%w/w</u>
A. Castor Oil NF (Crystal O)	66.36
Candelilla Wax (S&P 75)	8.30
Carnauba Wax (S&P #1 Yellow 73)	2.05
Microcrystalline Wax (S&P 18)	4.20
Beeswax (S&P White NF 422P)	1.87
Tocopherol (Copherol F-1300)	0.12
Propylparaben (Lexgard P)	0.08
Butylparaben (Lexgard B)	0.05
B. D&C Red No. 6 Barium Lake, CI #15850:2 (C19-012)	1.38
D&C Red No. 7 Calcium Lake, CI #15850:1 (C19-011)	0.97
FD&C Yellow No. 5 Aluminum Lake, CI #19140:1 (C65-4429)	2.74
Castor Oil (Crystal O)	11.88

Procedure:

1. Combine section "A" heating to 90C. Mix slowly (be sure not to entrap air) until the phase is clear and homogeneous, than reduce temperature to 80 to 85C. Continue slow mixing.
2. Disperse pigments in section "B" in the castor oil contained in phase "B" by adding the dry pigments to the castor oil and blending with a spatula, then disperse using a Cowles dissolver and finally pass the blend through a three roller mill three times or until the particle size of the pigments are less than number 7 on a Haggeman gauge.
3. When section "B" is adequately dispersed, add section "B" to section "A". Continue slow agitation and maintain a temperature of 80 to 85C.
4. Mold sticks at 80-85C.
Formula 398-152-2

Lip Balm

Resulting product is a protective lip balm that exhibits extended wear characteristics due to Lexorez 100. The product could be positioned as an over the counter (OTC) pharmaceutical skin protectant with petrolatum as the active ingredient, and as a sunscreen, with octyl methoxycinnamate as the active ingredient

	<u>%w/w</u>
Octyl Methoxycinnamate (Escalol 557)	10.00
Petrolatum USP (Super White)	20.00
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	10.00
Petrolatum (and) Lanolin Alcohol (Lexate PX)	49.00
Candelilla Wax (S&P 75)	8.00
Carnauba Wax (S&P #1 Yellow 73)	3.00

Procedure:

1. Combine all ingredients and heat to 80C.
2. Mix until homogeneous.
3. Cool to 65C and fill into propel-repel containers.
Formula 383-186

SOURCE: Inolex Chemical Co.: Suggested Formulations

Makeup Foundation

This rich, elegant foundation incorporates Geahlene 750 for added moisturization and smooth application.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	46.50
Magnesium Aluminum Silicate/Veegum Ultra	0.80
Xanthan Gum/Keltrol	0.30
Nylon-12/Orgasol 2002D Natural Extra Cos	1.20
Sodium PCA/Ajidew N-50	1.00
B Deionized Water	10.00
Propylene Glycol	7.00
Iron Oxides (and) Talc/Lo Micron Pink	0.40
Iron Oxides (and) Talc/Lo Micron Yellow	2.00
Iron Oxides (and) Talc/Lo Micron Black	0.15
Titanium Dioxide/3328 Titanium Dioxide	5.60
C Glyceryl Stearate/Lexemul 55G	2.00
Stearic Acid/Emersol 132	2.00
DEA-Cetyl Phosphate/Amphisol	2.00
Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben/Nipastat	0.25
Isostearyl Neopentanoate/Dermol 185	3.00
Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	15.00
Phenoxyethanol/Emeressence 1160	0.70
Tocopherol Acetate/Vitamin E Acetate	0.10

Procedure:

Disperse Veegum Ultra into rapidly agitated deionized water. Mix well. Add the remaining part A ingredients, mixing well after each addition. In a separate container, homogenize part B until smooth. Add part B to part A. Heat to 80C. Mix until uniform. Heat part C to 80C and mix until the solids are dissolved. Add part C to part A. Mix for 30 minutes until homogeneous. Continue mixing and cooling to 35C.

SOURCE: Penreco: Suggested Formulation

Mascara

	<u>Wt%</u>
A. Veegum pharm	2.0
Tylose CB 30000	0.1
1,2-Propylene glycol	1.5
Water	63.0
B. Miglyol Gel B	10.4
Imwitor 780 K	3.0
Beeswax	5.0
Miglyol 812	2.0
Sicomet Black 80 C.I. 77499	4.0
C. Morpholine	0.4
Colophonium	1.5
Luviskol VA 64	2.0
Ethanol 96%	5.0
Preservative	qs

Preparation:

The ingredients of A. are brought together and heated to 75-80C. Those of B. are brought to the same temperature and homogenised. A. is emulsified in B.

C. is dissolved and emulsified in A. and B. at approx. 30C.

Eyebrow Pencil, Heat Stable

	<u>Wt%</u>
A. Softisan 100	16.0
Softisan 378	8.0
Miglyol 812	8.0
Softisan 645	3.0
Softisan 154	2.0
Beeswax	3.0
B. Talc	20.0
Titanium dioxide	18.0
Zinc oxide	18.0
Sicomet Black 80 C.I. 77499	5.0
C. Perfume	qs

Preparation:

The ingredients of B. are very finely ground. The fats A. are melted and stirred slowly into the pigments. Perfume is incorporated at around 30C. This is followed by pouring into moulds or extrusion.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Moisture Stick Base

	%
Mineral Oil 80/90 Visc.	47.0
Ross Wax 26-1152	28.0
Ross Wax 15-1182	2.0
Ross Wax 1824	10.0
Jjoba Oil	2.0
Amerlate P	10.0
Vitamin E	1.0

Procedure:

Melt all ingredients together in a kettle to 170F under agitation. When mixed thoroughly pour into molds. Capping may be necessary.

Cream Rouge Formula

Part A:	%
Ross Refined #1 Yellow Carnauba Wax	6.0
Ross Ozokerite Wax 77W	10.0
Mineral Oil	24.0
Isopropyl Palmitate	27.0

Part B:

Talc	10.0
Titanium Dioxide	20.0
Color	3.0

Procedure:

Melt Part A to 70C. When cooled run together with Part B on a three roll mill.

Pot Eyeshadow

<u>Ingredients:</u>	%
Mineral Oil 70/80	40.0
Petrolatum	15.0
Ross Ozokerite Wax 77W	20.0
Ross Refined Candelilla Light Flakes	4.0
Pigment Paste	20.0
Preservative	1.0

Procedure:

Grind color with oil and petrolatum in roller mill. Heat waxes until melted and add pigment paste. Maintain 85C for 30 minutes with agitation. Pour into molds.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Moisturizing Liposomal Gel

<u>Ingredients:</u>		<u>% w/w</u>
1	A) Cremophor RH 410	5,00
2	Fragrance: PCV 1454	0,10
3	B) Water demineralized	81,50
4	Glycerin	2,00
5	Nipagin	0,15
6	Euxyl K-200	0,30
7	Phytaluronate	5,00
8	Fitobroside	5,00
9	Allantoin	0,30
10	Carbopol 941	0,30
11	Triethanolamine	0,35

Procedure:

Dissolve item 2 in item 1.

Dissolve items 4-9 in water (3).

Under stirring, slowly add phase B) to phase A). For thickening, incorporate and dissolve item 10. Adjust the pH with item 11 to 7.0. A turbid, fluid solution is obtained.

Application No. D 018.A/02.93

Skin Tightening Gel

<u>Ingredients:</u>		<u>% w/w</u>
1	A) Water demineralized	87,95
2	Phenonip	0,30
3	Euxyl K-200	0,20
4	Glucam E-10	5,00
5	B) Carbopol 940	0,75
6	Triethanolamine	0,80
7	C) Pentacare HP	5,00

Procedure:

Dissolve items 2-4 in water (1).

Stir fast and incorporate item 5.

Neutralize and thicken item 6.

Slowly add item 7.

Application No. D 032.0/06.93

SOURCE: Pentapharm Ltd.: Suggested Formulations

Moisturizing Make-Up Foundation

	<u>% By Weight</u>
(A) Phospholipid SV	3.0
0.5% Kelzan AR in 1% NaCl	64.5
Propylene Glycol	8.0
Pigment (9/12 White/Brown)	15.0
Steareth-20	1.6
Methyl Paraben	0.25
(B) Isopropyl Palmitate	2.0
Hexyl Laurate	2.0
Steareth-2	2.4
Dow Fluid 200/100 cs.	1.0
Propyl Paraben	0.25

Procedure:

Combine ingredients in phases A and B as shown and heat to 55C. Blend phase B into phase A with sufficient homogenization to ensure good emulsification. Stir cool to 40C, add fragrance, and package.

Comments:

This liquid foundation is enhanced by the presence of Phospholipid EFA which aids in binding the pigment to skin for a longer lasting application. Further benefits obtained by using Phospholipid EFA include a smooth, non-chalky application and a non-drying afterfeel on the skin.

Skin Cleanser

	<u>% By Weight</u>
Sodium Laureth Sulfate (1 mole 25%)	28.00
Monamate LNT-40	12.50
Monamid 716	3.00
Phospholipid PTC	2.50
Water	52.75
Sodium Chloride	1.25

Procedure:

Blend ingredients in order listed at room temperature. Adjust pH to 5.5-6.0 with citric acid. Add color and fragrance as required. Package.

Typical Properties:

Appearance: Clear liquid
Viscosity: Approximately 3,000 cps

SOURCE: Mona Industries, Inc.: Suggested Formulations

Moisturizing Milk with High Electrolyte Content

<u>Ingredients:</u>		<u>%W/W</u>
A	Arlatone 985	4.00
	Brij 721	2.00
	Mineral oil	5.00
	Caprylic/capric triglycerides	5.00
B	Propylene glycol	3.80
	Urea	10.00
	Sodium chloride	5.00
	Water	65.20
C	*Preservative	
	*Perfume	
	*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture. Remove from the homogenizer and allow to cool to 35C while stirring. Add (C) and cool to 30C. Package.

W/O Hydrating Body Milk

<u>Ingredients:</u>		<u>%W/W</u>
A	Arlace1 1689	3.50
	Arlamol HD	8.00
	Arlamol M812	4.00
	Arlamol DOA	4.00
	Paraffin oil	5.50
B	Glycerol	4.00
	MgSO4.7H2O	0.50
	*Preservative	
	Water	70.35
C	Perfume	0.15
	*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture for one minute. Allow to cool to 30C while stirring. Add (C) and while stirring. Package.

SOURCE: ICI Surfactants: Suggested Formulations

Nail Polish Remover

	Wt%
Ethyl acetate	25.0
Butyl acetate	25.0
Driveron S	23.0
Dionil OC/K	10.0
Solvent APV	10.0
Butyltriglycol	7.0

Preparation:

The ingredients are added to each other in sequence and stirred until homogeneous.

Nail Polish Remover

	Wt%
Ethyl acetate	50.0
Vestinol C	28.0
Ethyltriglycol	10.0
Castor oil	10.0
Paraffin oil	2.0

Preparation:

The ingredients are added together in sequence and stirred until homogeneous.

SOURCE: Huls America Inc.: Formulations for Cosmetics; Formulas

Non-Feathering Extended Wear Lipsick

Resulting product is a moldable lipstick with exceptional shine, application and extended wear attributes. When applied to lips, the formula produces a comfortable non-waxy film, which resists migration and feathering. Droop point of the stick is above 43C.

	<u>%w/w</u>
A. Castor Oil (Crystal O)	QS to 100
Candelilla Wax (S&P 75)	8.23
Carnauba Wax (S&P #1 Yellow 73)	2.07
Microcrystalline Wax (S&P 18)	4.19
Beeswax (S&P White NF 422P)	1.08
Glyceryl Stearate (and) PEG-100 Stearate (Lexemu1 561)	1.09
Petrolatum (and) Lanolin Alcohol (Lexate PX)	2.01
Caprylic/Capric Triglyceride (Lexol GT-865)	1.08
Octyl Stearate (Lexol EHS)	2.06
Propylene Glycol Dicaprylate/Dicaprate (Lexol PG-865)	1.06
Silica (Cab-O-Sil M-5)	0.13
Tocopherol (Copherol F-1300)	0.12
Propylparaben (Lexgard P)	0.08
Butylparaben (Lexgard B)	0.05
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	4.77
B. Pigments	5.00-10.00

Procedure:

1. Combine sufficient castor oil from section "A" with pigments in section "B" in a ratio of approximately 2 parts castor oil to 1 part pigments.
2. Disperse pigments in step number 1, first with a Cowles dissolver, then reduce the pigment particle size to less than number 7 on a Haggeman gauge by passing the dispersion through a three roller mill.
3. Combine the balance of ingredients in section "A", heating to 85-90C.
4. Begin agitation as soon as waxes begin to melt. Agitate slowly. Do not entrap air.
5. When section "A" is homogeneous and at 85-90C, add section "B" to section "A".
6. Pour into molds at 80-85C.

SOURCE: Inolex Chemical Co.: Formula 398-62-2

Oil/Water Matte Cream Makeup

<u>Ingredients:</u>	<u>%W/W</u>
A Magnesium aluminum silicate	2.60
Sodium carboxymethylcellulose	0.40
Water, deionized	42.40
B Dispersing agent	0.30
Propylene glycol	5.00
Water	12.30
C Talc	18.50
Kaolin	1.30
Titanium dioxide	3.70
D Iron oxides	1.50
Isopropyl myristate	5.00
E Arlacial 20 and Tween 20	3.00
F Stearyl alcohol and Americol	4.00

Procedure:

Blend dry ingredients of (A) and add to water slowly agitating until smooth. Micropulverize (C) and add to (B). Mill to obtain a smooth paste. Add (B-C) to (A) and heat to 65C. Heat (D,E,F) to 70C and add to (A,B,C) blend. Mix until cool.

Lip Balm

<u>Ingredients:</u>	<u>%W/W</u>
A Synthetic Spermaceti	10.00
Petrolatum	40.00
Glycerol monostearate	26.00
Caprylic/Capric Triglyceride, Neobee M-5	13.60
Squalane, Robane	10.00
B Allantoin	0.20
Lemon oil, USP	0.10
Menthol	0.10

Procedure:

Melt (A) until uniform. Add (B) and stir until homogeneous. Pour in molds.

SOURCE: ICI Surfactants: Suggested Formulations

Oil-In-Water Milk Emulsion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlatone 985	4.00
Brij 721	2.00
Caprylic/capric triglycerides	5.00
Arlamol HD	5.00
B Propylene glycol	1.25
G-2330	1.25
Water	81.50
C *Preservative	
*Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture when emulsion reaches approximately 40C. Add (C) below 35C.
Formulation F41-3-2

Oil-In-Water Milk Emulsion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlatone 985	4.00
Brij 721	2.00
Arlamol S7	6.00
Mineral oil	5.00
B G-2330	4.00
Water	79.00
C *Preservative	
*Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture. Remove from the homogenizer and allow to cool to 35C while stirring. Add (C) and cool to 30C. Package.
Formula F44-6-4

SOURCE: ICI Surfactants: Suggested Formulations

One Coat Mascara

This is a long wearing, non-flaking mascara which coats the lashes evenly in one coat. The formulation separates lashes easily during application and does not clump. The formulation does not flake during wear and has the additional benefit of washing off easily without the need for the use of special eye make-up removers or harsh scrubbing.

	<u>%w/w</u>
A. Deionized Water	57.70
Colloidal Magnesium Aluminum Silicate (Veegum HV)	1.80
Hydroxyethylcellulose (QP-15,000-H)	2.70
Xanthan Gum (Keltrol T)	4.45
Pigment (Pur Oxy Yellow BC and Pur Oxy Black BC)	8.95
Methylparaben (Lexgard M)	0.18
Propylparaben (Lexgard P)	0.09
B. PVP/VA Copolymer (Luviskol 73W)	10.00
Imidazolidinyl Urea (Germall 115)	0.20
Tetrasodium EDTA (Hamp-ene Na4)	0.08
C. Glyceryl Stearate (Lexemul 515)	2.00
Beeswax NF (S&P White NF 422P)	4.75
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.50
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	3.50
Sorbitan Stearate NF (Arlacel 60)	0.10

Procedure:

1. Combine "A" except for the pigments and heat to 80-85C. When temperature is reached, homogenize mixture slowly adding pigments.
2. Combine "C" and heat to 80-85C. Slowly add to "A".
3. Mix "AC" for five minutes. Add "B" to "AC" and homogenize for fifteen minutes on medium speed while cooling.
4. At 60C transfer batch to tank equipped with a double-action side-sweep agitator. Mix and cool to room temperature.
5. Adjust solids level to 59.1+-0.1%. Solids were run in a 110C oven for one hour.

SOURCE: Inolex Chemical Co.: Formulation 383-185

Overnight Facial Moisturizer

A powerful moisturizer designed to restore the normal state of healthy skin. The high substantivity towards skin helps to provide moisture regulation.

Part A:	<u>% by Weight</u>
Phospholipid EFA	4.00
PEG-32	2.00
Glycerin	2.00
Water	73.00

Part B:	
Steareth-2	2.50
Cetearyl Alcohol	4.00
Cetyl Palmitate	4.00
Myristyl Myristate	4.00
Isopropyl Palmitate	3.00
Dimethicone (100cS)	1.50

Blend and heat both phases separately to 70C. Homogenize (B) into (A) with continued heat for an appropriate time while avoiding aeration. Stir-cool to 45-50C, then add fragrance, coloring, or preservative as required and fill.

Moisturizing Make-Up Foundation

An elegant product containing Phospholipid EFA which provides smooth feel and coverage while eliminating the normal drying effects of cosmetic pigments on skin.

Part A:	<u>% By Weight</u>
Phospholipid EFA	3.00
0.5% Kelzan AR in 0.1% NaCl	72.50
Pigment	15.00
Steareth-20	1.80
Methyl Paraben	0.25

Part B:	
Isopropyl Myristate	2.00
Hexyl Laurate	2.00
Steareth-2	2.40
Dimethylpolysiloxane (200cS)	1.00
Propyl Paraben	0.25

Combine ingredients in both phases separately and heat to 65C. Homogenize Part A thoroughly. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, then fill.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID EFA: Suggested Formulations

O/W Cleansing Milk

<u>Ingredients:</u>	<u>%W/W</u>
A Arlatone 985	4.00
Brij 721	2.00
Arlamol HD	10.00
B Atlas G-2330	3.00
*Preservative	
Water	80.90
C Perfume	0.10
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture for one minute. Allow to cool to 30C while stirring. Add (C) and while stirring. Package.

W/O Cleansing Milk

<u>Ingredients:</u>	<u>%W/W</u>
A Arlachel 780	6.00
Arlamol S7	6.00
Arlamol HD	10.00
B Arlas G-2330	4.00
MgSO ₄ .H ₂ O	0.70
*Preservative	
Water	73.15
C Perfume	0.15
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) stirring thoroughly. Homogenize mixture for one minute. Allow to cool to 30C while stirring. Add (C) and while stirring. Package.

SOURCE: ICI Surfactants: Suggested Formulations

O/W Cleansing Milk

<u>Ingredients:</u>	<u>%W/W</u>
A Paraffin oil perliquidum	15.00
Arlamol E	3.00
B Arlatone 2121	2.00
Propylene glycol	1.25
Glycerol	1.25
*Preservative	
C Water	72.50
Carbomer 934 (3% w/w mastergel)	5.00
D *NaOH (10% w/w solution) to adjust pH to 6.5-7	
E *Perfume	
*q.s. these ingredients.	

Procedure:

Mix the Arlatone 2121 in the water phase at 80C under moderate stirring until a homogenous dispersion is formed. Disperse the hydrocolloid in the heated water phase at 75C with moderate stirring. Add the oil phase (RT) to the water phase while stirring intensively. Homogenise the mixture between 75 and 65C. Energy input is related to final formulation viscosity. Allow to cool to 40C while stirring. Homogenise again if adding additional ingredients. e.g. perfume, vitamins,.....

Dry Skin Oil with Alcohol

<u>Ingredients:</u>	<u>%W/W</u>
Arlacel 186	30.00
Arlamol E	30.00
Ethanol, SDA-40, (190 Proof)	30.00
Cyclomethicone	10.00

Procedure:

Mix all ingredients well at room temperature. If necessary warm the Arlacel 186 to achieve clarity before mixing.
Formula CP 1049

SOURCE: ICI Surfactants: Suggested Formulations

Petroleum Oil/Petroleum Wax Free Lipstick

This lipstick is a creamy stick that doesn't use any petroleum oils or waxes in the formula nor does it use any synthetic raw materials that has petroleum base products in it.

Oil Phase I:

1. Kester Wax 100 (Koster Keunen)	6.00
2. Candelilla (Koster Keunen)	7.00
3. Hydroxy Polyester (Koster Keunen)	3.70
4. Hexanediol Behenyl Beeswax (Koster Keunen)	4.00
5. Cocoa Butter	3.00
6. Shea Butter (Koster Keunen)	4.50
7. Squalane (Centerchem)	1.50
8. Rice Bran Oil (Koster Keunen)	4.00
9. Octyl Palmitate (Inolex)	3.00
10. Coconut Oil (Alnor)	5.50
11. Vitamin E (BASF)	0.10
12. Vitamin A Palmitate (BASF)	0.10
13. Wheat Germ Oil (Lipo)	1.50
14. Sweet Almond Oil (Lipo)	1.50
15. Isopropyl Palmitate (Unichema)	15.50
16. Oyster Nut Oil (Koster Keunen)	1.50
17. Castor Oil (Caschem)	20.00
18. Ethoxylated Carnauba (Koster Keunen)	1.30
19. Orange Wax (Koster Keunen)	5.50
20. TiO ₂ (WC&D)	2.50
21. Z-Cote (SunSmart)	5.00
22. Pigment	2.80
23. Beta Glucan 15% Coarse (Koster Keunen)	0.50

Procedure:

Add 20, 21 and 22 together. To the mixture of pigments add 17, 18, and 19, heat till everything is dispersed. Add the rest of the ingredients except the Beta Glucan. The Beta Glucan will be added last to the batch, just before pouring into the molds.

Adaption of formula and its influence on the product:

With the increase or decrease of oils and/or waxes one could create a stick that is creamier or harder.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Pressed Powder Eye Shadow
(Pearlescent Type)

Ingredients:	<u>% by Weight</u>
(1) Bentonite (NF grade)	5.0
(2) Mearlin-AC	35.0
(3) Kaopolite TLC	29.0
(4) Zinc Stearate (fine ground)	8.0
(5) Magnesium Carbonate	1.0
(6) Acetol	3.0
(7) Polysorbate 20	9.0
(8) Deionized Water	10.0
Preservative	q.s.

Procedure:

Dry mix (1), (2), (3), (4), and (5). In separate tank, thoroughly mix (6), (7), and (8). Then slowly add this mixture to the dry mix. Screen through a No. 16 sieve and press.

Follow recommended handling practices of the supplier of each product used.

Face Mask

Ingredients:	<u>% by Weight</u>
(1) Deionized Water	36.7
(2) Bentonite (NF grade)	8.0
(3) Kaolin USP	40.0
(4) Isopropyl Alcohol	10.0
(5) Lanolin (PEG 50)	0.5
(6) Glyceryl Stearate (Emerest 2000)	1.5
(7) Dimethicone (Dow Corning 200)	1.5
(8) Phenoxyethanol (Emmenessence)	1.5
(9) Methyl Paraben	0.2
(10) Propyl Paraben	0.1

Procedure:

Add (2) to (1) and heat to 90C, add (9) and (10) until dissolved. Add (5), (6), (7), and (8). Cool and add (4) with good mixing until dispersed. Add (3) and continue high speed mixing until completely uniform.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Pressed Powder Eyeshadow

<u>Phase A:</u>	<u>%Wt.</u>
Talc	40.40
Zinc Stearate	4.00
Carminc	2.00
Gemtone Mauve Quartz	19.00
Flamenco Super Blue	12.60
Antimicrobial	q.s.
 Phase B:	
Antioxidant	q.s.
Squalane	5.00
Carnation Mineral Oil	7.00
 Phase C:	
Flemenco Super Blue	10.00

Procedure:

Thoroughly blend and disperse A. Add B into a support vessel, heat and mix until uniform. Spray B into premixed A and continue blending. Pulverize and return to blender. Add C to A-B and mix until uniform.

Molded Eye Shadow

	<u>%Wt.</u>
Polytetrafluorethylene-treated mica	50.0
Mica	27.0
Titanium-dioxide-coated mica	10.0
Colorant	3.0
Dimethylpolysiloxane	4.0
Carnation Mineral Oil	3.0
Glyceryl trioctanoate	3.0
Fragrance	0.1
Ethanol	q.s.100.0

Cosmetic Aerosol Foam

PEG-2 stearyl ether	4.50%
PEG-10 stearyl ether	1.50
Carnation Mineral Oil	7.00
Isopropyl palmitate	7.00
Octyldodecanol	6.50
Cetyl Alcohol	0.50
Water	qs to 100.00
Propellant=N2O	

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Pressed Powder with 1% Eldew

<u>Ingredient:</u>	<u>% by Weight</u>
Talc Supra A	53.54
Nylon 12	10.00
Lecithin Treated Sericite	10.00
Lecithin Treated Mica	10.00
Lauroyl Lysine/Amihope LL	5.00
Zinc Stearate	3.00
Isopropyl Lanolate	2.70
Hydroxylated Lanolin	1.50
Isopropyl Isostearate	1.20
Cholesteryl/Behenyl/Octylododecyl Lauroyl Glutamate/ Eldew CL-301	1.00
Butyl Stearate	0.60
Germall II	0.30
Methylparaben	0.20
Propylparaben	0.10
Cosmetic Brown 3277	0.34
Cosmetic Brown 1985	0.32
Cosmetic Brown 1654	0.18
D & C Red 30 Lake	0.02

Pressed Powder with 3% Eldew

<u>Ingredient:</u>	<u>% by Weight</u>
Talc Supra A	52.49
Nylon 12	9.80
Lecithin Treated Sericite	9.80
Lecithin Treated Mica	9.80
Lauroyl Lysine/Amihope LL	4.90
Zinc Stearate	2.94
Isopropyl Lanolate	2.65
Hydroxylated Lanolin	1.47
Isopropyl Isostearate	1.18
Cholesteryl/Behenyl/Octylododecyl Lauroyl Glutamate/ Eldew CL-301	2.95
Butyl Stearate	0.59
Germall II	0.29
Methylparaben	0.20
Propylparaben	0.10
Cosmetic Brown 3277	0.33
Cosmetic Brown 1985	0.31
Cosmetic Brown 1654	0.18
D & C Red 30 Lake	0.02

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Prolonged Skin MoisturizerEmulsion Phase:

Spermaceti	3.00%
Beeswax	2.00
Carnation Mineral Oil	15.00
Behenyl alcohol	5.00
Preservatives	0.30
Elastin hydrolysate	2.00
1,3 butylene glycol	10.00
Carboxymethylchitin	0.50
Water	53.20

Liposome Phase:

Soy lecithin	2.00
Sphingoglycolipids	1.00
Phytosterol	0.50
Glycerine	5.00
Vitamin A	

Skin Lightening Composition

Polyoxyethylene-polyoxypropylene cetyl ether	1.00%
Silicone oil	2.00
Blando Mineral Oil	3.00
Propylene glycol	5.00
E-Aminocaproic acid	1.00
Glycerin	2.00
Ethyl alcohol	5.00
Carbomer	0.30
Hydroxypropyl cellulose	0.10
2-Aminomethylpropanol	0.10
Ascorbic acid disulfate-sodium salt	1.00
Preservative, antioxidant, fragrance	q.s.
Water	q.s. to 100.00

Three Layer Facial Moisturizer

Sodium pyrrolidone carboxylate (50%)	10.00%
Glycerin	20.00
Polyoxyethylene glyceryl monooleate	20.00
Carnation Mineral Oil	50.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Purifying Clay Face Mask

This product removes imbedded impurities which smoothes skin, cleans pores, brings a glow and removes dulling cells for a finer texture so skin has a radiant glow.

Phase A:

Magnabrite S (Whittaker & D)	4.5%
Xanthan Gum (Kelco)	0.2%
Water (Distilled)	63.2%
Glycerin (Unichema)	4.0%
Aloe Vera Gel (Active Organics)	0.5%
Propylene Glycol (Arco)	1.5%
Tween 60 (Gallard Schlesinger)	0.6%
Methyl Paraben (Sutton)	0.5%

Phase B:

Emulsifying Wax NF (Koster Keunen)	5.0%
Cetylstearyl Alcohol (P&G)	0.5%
Kester Wax K-48 (Spermaceti, Koster Keunen)	2.0%
Propyl Paraben (Sutton)	0.5%

Phase C:

Cera Bellina (Pg-3 Beeswax: Koster Keunen)	4.5%
Green Chromium Oxide (Sun Chemical)	0.5%
Titanium Dioxide (Whittaker C&D)	2.0%

Phase D:

Titanium Dioxide (Whittaker C&D)	4.0%
Vanclay (Vanderbilt)	6.0%

Procedure:

Heat and mix till homogeneous, Phase A to 80C. Heat and mix Phase B to 80C. Heat and mix Phase C till pigments are dispersed. Mix Phase B with Phase C, add BC to A at 80C under agitation. When emulsified, sprinkle a mixed Phase D into ABC and continue mixing till thoroughly dispersed, allow to cool while mixing. Pour at 55-60C.

Adaption of formula and its influence on the product:

Changes in clay concentration will reduce or increase drying time on the skin, which also changes the respective purifying qualities toward the skin. Moisturizing agents and or other actives can be added to enhance the properties of this product.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Slenderizing Cream with Green Tea Extract

This slenderizing cream incorporates Phyt'iod and Iodobio 45. This lipolitic product develops an elective metabolic action at the level of adipocytes through the inhibition of the phosphodiesterase. This inhibition blocks the degradation of the cyclic AMP which is indispensable to the protein kinase activation. The kinase proteins activate the lipase which trigger a degradation of the triglycerides in the adipose cell in the form of fatty acids and glycerol and then eliminated.

<u>Ingredients:</u>	<u>%</u>
A. Unitina KD-16	16.00
Emulgin B-1	1.00
Lexol IPM	8.00
Carnation white mineral oil	6.00
Tocopherol	0.01
Trisept P	0.10
B. Deionized Water	48.49
Trisept M	0.20
C. Ivy Extract	3.00
Seaweed Extract	2.00
Organic Silicon	1.00
D. Deionized Water	6.00
Iodobio 45	2.00
Green Tea Extract	1.00
E. Deionized Water	2.00
Trisept IU	0.20
F. Phyt'iod	3.00

Procedure:

Heat phase A and B to 75-80C. Under proper agitation, add A to B. At 50C, add phase C. Dissolve Iodobio 45 in water. At 40C, add phase D, E and F.

Amidroxy Sugar Cane Cream

<u>Ingredients:</u>	<u>%</u>
A. Cirami N 1	11.50
Jojoba Oil	10.00
Sunflower Oil	5.00
Trisept P	0.10
B. Deionized Water	61.94
Trisept M	0.15
C. Tensami 3/06	3.00
D. Tocopherol	0.01
E. Amidroxy Sugar Cane	8.00
F. Grapefruit Essential Oil	0.30

Procedure:

Heat phase A and phase B to 70C. Add phase A to phase B with proper agitation. Add phase C. At 35C-40C add phase D, phase E and phase F. Mix to room temperature. Adjust pH to 3.50.

SOURCE: TRI-K Industries, Inc.: Code AMI Suggested Formulations

Soothing Body Gel

A clear, viscous gel with microencapsulated Vitamin E designed to provide skin conditioning and soothing properties.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	78.82
B Cyclomethicone/Dow Corning 344 Fluid	7.00
C12-15 Alkyl Benzoate/Finsolv TN	10.00
Bisabolol, synthetic	0.30
Methoxypropanediol/Cooling Agent No. 10	0.50
Fragrance	0.15
Menthol	0.03
Corn Oil (and) Retinyl Palmitate/Vitamin A Palmitate type PIMO/BH	0.10
Sunflower Oil (and) Chamomile Extract/Chamomile LS	0.50
C Macademia Nut Oil/Refined Macademia Nut Oil	2.00
Propylparaben	0.10
D Tocopherol Acetate (and) Acacia (and) Gelatin (and) Mica (and) Titanium Dioxide (and) Iron Oxides//Microencapsulated Vitamin E HC487	0.50

Procedure:

Premix B. Add B to A while mixing at moderate speed. Heat C to 60C until clear. Add C to A. Mix until completely homogeneous. Add D (pre-washed with anhydrous ethanol) and gently mix into A until uniformly dispersed.

SOURCE: Penreco: Suggested Formulation

Anhydrous Deep Penetrating Gel

Simple but effective is a way to describe this quick penetrating product. Use of this gel will diminish the signs of aging by conditioning and treating the skin with anti-inflammatory agents. The activity comes from phytosterols and bioflavonoids in orange wax. These class of chemicals are also strong anti-oxidants which will scavenge free radicals thereby preventing potential premature aging.

Silicone Oil 556	56.0%
IPP (Unichema)	5.0%
Squalane (Polyester)	10.0%
Cera Albalate 103 (Koster Keunen)	14.0%
Apricot Oil (Arista)	2.0%
Orange Wax (Koster Keunen)	10.0%
Vit. A Palmitate (Roche)	0.5%
Vit. E (BASF)	0.5%
Candelilla Wax (Koster Keunen)	2.0%

Procedure:

Melt and mix all components to 70C, cool to 60C and pour into container.

Adaption of formula and its influence on the product:

Triglyceride oils can only be use sparingly, since incorporation at any significant concentration will destroy the gelling properties of the Hydroxy-Hexanyl-Behenyl-Beeswaxate (Cera Albalate 103). Cera Albalate 103 is a highly effective gelling agent for very low viscosity oils, as is indicated above.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Stick Type Lip Gloss

<u>Materials:</u>	<u>% by Weight</u>
1. Ozokerite White 170	7.5
2. Candelilla Wax Light Refined	9.5
3. Carnauba Wax Yellow USP #1	2.5
4. Ceraphyl 50	3.0
5. Lanogene	5.0
6. Acetol 1706	11.5
7. Flexricin 9	10.0
8. Bentone Gel CAO	27.5
9. Lexol PG 8/10	12.8
10. Isopropyl Myristate	5.0
11. Propyl Paraben	0.1
12. Tenox 4	0.1
13. Pigment Concentrate*	5.0
14. Fragrance	0.5

*Pigment Concentrate:

Castor Oil	75.00
D&C Red #21 Aluminum Lake	15.00
Cosmetic Brown C-33 115	10.00

Manufacturing Directions:

1. Weigh items 1 through 12 into a stainless steel jacketed kettle. Heat to 85C until melted clear.
2. Bring temperature down to 80C. Add and mix in item 13 using homomixer at medium speed. Mix for 10 minutes at 80C.
3. Continue mixing at medium speed, lower temperature to 70C, and add item 14. Remove heat and stir slowly until congealed, or pour into trays.
4. When casting, melt and pour molten mass into mold at 75C with slow agitation (avoid air entrapment).

Note: For a shiny polished surface on the lip-gloss, the sticks should be surface flamed.

Pigment Concentrate Preparation:

1. Weigh dry powder and mix to the castor oil using a slow speed Hobart type mixture until uniform.
2. Give this concentrate two passes over a 3 roller mill at room temperature.

SOURCE: Rheox, Inc.: Formula TS-286

Thickening Mascara

This is a long wearing, non-flaking and thickening mascara formula. This formulation applies effortlessly, separates lashes well and does not smear or clump. The formulation does not flake during wear and has the added benefit of washing off easily without the need of special eye make-up removers or harsh scrubbing.

	<u>%w/w</u>
A. Deionized Water	56.95
Colloidal Magnesium Aluminum Silicate (Veegum HV)	1.80
Hydroxyethylcellulose (QP 15,000-H)	2.70
Xanthan Gum (Keltrol T)	4.45
Pigment (Pur Oxy Yellow BC and Pur Oxy Black BC)	8.95
Methylparaben (Lexgard M)	0.18
Propylparaben (Lexgard P)	0.09
B. PVP/VA Copolymer (Luviskol 73W)	10.00
Imidazolidinyl Urea (Germall 115)	0.20
Tetrasodium EDTA (Hamp-ene Na4)	0.08
C. Glyceryl Stearate (Lexemul 515)	2.25
Beeswax NF (S&P White NF 422P)	5.25
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.50
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	3.50
Sorbitan Stearate NF (Arlacel 60)	0.10

Procedure:

1. Combine "A" except for the pigments and heat to 80-85C. When temperature is reached, homogenize mixture slowly adding pigments.
2. Combine "C" and heat to 80-85C. Slowly add to "A".
3. Mix "AC" for five minutes. Add "B" to "AC" and homogenize for fifteen minutes on medium speed while cooling.
4. At 60C transfer batch to tank equipped with a double-action side-sweep agitator. Mix and cool to room temperature.
5. Adjust solids level to 53.2%±0.1%. Solids were run in a 110C oven for one hour.

SOURCE: Inolex Chemical Co.: Formulation 383-198

Thigh Slimming Cream

The following formula is used for developing thigh slimming and anti-cellulite creams. The final formulation is 0.50% Natural Cocoa Extract and 0.50% Caffeine which are encapsulated in unilamellar and multilamellar liposomes. They are formulated to target subcutaneous fat tissue. A similar formula can utilize aminophylline as the active ingredient.

<u>Ingredient:</u>	<u>%</u>
A. Deionized Water	69.06
Carbopol 940	0.40
Glycerin	1.50
Kelate 220	0.10
Trisept M	0.20
Tween 80	1.00
Dow Corning 2501	1.50
Dow Corning 193	1.00
B. Lanette 16	1.25
Kukui Nut Oil	3.50
Emersol 132	2.00
Butyl Stearate	0.50
Butylated Hydroxy Toluene	0.10
Emerest 2717	1.50
Lexol IPP	1.00
Dow Corning 200 (50 cps)	1.00
C. Triethanolamine	0.80
Deionized Water	5.00
D. Tristat IU	0.25
E. Liposome of 6% Cocoa Extract & 6% Caffeine Concentrate	8.34

Procedure:

Using moderate propellor agitation, sprinkle Carbopol 940 into Phase A and mix until fully hydrated. Add remaining Phase A ingredients. Heat Phase A and Phase B to 65C-70C. With propellor agitation, add Phase B to Phase A. When uniform, add Phase C. At 55C-60C, add Phase D. Add Phase E at 35C, mixing slowly until uniform.

SOURCE: TRI-K Industries, Inc.: Code Biozone

Ultra Rich Hand and Body Nourisher

Veegum Ultra thickens and stabilizes this creamy, oil-in-water emulsion prepared using a nonionic emulsifier system. It features the "dry touch" application properties typical of formulas containing Veegum. Palmitoyl hydrolyzed animal protein functions as an anti-irritant that complements the group of oil phase emollients. Veegum Ultra whitens and brightens this cosmetic formula and adjusts the pH to approximate that of normal skin.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum Ultra (Magnesium Aluminum Silicate)	1.50
Deionized Water	79.00
B Glycerin	3.00
Aloe Vera Gel (2)	2.00
C Palmitoyl Hydrolyzed Animal Protein (3)	1.00
Cetyl Esters (4)	1.00
Glyceryl Stearate SE (5)	2.50
Isopropyl Palmitate	5.00
Sorbitan Palmitate	2.25
Polysorbate 40	2.75
D Preservative, Fragrance	q.s.
(2) Veragel Liquid	
(3) Lipacide PCO	
(4) Crodamol SS	
(5) Kessco GMS-24SE	

Procedure:

Heat the water to 55C. Add Veegum Ultra slowly while mixing at 700 rpm with a propeller stirrer. Increase mixer to 1500-1700 rpm and mix for 30 minutes while maintaining temperature at 55C. Add B to A and mix until uniform. Heat C to 60C and add to (A and B). Mix (A,B and C) for 30 minutes. Avoid air entrapment. Slow mixer to 1000 rpm and mix while cooling to 35C. Add D and mix until uniform. Package.

Product Characteristics:

Viscosity: 1900-2500 cps
pH: 5.3+-0.2

Comments:

This prototype formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 447

Vegetable Based Moisturizing Cream

<u>Ingredients:</u>	<u>Percent</u>
Part A:	
Super refined almond oil	20.0
"Crodesta" F10	3.0
"Syncrowax" HGLC	2.0
Part B:	
"Hydrosoy" 2000 SF	1.0
"Crodesta" F110	3.0
"Sorbo" 70	5.0
"Germaben" 11	1.0
"Veragel" 200	0.5
Deionized Water	64.5

Procedure:

Combine Part A. Heat to 70C+-2C. Combine Part B. Heat to 70C+-2C. Combine Part B to Part A under agitation. Cool and fill off.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulation

Liquifying Cream Makeup Remover

	<u>%</u>
Penreco Mineral Oil #9	51.08
Petrolatum Alba	32.8
Rosswax 60-0254	9.1
Ross Ceresine Wax 1160/7	7.0
Beta Carotene 30%	0.02
Fragrance	q.s.
Preservative	q.s.

Procedure:

Melt ingredients one thru four in a steam jacketed kettle to 170F with good agitation. When fully mixed cool, add the rest of the ingredients and pack at about 130F.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation

Water Resistant Liquid Foundation

The resulting product is a thin lotion that feels like a fine powder.

	<u>%w/w</u>
A. Deionized Water	69.25
Colloidal Magnesium Aluminum Silicate (Veegum)	1.00
Xanthan Gum (Keltrol T)	0.50
Methylparaben (Lexgard M)	0.20
Propylene Glycol NF	5.00
Triethanolamine NF	QS
B. Octyl Stearate (Lexol EHS)	8.50
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.50
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	2.00
Propylparaben (Lexgard P)	0.05
C. Talc (J-13-AT)	5.00
Iron Oxides (AT Series)	5.00

Procedure:

1. Combine "A" heating to 80-85C. Add all ingredients except the Veegum and xanthan gum. Dry blend the gums and sift in.
 2. Combine "B" and heat to 80C.
 3. Move "A" to homogenizer. Turn to a low speed.
 4. Add "B" to "A", homogenize at low speed for 5 minutes. Begin cooling.
 5. Add "C" to "AB", homogenize at low speed for 10 minutes or until particles are dispersed.
 6. Remove from homogenizer and transfer to propeller mixer.
 7. At 45-50C adjust pH to 7.5-7.7 with TEA. Adjust for water loss
- Formula 383-188

Lip Gloss

The resulting product is a cake lip gloss which could be hot poured into a pan or directly into a SAN compact. The lip gloss applies easily. This product is very wear resistant and exhibits a high gloss due to Lexorez 100.

	<u>%w/w</u>
Castor Oil NF (Crystal O)	60.90
Beeswax NF (S&P White 422P)	10.00
Lanolin Anhydrous	1.30
Caprylic/Capric Triglyceride (Lexol GT-865)	14.80
Stearyl Stearate (Liponate SS)	4.30
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	8.70

Procedure:

1. Combine ingredients, heat to 75C. Mix slowly so that air is not entrapped.
2. Pour at 50C.

Formula LP-100

SOURCE: Inolex Chemical Co.: Suggested Formulations

Section V

Creams

All Purpose Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	10.0
Squalane	4.0
Nikkol WCB	5.0
Glyceryl Monostearate (Self Emulsifying Type)	8.0
Cetyl Alcohol	4.0
Polyoxyethylene (20) Glyceryl Monostearate	2.7
Sorbitan Monostearate	1.3
(W) Ajidew N-50	2.0
Sorbitol (70%)	2.0
Water	61.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Cool to 40C with stirring.
pH: 5.6

All Purpose Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	21.6
Paraffin Wax (mp 42-44C)	8.0
Cetyl Alcohol	5.0
Nikkol WCB	10.0
Cetyl Alcohol	4.0
Tocopherol Acetate	0.2
Allantoin	0.2
Sorbitan Monostearate	2.0
Polyoxyethylene (20) Sorbitan Monooleate	3.0
(W) Ajidew N-50	3.0
Propylene Glycol	2.0
Water	45.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Cool to 40C with stirring.
pH: 5.4

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

All Purpose Cream

	<u>Wt%</u>
(O) Amiter LGOD	10.0
Squalane	9.0
Spermaceti	2.0
Propylene Glycol Monostearate	4.0
Polyoxyethylene (20) Glyceryl Monostearate	3.0
Glyceryl Monostearate (Self Emulsifying Type)	10.0
Sorbitan Monostearate	1.5
(W) Ajidew N-50	3.0
Sorbitol (70%)	4.0
Sodium Carbonate (10% aq soln)	0.1
Water	53.1
Preservative	0.3

Procedure:

1. Heat (O) and (W) to 80C.
 2. Add (W) to (O) slowly with agitation.
 3. Cool to 40C with stirring.
- pH: 5.5

Vanishing Cream

	<u>Wt%</u>
(O) Stearic Acid	8.0
Liquid Paraffin (#70)	3.0
Isopropyl Myristate	3.0
Hydrogenated Lanolin	2.0
Nikko1 WCB	2.0
Glyceryl Monostearate (Self Emulsifying Type)	1.3
Polyoxyethylene (20) Cetyl Ether	1.7
(W) Ajidew N-50	3.0
Propylene Glycol	3.0
Glycerin	3.0
Triethanolamine	0.5
Water	69.5
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 85-86C.
 2. Add (W) to (O) slowly with agitation.
 3. Cool slowly to 30C with stirring.
- pH: 7.2

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

All Purpose Dry Skin Cream

<u>Formula:</u>	<u>%Wt.</u>
Phase A:	
Glucquat 100	1.0
Deionized Water	83.0
Phase B:	
Glucam P-20 Distearate	2.0
Glucate D0	0.5
Promulgen D	4.5
Acetulan	2.0
Cetal	1.0
Carnation Mineral Oil	5.0
Cetyl Palmitate	1.0
Perfume and Preservative	q.s.

Procedure:

Dissolve Glucquat 100 into deionized water and heat to 80C with adequate agitation. Combine B ingredients and heat to 80C with propeller mixing. Slowly add A to B and mix until uniform. When material begins to thicken during cooling, change to slow sweep agitation.

Dry Skin Cream

	<u>Wt. %</u>
Water	61.37
Protopet 1S	20.00
Dry Flo Starch	5.00
Silicone 344	5.00
Finsolv TN	5.00
Cetyl Alcohol	1.00
Sodium Stearyl 2 Lactalate	1.00
Propylparaben	0.15
Methylparaben	0.10
Carbomer 934	0.30-0.50
Triethanolamine	QS to Neutralize
Fragrance & Color	QS

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Almond Vanishing Cream with Collagen

	%
Phase 1:	
Rosswax 63-0412	5.9
Rosswax 573	8.9
Amerlate P	0.7
Emerest 2314	0.7
Emerest 2316	0.7
Glyceryl Monostearate SE	0.37
Almond Oil-Lipovol ALM	1.0
Phase 2:	
Emery 916 Pure Glycerine	6.0
Water	13.46
Triethanolamine	0.9
Phase 3:	
Collasol (Collagen)	0.37
Phase 4:	
Germaben II	1.0

Procedure:

In separate steam jacketed kettles heat both Phase (1) and (2) to a temperature of 170F with agitation. When the temperature is reached, add Phase (1) to Phase (2) with continued agitation. Next add Phase (3) and then Phase (4) both with agitation, cool to 120F and package.

Dry Skin Cream

	%
Part (A):	
Modulan	3.7
Amerchol L-101	4.2
Isopropyl Myristate	2.7
Sodium Stearate Pure	10.0
Glyceryl Mono Stearate SE	1.8
Ross Spermaceti Wax Sub. 573	5.5
Ross Jojoba Oil	1.8
Part (B):	
Water	59.7
Emery 916 Glycerine Pure	9.2
Triethanolamine	1.4
Part (C):	
Preservative	q.s.
Part (D):	
Fragrance	q.s.

Procedure:

Melt Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached, mix Part (A) to Part (B) and cool. Package in containers at below 120F.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Alpha Hydroxy Acid Cream

Resulting product is a light cream that could be dispensed from a flexible tube or a jar. The alpha hydroxy acid (AHA) contained in this formula is buffered lactic acid with a use level of approximately 10%.

	%w/w
A. Deionized Water	65.80
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Glycerin USP (99.7%)	3.00
Lactic Acid USP (88%)	0.60
B. Glyceryl Stearate (and) Stearamidoethyl Diethylamine (Lexemul AR)	2.50
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	4.00
Stearamidopropyl Dimethylamine (Lexamine S-13)	1.00
Cetyl Alcohol (Adol 52)	1.00
Caprylic/Capric Triglyceride (Lexol GT-865)	6.00
Isobutyl Stearate (Lexol BS)	2.00
Propylparaben (Lexgard P)	0.10
C. Lactic Acid (88%)	5.60
Sodium Lactate (Purasal S/SP 60%)	8.00

Procedure:

1. Combine section "A" heating to 75-80C. Use propeller mixer for agitation.
2. Combine section "B" heating to 80-85C. Agitate slowly with a propeller mixer.
3. When sections "A" & "B" are homogeneous and at the designated temperatures slowly add "B" to "A". Mix with rapid agitation for 5 minutes then begin cooling.
4. Reduce mixing speed during cooling to prevent vortexing.
5. At 55-60C, add section "C" to sections "AB".
6. When the batch is homogeneous and at 35-45C adjust for water loss.
7. Mix to 30C.
8. Adjust final pH to 3.50-3.75 with Lactic Acid or Sodium Lactate, as required.

Physical Properties:

Viscosity: 10,000 cPs @ 24C (Brookfield RVT, TA @ 10 rpm).
24 hour sample.

pH: 3.5 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-79-3

Alpha Hydroxy Acid Cream with 10% Aloe Vera Gel

Phase A:	%w/w
Deionized Water	50.45
Propylene Glycol	4.00
Xanthan Gum (Ticaxan)	0.50
Phenoxyethanol	0.30

Phase B:	
Squalane NF	4.00
PPG-12/SMDI (Polyolprepolymer-2)	3.00
Hydrogenated Phospholipid (Lecinol S-10)	1.00
Caprylic/Capric Triglyceride (Miglyol 812)	5.00
Stearic Acid	2.50
Caprylic/Capric/Stearic Triglyceride (Softisan 378)	2.00
Cyclomethicone (DC 344 Fluid)	4.00
Dimethicone (DC 200 Fluid; 50 vis.)	1.00
Cetearyl Alcohol (and) Ceteareth-20 (Cosmowax J)	2.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	1.50
Steareth-2 (Brij 72)	0.50

Phase C:	
Lactic Acid, 88% (Biolac)	7.00

Phase D:	
Terry Aloe Vera Gel, 1X, Dec	10.00
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (Germaben II)	1.00

1. Slowly disperse Xanthan gum to water while stirring vigorously. Continue mixing at rapid speed until completely dispersed and hydrated. Heat to 70C. Add Propylene Glycol followed by Phenoxyethanol.
2. Combine all ingredients in Phase B. While slowly mixing commence heating to 70-75C. Continue mixing until uniform.
3. Slowly introduce Phase B into Phase A. Continue to mix for 5-10 minutes.
4. Cool to 40C while continuing to mix. With batch at 35C, add Phase C and continue to mix.
5. Combine all Phase D ingredients, stirring until dissolved. Add to batch while mixing until uniform. Cool to 25C.

SOURCE: Terry Laboratories, Inc.: Suggested Formulations

Aloe Vera Night Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Deionized Water	49.225
Tetrasodium EDTA	0.075
Propylene Glycol	3.50
Methylparaben	0.20
B. Cetyl Alcohol (Adol 52 NF)	2.00
Cetearyl Alcohol (and) Polysorbate 60 (and)	
PEG-150 Stearate (and) Steareth-20 (Ritachol 1000)	2.00
Polysorbate-40	2.00
Sorbitan Palmitate	0.70
Mineral Oil (and) Lanolin Alcohol (Ritachol)	1.00
Mineral Oil	7.00
Aloe Vera Lipoid 1:1	3.00
Petrolatum (and) Lanolin (and) Sodium PCA (and)	
Polysorbate 85 (Ritaderm)	3.00
Dimethicone 200	1.00
BHA	0.10
Propylparaben	0.10
C. Sodium Borate	0.20
D. Aloe Veragel	20.50
Fragrance	0.15
Germa11 II	0.25

Procedure:

Heat Phase A and Phase B separately with agitation to 75C. Add Phase A to Phase B and mix 30 minutes. Add Phase C and cool with agitation until temperature reaches 50C. Add Phase D and agitate until temperature reaches room temperature.

Night Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Water	q.s.
Promulgen D	1.0
Triethanolamine 99	1.2
Methylparaben	0.35
Propylparaben	0.1
B. Stearic Acid	8.0
Aloe Veragel Lipoid	6.0
Glycol Stearate	3.5
Mineral Oil	10.0
Magnesium Stearate	0.5

Procedure:

Heat phases to 80C. Add phase B to A. Mix until 40C.; and shut off agitation.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Anti-Cellulite Cream

Actives specifically developed to reduce the signs and quantity of cellulite are incorporated into this quick penetrating, non-greasy cream. The use of Cera Albalate 103 allows for a stable emulsion using a high concentration of low viscosity oils. Orange Wax in this formula is also an active due to similar chemistry. The claims for Centerchem's anti-cellulite products are based on groups of chemicals which are also found in Orange Wax, for example; Steroids, Flavonones, Flavonols and Cinnamates.

Phase A:

Cera Albalate 103 (Koster Keunen)	3.0%
Glycol Stearate (Koster Keunen)	4.0%
Glycerol Monostearate (Henkel)	3.0%
Orange Wax (Koster Keunen)	4.0%
Isopropyl Palmitate (Unichema)	2.0%
Silicone Oil 556 (Dow)	2.0%
Emulsifying Wax NF (Koster Keunen)	2.0%
Cetareth-20 (Croda)	1.5%
Eucalyptus Oil (Crompton & Knowles)	0.5%
Caprylic/Capric Triglyceride (Bernel)	2.5%

Phase B:

Water (Distilled)	50.1%
Carbopol 940 (BF Goodrich)	0.2%
Glycerin (Unichema)	3.0%
Pronalan Anticellulite (Centerchem)	10.0%
Ivy Extract (Alban Muller)	5.0%
Seaweed Extract (Centerchem)	5.0%
Triethanolamine (Dow)	0.2%
Aloe Vera Gel (Aloe Corp.)	1.0%
Germaben II (Sutton)	1.0%

Procedure:

Heat Phase A to 75 to 80C. Heat and mix Phase B to 75C. Emulsify by adding Phase A to Phase B. Add the preservative and mix while cooling. Pour into containers at 40C.

Adaption of formula and its influence on the product:

There is room for changing this product by the use of other actives which produce similar claims. The use of other plant oils will not dramatically alter the finished product. Worth mentioning is the ability of Orange Wax to mask the aroma of the eucalyptus oil producing a product of low fragrance.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Antiwrinkle Daycream

<u>Ingredients:</u>	<u>% w/w</u>
A) Cremophor A6	2,00
Cremophor A25	2,00
Cutina GMS	3,00
Cetylalcohol	3,00
Luvitol EHO	5,00
Paraffin Oil	5,00
Bisabolol	0,20
Siliconoil AK 500	0,50
Phenonip	0,30
Parsol 1789	1,00
Parsol MCX	2,00
B) Water demineralized	61,50
Euxyl K-200	0,20
Propylenglycol	4,00
C) Fitobroside	5,00
Phytaluronate	5,00
D) Fragrance/Chiara 0/238927	0,30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 70C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phases C) and D) one after another and stir cold.

Application No. A 006.B/02.93

Daycream

<u>Ingredients:</u>	<u>% w/w</u>
A) Tween 60	3,00
Arlacel 60	2,00
Cetylalcohol	3,00
Stearic Acid	6,00
Isopropylmyristate	10,00
Miglycol 812	5,00
Parsol 1789	1,00
Parsol MCX	2,00
Phenonip	0,50
B) Water demineralized	56,90
Glycerin	4,00
Imidazolidinyl Urea	0,30
Sericin	3,00
ImmuCell	3,00
C) Fragrance/Timbuktu 0/186901	0,30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. A 005.E/11.94

SOURCE: Pentapharm Ltd.: Suggested Formulations

Benzoyl Peroxide Cream

<u>Materials:</u>	<u>% by Weight</u>
Part A:	
1. D.I. Water	71.00
2. Glycerine	3.00
3. Bentone MA rheological additive	2.00
4. Preservative	0.25
Part B:	
1. Glyceryl Monostearate, SE	3.00
2. Stearyl Alcohol	1.00
3. Isocetyl Stearate	1.00
4. Preservative	0.10
Part C:	
1. Deionized Water	11.65
2. Benzoyl Peroxide	7.00

Procedure:

1. Mix D.I. Water, glycerine and preservative. Heat to 60C.
2. Add Bentone MA slowly and mix while heating to 80C.
3. In a separate vessel, mix phase B and heat to 80C.
4. Add Phase A to Phase B and mix while cooling to 50C.
5. Mix and homogenize Phase C separately and add to above mixture of Phase A and Phase B.
6. Homogenize the cream and fill the container.

SOURCE: Rheox, Inc.: Suggested Formulation TS-285

Day Cream O/W for Sensitive Skin

<u>Component:</u>	<u>%</u>
I. Emulgade PL 1618	7,5
Almond Oil	2,0
Cetiol 868	6,0
Isopropyl Palmitate	2,0
Baysilon M 350	0,5
II. Glycerin 86%	3,0
Water	79,0
Preservative	q.s.
Viscosity 23C mPas: 150000	

Preparation in the Laboratory:

1. Heat oil phase to 80C. Heat aqueous phase to 80C and add to oil phase while stirring. Emulsify for 5 minutes at this temperature.
2. The emulsion is cooled down while stirring; the stirring must be selected in such a way that the emulsion is kept in continual motion, without developing a so-called "stirring cone". Excessive stirring, in particular below 50C, can lead to the reduction of the final viscosity.
3. Heat-sensitive additives are added below 40C. Finish stirring at 30C.

SOURCE: Henkel KGaA: Formulation No.: 92/216/106

Cleansing Cream

This formulation is a dual purpose makeup remover and skin conditioner. Myvaplex 600P glyceryl stearate provides mild cleansing, emollience, and emulsion stability. Eastman vitamin E6-81, the acetate ester of vitamin E, offers improved heat and light stability.

<u>Phase A:</u>	<u>%W/W</u>
Myverol 18-06 hydrogenated soy glyceride	6.00
Stearic acid, USP/NF	4.00
Petrolatum, USP	10.00
Drakeol 9 mineral oil	10.00
Isopropyl myristate	10.00
SF 18 (350) silicone fluid (dimethicone)	2.00
 Phase B:	
Distilled water	q.s. to 100
Propylene glycol, USP	5.50
Triethanolamine 99%, USP	0.70
 Phase C:	
Eastman vitamin E 6-81 (vitamin E acetate)	0.30
 Phase D:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Combine ingredients and heat Phase A and Phase B separately to 80C, mixing until each phase is uniform.
2. Add Phase B to Phase A with propeller mixing.
3. Continue mixing and slowly cool to 50C.
4. Add Phase C with mixing and when uniform add Phase D.
5. Continue mixing and cool to room temperature.
6. Adjust agitation speed throughout process as needed. Inversion will occur at 32C, and cream will become smooth and white.
pH: 7.71

SOURCE: Eastman Chemical Co.: Formulation X21139-007

Cleansing Cream

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	31.0
(2) Bentonite (NF grade)	2.0
(3) Glycerin	3.0
(4) Sorbitol (70% solution)	5.0
(5) Kaopolite 1147	20.0
(6) Beeswax	5.0
(7) Petrolatum	10.0
(8) Mineral Oil (light)	17.0
(9) Arlancel 186	3.0
(10) Tween 80	1.0
(11) Solulan 16	3.0
Preservative, Fragrance & Colorant	q.s.

Procedure:

Add (2) to (1), mix at high speed. Reduce speed and add (3) and (4) until smooth. Continue mixing, and add (5) slowly until well dispersed. Heat to 70C. In a separate container, mix (6), (7), (8), (9), and (10) and heat to 70C until uniform. Add to water phase and cool to 30C with continued mixing.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

Mascara Cream

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	27.8
(2) Bentonite (NF grade)	2.0
(3) Carboxymethyl Cellulose (low viscosity)	0.2
(4) Propylene Glycol	5.0
(5) Sorbitol (70% solution)	5.0
(6) Solulan 98	2.5
(7) Kaopolite TLC	4.0
(8) Iron Oxides (micronized)	3.5
(9) Deodorized Kerosene	35.0
(10) Candelilla Wax	5.0
(11) Carnauba Wax (No. 1 yellow)	7.0
(12) Arlancel 186	3.0
Preservative	q.s.

Procedure:

Disperse (2) into (1) at high speed. Add (3) and continue mixing until well dispersed. Reduce speed and add (4), (5), (6), (7), and (8). Continue mixing, heat to 70C. In a separate container, mix (9), (10), (11) and (12) and heat to 70C until dissolved. Add to the aqueous phase while mixing. Cool to 30C.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Cold Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	20.0
Paraffin Wax (mp 42-44C)	9.0
Isopropyl Palmitate	3.0
Cetyl Alcohol	1.0
Hydrogenated Lanolin	2.0
Nikkol WCB	10.0
Sorbitan Monostearate	2.7
Polyoxyethylene (20) Sorbitan Monooleate	2.3
(W) Ajidew N-50	3.0
Water	47.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80-85C.
2. Add (W) to (O) slowly with stirring.
3. Cool to 40C with stirring.
pH: 7.2

Cold Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	30.0
Paraffin Wax (mp 42-44C)	6.0
Petrolatum	7.0
Nikkol WCB	7.0
Glyceryl Monostearate	2.5
Polyoxyethylene (10) Cetyl Ether	2.5
Aluminum Monostearate	2.0
(W) Ajidew N-50	3.0
Water	42.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with stirring.
3. Continue stirring until 35-40C.
pH: 5.2

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	10.00
Brij 721S	4.00
B Water, deionized	80.50
Carbopol 934	0.10
C Sodium hydroxide (10% W/W aqueous)	0.10
D Dowicil 200	0.10
E Fragrance	0.20
F Ethanol, SDA-40	5.00

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using blade type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add (F) and water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5.

Facial Washing Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	25.00
Cetyl alcohol	2.00
Arlacel 165	10.00
Tween 60	1.00
B Glycerin	6.00
Water	56.00
*Preservative	
C *Perfume	
*Color	

*q.s. these ingredients.

Procedure:

Heat (A) to 65C and (B) to 65C. Add (B) to (A) with continued stirring until the emulsion temperature drops to 45C. Add (C) and continue agitation until cool.
Formula SK-16A

SOURCE: ICI Surfactants: Suggested Formulations

Daily Facial Cream with UV Protection (O/W)
(Expected SPF 6)

<u>Ingredients:</u>	<u>%(w/w)</u>
A	
Arlacel 165	3.00
Eumulgin B 2	1.00
Lanette O	2.00
Finsolv TN	3.00
Cetiol OE	5.00
Isopropyl myristate	1.00
Abil 100	1.00
Bentone Gel MIO	3.00
Neo Heliopan, Type AV	1.00
Cutina CBS	2.00
B	
Demineralized water	67.25
Pemulen TR-2	0.40
Sodium hydroxide (10% aq. solution)	0.20
Glycerin 86%	3.00
Phenonip	0.50
Neo Heliopan, Type Hydro; used as a 15% solution neutralized with sodium hydroxide	3.35 (active 0.50%)
Zinc Oxide Neutral H&R	3.00
C	
Perfume oil	0.30

Manufacturing Process:

Part A: Heat up to 75C with thorough agitation.

Part B:

Disperse the Pemulen in the water during high speed agitation. Then add the other ingredients, excluding Zinc Oxide neutral H&R and heat up to 95C. Then add and disperse Zinc Oxide neutral H&R. Add Part B to Part A while stirring. Continue stirring to room temperature.

Part C:

At 30C add the perfume oil to Part A/B and homogenize the emulsion.

The pH-value of the finished emulsion should be approx. 7.5 and has to be checked.

SOURCE: Haarman & Reimer: Formulation K 2/1-21282/E

Day Cream, Oily

	%
A. Imwitor 960 flakes	10.0
Miglyol 812	6.0
Miglyol 840	6.0
Softisan 649	5.0
Dynacerin 660	3.0
Stearic acid	5.0
Cetyl alcohol	3.0
B. Water	to 100.0
C. Triethanolamine	0.90
D. Perfume	qs
Preservative	qs

Preparation:

A. and B. are separately warmed to 75C. C. is added to B.
B. and C. are emulsified in A. Perfume is introduced at approx.
30C.

Moisturizing Cream, Slightly Oily

	%
A. Imwitor 940	10.0
Miglyol 812	5.0
Miglyol 840	3.0
Lanette N	5.0
B. Hygroplex HHG	5.0
Karion F	3.0
1,2-Propylene glycol	3.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are mixed and heated to 80-85C.
B. is heated to the same temperature and emulsified in A.
C. is added at approx. 30C.

SOURCE: Huls America Inc.: Formulations for Cosmetics:
Suggested Formulations

Deep Moisturizing Cream

This moisturizing cream uses Cromoist CS as a moisture absorbing, film forming protein to retain moisture and bind to the skin. The emulsion is formed and stabilized by the Polawax, Syncrowax, and Super Hartolan combination. The oils are a blend of Crodalan LA, Crodamol PMP, Super Refined Babassu Oil, and Petrolatum which provides a non greasy elegant feel and helps to soften the skin.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Polawax (Emulsifying Wax NF)	2.00
Syncrowax AW1-C (C18-36 Acid)	5.50
Syncrowax HGL-C (C18-36 Acid Triglyceride)	1.00
Crodalan LA (Cetyl Acetate (and) Acetylated Lanolin Alcohol)	1.00
Super Refined Babassu Oil (Babassu Oil)	3.00
Super Hartolan (Lanolin Alcohol)	1.00
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	7.00
Petrolatum	1.00
Propyl Paraben	0.20
Part B:	
Water, deionized	66.00
Methyl paraben	0.30
Glycerin	10.00
Triethanolamine (99%)	1.00
Part C:	
Cromoist CS (Chondroitin Sulfate (and) Hydrolyzed Protein)	1.00

Procedure:

Combine the ingredients of Part A with mixing and heat to 75C. Combine the ingredients of Part B with mixing and heat to 75C. Add Part B to Part A with homogenizer mixing and cool to 65C. Continue mixing with a sweep blade mixer and cool to 40C. Add part C with mixing and cool to desired fill temperature.

Viscosity: 4,000,000+-10% (Brookfield RVT, Spindle TE, 25C)
N.A.T.C. Approved

SOURCE: Croda Inc.: Formula SC-207

Deep Moisturizing Creme

Part A:	<u>% by Weight</u>
Water	84.5
Potassium Hydroxide (45%)	0.4
Monafax 160	1.0
Phospholipid SV	2.5
Germaben II-E	0.6
Titanium Dioxide	0.5

Part B:	
Cetyl Alcohol	2.0
Myristyl Myristate	3.0
Isopropyl Palmitate	4.0
Dimethicone (100cs)	1.0
Lanolin Alcohol	0.5

Procedure:

Heat Part A with agitation to 60C. Separately heat Part B to 60C. Homogenize Part B into Part A for a sufficient time to ensure good emulsification. Stir cool to 45C, add fragrance, and package.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Apricot Vanishing Cream

Phase (1):	<u>%</u>
Rosswax 63-0412	6.64
Rosswax 573	9.2
Amerlate P	0.8
Emerest 2314	0.8
Emerest 2316	0.8
Glyceryl Monostearate SE	0.8
Apricot Kernel Oil	0.4
Lipovol P	1.3

Phase (2):	
Water	72.9
Emery 916 Pure Glycerine	6.2
Triethanolamine	0.96

Phase (3):	
Germaben II	1.0

Fragrance GK-19	q.s.
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Procedure:

In separate steam jacketed kettles, heat both Phase (1) and (2) to a temperature of 170F with agitation. When the temperature is reached, add Phase (1) to Phase (2) with continued agitation. Cool to 130F, add Phase (3) and fragrance. Continue to cool to 120F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation

Emollient Cream

Part A:	
Water	69.12%
Magnabrite	0.50
Methyl paraben	0.20
Propyl paraben	0.10
BHA	0.08
Part B:	
Carnation Mineral Oil	4.50
Propylene glycol	3.50
Sorbitol	4.00
Myristyl propionate	3.00
Cocoa butter	5.00
Cetyl alcohol	4.00
Stearic acid	4.00
Part C:	
Octyl dimethyl PABA	1.00
Triethanolamine	1.00
Fragrance	q.s.

Procedure:

Heat water to 80 degrees celsius. Dissolve parabens and BHA into water. Sift Magnabrite into the vortex. When dispersed add B ingredients and mix until melted and uniform. Begin cooling. At 50 degrees celsius add C ingredients. Continue mixing until cool.

Stabilized Urea Moisturizing Cream

Urea	10.00%
Stearyl alcohol	10.00
Glyceryl monostearate	8.00
Octyl dodecanol	5.00
Carnation Mineral Oil	6.00
Polyoxyethylene stearyl ether	2.50
Butylparaben	0.10
Ethylparaben	0.10
Propylene glycol	3.00
Sodium PCA	3.00
Ammonium chloride	1.00
Water	q.s. to 100.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Emollient Cream for Dry Flaking Skin

<u>No.:</u>	<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Weight</u>
1	A	Deionized Water	74.65%
2	A	Triethanolamine 99%	1.00%
3	A	Propylene Glycol	3.00%
4	A	Xanthan Gum	0.30%
5	A	Tetrasodium EDTA	0.10%
6	B	Cetearyl Alcohol	1.00%
7	B	Laneth-5	1.50%
8	B	Glyceryl Monostearate	4.00%
9	B	Oils of Aloha Kukui Nut Oil	3.00%
10	B	Vitamin E Acetate	0.20%
11	B	Stearic Acid XXX	4.00%
12	B	Dimethicone	1.00%
13	B	Octyl Palmitate	5.00%
14	C	Germaben II	1.00%
15	D	Fragrance	0.25%

Manufacturing Procedure:

Heat Phase A to 75C. Heat Phase B to 75C.

Add Phase B to Phase A. Cool to 40C and add remaining phases.

Package.

A oil in water emulsion where the primary emulsifiers are stearic acid with triethanolamine and Laneth-5.

This is a fairly inexpensive formula that uses two emollients- Kukui and octyl palmitate.

An excellent example of the feel of Kukui.

Facial Cleansing Cream

<u>No.:</u>	<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Weight</u>
1	A	Deionized Water	54.00%
2	A	Glycerine	6.00%
3	B	Mineral Oil	15.00%
4	B	Oils of Aloha Macademia Nut Oil	5.00%
5	B	Oils of Aloha Kukui Nut Oil	5.00%
6	B	Cetyl Alcohol	2.00%
7	B	C12-15 Alcohols Benzoate	2.00%
8	B	Arlacel 165	10.00%
9	B	Polysorbate-60	1.00%
10	C	Preservative	QS

Manufacturing Procedure:

Phase A: Heat water and glycerin phase to 75C.

Phase B: Heat oil phase to 75C. Add to water phase. Cool to 40C.

Phase C: Add preservative.

SOURCE: Oils of Aloha: Suggested Formulations

Emollient Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	20.00
Arlasolve 200L	1.10
Brij 72	7.20
Stearyl alcohol	2.00
B Water, deionized	69.30
Carbopol 934	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative	
*Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) to 72C and (B) to 75C. Add (B) to (A) slowly with good agitation and add (C) at 35C and mix thoroughly. Add (D). Replace water lost due to evaporation. Package.
Formula AE-15

Non-Greasy Emollient Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Isopropyl myristate	10.00
Stearyl alcohol	4.00
Brij 721S	5.11
Brij 72	1.89
B Water, deionized	58.10
Carbopol 934	0.40
C Sodium hydroxide (10% W/W aqueous)	0.40
D *Preservative	
E Fragrance	0.10
F Ethanol, SDA-40	20.00

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C). Add (D) below 50C. Add (E) and (F) at 35C. Replace water lost by evaporation and package.
Formula SK-12

SOURCE: ICI Surfactants: Suggested Formulations

Emollient Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	3.00
Stearyl alcohol	2.00
Petrolatum	5.00
Liquid lanolin fraction	2.00
Brij 72	3.00
Brij 700	3.00
B Water, deionized	82.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation.

Emollient Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Brij 72	3.00
Brij 721	2.00
Arlamol E	9.00
Stearyl alcohol	0.70
Cetyl alcohol	0.30
Stearic acid	1.50
Silicone fluid (GE SF 96-20)	1.00
B Propylene glycol	4.00
*Dowicil 200	
Water, deionized	78.50
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

Formula PC-9028

Vanishing Cream

<u>Ingredients:</u>	<u>%W/W</u>
Arlacel 165, acid stable g.m.s.	18.00
Lanolin	2.00
Cetyl alcohol	1.00
Mineral oil	1.00
Sorbo, 70% sorbitol solution, U.S.P.	2.00
Water, deionized	76.00

Procedure:

Heat all ingredients to 90C with moderate agitation. Cool to room temperature.

SOURCE: ICI Surfactants: Suggested Formulations

European O/W Day Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Isohexadecane	10.00
Caprylic/capric triglyceride	4.00
Avocado oil	2.00
Sunflower Seed Oil	2.00
Tocopherol Acetate	2.00
Behenyl alcohol	2.00
Antioxidant	0.05
B Arlatone 2121	5.50
Glycerol	4.00
Panthenol	1.00
Allantoin	0.20
C *Preservative	
Xanthan gum	0.15
Water	67.10

*q.s. these ingredients.

Procedure:

Melt Arlatone 2121 and add to remainder of (B) and (C) mixture at 80C. Add heated (A) to the (B) and (C) mixture at 75C with vigorous agitation. Homogenize mixture at 65C.

Cream

<u>Ingredients:</u>	<u>W/W</u>
A Cetyl alcohol	6.00
Brij 721S	5.00
Silicone oil, 350 cs	0.50
B Water, deionized	66.30
C Hydrogen peroxide, 27% dilution grade	22.20

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) slowly with moderate agitation. Add (C) below 35C. Replace water lost by evaporation and adjust pH to 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Formula PC-8200

SOURCE: ICI Surfactants: Suggested Formulations

Exfoliating Cream

The use of natural exfoliating agent (easily dispersed) in this cream formula giving a marvelous, non-irritating, abrasive quality for the removal of spent surface cells. This will renew and revitalize worn and damaged skin, leaving a barrier which contains natural anti-oxidants inherent in the beeswax and orange wax.

Phase A:

Orange Wax (Koster Keunen)	3.5%
NF White Beeswax (Koster Keunen)	1.0%
Isostearic Acid (Unichema)	3.0%
Almond Oil (Arista)	3.5%
Light Mineral Oil (Witco)	4.0%
Glycerol Monostearate (Koster Keunen)	1.5%
Cetylstearyl Alcohol (P&G)	1.0%
Octyl Palmitate (Unichema)	3.0%

Phase B:

Water (Distilled)	64.6%
Propylene Glycol (Dow)	2.5%
Triethanolamine (Dow)	1.0%
Polysorbate 60 (Gallard & Schlesinger)	0.2%
Carbopol 940 (BF Goodrich)	0.2%
Germaben II (Sutton)	1.0%

Phase C:

Microgranulated Carnauba, 20-60 mesh (Koster Keunen)	10.0%
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Procedure:

Add a mixed and uniform Phase A to a mixed and uniform Phase B at 75C under agitation. Continue mixing and cool to 50C. Add Phase C and mix until homogeneous.

Adaption of formula and its influence on the product:

Viscosity of this product can easily be altered by substituting stearic acid for isostearic acid, to accomodate your preferred container. For sensitive skin, reduce the orange wax, and replace with Kester Wax 62 and Ceresine 130/135. A low viscosity will allow this product to be packaged in a bottle fitted with a pump and a product with high viscosity allows packaging in an open jar. The formulating advantages remain unaltered by the changes in viscosity.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Facial Moisturizing Cream

Ethylhexyl p-methoxycinnamate	4.90%
Butylmethoxydibenzoylmethane	2.10
Ethylene-acrylate copolymer	0.50
Hydroxypropyl glyceryl ether	5.00
Protopet 1S Petrolatum	2.00
Dimethicone	0.40
Steareth-100	0.70
Glyceryl monostearate	0.30
Cetyl alcohol	1.20
Stearic Acid	0.52
Carbomer 934	0.10
Carbomer 941	0.10
Methylparaben	0.20
Propylparaben	0.10
Imidazolidinylurea	0.10
Tetrasodium EDTA	0.10
Tyrosine	0.10
Potassium hydroxide	0.37
Titanium dioxide	0.40
Fragrance	0.15
Water	q.s. to 100.00

Moisturizing Hand & Body Cream

<u>Ingredients:</u>	<u>%Wt.</u>
Deionized Water	82.00
Carbomer 934	0.50
Glycerine	5.00
Polyaldo 10-1-S	1.50
Petrolatum	2.00
Carnation Mineral Oil	2.00
Lonzest 143/S	2.00
Aldo HMS	1.50
Stearic Acid	2.50
Triethanolamine 99%	1.00
Glydant Plus	q.s.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Facial Night CreamPart A:

Deionized Water	53.7%
Sorbitol	1.0
Methylparaben	0.2

Part B:

C14-16 alcohols benzoate	15.0
Lanolin	1.0
Protopet 1S Petrolatum	5.0
Beeswax	8.0
Polysorbate 80	4.0
Glyceryl stearate and PEG 100 stearate	2.0
Stearic acid	3.0
Triethanolamine	0.6

Part C:

Glycosphingolipids	5.0
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Part D:

Dimethicone	1.0
Diazolidinyl urea	0.3
Fragrance	0.2

Procedure:

Begin heating water to 80 celsius, add rest of Part A. Mix well. Add Part B ingredients in order. Mix until homogeneous. Begin cooling to room temperature. Slowly add Part C; mix until smooth. Add rest of Part D ingredients. Mix well.

Age Spot Treatment Cream

Diethanolamine cetyl phosphate	2.00%
Ethylene glycol monostearate	12.00
Isopropyl Palmitate	12.00
Cetearyl octanoate	2.00
Protopet 1S Petrolatum	2.50
Lanolin alcohols	3.00
Propylparaben	0.10
Methylchloroisothiazolinone and methylisothiazolinone	0.05
Imidazolidinyl urea	0.10
Methylparaben	0.10
BHA	0.20
BHT	0.30
Cysteine	0.50
Reduced glutathione	0.50
Pyrocatechol	2.00
Ascorbyl palmitate	0.20
Acetic Acid	0.20
Octylmethoxy cinnamate	1.00
Butylmethoxydibenzoylmethane	1.00
Fragrance	0.60
Water	q.s. to 100.00

SOURCE: Witco Corp.; Petroleum Specialties Group; Suggested Formulations

General Purpose Cream

	<u>Wt%</u>
1. A-C Copolymer 540	2.0
2. A-C Polyethylene 617	2.0
3. Amerchol L-101	5.0
4. Mineral Oil	10.2
5. Hexadecyl Stearate	10.0
6. Emerest 2452	5.5
7. Propyl-p-Hydroxybenzoate	0.1
8. Methyl-p-Hydroxybenzoate	0.2
9. Sorbitol (70%)	5.0
10. Borax	0.3
11. Magnesium Sulfate	0.3
12. Water	59.7

Procedure:

Weigh 1-7 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 8-12 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 78C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container and make sure the whole content is properly sheared. Add perfume, de-aerate and package.

General Purpose Water/Oil Cream

	<u>Wt%</u>
1. A-C Polyethylene 617	2.0
2. Beeswax	4.0
3. Mineral Oil	15.0
4. Arlachel 83	5.5
5. Propyl-p-Hydroxybenzoate	0.1
6. Borax	0.3
7. Sorbitol	5.0
8. Methyl-p-Hydroxybenzoate	0.2
9. Germall 115	0.3
10. Water	67.6

Procedure:

Weigh 1-4 and heat to 85C with slow agitation. This wax blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in blend. If a higher temperature is used, the solvation can be much faster. Hold the wax blend at 80-85C. Heat 5-10 to 85-90C and stir gently until all is dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At approximately 48C the crude dispersion inverts. Some water may not be completely taken up at this point but continued shearing will incorporate it all. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.; 5011-19-5/5011-20-1

General Purpose O/W Cream

	Wt%
1. A-C Copolymer 540	2.0
2. Mineral Oil, 70 vis.	5.0
3. Dow Fluid 556	1.0
4. Emerest 2388	10.5
5. Amerchol 400	2.0
6. Solulan 25	1.0
7. Arlacial 60	2.0
8. Sorbitol (70%)	5.0
9. Tween 60	1.0
10. Carbopol 940	0.75
11. Germall 115	0.4
12. Triethanolamine	0.75
13. Water	68.6

Procedure:

Disperse Carbopol in water. Weigh 1-7 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

General Purpose o/w Cream

	Wt%
1. A-C Copolymer 540	2.0
2. Mineral oil, 70 vis.	5.0
3. Dow Fluid 556	1.0
4. Emerest 2388	10.5
5. Hydroxyol	2.0
6. Ethoxyol 24	1.0
7. Arlacial 60	2.0
8. Sorbitol (70%)	5.0
9. Tween 60	1.0
10. Carbopol 940	0.75
11. Germall 115	0.4
12. Triethanolamine	0.75
13. Water	68.6

Procedure:

Disperse Carbopol in water. Weigh 1-7 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Ref: 5011-25-2/Ref: 5011-25-2A

General Purpose O/W Cream

	Wt%
1. A-C Copolymer 540	2.0
2. Mineral oil, 70 vis.	5.0
3. Dow Fluid 556	1.0
4. Isopropyl Myristate	10.5
5. Amerchol 400	2.0
6. Solulan 25	1.0
7. Arlacial 60	2.0
8. Sorbitol (70%)	5.0
9. Tween 60	1.0
10. Carbopol 940	0.75
11. Germall 115	0.4
12. Triethanolamine	0.75
13. Water	68.6

Procedure:

Disperse Carbopol in water. Weigh 1-7 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

General Purpose O/W Cream

	Wt%
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Mineral oil, 70 vis.	5.0
4. Dow Fluid 556	1.0
5. Emerest 2388	10.5
6. Amerchol 400	2.0
7. Solulan 25	1.0
8. Arlacial 60	1.3
9. Sorbitol (70%)	5.0
10. Tween 60	1.8
11. Carbopol 940	0.75
12. Germall 115	0.4
13. Triethanolamine	0.75
14. Water	68.5

Procedure:

Disperse Carbopol in water. Weigh 1-8 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Ref: 5011-25-2B/Ref: 5011-25-3

General Purpose O/W Cream

	Wt%
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Mineral oil, 70 vis.	5.0
4. Dow Fluid 556	1.0
5. Emerest 2388	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlacel 60	1.3
9. Sorbitol (70%)	5.0
10. Tween 60	1.8
11. Carbopol 940	0.75
12. Germall 115	0.4
13. Triethanolamine	0.75
14. Water	68.5

Procedure:

Disperse Carbopol in water. Weigh 1-8 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

General Purpose O/W Cream

	Wt%
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Mineral oil, 70 vis.	5.0
4. Dow Fluid 556	1.0
5. Isopropyl Myristate	10.5
6. Amerchol 400	2.0
7. Solulan 25	1.0
8. Arlacel 60	1.3
9. Sorbitol (70%)	5.0
10. Tween 60	1.8
11. Carbopol	0.75
12. Germall 115	0.4
13. Triethanolamine	0.75
14. Water	68.5

Procedure:

Disperse Carbopol in water. Weigh 1-8 and heat to 80-90C with slow agitation. Add remaining ingredients, except Triethanolamine, to the Carbopol/water dispersion and heat to 80-90C. Add the aqueous phase to the wax phase and shear in homomixer for five minutes. Add Triethanolamine and continue to shear while cooling to 40-50C. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.; Ref. 5011-25-3A/5011-25-3B

General Purpose O/W Cream

	Wt%
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Mineral Oil (70 ss)	5.0
4. Dow 556 Fluid	1.0
5. Propylene Glycol Dipelargonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlachel 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol (70%)	5.0
12. Carbopol 940	0.75
13. Germall 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.3

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

Ref: 5011-25-4

Acne Scrub Cream

For acne scrub cream, add 10% A-C Polyethylene 9A to this formulation, after cooling.

Emollient Cream, Water/Oil

1. A-C Polyethylene 617A	1%
2. A-C Copolymer 540	4
3. Lanolin Wax	10
4. Mineral Oil	30
5. 2 Ethyl Hexyl Stearate	4.5
6. Arlachel 20	4.6
7. Tween 20	1.5
8. P Paraben	0.1
9. M Paraben	0.15
10. Water	43.85
11. Borax	0.15
12. Carbopol 941	0.15

Procedure:

- Heat 1-5 to 90C until all has dissolved.
- Add 6, 7 and 8 to 1-5. Hold at 85C.
- Heat 10 and 11 to 90-95C until all has dissolved; add 12 gradually with shear using the Gifford-Wood Homomixer or equivalent.
- Add 1-8 to mixer and shear for 10 minutes at 85-90C. Shear to 65C, add perfume and package.

SOURCE: Allied Signal Inc.: Suggested Formulations

General Purpose Cream

	Wt%
1. A-C Polyethylene 617A	3.0
2. Beeswax	2.0
3. Lanolin Alcohol	1.0
4. Isopropyl Palmitate	8.2
5. 2-ethyl Hexyl Palmitate	10.0
6. Dow 200 Fluid, 350 cs	1.0
7. Triglyceral Diisostearate	5.5
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Aloe Extract	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Butyl-P-Hydroxybenzoate	0.1
15. Water	58.3

Procedure:

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-15 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5189-4-10A

Water-In-Oil Cream

	%
1. A-C 617	3.0
2. Mineral Oil (70-75 SS)	15.0
3. Isopropyl Palmitate	6.0
4. Escalol 507	4.0
5. Lanogene	5.0
6. Sorbitan Sesquioleate (Arlacel 83)	5.0
7. Sorbo	5.0
8. Borax	0.3
9. Germaben IIE	1.0
10. Water	Balance
11. Perfume	Q.S.

Procedure:

Heat 1-6 with mild agitation until all the A-C 617 has dissolved. Maintain it at 100-110C. Heat 7-10 with vigorous agitation with a colloid mill or homofixer until the solution is at 85C. Continue vigorous agitation and pour in 1-6. A crude oil-in-water emulsion is formed. Cool with cold water bath to about 55-60C when it inverts into a smooth cream. At 50-55C add perfume and package.

SOURCE: Allied Signal Inc.: Suggested Formulations

General Purpose Water/Oil Cream

	<u>Wt. %</u>
1. A-C Polyethylene 617	2.0
2. A-C Copolymer 540	2.0
3. Mineral Oil (70 ss)	10.2
4. 2 Ethyl Hexyl Stearate	10.0
5. Lanolin Alcohol (L 101)	5.0
6. Triglycerol Di-isostearate	5.5
7. Propyl-P-Hydroxybenzoate	0.1
8. Methyl-P-Hydroxybenzoate	0.2
9. Sorbitol (70%)	5.0
10. Borax	0.3
11. Water	59.7

Procedure:

Weigh 1-5 and heat to 85C with slow agitation. This wax blend has a cloud point of 79C. Above the cloud point all waxes will eventually dissolve in blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 70-80C and add 6 and 7 to it with stirring until all has dissolved. Heat 8-11 to 85-90C and stir gently until all has dissolved. Hold at 70-80C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 53C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5011-18-6

General Purpose Water/Oil Cream

	<u>Wt. %</u>
1. A-C Polyethylene 617	2.0
2. Beeswax	4.0
3. Mineral Oil	15.0
4. Arlace1 83	5.5
5. Propyl-P-Hydroxybenzoate	0.1
6. Methyl-P-Hydroxybenzoate	0.2
7. Sorbitol (70%)	5.0
8. Borax	0.3
9. Water	67.9

Procedure:

Weigh 1-4 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 5-9 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 50C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5011-18-5

SOURCE: Allied Signal Inc.: Suggested Formulations

General Purpose W/O Cream

	<u>Wt%</u>
1. A-C Polyethylene 617	2.0
2. Beeswax	3.0
3. Rewomid S-280	1.0
4. Amerchol CAB	5.0
5. Mineral Oil	11.0
6. Isopropyl Isostearate	8.8
7. Triglycerol Diisostearate	3.0
8. Sorbitol (70%)	5.0
9. Borax	0.3
10. Germall 115	0.2
11. Magnesium Sulfate	0.3
12. Water	60.0

Procedure:

Weigh 1-7 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 8-12 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 76C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

General Purpose W/O Cream

	<u>Wt%</u>
1. A-C Polyethylene 617	2.0
2. A-C Copolymer 540	3.0
3. Rewomid S-280	1.0
4. Amerchol Cab.	5.0
5. Mineral Oil	11.0
6. Isopropyl Isostearate	8.8
7. Triglycerol Diisostearate	3.0
8. Sorbitol (70%)	5.0
9. Borax	0.3
10. Germall 115	0.2
11. Magnesium Sulfate	0.3
12. Water	60.0

Procedure:

Weigh 1-7 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 8-12 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 76C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Formula 5011-19-3/5011-19-4

General Purpose W/O Cream

	Wt%
1. A-C Polyethylene 617	2.0
2. A-C Copolymer 540	2.0
3. Amerchol L-101	5.0
4. Mineral Oil	10.0
5. Dow Fluid 556	3.0
6. 2-Ethyl Hexyl Stearate	5.0
7. Arlancel 83	5.5
8. Sorbitol (70%)	5.0
9. Borax	0.3
10. Germall 115	0.5
11. Water	61.7

Procedure:

Weigh 1-7 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 8-11 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 79C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

General Purpose W/O Cream

	Wt%
1. A-C Polyethylene 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Mineral Oil	8.2
5. Dow Fluid 200-350 cps	1.0
6. 2-Ethyl Hexyl Stearate	10.0
7. Triglycerol Diisostearate	5.5
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Borax	0.3
11. Methyl-P-Hydroxybenzoate	0.2
12. Water	59.7

Procedure:

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-12 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 68C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Formulas Ref. 5011-20-4/5011-22-1

General Purpose W/O Cream

	Wt%
1. A-C Polyethylene 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Mineral Oil, 70 vis.	8.2
5. Dow Fluid 200, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	10.0
7. Triglycerol Diisostearate	5.5
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Sodium Borate, Anhydrous	0.3
11. Methyl-P-Hydroxybenzoate	0.2
12. Germall 115	0.3
13. Water	59.4

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-13 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

General Purpose W/O Cream

	Wt%
1. A-C Polyethylene 617	3.5
2. A-C Copolymer 540	1.5
3. Beeswax	2.0
4. Lanrol	9.5
5. Mineral Oil, 70 vis.	15.0
6. Isopropyl Stearate	10.0
7. 2-Ethyl Hexyl Stearate	10.0
8. Arlace1 83	5.5
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	7.0
11. Borax	0.3
12. Magnesium Sulfate	0.3
13. Methyl-P-Hydroxybenzoate	0.2
14. Germall 115	0.2
15. Water	34.9

Weigh 1-9 and heat to 85C with slow agitation. This wax blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in blend. If a higher temperature is used, the solvation can be much faster. Hold the wax blend at 80-85C. Heat 10-15 to 85-90C and stir gently until all is dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At approximately 80C the crude dispersion inverts. Some water may not be completely taken up at this point but continued shearing will incorporate it

SOURCE: Allied Signal Inc.: Formula Ref:5011-24-2/Ref: 5011-24-4

General Purpose W/O Cream

1. A-C Polyethylene 617	3.0%
2. A-C Copolymer 540	2.0
3. Beeswax	2.0
4. Lanrol	9.5
5. Mineral Oil, 70 vis.	15.0
6. Isopropyl Stearate	10.0
7. 2-Ethyl Hexyl Stearate	10.0
8. Arlacial 83	5.5
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	7.0
11. Borax	0.3
12. Magnesium Sulfate	0.3
13. Methyl-P-Hydroxybenzoate	0.2
14. Germall 115	0.2
15. Water	34.9

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-15 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 80C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

General Purpose W/O Cream

1. A-C Polyethylene 617	2.0%
2. A-C Copolymer 540	3.0
3. Beeswax	2.0
4. Lanrol	9.5
5. Mineral Oil, 70 vis.	15.0
6. Isopropyl Stearate	10.0
7. 2-Ethyl Hexyl Stearate	10.0
8. Arlacial 83	5.5
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	7.0
11. Borax	0.3
12. Magnesium Sulfate	0.3
13. Methyl-P-Hydroxybenzoate	0.2
14. Germall 115	0.2
15. Water	34.9

Weigh 1-9 and heat to 85C with slow agitation. This wax blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in blend. If a higher temperature is used, the solvation can be much faster. Hold the wax blend at 80-85C. Heat 10-15 to 85-90C and stir gently until all is dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At approximately 80C the crude dispersion inverts. Some water may not be completely taken up at this point but continued shearing will incorporate it all. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Ref: 5011-24-5/Ref: 5011-24-6

General Purpose W/O Cream

	Wt%
1. A-C Polyethylene 617A	3.0
2. Beeswax	2.0
3. Nimlesterol D	5.0
4. Mineral Oil, 70 vis.	8.2
5. Dow Fluid 200-350 cps	1.0
6. 2-Ethyl Hexyl Stearate	10.0
7. Emerest 2452	5.5
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Borax	0.3
11. Methyl-P-Hydroxybenzoate	0.2
12. Water	59.7

Weigh 1-8 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-12 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 68C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Mineral Oil Cream - W/O

	Wt%
1. A-C Polyethylene 617	3.0
2. A-C Copolymer 540	1.0
3. Beeswax	2.0
4. Mineral Oil, 70 vis.	25.0
5. Isopropyl Stearate	3.0
6. 2-Ethyl Hexyl Stearate	9.4
7. Triglycerol Diisostearate	3.5
8. Propyl-P-Hydroxybenzoate	0.2
9. Sorbitol (70%)	7.0
10. Sodium Borate, Anhydrous	0.3
11. Methyl-P-Hydroxybenzoate	0.3
12. Magnesium Sulfate	0.3
13. Water	45.0

Weigh 1-3 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 9-13 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 77C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

SOURCE: Allied Signal Inc.: Formula Ref 5011-22-1A/5011-22-4

General Purpose W/O Cream

	<u>Wt%</u>
1. A-C Polyethylene 617A	2.0
2. A-C Copolymer 540	3.0
3. Beeswax	2.0
4. Mineral Oil, 70 vis.	15.0
5. Dow Fluid 334	9.5
6. Isopropyl Stearate	10.0
7. 2-Ethyl Hexyl Stearate	10.0
8. Arlancel 83	5.5
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	7.0
11. Borax	0.3
12. Magnesium Sulfate	0.3
13. Methyl-P-Hydroxybenzoate	0.2
14. Germall 115	0.2
15. Water	34.9

Procedure:

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-15 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 80C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5011-31-2

Oil-In-Water Cream and Its Scrub Derivative

1. A-C 617 Polyethylene	2.0%
2. Stearic Acid	0.5
3. Lanogene (lanolin alcohol & mineral oil)	6.0
4. Isopropyl palmitate	12.5
5. Sorbitan Monostearate	1.3
6. Polyoxyethylene 20 Sorbitan Monostearate	1.8
7. Sorbo (sorbitol 70%, water 30%)	5.0
8. Carbopol 940	1.0
9. Germaben II	0.8
10. Water	68.35
11. Triethanolamine	0.75
12. Perfume	Q.S.

Procedure:

Weigh 1-6, then weigh 7-10. Heat 7-10 with agitation using a homomixer or colloid mill. When the aqueous solution reaches 85C, heat oil phase to 90-95C with slow agitation until all the wax has dissolved. Combine 1-10 and shear until mixture is homogeneous. Add 11 and shear well. Cool to 55C and add 12.

SOURCE: Allied Signal Inc.: Suggested Formulations

General Purpose W/O Hand Cream

	<u>Wt%</u>
1. A-C Polyethylene 617A	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Dow 200 Fluid, 350 cs	1.0
5. 2-Ethyl Hexyl Stearate	10.0
6. Triglycerol Diisostearate	5.5
7. Isopropyl Palmitate	8.2
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol	5.0
10. Sodium Borate, Anhydrous	0.3
11. Methyl-P-Hydroxybenzoate	0.2
12. Germall 115	0.3
13. Water	59.4

Procedure:

Weigh 1-8 and heat to 85-90C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point, all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85-90C. Heat 9-13 to 85-90C and stir gently until all dissolved. Hold at 85-90C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 75C, the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5189-4-10

Oil-In-Water Cream

1. A-C 540	2.0
2. Dow Corning Silicone 344	3.0
3. Lanogene	5.0
4. Sorbitan Monostearate (Arlacel 60)	1.3
5. Polyoxyethylene 20 Sorbitan Monostearate (Tween 60)	1.8
6. Isopropyl Palmitate	7.0
7. Escalol 507	4.0
8. Sorbo (Sorbitol 70%)	5.0
9. Carbopol 941	1.0
10. Germaben II	0.8
11. Water	Balance
12. Triethanolamine (TEA)	0.75
13. Perfume	Q.S.

Procedure:

Weigh 1-7, then weigh out 8-11. Heat 7-10 with agitation using a colloid mill or homomixer. When the aqueous solution reaches 85C, heat 1-6 to 95C. Combine 1-10 until well mixed, then add TEA and shear until all appears to be homogeneous. Cool to 55C and add perfume and package.

SOURCE: Allied Signal Inc.: Suggested Formulations

Gentle Night Repair Cream

This product encapsulates an active ingredient which can decrease the oxidation of a precious compound thereby increasing shelf life and reducing the chance of rancidity. The emulsion is very stable, quickly penetrates the skin and leaves a silky feel.

Oil Phase:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	7.10%
Ozokerite Wax 160/164 (Koster Keunen)	2.20%
Light Mineral Oil (Witco)	7.60%
Isopropyl Palmitate (Unichema)	3.00%
Glycerine Monostearate (Henkel)	1.20%
PEG-100 Stearate (Lipo)	1.00%
Emulsifying Wax NF (Koster Keunen)	1.00%
Incropol SC-20 (Croda)	4.00%
Isostearic Acid (Unichema)	4.00%
Vitamin E (Roche)	0.10%
Vitamin A Palmitate (BASF)	0.10%
Safflower Oil (Lipo)	2.00%
Liquapar (Sutton)	0.50%
Wheat Germ Oil (Lipo)	3.00%
Squalane (Centerchem)	2.00%
Propylene Glycol Dioctanate (Inolex)	4.00%
Silicone 200/100 (Dow)	2.00%

Water Phase:

Water (Distilled)	35.8%
Methyl Paraben (Sutton)	0.30%
Sodium Borate (Borax)	0.60%
Carbopol 940 2%	10.00%

Active Phase:

Phenonip (Nipa)	0.50%
Hyaluronic Acid (Active Organics)	1.00%
Firming Liposome (Centerchem)	4.00%
APT (Centerchem)	3.00%

Procedure:

Heat the components of the oil phase, mix and maintain at a temperature of 82C. In a separate vessel dissolve the components of the water phase while mixing and increasing the temperature to 80C. Add the oil phase to the water phase under moderate agitation, and cool slowly while mixing. When a temperature of 40C is mixed, add phenonip. Cool to 35C and add the three actives. Cool to room temperature.

Adaption of formula and its influence on the product:

You can substitute your preferred secondary emulsifier and some oils with only slight changes to viscosity, gloss, etc. The concentration of Cera Bellina (CTFA=Pg-3 Beeswax) can only be slightly altered since it helps control consistency and the micelle size and shape. The water soluble biologically active ingredients are well protected in this type of emulsion allowing you to incorporate a wide range of active compounds. A formulation of this type is not affected by ionic strength.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Glossy Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	10.00
Brij 721S	4.00
B Water, deionized	85.50
Carbopol 934	0.10
C Sodium hydroxide (10% W/W aqueous)	0.10
D Dowicil 200	0.10
E Fragrance	0.20

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using blade type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5.

Glossy Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Isopropyl myristate	12.00
Stearyl alcohol	4.00
Brij 721S	2.80
Brij 72	2.20
B Water, deionized	78.80
C Dowicil 200	0.10
D Fragrance	0.10

Procedure:

Heat (A) to 70C and (B) to 75C with good propeller agitation. Add (C) at 50C and mix thoroughly. Add (D) at 35C. Add water to compensate for loss due to evaporation.

SOURCE: ICI Surfactants; Suggested Formulations

Glycolic Acid Cream

A rich cream with the benefits of an alpha-hydroxy acid. Incorporation of Geahlene 750 helps moisturize the skin and gives it a rich, silky after feel.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	61.00
Magnesium Aluminum Silicate/Veegum Ultra	1.00
Xanthan Gum/Keltrol	0.30
Methylparaben	0.20
Butylene Glycol	5.00
Tetrasodium EDTA/Hamp-Ene 220	0.10
B Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	9.00
DEA-Cetyl Phosphate/Amphisol	2.00
C12-15 Alkyl Benzoate/Finsolv TN	5.00
Propylparaben	0.10
Cetyl Alcohol/Lanette 16	2.00
Stearic Acid/Emersol 132	4.00
C Diazolidinyl Urea/Germall II	0.30
Glycolic Acid/Glypure 70%	8.00
D Deionized Water	1.00
Sodium Hydroxide	1.00

Procedure:

Disperse Veegum in rapidly agitated deionized water (part A). Add Keltrol. Heat to 80C. Mix until uniform. In a separate container, heat part B to 80C and mix until all the solids are dissolved. Add part B to part A. Mix for 30 minutes until completely homogeneous. Cool to 50C. Add part C and mix well. Add premixed part D. Continue mixing and cooling to 30C. Add fragrance at 30C if desired.

SOURCE: Penreco: Suggested Formulation

Hand and Body Cream

A rich, protective hand and body cream designed to relieve dryness and leave the skin soft and silky smooth. Geahlene 750 provides long-lasting moisturization, a perceptible conditioning effect, and an elegant after feel.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	70.60
Carbomer/Carbopol 940	0.20
Propylene Glycol	7.00
Methylparaben	0.20
Panthenol/DL-Panthenol	0.10
B Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	7.00
Propylene Glycol Dicaprylate/Dicaprate//Myritol PC	5.00
Isostearyl Alcohol/Prisorine 3515	2.00
Propylparaben	0.10
Cetyl Alcohol/Lanette 16	2.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	2.50
Potassium Cetyl Phosphate/Amphisol K	1.75
Tocopheryl Acetate/Vitamin E Acetate	0.10
C Triethanolamine, 99%	0.15
D Diazolidinyl Urea/Germall II	0.20
E Soy Lecithin/Sedermasome	1.00
Fragrance	0.10

Procedure:

Disperse Carbomer into rapidly agitated deionized water. Add remaining part A ingredients. Heat to 75-80C and mix until uniform and lump-free. Combine part B. Heat to 80C and mix until all the solids are dissolved. Add part B to part A. Mix for 30 minutes with good agitation. Add part C. Mix until completely smooth and homogeneous. Cool to 50C. Add part D. Cool to 40C. Add part E. Continue mixing and cooling to 30C.

SOURCE: Penreco: Suggested Formulation

High Content Mineral Oil Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, (Carnation brand)	70.00
Brij 721S	3.70
Brij 72	3.30
B Water, deionized	22.60
C Sodium hydroxide (10% aqueous)	0.10
D Dowicil 200	0.10
E Herbal fragrance (SL 79-1224, PFW)	0.20

Procedure:

Heat (A) to 65C and (B) to 60C. Add (A) to (B) slowly with moderate anchor type agitation and add (C). Add (D) at about 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.

Formula PC-9026

O/W Petrolatum Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Petrolatum, white	35.00
Brij 721, POE 21 stearyl ether	1.00
Brij 72, POE 2 stearyl ether	4.00
Dimethicone (350 cs.)	3.00
B Water, deionized	56.70
Carbomer 934	0.10
C NaOH, 10% aqueous solution	0.10
D Germall II	0.10

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate anchor stirring. Add (C). Add (D) below 50C. Stir to 35C and add any water lost due to evaporation.

Formula CP 1090

SOURCE: ICI Surfactants: Suggested Formulations

Hydrocortisone Cream

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Propylene Glycol	5.0
Glycerin	2.5
Water	10.0
Hydrocortisone USP	(0.5/1.0)
Phase B:	
Water	Q.S.
Preservatives	Q.S.
Phase C:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	3.0
Octyl Stearate (Tegosoft OS)	6.0
Octyl Palmitate (Tegosoft OP)	5.0
Mineral Oil	5.5
Glyceryl Stearate (Tegin M)	1.8
Stearyl Alcohol	0.8
Cetyl Dimethicone (Abil Wax 9801)	1.0
Phase D:	
Fragrance	Q.S.

Procedure:

1. Mix Phase A to dissolve the active.
2. Add the balance of the water of Phase B plus the preservatives. (Allow for water loss during manufacturing). Heat A/B to 70C.
3. Add the ingredients of Phase C. Mix. Maintain temperature of 70C.
4. Begin cooling when fully dispersed. Begin homogenization at 60C.
5. Homogenize while cooling to 35C.
6. Add fragrance with sweep mixer.

All Natural Cream
(W/O type)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Oleate (Isolan GO 33)	4.0
Hydrogenated Castor Oil	1.5
Beeswax	1.5
Octyl Stearate (Tegosoft OS)	11.5
Cetearyl Octanoate (Tegosoft Liquid)	11.5
Phase B:	
Glycerin	2.5
D-panthenol	0.5
Magnesium Sulfate	0.5
Water	66.5
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the ingredients of Phase A to a mix tank. Heat to 80-85C and disperse the waxes. Cool to 65-70C.
2. Mix the ingredients of Phase B. Heat to 65-70C.
3. Add Phase B to Phase A. Homogenize and cool to 40C with mixing
4. Add the fragrance. Cool and fill.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Hydrogen Peroxide Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	6.00
Arlacel 60	2.00
Tween 60	3.00
B Water, deionized	71.72
Phenacetin	0.04
Disodium ethylenediaminetetra-acetate dihydrate	0.10
C Hydrogen peroxide, 35% dilution grade	17.14
D Phosphoric acid, 10% C.P., as required	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with thorough agitation. Cool to 45C. with agitation. Compensate for lost water due to evaporation. Add (C). Adjust pH to 3.5-4.0 by adding (D).

Hydrogen Peroxide Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	10.00
Arlacel 40	2.00
Tween 40	3.00
B Water, deionized	67.86
C Hydrogen peroxide (10% dilution grade)	17.14
D Phosphoric acid (10% C.P.) as required	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with thorough agitation. Cool to 45C. with agitation. Compensate for lost water due to evaporation. Add (C). Adjust pH to 3.5-4.0 by adding (D).

Hydrogen Peroxide Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	10.00
Arlacel 165	2.50
B Water, deionized	70.36
C Hydrogen peroxide (10% dilution grade)	17.14
D Phosphoric acid (10% C.P.) as required	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with thorough agitation. Cool to 45C. with agitation. Compensate for lost water due to evaporation. Add (C). Add (C). Adjust pH to 3.5-4.0 by adding (D).

SOURCE: ICI Surfactants: Suggested Formulations

Hydroxy Acid Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.5
Cetyl Dimethicone (Abil Wax 9801)	1.0
Cyclomethicone	5.0
Isohexadecane	4.0
Octyl Stearate (Tegosoft OS)	5.0
Stearyl Heptanoate (Tegosoft SH)	2.5
Beeswax	0.6
Hydrogenated Castor Oil	0.6
Phase B:	
Water	67.7
Sodium Chloride	0.6
Lactic Acid (44% Solution)	5.0
Sodium Salicylate	1.5
Preservatives	Q.S.
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	1.0
Phase C:	
Fragrance	Q.S.

Procedure:

1. Heat Phase A in a closed kettle to 85C, mixing until all components are fully dispersed or solubilized. When uniform, cool to 45-50C.
2. Mix the ingredients of Phase B together. Heat to 40-45C.
3. Add B to A slowly with soft propeller agitation (150-250 RPM's). Mix until uniform.
4. Homogenize at 35-40C. 5. Add fragrance.

Moisturizing Cream
Cold Process
W/O

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Isopropyl Myristate (Tegosoft M)	5.0
Phase B:	
Water	79.2
Sodium Chloride	0.8
Preservatives	Q.S.
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Mix the oils of Phase A together. Mix well. 2. Dissolve the sodium chloride in the water. Mix until uniform.
3. Add Phase B slowly into Phase A with agitation. 4. Homogenize
5. Preservatives, perfume and color can be added at any time.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Light Texture Hand Creme

This high humectant creme provides a non-greasy, long lasting soothing feel.

Part A:	<u>% By Weight</u>
Phospholipid SV	3.00
Steareth-20	0.45
Glycerin	5.00
Methyl Paraben	0.25
Water	77.75

Part B:	
Steareth-2	0.80
Cetearyl Alcohol	3.50
Myristyl Myristate	3.50
Finsolv TN	1.50
Isopropyl Palmitate	3.00
Dimethicone (100 cS)	1.00
Propyl Paraben	0.25

Procedure:

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required.

Facial Moisture Creme

This elegant formulation provides high moisturization, excellent rub off resistance, and is ideally suited for over-night skin care.

Part A:	<u>% By Weight</u>
Phospholipid SV	3.00
Steareth-20	0.20
Methyl Paraben	0.25
Water	81.50

Part B:	
Steareth-2	1.30
Cetearyl Alcohol	4.00
Myristyl Myristate	4.00
Isopropyl Myristate	4.00
Dimethicone (100cS)	1.00
Lanolin Alcohol	0.50
Propyl Paraben	0.25

Procedure:

Heat both phases to 65C, and homogenize the oil phase into the water phase. Stir-cool to 40C and add fragrance, coloring or preservative as required.

SOURCE: Mona Industries, Inc.: Phospholipid SV: Suggested Formulations

Mixed Alpha Hydroxy Acid Cream

Resulting product is a viscous firm cream, most appropriately dispensed from a jar. The alpha hydroxy acids (AHA's) contained in this formula consists of Malic, Citric and Lactic Acids. The total use level of AHA's contained in the formula is approximately 8.5%. This formulation utilizes a combination anionic (Lexemul AS) and nonionic (Lexemul 561) emulsion system.

	<u>%w/w</u>
A. Deionized Water	64.70
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Propylene Glycol USP	1.00
B. Glyceryl Stearate (and) Sodium Lauryl Sulfate (Lexemul AS)	4.00
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	2.10
Glyceryl Stearate (Lexemul 515)	3.00
Cetyl Alcohol NF (Adol 52)	1.00
Caprylic/Capric Triglyceride (Lexol GT-865)	3.00
Octyl Stearate (Lexol EHS)	2.00
Avocado Oil	2.00
Tocopherol (Copherol 1300)	0.10
Butylparaben (Lexgard B)	0.10
C. Deionized Water	4.50
Malic Acid (Granular)	0.60
Sodium Citrate USP-FCC	3.00
Lactic Acid USP (88%)	0.60
Sodium Lactate (Purasa 1 S/SP 60%)	7.90

Procedure:

1. Combine section "A" heating to 75-80C. Use a propeller mixer for agitation.
2. Combine section "B" heating to 80-85C. Agitate slowly with a propeller mixer.
3. When sections "A" & "B" are homogeneous and at the designated temperatures slowly add "B" to "A" then begin cooling.
4. Reduce mixing speed during cooling to prevent vortexing.
5. At 55-60C, add section "C" to sections "AB".
6. When the batch is homogeneous and at 35-45C adjust for water loss.
7. Mix to 30C.
8. Adjust final pH to 5.00-5.50 with Lactic Acid or Sodium Lactate.

Procedure:

Viscosity: 10,000 cPs @ 24C (Brookfield RVT TC @ 10 rpm).
24 hour sample.
pH: 4.8 @ 24C.

SOURCE: Inolex Chemical Co.: Formulation 398-104-5

Multi-functional Day Cream

This Bee's Milk formulation creates a barrier that effectively replenishes moisture, softens and imparts radiance. This will combat dry skin caused by variations in humidity and will help to minimize the signs of aging.

Water Phase I:

Bermocol E 481 (Whittaker)	0.4%
Glycerine (Unichema)	2.7%
Water (Distilled)	52.1%
Triethanolamine	0.2%

Oil Phase:

Nikkol Lecinol S-10-M (Barnet)	2.1%
Squalane (Polyester)	7.9%
Macademia Nut Oil (Tri-K)	4.3%
Borage Oil (Tri-K)	2.9%
Vitamin E (BASF)	0.3%
Vitamin A Palmitate (BASF)	0.3%
Kester Wax-62 (Koster Keunen)	1.0%
Glycerol Monostearate (Koster Keunen)	0.2%
Ozokerite 158/160 (Koster Keunen)	0.3%
Cera Albalate 103 (Koster Keunen)	0.3%
Phytoglycolipid (Barnet)	4.0%
Liquipar (Sutton)	1.0%

Water Phase II:

Bee's Milk (Koster Keunen)	20.0%
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Procedure:

Mix and heat water phase I components to 75C. Add all the oil phase components, heat till 75C and mix. Add slowly the water phase I to the oil phase under agitation (approx. 700 rpm) maintaining mixing a temperature of 75C for 5 minutes (make sure that mixing does not exceed 800 rpm's, as a phase inversion will occur). Allow to cool to 50-55C, add water phase II at room temperature, under moderate agitation (approx. 200 rpm's), continue mixing for 5 minutes and pour into container.

Adaption of formula and its influence on the product:

Sunscreens are easily incorporated to give this product an SPF of 6-8 by using Escalol 507 (Van Dyk) at approximately 5% and reducing the concentration of water and or oils.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Multi-Purpose Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Carnation	15.00
Stearyl alcohol	5.00
Brij 721S	2.50
Brij 72	2.50
B Water, deionized	74.70
C Dowicil 200	0.10
D Fragrance	0.20

Procedure:

Heat (A) to 70C and (B) to 75C with good propeller agitation. Add (C) at 50C and mix thoroughly. Add (D) at 35C. Add water to compensate for loss due to evaporation.

Versatile Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	10.00
Brij 721S	4.00
B Water, deionized	85.50
Carbopol 934	0.10
C Sodium hydroxide (10% W/W aqueous)	0.10
D Dowicil 200	0.10
E Fragrance	0.20

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using blade type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5.

SOURCE: ICI Surfactants: Suggested Formulations

Night Cream (15% Aloe)

<u>Ingredients:</u>	<u>Percent</u>
A. Water	67.625
Methylparaben	0.2
Promulgen-D	2.0
Triethanolamine	0.75
B. Ceraphyl-368	10.0
Kessco-653	3.0
Emerson-1323	6.0
Light Mineral Oil	6.0
Glyceryl monostearate	0.05
Propylparaben	2.0
Vybar-5013	2.0
C. Aloe Verage1 Liquid Concentrate 1:40	0.375
D. Fragrance	q.s.

Aloe Bath Soap

<u>Ingredients:</u>	<u>Percent</u>
Sodium Laureth Sulfate (60%)	12.0
Disodium Laureth Sulfosuccinate	7.0
Cocamidopropyl Betaine	6.0
Disodium Oleamido MEA Sulfosuccinate	6.0
Aloe Verage1 Liquid 1:1	5.0
Citric Acid	q.s. to pH 6.0
Sodium Chloride	q.s. to 1M cps
Water, Dye, Preservative, Fragrance	q.s. to 100.0

Procedure:

Add components to water and heat to 40C. Adjust viscosity with sodium chloride and pH with citric acid. Add dye, preservative and fragrance and cool to room temperature.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Oil/Water Cold Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	10.00
Mineral oil	6.00
Petrolatum	4.00
Cetyl alcohol	1.00
Arlacel 60	3.00
Tween 60	1.50
B Glycerin	1.00
Triethanolamine	0.60
Water, deionized	72.90
*Preservative	

*q.s. these ingredients

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with constant agitation. Pour at slightly more than room temperature.

O/W Cold Cream (Soap Free)

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	50.00
Beeswax	7.00
Tween 40	2.00
Atlas G-1726, beeswax derivative	8.00
B Water, deionized	33.00
*Preservative	

C *Perfume

*q.s. these ingredients.

Procedure:

Heat (A) to 75C. Heat (B) to 77C. Add (B) to (A) slowly with moderate but thorough agitation. Add (C) at 45C. Stir until room temperature and package.

SOURCE: ICI Surfactants: Suggested Formulations

Oil/Water Moisturizing Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	5.00
Mineral oil	5.00
Stearyl alcohol	0.50
Brij 721S	2.00
Brij 72	2.00
Dimethicone	0.50
B Water, deionized	84.60
Carbomer 940	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative	
*Fragrance	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 60C. Heat (A) to 65C and add (B) to (A) with propeller agitation. Slowly add (C) and stir until uniform. Cool to 50C. Add (D) and any water lost due to evaporation.

Oil/Water Moisturizing Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	7.00
Benzophenone-3	3.00
Mineral oil	5.00
Stearyl alcohol	0.50
Brij 721S	2.00
Brij 72	2.00
Dimethicone	0.50
B Water, deionized	79.60
Carbomer 940	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative	
*Fragrance	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 60C. Heat (A) to 65C and add (B) to (A) with propeller agitation. Slowly add (C) and stir until uniform. Cool to 50C. Add (D) and any water lost due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Oil/Water Night Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	3.00
Mineral oil	3.50
Cetyl alcohol	3.00
Beeswax	2.50
Amerchol H-9	4.00
Isopropyl lanolate	1.50
Arlacel 165	6.00
B Triethanolamine	1.00
Propylene glycol	2.50
Water	73.00
C *Fragrance	
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 80C. Heat (B) to 85C. Add (B) to (A) slowly with moderate but thorough agitation. Add fragrance at 50C and continue to stir until room temperature.

W/O Night Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlacel 1689	3.50
Arlamol HD	6.00
Arlamol M812	2.00
Arlamol DOA	2.00
Paraffin oil	8.00
Aerosil R972	0.50
B Glycerol	4.00
MgSO ₄ .7H ₂ O	0.50
*Preservative	
Water	73.35
C Perfume Rocelia 74475	0.15
*q.s. these ingredients.	

Procedure:

Heat phase (A) (without Aerosil R972) to 75C. Slowly add Aerosil R972 while stirring. Heat phase (B) to 75C. Slowly add phase (B) to phase (A) while stirring thoroughly. Homogenise the mixture intensively. Allow to cool down while stirring and add phase (C) and allow to cool to 35C while stirring.

SOURCE: ICI Surfactants: Suggested Formulations

Oil/Water Pigmented Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	12.00
Isopropyl myristate	1.00
Arlacel 60	2.00
Tween 60	1.00
B Sorbo	3.00
Propylene glycol	12.00
Titanium dioxide	2.00
Talc	8.00
C Iron oxide	1.00
Water	58.00
D *Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 90C and (B) to 95C. Add (B) and (C) to (A) slowly with constant agitation. Add (D). Homogenize if necessary.

O/W All-Purpose Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid	15.00
Lanolin	4.00
Beeswax	2.00
Mineral oil	23.00
Tween 85	1.00
Arlacel 85	1.00
B Sorbo 70% sorbitol solution	12.20
Water	41.80
*Preservative	
C *Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) to 75C. Heat (B) to 77C. Add (B) to (A) slowly with moderate but thorough agitation. Add (C) at 45C. Stir until room temperature and package.

SOURCE: ICI Surfactants: Suggested Formulations

Oil-in-Water-in-Oil Cream

Oil-in-Water Phase:

Oil Phase:

Carnation Mineral Oil	15.00%
Paraffin	2.00
Cetyl alcohol	3.00
Polyoxyethylene sorbitan tristearate	1.00
Diglycerin monooleate	2.00

Water Phase:

Bentonite	0.50
Dextrin Palmitate	1.00
Glycerin	5.00
Methylparaben	0.10
Water	29.80

Add oil-in-water emulsion to the following oil phase:

Paraffin	5.00
Cetyl Alcohol	3.00
Beeswax	2.00
Sorbitan sesquioleate	3.00
Sorbitan monostearate	1.00
Butylparaben	0.10
Bentonite	0.50
Dextrin palmitate	1.00
Carnation Mineral Oil	25.00

Transparent Cleansing Cream

Di(polyoxyethylene lauryl ether) phosphate sodium salt	5.00%
Glyceryl tri-2-ethylhexanoate	40.00
Carnation Mineral Oil	20.00
Glycerin	30.00
Water	5.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

O/W Protective Hand Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlancel 165	6.00
Stearic acid	2.00
Petrolatum	7.00
Arlamol HD	10.00
Arlamol E	3.00
B Atlas G-2330	4.00
*Preservative	
Water	66.35
C Fomblin HC/R	1.50
D *Perfume, Bouquet Eau de Mer PC 916.315	0.15

*q.s. these ingredients.

Procedure:

Heat phases (A) and (B) separately to 75C. Add phase (A) slowly to (B) while stirring intensively. Add phase (C) and homogenise for 1 minute at 75C. Allow to cool while stirring. Homogenise again at 40C after the addition of phase (D). Allow to cool down to 30C while stirring and package.

Hand Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	8.00
Brij 721S	2.40
Brij 72	2.60
Stearyl alcohol	4.00
B Water	82.80
C *Preservative	
D Fragrance	0.20

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using blade type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5.
Formula SK-5

SOURCE: ICI Surfactants: Suggested Formulations

Modified Oil-in-Water Stearic Acid Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	8.00
Arlamol E	2.00
Arlacel 165	5.00
B Sorbo, sorbitol solution USP	10.00
Water	75.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with rapid agitation. Cool to room temperature with stirring.

Formula SK-2B

Skin Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlacel 165, acid stable g.m.s.	12.00
Lanolin	1.00
Cetyl alcohol	3.00
Mineral oil	4.00
B Propylene glycol	1.00
Water, deionized	79.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

Hand Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	20.00
Isopropyl myristate or mineral oil	2.00
Arlacel 165	5.00
B Sorbo	20.00
Water, deionized	53.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) rapid agitation. Stir until set.

SOURCE: ICI Surfactants: Suggested Formulations

Moisturizer O/W Cream

This product utilizes the minor components of natural products to deliver mild anti-microbial activity, which allows the formulator to reduce the concentration of synthetic preservatives. The light yellow coloured cream quickly penetrates the skin, leaving a non-greasy feel and diminishes the signs of aging by laying down a flexible barrier.

Oil Phase:

Orange Wax (Koster Keunen)	4.5%
NF Yellow Beeswax (Koster Keunen)	2.5%
Isostearic Acid (Unichema)	1.0%
Almond Oil (Arista)	3.0%
Mineral Oil (Witco)	3.5%
Glycerol Monostearate (Henkel)	6.0%
Cetylstearyl Alcohol (P&G)	6.0%
Octyl Palmitate (Unichema)	2.5%

Water Phase:

Water (Distilled)	67.8%
Propylene Glycol (Dow)	1.5%
Triethanolamine (Dow)	1.0%
Polysorbate 60 (Gallard & Schlesinger)	0.2%
Germaben II (Sutton)	0.5%

Procedure:

Add a mixed and uniform water phase to a mixed and uniform oil phase at 75C under agitation. Continue mixing till cool.

Adaptation of formula and its influence on the product:

Actives are easily incorporated into a product such as this without altering the aesthetics. Changing the types of oils should only alter the viscosity, if maintaining similar concentrations of oils. Viscosity changes are achieved by reducing the concentration of cetylstearyl alcohol and glycerol monostearate, by approximately 30-40%, however this may cause instability.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Moisturizing Cream

This formulation demonstrates a polymeric approach to occlusive moisturization eliminating undesirable feel properties of petrolatum or other traditional occlusive ingredients.

Epolene N-34 wax is a non-emulsifiable polyethylene which provides a film that is resistant to wash-off. It is incorporated into this emulsion with Eastman AQ 55 water-dispersible polyester which also contributes a protective film. The wash-off resistance is due to the inability of Epolene N-34 to be emulsified by soap or surfactants. The dual film-forming action of this polymer combination has been shown to reduce moisture loss. In vitro occlusivity data is available.

<u>Phase A:</u>		<u>% W/W</u>
Distilled water	q.s. to	100
Propylene glycol, USP		4.00

<u>Phase B:</u>		
Polawax emulsifying wax, NF		3.00
Arlacel 165 glyceryl stearate and PEG-100 stearate		3.00
Myverol 18-06 distilled monoglyceride		3.00
Isopropyl myristate		5.00
Robane squalane, NF		5.00
Epolene N-34 polyethylene wax		1.00

<u>Phase C:</u>		
Distilled water		10.00
Propylene glycol		3.00
Eastman AQ 55S polymer		1.00

<u>Phase D:</u>		
Eastman vitamin E TPGS (20%)		1.00

<u>Phase E:</u>		
Fragrance		q.s.
Preservative		q.s.

Procedure:

1. Prepare Phase C by adding propylene glycol to water and heating to 95C and then adding Eastman AQ 55S with mixing. Allow to cool to 70C.
 2. Heat Phase A with mixing to 95C.
 3. Heat Phase B with mixing to 105-110C.
 4. Cool Phase B to 95C and add to Phase A with propeller mixing.
 5. Continue mixing and cool to 70C, avoiding air entrapment.
 6. At 70C, add Phase C.
 7. Continue mixing and cool to 50C; then add Phase D and Phase E.
 8. With mixing, force cool to room temperature. Product will thicken and form a cream at 44C.
- pH: 5.5

SOURCE: Eastman Chemical Co.: Formulation X20491-069

Neck Firming Cream

The neck is the most neglected part of the body and shows the first visible signs of aging. The product delivers actives to that area in a cost effective product which has emollient and moisturizing properties that firms tiny lines. Continued use helps promote the look of firm, resilient, soft, youthful-looking skin.

Phase A:

Orange Wax (Koster Keunen)	3.0%
Emulsifying Wax NF (Koster Keunen)	5.0%
Shea Butter (Koster Keunen)	3.0%
Stearic Acid (Unichema)	3.0%
Mineral Oil (Witco)	5.0%
Isopropyl Palmitate (Unichema)	5.0%
Glycerol Monostearate (Koster Keunen)	1.5%
Squalane (Barnet)	3.0%
Phytoglycolipid (Barnet)	2.0%
Cetyl Stearyl Alcohol (P&G)	0.5%

Phase B:

Water (Distilled)	57.9%
Carbopol 940 (BF Goodrich)	0.2%
Triethanolamine (Dow)	0.4%
Glycerin (Unichema)	2.0%
Aloe Vera Gel (Active Organics)	0.5%
Propylene Glycol (Dow)	2.0%
Germaben II (Sutton)	1.0%

Phase C:

Elastosol Animal Collagen & Elastin (Croda)	5.0%
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Procedure:

Weigh out materials for Phase A, heat to 80C and mix till homogeneous. Heat Phase B to 75C, while mixing. Add Phase A to Phase B under rapid agitation. Cool to 45C and add Phase C. Continue mixing till 35 to 40C.

Adaption of formula and its influence on the product:

Sunscreens are easily incorporated into a formula of this type. By reducing the concentration of water and or the oils, Escalol 507 (Van Dyk) can be substituted at approximately 5% to produce a SPF of 6-8.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Night Cream, Non-Greasy

	%
A. Miglyol 812	18.0
Imwitor 900	6.0
Miglyol 840	5.0
Imwitor 370	6.0
Imwitor 375	1.0
Cetyl alcohol	1.0
Fluilan	1.0
Emulan ODE 50	1.5
B. Glycerol	6.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are mixed and heated to 80-85C. B. is heated to the same temperature and emulsified in A. C. is incorporated at approx. 30C.

O/W Cream, with Bacteriostat

	%
A. Softisan 601	20.0
Imwitor 960 flakes	8.0
Miglyol 829	5.0
Softigen 701	5.0
Imwitor 312	5.0
Softisan 649	3.0
Silicon oil 344 fluid	1.0
B. Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are heated to 75-80C. Those of B. are heated to the same temperature and emulsified in A. This is followed by stirring until cold and incorporating the perfume.

SOURCE: Huls America Inc.; Formulations for Cosmetics:
Suggested Formulations

Protective Face and Body Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Cocoa butter	5.00
Petrolatum and lanolin alcohol (Amerchol CAB)	3.00
Stearic acid XXX	5.00
Glycol stearate	8.50
Ethyl dihydroxy propyl PABA (Amerscreen P)	5.00
Methyl gluceth-20 sesquistearate (Glucamate SS 20)	2.00
Propyl paraben	0.10
B. Aloe Veragel (Veragel Liquid 1:1)	50.00
Water	17.50
Methyl gluceth-10 (Glucose E-10)	1.00
Quaternium-6 (Merquat 100)	1.50
Triethanolamine	1.00
C. Methyl paraben	0.10
Diazolidinyl ura (Germall II)	0.30
Fragrance	q.s.
Color (Optional)	q.s.

Product Characteristics:

Non-tacky cream with good rub-in quality and nice sun protection.

Procedure:

Heat phase (A) and (B) separately to 75C. Add (B) to (A) with mixing. Let cool to approximately 45-50C. Add preservative system and fragrance. SPF is approximately 8-10.

Eye Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Water	q.s.
Carrageenan Gum	0.1
Propylene Glycol	5.0
Sorbic Acid	0.05
Glycamate SSE-20	1.5
B. Petrolatum	15.5
Glyceryl Mono-Stearate	4.0
Soybean Oil	2.0
Steareth-20	0.5
Cetyl Alcohol	0.5
Stearate-2	0.2
Glucate-SS	2.0
C. Aloe Veragel Liquid 1:1	5.0

Procedure:

Heat Phases to 80C. Add Phase B to A at 80C. Let mix until batch is at 55C. Add aloe gel to batch slowly. Mix and cool to below 40C.

SOURCE: Dr. Madis Laboratories Inc.; Suggested Formulations

Protective Face and Body Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Oil phase	13.50
Mineral oil	3.00
Sweet Almond oil	13.50
White Petrolatum	5.50
Glyceryl stearate	3.50
White beeswax	3.50
Tocopherol (Vitamin E)	2.00
B. Aloe veragel (Veragel Liquid)	45.00
Magnesium aluminum silicate (Veegum F)	0.10
Deionized water	10.00
Octyl dimethyl PABA (Escalol 507)	3.00
Diazolidinyl urea (Germall II)	0.35
Methyl Paraben	0.15
Fragrance, color and preservative	q.s.

Product Characteristics:

This is a good rub-in cream with a SPF 6 (approximately), allowing tanning with some protection.

Procedure:

Decrease 0.1 (%w/w) Veegum in 10 (%w/w) water at boiling temperature with mixing, then let cool to approximately 70C. and add rest of B (except for fragrance) and maintain temperature. Heat (A) to 70-75C., then add (B) to (A) with mixing. Let cool to 45C. Then add fragrance, let cool further and package.

Moisturizing Cream

<u>Ingredients:</u>	<u>Percent</u>
A. Mineral oil and lanolin oil (Amerchol L-101)	1.00
Laneth-5	1.00
Isopropyl lanolate	1.00
Stearic acid XXX	3.00
Glyceryl monostearate	2.00
Mineral oil	8.00
B. Aloe veragel (Veragel Liquid 1:1)	78.00
Propylene glycol	4.50
Triethanolamine	0.50
Propylene glycol (and) diazolidinyl urea (and) methyl paraben (and) propyl paraben (Germaben II)	1.00

Procedure:

Heat (A) and (B) separately to 75 degrees C. Mix (A) until uniform. Add (A) to (B) with constant stirring and cool to room temperature.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Rejuvenating Cream

<u>Ingredients:</u>	<u>% w/w</u>
A) Cremophor A-6	2,50
Cremophor A-25	2,50
Cutina GMS	4,00
Lanette-O	3,00
Stearic Acid	1,00
Paraffin oil	10,00
Cetiol SN	5,00
Vaseline white	3,00
Abil-350	0,40
B) Water demineralized	55,60
Imidazolidinyl urea	0,20
Phenonip	0,50
Glycerin	3,00
Glycolic acid	2,00
Malic acid	1,00
Pentavitin	3,00
ImmuCell	3,00
C) Fragrance/Chiara 0/238927	0,30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Incorporate item's 11-15 in water (10), adjust the pH to 4.5.

Then incorporate items 16 + 17.

Heat phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. A 032.0/11.94

W/O Night Repair Cream
"cold procedure"

<u>Ingredients:</u>	<u>% w/w</u>
1 A) Pionier KWH-soft	30,00
2 B) Water demineralized	53,70
3 Glycerin	5,00
4 Magnesiumsulfat-7H2O	0,50
5 Revitalin	5,00
6 Hyasol	5,00
7 Phenonip	0,30
8 Euxyl K-200	0,20
9 C) Fragrance: 0/232511 Black Dragon II	0,30

Procedure:

Dissolve items 3-8 in water (2).

Under very good stirring add phase B) slowly to phase A).

Finally incorporate phase C).

Application No. B 006.0/04.93

SOURCE: Pentapharm Ltd.: Suggested Applications

Silk Protein Skin Cream

	<u>Weight, %</u>
1. Mineral Oil	10.0
2. Coco Butter	2.0
3. Cetearyl Alcohol & Cetareth 20	4.0
4. Emulsifying wax N.F.	6.0
5. Stearic Acid	1.0
6. Glyceryl Monostearate	2.8
7. Glycerin	2.0
8. Propylene Glycol	2.0
9. Acetamide MEA 100%	0.5
10. Triethanolamine	0.2
11. Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/Silkyhydroxypropyl Dimonium Chloride)	
12. Mackstat DM (DMDM Hydantoin)	qs
13. Fragrance	qs
14. Deionized Water	qs

Procedure:

1. Melt 1,2,3,4,5,6,7,8,9, in a separate container to 75 degrees C.
2. In the mixing tank heat the water to 78 degrees C. add 10,11.
3. Start mixing and add hot mixture of 1 thru 9 slowly with good agitation, mix for 20 minutes then start cooling.
4. While mixing add at 50 degrees C. items 12 then 13 and mix until everything is homogeneous.
5. Check pH and adjust if needed with triethanolamine or acid solution to 5.4-6.5.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Moisturizing Cream w/Tritisol

A blend of Polawax and Incroquat Behenyl TMS provide this cream with excellent stability and mildness. The incorporation of Tritisol allows the skin to retain moisture, and acts to condition the skin.

Ingredients:

	<u>%</u>
Part A:	
Polawax (Emulsifying Wax NF)	10.00
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Mineral Oil (70ssu)	5.00
Part B:	
Deionized Water	80.00
Part C:	
Tritisol (Soluble Wheat Protein)	1.00
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben*	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 70C. Heat Part B to 70C. Add Part B to Part A with good mixing and cool to 45C. Add Part C with mixing and cool to desired fill temperature.

pH: 5.0+-0.5

Viscosity: 11,000+-10%

*Germaben II

N.A.T.C. Approved

SOURCE: Croda, Inc.: Formula SC-229

Silky-Smooth Lotion/Cream-A

<u>Materials:</u>	<u>%W/W</u>
Part A:	
Deionized Water	79.66
Rheolate 5000	0.3
Propylene Glycol	0.5
Part B:	
Panalene	8.0
Silicone 7207	1.0
Promulgen D	1.0
Ceraphyl 494	2.0
Part C:	
AMP	0.24
Part D:	
Euxyl K-400	0.3
Finsolv TN	2.0
Escalol 507	5.0

Approximate Viscosity, cps: 15,000

Silky-Smooth Lotion/Cream-B

<u>Materials:</u>	<u>%W/W</u>
Part A:	
Deionized Water	83.55
Rheolate 5000	0.3
Propylene Glycol	2.5
Part B:	
Silicone 7207	2.0
Ceraphyl 494	1.0
Stearic Acid	1.75
Cetyl Alcohol	1.0
Dow 200 Fluid	5.0
Part C:	
Triethanolamine	0.6
Part D:	
Euxyl K-400	0.3
Finsolv TN	2.0

Approximate, Viscosity, cps: 45,000

Manufacturing Directions:

1. Combine the ingredients in Part A by slowly sifting in the polymer to the water, mixing for 20 minutes, then adding the propylene glycol. Heat to 80C.
2. Combine all ingredients in Part B, then heat to 78C.
3. Add Part B to Part A while stirring. Mix for 10 minutes, then add Part C.
4. Cool to 40C before adding Part D. Package at Room Temperature.

SOURCE: Rheox, Inc.: Formulations TS-312

Silky-Smooth Lotion/Cream-C

<u>Materials:</u>	<u>%W/W</u>
Part A:	
Deionized Water	78.16
Rheolate 5000	0.3
Propylene Glycol	2.5
Part B:	
Panalene	8.0
Silicone 7207	1.0
Promulgen D	0.5
Ceraphyl 494	2.0
Part C:	
AMP	0.24
Part D:	
Euxyl K-400	0.3
Finsolv TN	2.0
Escalol 507	5.0

Approximate Viscosity, cps: 24,500

Manufacturing Directions:

1. Combine the ingredients in Part A by slowly sifting in the polymer to the water, mixing for 20 minutes, then adding the propylene glycol. Heat to 80C.
 2. Combine all ingredients in Part B, then heat to 78C.
 3. Add Part B to Part A while stirring. Mix for 10 minutes, then add Part C.
 4. Cool to 40C before adding Part D. Package At Room Temperature.
- Formula TS-312

Silky Smooth Cream Base

<u>Ingredient:</u>	<u>%W/W</u>
Part A:	
Deionized Water	83.55
Rheolate 5000	0.3
Propylene Glycol	2.5
Part B:	
Silicone 7207	2.0
Ceraphyl 494	1.0
Stearic Acid	1.75
Cetyl Alcohol	1.0
Dow 200 Fluid	5.0
Part C:	
Triethanolamine	0.6
Part D:	
Euxyl K-400	0.3
Finsolv TN	2.0

Manufacturing Directions:

1. Combine the ingredients in Part A by slowly sifting in the polymer to the water, mixing for 20 minutes, then adding the propylene glycol. Heat to 80C.
 2. Combine all ingredients in Part B, then heat to 78C.
 3. Add Part B to Part A while stirring. Mix for 10 minutes, then add Part C.
 4. Cool to 40C before adding Part D. Package at Room Temperature.
- Formula TS-331

SOURCE: Rheox, Inc.: Suggested Formulations

Skin Cream

	<u>Wt%</u>
A. Squalane	4.0
Beeswax	1.0
Amiter LG-OD	2.0
Cetyl Octanoate (Emalex CC-168)*	3.0
Hydrogenated Oil (Emalex S.T.G-R)*	4.0
Behenyl Alcohol	1.5
Propyleneglycol Monostearate	1.0
Glyceryl Monostearate, Self Emulsifying (Emalex GMS-7CAE)*	5.0
Dimethylpolysiloxane (300 c.s.)	0.4
Butylparaben	0.1
Amihope LL	1.0
B. CAE	0.5
Glycerin	5.0
Hydroxyethylcellulose (1% aq. soln.)	10.0
Methylparaben	0.2
Water	58.3
*Nihon Emulsion Co.	

Procedure:

1. Mix (A) at 80C.
2. Mix (B) at 80C.
3. Add (A) to (B).
4. Mix them with a homomixer, and then cool slowly to 30C.

Note: This skin cream spreads well.

Skin Cream

	<u>Wt%</u>
A. Liquid Petrolatum	17.0
Cetanol	3.0
Propylene Glycol Monostearate	1.0
Glyceryl Monostearate, Self Emulsifying (HLB 5) (Emalex GMS-45RT; Nihon Emulsion Co.)	3.0
POE (10) Monostearate	2.0
POE (30) Monostearate	1.0
Butyl Paraben	0.1
Amihope LL	5.0
B. 1,3-Butylene Glycol	5.0
Acylglutamate HS-11	0.3
Methylparaben	0.2
Water	62.4

Procedure:

1. Mix (A) at 80C.
2. Mix (B) at 80C.
3. Add (B) to (A).
4. Mix them with a homomixer.
5. Cool them slowly to 30C.

Note: This skin cream has low friction touch after use.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Skin Cream with CAE and Amihope

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Squalane	4.0
Beeswax	1.0
Amiter LG-OD	2.0
Cetyl Octanoate* (Emalex CC-168)	3.0
Hydrogenated Oil* (Emalex S.T.G.-R)	4.0
Behenyl Alcohol	1.5
Stearic Acid	3.0
Propylene Glycol Monostearate	1.0
Glyceryl Monostearate Self Emulsifying (Emalex GMS-7 CAE)*	5.0
Methylpolysiloxane (300 c.s.)	0.4
Butylparaben	0.1
Amihope LL	1.0
Phase B:	
CAE	0.5
Glycerin	5.0
Hydroxyethylcellulose (1% Aq. Soln.)	10.0
Methylparaben	0.2
Water	58.3

Manufacturing Procedure:

Mix Phase A and heat to 80C. Mix Phase B and heat to 80C.
 Add Phase A to Phase B and homogenize. Cool slowly to 30C.

*Nihon Emulsion Co., Ltd., Japan
 Formula No. LC-7

Cleansing Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	21.0
Petrolatum	5.0
Beeswax	10.0
Lanolin Alcohol	1.7
Polyoxyethylene (5) Glyceryl Isostearate	4.0
Polyoxyethylene (5) Stearyl Ether	2.5
Polyethylene Glycol (500) Distearate	1.6
Sorbitan Monolaurate	0.2
Sorbitan Monooleate	0.4
Aluminum Monostearate	2.0
(W) Ajidew N-50	3.0
Propylene Glycol	3.0
Water	45.6
Preservative	q.s.

Procedure:

1. Suspend aluminum monostearate to liquid paraffin.
2. Add other (O) ingredients to the suspension.
3. Heat (O) to 95C to dissolve.
4. Heat (W) to 85C.
5. Add (W) to (O) slowly with stirring.
6. Cool to 40C with stirring.

pH: 5.1

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Skin Care Cream

This product imparts good skin feel and has a high quality appearance, though the production is cost effective. There are also barrier and moisturizing properties which are highly effective hydration system for all skin types. The formula also will help reduce transepidermal water loss.

Oil Phase:

Cetylstearyl Alcohol 1618 (P&G)	4.50%
NF White Beeswax (Koster Keunen)	2.50%
Isopropyl Palmitate (Unichema)	3.00%
Light Mineral Oil (Witco)	5.00%
Propylene Glycol Dioctanate (Inolex)	1.50%
Stearic Acid (Unichema)	0.50%
Coconut Oil (CocoChem)	1.25%
Propyl Paraben (Sutton)	0.20%

Water Phase:

Water (Distilled)	74.25%
Glycerine (UniChema)	5.50%
Carboxymethyl Cellulose (CMC, Hercules)	0.30%
Carbopol 940 (BF Goodrich)	0.60%
Sodium Borate (Borax)	0.40%
Triethanolamine (Dow)	0.30%
Methyl Paraben (Sutton)	0.20%

Procedure:

Add to the water phase under agitation, in order; CMC until everything is dissolved then methyl paraben while mixing. Then add carbopol, mix till homogeneous making sure there are no agglomerations. Add the remainder of the water phase components, mix and heat to 75C. Add all the oil phase components, heat till 75C and mix. Add slowly the oil phase to the water phase under agitation maintaining a temperature of 75C. When the oil phase is added, cool and pour into container.

Adaption of formula and its influence on the product:

By reducing the concentrations of mineral oil by 2.0%, propylene glycol dioctanate by 0.5% and the addition of 2.5% Escalol 507 (Van Dyk) the cream will take on an SPF of 6-8. The product has the same appearance, skin feel and stability. Fragrances can also be added without affecting its texture.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Soft Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol ISML	4.00
Stearyl alcohol	1.00
Silicone oil (350 cs)	0.50
Arlamol E	1.00
Brij 700	2.25
Brij 72	2.25
B Water, deionized	88.10
Carbopol 934	0.40
C Sodium hydroxide (10% aqueous)	0.40
D Preservative	0.10
E *Perfume	

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Add (C). Add (D) below 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.

Jojoba Oil Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Jojoba Oil	10.00
Brij 72	2.70
Brij 700	1.30
Stearyl alcohol	4.00
B Water, deionized	81.90
C Dowicil 200	0.10
D *Perfume	

*q.s. these ingredients.

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) using propeller type agitation. Add (C) at about 50C and (D) at about 45C. Add water at 35C to compensate for loss due to evaporation. Package.

Formula PC-7158

SOURCE: ICI Surfactants: Suggested Formulations

Vanishing Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol ISML	10.00
Stearyl alcohol	4.00
Silicone oil (350 cs)	0.50
Arlamol E	3.00
Brij 700	2.00
Brij 72	3.00
B Water, deionized	72.90
Sorbo	4.00
Carbopol 934	0.20
C Sodium hydroxide (10% aqueous)	0.20
D Germall II	0.10
E Herbal Fragrance SL 79-1224, PFW	0.10

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Add (C). Add (D) below 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.

Vanishing Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol ISML	10.00
Stearyl alcohol	4.00
Silicone oil, 350 cs.	0.50
Arlamol E	3.00
Brij 721	2.65
Brij 72	2.35

B Water	73.00
Sorbo, 70% Sorbitol solution	4.00
Carbopol 934	0.20

C NaOH (10% aqueous)	0.20
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D Dowicil 200 preservative	0.10
*Perfume	

*q.s. these ingredients.

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Vanishing Cream

Phase 1:	<u>Parts by Weight</u>
Rosswax 63-0412	8.0
Rosswax 573	12.0
Amerlate P	1.0
Emerest 2314	1.0
Emerest 2316	1.0
Glyceryl Monostearate SE	0.5

Phase 2:	
Water	99.0
Emery 916 Pure Glycerine	8.0
Triethanolamine	1.2
Fragrance	q.s.
Preservative	q.s.

Procedure:

In separate steam jacketed kettles heat both phase 1 and 2 to temperature of 170F with agitation. When the temperature is reached add phase 1 to 2 with continued agitation cooling to 120F to package. Fragrance may be added to the product as it is cooling.

Ross Cold Cream Formulation with Jojoba Oil

Part A:	%
Ross Beeswax Substitute 628/5	11.0
Ross Fully Refined Paraffin Wax 150/160	2.0
Mineral Oil 80/90	45.5
Glycerol Monostearate S.E.	0.3
Ross Jojoba Oil	2.0

Part B:	
Borax	0.8
Water	38.4
Fragrance	q.s.
Preservative	q.s.

Procedure:

Heat Part A to 170F and agitate. Heat Part B to 170F and agitate. Cool to 160F and add Part A to Part B at 160F with good agitation. Cool slowly with agitation and pour at 110F.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

W/O Cream with Eldew

<u>Ingredients/Trade Name:</u>	<u>% by weight</u>
Part A:	
Di-(Cholesteryl, behenyl, octyldodecyl)	
N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.0
Cetearyl Octanoate	8.0
C12-15 Alkyl Benzoate	5.0
Phenoxyethanol	0.60
Tocopheryl Acetate	0.05
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate	5.00
Cetyl Dimethicone	2.00
Part C:	
Deionized Water	68.55
Sodium Chloride	0.80
Glycerin (99.5%)	5.00
Partially Deacetylated Chitin (1.0%)/Marine Dew PC-100	2.00
Part D:	
Methylparaben	0.20
Butylene Glycol	0.80

Procedure:

Pre-melt part A at 50 degrees Centigrade. Add part B to part A. Pre-melt part D by heating to 50 degrees C. Add to part C. Slowly add part C and D mixture to parts A and B with high shear mixing.

Appearance: White, smooth, shiny lotion pH: 6.0-6.5
 Viscosity: 20,000-20,000 (RVT #6 @ 10rpm @ 25 degrees C)

Cleansing Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	35.0
Paraffin Wax (mp 42-44C)	10.0
Squalane	2.0
Isopropyl Palmitate	3.0
Cetyl Alcohol	1.0
Nikkol WCB	10.0
Sorbitan Monostearate	2.4
Polyoxyethylene (15) Cetyl Ether	2.6
(W) Ajidew T-50	3.0
Water	31.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
 2. Add (W) to (O) slowly with stirring.
 3. Cool to 40C with stirring.
- pH: 5.7

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

90% Water Cream

	<u>Parts by Weight</u>
Water	450.0Gr.
Carbomer 934	2.0Gr.
Protox T-25	1.0Gr.
Rosswax 63-0412	4.0Gr.
Rosswax 1824	16.0Gr.
GMS SE	4.0Gr.
Coconut Oil #76	16.0Gr.
Jojoba Oil	4.0Gr.
Triethanolamine	4.0Gr.
Germaben IIE	6.0Gr.
Fragrance GK-21	q.s.

Procedure:

Disperse the Carbomer 934 in the water, on a stainless steel vessel. In a separate vessel melt the Oil Phase. When the Oil Phase is melted add it to the Water Phase with agitation. Next add the fragrance, the preservative and last add the Triethanolamine with increased agitation.

Soft & Silky Vanishing Cream

	<u>Parts by Weight</u>
Part (A):	
Rosswax 63-0412	8.0
Rosswax 573	10.0
Ross Lotion Oil 2745	8.0
GMS-SE	0.5
Part (B):	
Water	97.0
Propylene Glycol	8.0
Triethanolamine	2.0
Germaben II	1.2
Part (C):	
Fragrance	q.s.

Procedure:

Heat Part (A) and Part (B) to 170F in separate steam jacketed kettles under agitation. When fully heated add Part (A) to Part (B) under agitation. Cool to 130F, Fragrance and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Section VI
Hair Care Products

"Arctic Mist" Spray Gel

This water white, clear, sprayable gel uses Diaformer Z-301 to provide excellent hold, clear films, and no flaking. It exhibits good viscosity characteristics. Sandoxylate SX-424 is used as a fragrance solubilizer.

<u>Ingredients:</u>	<u>%W/W</u>
Deionized Water	91.80
Carbopol 980	0.30
NaOH 10%	0.40
Diaformer Z-301	6.95
Glycerin	0.10
Disodium EDTA	0.05
Sandoxylate SX-424	0.25
Fragrance	0.05
Preservative	0.10

Procedure:

Add Carbopol 980 to water with rapid agitation and mix until homogeneous. Add NaOH 10% to neutralize the Carbopol 980. Mix well. Add Diaformer Z-301 and Glycerin one at a time with mixing. Add Disodium EDTA. Presolubilize fragrance in Sandoxylate SX-424 and add to batch. Mix well. Adjust pH as needed with NaOH 10%.

Properties:

pH: 6.5

Viscosity: 12,000-14,000 cps.

Appearance: Water white, clear gel

Formulation CHF-20

Super Hard Hold Hair Spray

Diahold A-503 is used to create this super hard hold hair spray that meets the 80% VOC requirements. Its ability to form hard, crystal clear films result in a hair spray that has good gloss and excellent hold on the hair. Diahold A-503 is also easily removed from the hair by shampooing.

<u>Ingredients:</u>	<u>%W/W</u>
Diahold A-503	17.50
Deionized Water	12.70
Dow Corning 190	0.10
SD 40 Alcohol	69.50
Lauramide DEA	0.10
Fragrance	QS

Procedure:

Add Diahold A-503 to alcohol with mixing. Add water and mix well. Add remaining ingredients in order with mixing.

Properties:

Appearance: Pale Yellow Liquid

pH: 8.2-8.6

Formulation CHF-18

SOURCE: Sandoz Chemicals Corp.: Suggested Formulations

Balsam Conditioner

	<u>Weight, %</u>
Mackine 301 (Stearamidopropyl Dimethylamine)	1.6
Mackol 16 (Cetyl Alcohol)	1.8
Phosphoric Acid (85%)	0.9
Sodium Chloride	0.3
Mackstat DM (DMDM Hydantoin)	qs
Balsam of Peru	qs
Water, Dye qs to	100.0

Procedure:

1. Add the first four components to water and heat to 70 degrees C.
2. Blend until homogeneous.
3. Cool to 45 degrees C. and add Mackstat DM and Balsam of Peru.
4. Cool to room temperature and fill.

Clear Conditioner with Wheat Germ Cationic

	<u>Weight, %</u>
Mackalene 716 (Wheat Germamidopropyl Dimethylamine Lactate)	1.0
Natrosol 250 HHR	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye, qs to	100.0

Procedure:

1. Completely disperse Natrosol in water.
2. Heat to 45 degrees C. and add Mackalene 716.
3. Adjust pH to 5.0 with lactic acid.
4. When product is clear, add remaining components.
5. Cool and fill.

Clear Leave-On Conditioner

	<u>Weight, %</u>
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Natrosol 250 HHR	1.0
Mackstat DM (DMDM Hydantoin)	qs
Deionized Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely dispense Natrosol in water.
2. Add Mackalene 426 and blend until clear.
3. Heat to 40 degrees C. and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Birch Hair Lotion

	<u>Wt%</u>
Ethanol 96%	50.0
Birch (water) Special	5.0
Softigen 767	5.0
Marlazin KC 30/50	0.5
Allantoin	0.2
Vitamin F	0.2
Panthenol	0.2
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Invigorating Hair Lotion

	<u>Wt%</u>
Isopropanol	45.0
Softigen 767	3.0
Marlowet R 40/K	1.0
Menthol	0.2
Camphor	0.05
Stinging Nettle Special	1.0
Perfume	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Hair Conditioner

	<u>Wt%</u>
A. Marlazin KC 30/50	6.0
Cetyl alcohol	3.0
Marlamid M 1218	1.5
Cellosize QP 100 MH	qs
Water	to 100.0
B. Perfume	qs
Colour	qs
Preservative	qs

Preparation:

The constituents of A. are added together in sequence and stirred while warm until homogeneous. The ingredients of B. are added to A. at approx. 30C. The pH is adjusted to 5.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics; Formulas

Brushing Gel

	<u>Wt%</u>
A. Amihope LL	0.5
POE (20) Sorbitan Monolaurate	0.5
POE (20) Sorbitan Monostearate	0.5
POE (25) Glyceryl Monopyroglutamate Monoisostearate	1.0
Propylene Glycol	2.0
Grape Seed Oil	0.5
B. Carboxyvinyl Polymer (Carbopol 940) (1.0wt% solution)	50.0
Deionized Water	balance
Preservatives	0.2
C. 10% wt. NaOH Solution	2.0

Procedure:

1. Weigh each ingredient (A) in glass vessel and mix.
2. Add (B) to the former mixture and heat to 70-80C with stirring.
3. After dissolution, cool down to room temperature. Then add (C) to the mixed solution and it turns to gel state.

Note:

This brushing gel reduces an electrostatic charge produced by combing and leads to smooth combing.

Hair Brushing Lotion

	<u>Wt%</u>
Amihope LL	1.0
POE (20) Sorbitan Monolaurate (Polysorbate 20)	1.0
Water	50.0
Ethanol	48.0

Procedure:

Mix all components at room temperature.

Note:

This hair brushing lotion has good antistatic effect and smoothness for the hair.

Amihope LL acts as hair conditioning agent instead of the cationic surfactant.

Usage:

Spray the hair before brushing.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Brushing Lotion

	<u>Wt%</u>
A. Amihope LL	0.5
POE (20) Sorbitan Monolaurate	1.5
POE (25) Glyceryl Monopyroglutamate Monoisostearate	1.0
Propylene Glycol	2.0
B. Stearyl Alcohol	0.5
Carboxyvinyl Polymer (Carbopol 941)	15.0
(0.5wt% solution; neutralized by NaOH)	
Deionized Water	balance
Preservatives	0.2
C. ProdeW 100	0.2
Ethanol	5.0

Procedure:

1. Weigh each ingredient (A) in glass vessel and mix.
2. Add (B) to the former mixture and heat to 70-80C with stirring.
3. After dissolution, cool down to 50C. Then add (C) to the mixed solution.
4. With stirring, cool down to room temperature.

Note:

This brushing lotion reduces an electrostatic charge produced by combing and leads to a smooth combing.

Hair Rinse

	<u>Wt%</u>
A. Cetanol	3.0
Amiter LGOD-2	5.0
Glyceryl Monostearate, Self Emulsifying (HLB 11)	2.0
Amihope LL	3.0
B. 1,3-Butyleneglycol	5.0
Stearyltrimethylammonium Chloride	3.0
Methylparaben	0.2
Water	the rest

Procedure:

1. Dissolve (A) at 80C.
2. Dissolve (B) at 80C.
3. Add (B) to (A).
4. Mix them with a homomixer, and cool to 30C.

Note:

This creamy hair rinse has light finishing touch.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Clear Conditioner

Conditioning plus film clarity maximizes the natural beauty of the hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Hydroxyethyl Cellulose (Natrosol 250 HHR)	0.80	Viscosity
2. Distilled/Deionized Water	84.32	-----
3. Propylene Glycol	5.00	Humectant
4. EDTA	0.10	Clarity
5. Ammonyx KP (Olealkonium Chloride)	6.00	Conditioning
6. Polyquta 400 (Polyquaternium-10)	1.00	Combing
7. Laneto 50 (PEG-75 Lanolin)	0.75	Conditioning
8. Ritapan DL (dl-Panthenol)	1.00	Body
9. Ritabate 20 (Polysorbate 20)	0.80	Clarity
10. Fragrance #189-724	0.20	Odor
11. Kathon CG	0.03	Preservative

Compounding Procedure:

In 60% of the water dissolve item 1. Add item 3, mix until clear. Add item 4 and mix. In a separate beaker disperse item 6 in remaining water. Mix until clear. Add items 5, 7 and 8 in order. Combine and add item 9. Add perfume and preservative.

Ref. No. 118-125

Light Hair Conditioner

A conditioner designed for normal/oily hair to maximize combability and manageability. Helps keep hair cleaner longer.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita CA (Cetyl Alcohol)	3.50	Emulsifier, Thickener
2. Rita-CTAC (Cetrimonium Chloride)	2.00	Conditioner
3. Dow Corning 344 Fluid	2.00	Silky Feel, Lubrication
4. Ritapro 200 (R.I.T.A. Blend)	2.00	Emulsifier
5. Citric Acid @ 100%	0.05	pH Adjuster
6. Glydant	0.20	Preservative
7. Distilled/Deionized Water	90.25	-----

Compounding Procedure:

Heat water and Citric Acid to 65C. Pre-mix Rita CA, Rita-CTAC and Ritapro 200 and heat to 70C. Slowly add pre-mix to water phase and agitate. While mixing cool to 45-50C. Add Glydant and Dow Corning.

Ref. No. 116-166

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Clear Gel Hairdressing

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Naphthenic, Drakol 10B	13.70
Brij 97	15.50
Arlatone G	15.50
Propylene glycol	8.60
Sorbo	6.90
B Water, deionized	39.80
C *Perfume #44575, Fritzsche Brothers	
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 90C. Add (B) to (A) with gentle stirring. Cool to 70C and add (C). Stir until uniform and pour while still fluid.

Water/Oil Hair Dressing

<u>Ingredients:</u>	<u>%W/W</u>
A Petrolatum	7.50
Mineral oil	37.50
Lanolin	3.00
Arlacel 83	3.00
Beeswax	2.00
Zinc stearate	1.00
B Borax	0.50
Water, deionized	45.50
C *Fragrance and Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 75C. Heat (B) to 77C. Add (B) to (A) slowly with moderate but thorough agitation. Add (C) at 45C. Stir until room temperature and package.

SOURCE: ICI Surfactants: Suggested Formulations

Clear 'N' Natural Conditioner

This clear conditioner acquires its viscosity from the superior thickening properties of Crothix*.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Deionized water	87.5
Crovol PK-70 (PEG-45 Palm Kernel Glycerides)	3.0
Part B:	
Procetyl AWS (PPG-5 Ceteth 20)	3.0
Crothix* (PEG-150 Pentaerythryl Tetrastearate)	2.0
Part C:	
Incroquat O-50 (Olealkonium Chloride)	2.0
Incroquat BA-85 (Babassuamidopropalkonium Chloride)	0.5
Part D:	
Triethanolamine 99%	qs to pH 6
Part E:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.0
Hydrotriticum WAA (Wheat Amino Acids)	1.0

Procedure:

Combine ingredients of Part A and heat to 80-85C. When Part A is homogeneous, add Part B with mixing until uniform. Add Part C with mixing and cool batch to 30-35C. Adjust pH to 6.0+/-0.5 using Part D. Add Part E with mixing.

**Germaben II N.A.T.C. Approved

*The use of Crothix in cosmetic and other formulations is covered under U.S. Patent #5,192,462.

Formula HP-165

Cream of Wheat Conditioner

This conditioner gives excellent conditioning/moisturizing characteristics.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Polawax (Emulsifying Wax NF)	5.00
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Super Refined Wheat Germ Oil (Wheat Germ Oil)	2.50
Part B:	
Deionized Water	85.50
Part C:	
Cropeptide W (Hydrolyzed Wheat Protein (and) Wheat Oligosaccharides)	3.00
Germaben II	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 75C. Heat Part B to 75C. Add Part B to Part A with mixing and cool to 45C. Add ingredients from Part C sequentially with mixing and cool to desired fill temperature.

pH: 4.5+/-0.5

N.A.T.C. Approved

Viscosity: 50,000cps+/-10%

Formula HP-164

SOURCE: Croda Inc.; Suggested Formulations

Conditioner and Setting Lotion

	<u>Weight, %</u>
Mackalene 316 (Stearamidopropyl Dimethylamine Lactate)	4.0
Gafquat 755	8.0
Mackol 16 (Cetyl Alcohol)	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely disperse Gafquat 755 in water.
2. Add Mackalene 316 and Mackol 16 and heat to 70 degrees C.
3. Blend until completely homogeneous.
4. Cool to 45 degrees C. and add remaining components.
5. Cool and fill.

Curl Conditioner and Oil Sheen

	<u>Weight, %</u>
Glycerine	47.0
Propylene Glycol	3.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	4.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	3.0
Mackstat DM (DMDM Hydantoin)	qs
Deionized Water qs to	100.0

Procedure:

Add components in order and blend until clear.

Foaming Conditioner

	<u>Weight, %</u>
Mackam 35 (Cocamidopropyl Betaine (Via Glyceride)	10.0
Mackalene 116 (Cocamidopropyl Dimethylamine Lactate)	15.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	4.0
Natrosol 250 HHR	0.7
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Thoroughly disperse the Natrosol in water and heat to 45 degrees C.
2. Add Mackam 35, Mackalene 116 and Mackpro NLP.
3. Blend until clear.
4. Add Mackstat DM, fragrance and dye.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Conditioner with Croquat HH

This creamy white conditioner offers the substantivity benefits of quaternizing with the permanent conditioning potential of a cysteine-containing protein.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incroquat S-85 (Stearalkonium Chloride)	1.50
Polawax (Emulsifying Wax NF)	4.50
Crodacol CS-50 (Cetearyl Alcohol)	5.60
Crodamol W (Stearyl Heptanoate)	6.50
Incrocas 40 (PEG-40 Castor Oil)	2.75
Part B:	
Deionized Water	75.15
Part C:	
Croquat HH (Cocodimonum Hydroxypropyl Hydrolyzed Hair Keratin)	3.00
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben*	1.00
Combine ingredients of Part A with mixing and heat to 75-80C. Heat Part B to 75-80C. Add Part B to Part A with mixing, while avoiding aeration, and cool to 55C. Add Part C with mixing and cool to 40C. Add Part D with mixing and cool to desired fill temperature.	
pH: 4.0+-0.5	
Viscosity: 35,000+-10% (@ 25C)	
* Germaben II	
N.A.T.C. Approved	
Formula HP-172	

High Performance Creme Rinse Conditioner

This formulation gives excellent conditioning to hair.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Crodafos CES (Cetearyl alcohol (and) Cetearyl phosphate)	6.00
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	1.00
Propyl paraben	0.10
Volpo S-2 (Steareth-2)	0.50
Crodacol C-70 (Cetyl Alcohol)	2.00
Crodamol PTIS (Pentaerythrityl Tetraisostearate)	1.00
Part B:	
Deionized Water	87.98
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	1.00
Methyl paraben	0.10
Part C:	
TEA 99%	0.32
Combine ingredients of Part A with mixing and heat to 65-70. Combine ingredients of Part B with mixing and heat to 65-70C. Add Part B to Part A with mixing and cool to 40C. Continue mixing and add Part C. Cool to desired fill temperature.	
pH: 4.50+-0.5	Viscosity: 56,000+-10%
N.A.T.C. Approved	Formula HP-178-1
SOURCE: Croda Inc.: Suggested Formulations	

Cream Curl Activator

<u>Formula:</u>	<u>%Wt.</u>
Phase A:	
Deionized Water	80.43
Hydroxypropyl Methylcellulose	0.20
Triethanolamine	0.02
Panthenol	1.00
Hydrolyzed Silk Protein (Ikeda)	1.00
Quaternium-15	0.30
Phase B:	
Macol CPS	6.00
Solulan 16	1.00
Carnation Mineral Oil	2.00
Masil 656 Fluid	3.00
Masil SF-V Fluid	3.00
Masil 280	2.00
Phase C:	
Citric Acid 50%	0.05
Fragrance	q.s.

Procedure:

Disperse Hydroxypropyl Methylcellulose in the water; add TEA to initiate hydration. After 20 mins. add remaining A ingredients, heat to 55C and stir. Separately blend B and heat to 55C. Add B to A, maintain agitation while cooling to 40C. Adjust pH and add fragrance.

Hair Relaxer Emulsion

	<u>Percent</u>
Stearyl alcohol	14.00
PEG-75 lanolin	4.00
White Protopet 1S Petrolatum	18.00
Emulsifying wax	5.50
Propylene glycol	5.00
Hydrolyzed animal protein	5.00
Stearic acid	1.50
Sodium hydroxide, 50%	6.00
Fragrance	0.30
Water	q.s.100.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Cream Hair Conditioner

	<u>Weight, %</u>
A. Oleyl Alcohol	10.0
Mackol 16 (Cetyl Alcohol)	2.5
Mackester SP (Glycol Stearate Modified)	3.0
BHA	0.1
Propyl Paraben	0.1
B. Mackalene 316 (Stearamidopropyl Dimethylamine Lactate)	25.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat part A to 70 degrees C.
2. Add Mackalene 316 to water and heat to 70 degrees C.
3. Add A to B and with continuous blending cool to 45 degrees C.
4. Add remaining components and cool.

Hair Conditioner

	<u>Weight, %</u>
Mackadet CBC (Conditioner concentrate for viscous cream consistency)	5.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add Mackadet CBC to water and heat to 70 degrees C.
2. With continuous mixing cool to 50 degrees C.
3. Add remaining components and cool.

Pearl Conditioner

	<u>Weight, %</u>
Macadet LCB (Liquid Conditioner Concentrate that can be cold blended)	10.0
Triethanol Amine	1.0
Sodium Chloride	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Warm water to 40 degrees C.
2. Add sodium chloride and TEA.
3. Add Mackadet LCB and blend slowly.
4. When completely dispersed add dye, preservative and fragrance.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Cream Hair Rinse

<u>Ingredients:</u>	<u>%W/W</u>
Cetyl alcohol	1.50
Brij 721S	1.00
Forestall	1.40
Water, deionized	96.10

Procedure:

Heat to 70 deg. C with stirring until uniform. Cool with stirring and add makeup water.

Formula PC-8214

Hydrogen Peroxide Emulsion

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	6.00
Brij 721, Steareth-21	5.00
Silicone oil, 350 cs.	0.50
B Water, deionized	66.30
C Hydrogen peroxide, 27% dilution grade	22.20

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) slowly with moderate agitation. Add (C) below 35C. Replace water lost by evaporation and adjust pH to 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Formula HC-13

Permanent Wave Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Forestall	1.40
Brij 35 SP	2.00
Water, deionized	80.10
B Ethanolamine	9.50
C Thioglycolic acid	7.00

Procedure:

Mix (A) with gentle heat if necessary until uniform. Add (B). Add (C). Adjust pH to 9.0-9.5 with additional ethanolamine or thioglycolic acid.

Formula HC-15

SOURCE: ICI Surfactants: Suggested Formulations

Deep Conditioning Treatment

Deep conditioning formula based on a controlled deposition of Cholesterol.

<u>Ingredients</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	75.17	-----
2. Propylene Glycol	3.00	Moisture
3. Ritachol (R.I.T.A. Blend)	2.00	Control
4. Rita-STAC (Steartrimonium Chloride)	1.50	Conditioner
5. Cholesterol NF	1.00	Repair
6. Supersat AWS-4 (PEG-20 Hydrogenated Lanolin)	2.00	Repair
7. Ritachol 1000 (R.I.T.A. Blend)	10.00	Emulsifier
8. Petrolatum	5.00	Repair
9. Fragrance	0.30	Odor
10. Kathon CG	0.03	Preservative

Compounding Procedure:

Combine items 1 and 2 and heat to 75-80C. In a separate beaker combine items 3-8 and heat to 70C. Mix and add to water phase with good mixing. Cool to 50C and add perfume and preservative.

Ref. No. 118-116

Intensive Conditioner with Body

A detangling conditioner with great wet/dry combing. Hair has increased body/volume.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita-BTAC (Behentrimonium Chloride)	4.00	Conditioner, Anti-Static
2. Rita CA (Cetyl Alcohol)	3.00	Emulsifier, Thickener
3. Rita SA (Stearyl Alcohol)	1.00	Emulsifier, Thickener
4. Distilled/Deionized Water	80.80	-----
5. Volatile Silicone Fluid 344 or 345	5.00	Lubricant, Emollient
6. Silicone Fluid 200 (100 cSt)	5.00	Lubricant, Emollient
7. Wheat Germ Oil	1.00	Nourishment
8. Glydant	0.20	Preservative

Compounding Procedure:

Heat items 1-3 to 70C. Heat water to 80-85C. Add items 1-3 to water and mix until it reaches 50C. Then add items 5-7 and mix. At 45C add items 8. Mix until 35-40C.

Ref. No. 116-170

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Ethnic Hair Care
Clear Hair Rinse

<u>Ingredients:</u>	<u>%w/w</u>
Water	91.30
Hydroxypropyl Methylcellulose	1.20
Preservative	Q.S.
Propylene Glycol	3.00
Glycerin	2.00
Quaternium-80 (Abil Quat 3272)	0.50
Dimethicone Copolyol (Abil B 88183)	1.00
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Fragrance	Q.S.

Procedure:

1. Add the water and preservative. Heat to 50C. Mix. Disperse the HMC. Mix until clear.
2. Add the remaining ingredients. Cool to 35C.
3. Pre blend the Tagat L and fragrance. Add to batch. Mix until clear using slow speed.

Ethnic Hair Care
Hair Dressings

<u>Ingredients:</u>	<u>%w/w</u>
Water	91.30
Hydroxypropyl Methylcellulose	1.20
Preservative	Q.S.
Propylene Glycol	3.00
Glycerin	2.00
Quaternium-80 (Abil Quat 3272)	0.50
Dimethicone Copolyol (Abil B 88183)	1.00
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Fragrance	Q.S.

Procedure:

1. Add the water and preservative. Heat to 50C. Mix. Disperse the HMC. Mix until clear.
2. Add the remaining ingredients. Cool to 35C.
3. Pre blend the Tagat L and fragrance. Add to batch. Mix until clear using slow speed.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Care
Curl Activation Gels
Hair Repair

<u>Ingredients:</u>	<u>%W/W</u>
Tetrasodium EDTA	0.10
Water	75.80
Glycerin	5.00
Propylene Glycol	15.00
Carbomer 940	0.75
Dimethicone Copolyol (Abil B 88183)	1.00
Dimethicone Propyl PG Betaine (Abil B 9950)	0.50
Dimethicone/Sodium PG Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
PEG-30 Glyceryl Laurate (Tagat L)	0.50
Fragrance	Q.S.
Preservatives	Q.S.
Triethanolamine (99%)	0.35

Procedure:

1. Mix the water, Glycerin, Propylene Glycol, and Tetrasodium EDTA together. Disperse the Carbomer 940.
2. Add the rest of the ingredients in order, mixing well between additions. Note: Preblend the Tagat L and fragrance.
3. Neutralize the Carbomer with Sodium Hydroxide solution or the Triethanolamine.

Ethnic Hair Care
Pump Spray-on Moisturizing/Oil-Sheens
Conditioning Sheen

<u>Ingredients:</u>	<u>%W/W</u>
Water	72.00
Tetrasodium EDTA	0.10
Propylene Glycol	10.00
Glycerin	15.00
Quaternium-80 (Abil Quat 3272)	0.40
Dimethicone Propyl PG Betaine (Abil B 9950)	0.25
Dimethicone Copolyol (Abil B 88183)	0.75
PEG-75 Lanolin	0.75
PEG-30 Glyceryl Laurate (Tagat L)	0.50
PEG-18 Glyceryl Cocoate/Oleate (Anti1 171)	0.25
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid (25% solution)	To pH 5-6

Procedure:

1. Heat water to 50C. Dissolve Tetrasodium EDTA.
2. Add the Tagat L, Anti1 171, and PEG-75 Lanolin. Mix until clear.
3. Add the remaining ingredients in order, mixing between additions.
4. Adjust pH.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Care
Curl Activation Gel
For Shine

<u>Ingredients:</u>	<u>%W/W</u>
Tetrasodium EDTA	0.10
Water	76.65
Glycerin	15.00
Propylene Glycol	5.00
Carbomer 940	0.75
Dimethicone Copolyol (Abil B 8851)	1.00
Dimethicone Copolyol (Abil B 88183)	1.00
PEG-30 Glyceryl Laurate (Tagat L)	0.50
Fragrance	Q.S.
Preservatives	Q.S.
Sodium Hydroxide (25% Solution)	to pH 6

Procedure:

1. Mix the water, Glycerin, Propylene Glycol, and Tetrasodium EDTA together. Disperse the Carbomer 940.
2. Add the rest of the ingredients in order, mixing well between additions. Note: Preblend the Tagat L and fragrance.
3. Neutralize the Carbomer with Sodium Hydroxide solution or the Triethanolamine.

Ethnic Hair Care
Curl Activation Gel
Moisturizing

<u>Ingredients:</u>	<u>%W/W</u>
Tetrasodium EDTA	0.10
Water	76.30
Glycerin	10.00
Propylene Glycol	10.00
Carbomer 940	0.75
Dimethicone Copolyol (Abil B 88183)	1.00
Dimethicone Propyl PG Betaine (Abil B 9950)	1.00
PEG-30 Glyceryl Laurate (Tagat L)	0.50
Fragrance	Q.S.
Preservatives	Q.S.
Triethanolamine (99%)	0.35

Procedure:

1. Mix the water, Glycerin, Propylene Glycol, and Tetrasodium EDTA together. Disperse the Carbomer 940.
2. Add the rest of the ingredients in order, mixing well between additions. Note: Preblend the Tagat L and fragrance.
3. Neutralize the Carbomer with Sodium Hydroxide solution or the Triethanolamine.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Ethnic Hair Care
Leave-In Moisturizing/Sheen

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Tetrasodium EDTA	0.1
Water	77.9
Oleth-20	2.0
Dimethicone Copolyol (Abil B 88183)	3.0
Quaternium-80 (Abil Quat 3272)	0.5
Glycerin	15.0
Phase B:	
PEG-30 Glyceryl Laurate (Tagat L)	1.5
Fragrance	Q.S.
Preservative	Q.S.

Procedure:

1. Add the water, Oleth-20, heat to 40C. Mix until clear.
2. Add the remaining ingredients of Phase A mixing each until clear.
3. Add the fragrance to the Tagat L. Mix well - add to Phase A.
4. Cool with mixing - add preservatives.

Ethnic Hair Care
Hair Cuticle Coat Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	55.0
Cyclomethicone	25.0
Isohexadecane or Mineral Oil	10.0
Isopropyl Myristate (Tegosoft M)	3.0
Octyl Stearate (Tegosoft OS)	2.0
Phenyl Trimethicone (Abil AV 20)	5.0
Fragrance	Q.S.

Procedure:

Combine all ingredients in order with mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Care
Pump Spray-on Moisturizing/Oil-Sheens
Moisturizing Sheen

<u>Ingredients:</u>	<u>%W/W</u>
Water	72.40
Tetrasodium EDTA	0.10
Propylene Glycol	10.00
Glycerin	15.00
Dimethicone Propyl PG Betaine (Abil B 9950)	0.50
Dimethicone Copolyol (Abil B 88183)	0.50
PEG-75 Lanolin	0.75
PEG-30 Glyceryl Laurate (Tagat L)	0.50
PEG-18 Glyceryl Cocoate/Oleate (Antil 171)	0.25
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid (25% solution)	To pH 5-6

Procedure:

1. Heat water to 50C. Dissolve Tetrasodium EDTA.
2. Add the Tagat L, Antil 171, and PEG-75 Lanolin. Mix until clear.
3. Add the remaining ingredients in order, mixing between additions.
4. Adjust pH.

Ethnic Hair Care
Pump Spray-on Moisturizing/Oil-Sheens
Extra Sheen

<u>Ingredients:</u>	<u>%W/W</u>
Water	66.15
Tetrasodium EDTA	0.10
Propylene Glycol	10.00
Glycerin	20.00
Dimethicone Propyl PG Betaine (Abil B 9950)	0.75
Dimethicone Copolyol (Abil B 88183)	1.50
PEG-75 Lanolin	0.75
PEG-30 Glyceryl Cocoate/Oleate (Antil 171)	0.25
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid (25% solution)	To pH 5-6

Procedure:

1. Heat water to 50C. Dissolve Tetrasodium EDTA.
2. Add the Tagat L, Antil 171, and PEG-75 Lanolin. Mix until clear.
3. Add the remaining ingredients in order, mixing between additions.
4. Adjust pH.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Glosser/Conditioner

This water-in-oil formula based on a silicone polymeric emulsifier is designed for use as a leave on conditioner to give gloss and body especially for hair which has been chemically treated.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A: Oil Phase:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	6.0
Mineral Oil	10.0
Cetyl Dimethicone Copolyol (Abil Wax 9801)	2.0
Octyl Palmitate (Tegosoft OP)	3.5
Isopropyl Palmitate (Tegosoft P)	3.5
Lanolin Oil	3.0
Phenyl Trimethicone (Abil AV 20)	2.0
Phase B:	
Fragrance	Q.S.
Phase C: Water Phase:	
Water	64.3
Sodium Chloride	0.7
Glycerin	3.0
Preservatives	Q.S.

Procedure:

1. Blend the components of Phase A together, heating to 50C. Mix until fully dispersed.
2. Cool to 40-45C with agitation. Add fragrance.
3. In a separate vessel, mix the components to Phase C together.
4. Add Phase C to Phase A/B slowly with slow lightning mix. Mix until all water is incorporated into the oil phase.
5. Homogenize.

Ethnic Pump Spray Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Water	82.2
Propylene Glycol	7.5
Glycerin	7.5
Dimethicone Copolyol (Abil B 88183)	2.0
Quaternium-80 (Abil Quat 3272)	0.5
Panthenol	0.2
Tocopherol Acetate (Vitamin E)	0.1
Preservatives	Q.S.

Procedure:

Combine all ingredients in order with mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Glosser/Extra Conditioning

This water-in-oil formula based on a silicone polymeric emulsifier is designed for use as a leave on conditioner to give gloss and body especially for hair which has been chemically treated.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A: Oil Phase:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	6.0
Mineral Oil	10.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Octyl Palmitate (Tegosoft OP)	3.5
Isopropyl Palmitate (Tegosoft P)	3.0
Lanolin Oil	3.0
Phenyl Trimethicone (Abil AV 20)	2.0
Quaternium-80 (Abil Quat 3474)	0.5
Phase B:	
Fragrance	Q.S.
Phase C: Water Phase:	
Water	64.3
Sodium Chloride	0.7
Glycerin	3.0
Preservatives	Q.S.

Procedure:

1. Blend the components of Phase A together - heating to 50C. Mix until fully dispersed.
2. Cool to 40-45C with agitation - add fragrance.
3. In a separate vessel, mix the components to Phase C together.
4. Add Phase C to Phase A/B slowly with slow lightning mix. Mix until all water is incorporated into the oil phase.
5. Homogenize.

Ethnic Hair Care
Extra Conditioning Coat Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	50.0
Cyclomethicone	30.5
Isohexadecane or Mineral Oil	8.0
Octyl Palmitate (Tegosoft OP)	3.0
Octyl Stearate (Tegosoft OS)	3.0
Phenyl Trimethicone (Abil AV 20)	5.0
Quaternium-80 (Abil Quat 3474)	0.5

Procedure:

Combine all ingredients in order with mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Extra Hold Conditioning Mousse

	<u>% by Weight</u>
I. Water	37.35
Amphomer	3.75
Aminomethyl Propanol	0.60
Dow Corning 929 Emulsion	0.40
Phospholipid EFA	0.60
SD3A Alcohol	10.00
II. Hydroxyethyl Cellulose	0.30
Water	37.00
III. Propellant	10.00

Procedure:

Prepare Part I and II separately. To prepare Part II, carefully sprinkle hydroxyethyl cellulose into water with good agitation. Heat may be applied to help solubilization. Blend Part II to I and then aerosolize.

Formula F-554

Leave-On Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Water	90.2
Hydroxyethyl Cellulose	0.5
Glycol Distearate	1.5
Cetearyl Alcohol	1.8
Monaquat TG	5.5
Phospholipid EFA	0.3
Methyl Paraben	0.1
Propyl Paraben	0.1

Procedure:

Charge water, slowly add hydroxyethyl cellulose with good agitation. Add remaining ingredients and heat to 65-70C. Stir cool to blend 40C and add fragrance, color, etc. Package.

White Pearled Lotion
 Viscosity: 2500 cp
 pH: 5.6

SOURCE: Mona Industries, Inc.: Suggested Formulations

Firm Hold Hairspray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Resyn 28-2913	2.50
AMP	0.24
Crotein AD Anhydrous	0.20
DC-190	0.20
Armeed DM18D	0.15
Fragrance	Q.S.
Anhydrous Ethanol, SDA-40	71.71
Propellant A-46	25.00

Valve: Seaquist NS-41 Stem: 2 x 0.020" (Acetal)
 Stem Gasket: Buna N 0.042" Spring: 0.023" 302 SS
 Body: 0.062" (Nylon) 0.020" VT
 Mounting Cup: Regular, Epoxy Top/Bottom, Dimpled
 Actuator: 0.020" Misty, Acetal (black)

Preparation:

Dissolve AMP in anhydrous ethanol, SDA-40. Slowly add Resyn 28-2913 to the solution while maintaining good agitation. Add remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge propellant.

Formula 6472:94

High Performance Styling Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Resyn 28-2930	6.75
AMP	0.63
Dow Corning 556 fluid	0.15
Crotein AD Anh.	0.20
Citroflex 2	0.15
Fragrance	0.10
190 Proof Ethanol, SDA-40	92.02

Preparation:

Dissolve AMP in the 190 proof SDA-40. While maintaining good agitation, slowly add Resyn 28-2930 to the vortex. Continue mixing until solution is complete. Add balance of ingredients. When homogeneous, filter and fill.

Formula 6472:95

SOURCE: National Starch and Chemical Corp.: Suggested Formulas

Gel Curl Activator

	<u>%</u>
Water	57.7
Acrylate/Steareth-20/Methacrylate Copolymer (Acrysol ICS-1)	2.0
Hystar CG	10.3
Glycerine 99%	23.9
Propylene Glycol	2.0
Dimethicone Copolyol 193	2.3
Germaben II	1.0
Triethanolamine	0.7
Fragrance	q.s.
Jojoba Oil	0.1

Procedure:

Add ingredients in descending order in a stainless steel tank, with slow agitation and mix til clear. Pack in a plastic tube or a plastic bottle.

Alcohol Free Styling GelpH: 7.2

	<u>%</u>
Water	83.2
Propylene Glycol	12.0
Acrylate/Steareth-20/Methacrylate Copolymer (Acrysol ICS-1)	2.0
Germaben II	1.0
Dimethicone Copolyol 193	0.5
Fragrance	0.5
Triethanolamine	0.7
Jojoba Oil	0.1

Procedure:

To the water add ingredients 2 thru 5 plus 7 with vary slow agitation. Next add item 6, agitate til clear and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Guanidine No Base Relaxer

A cream/activator system for a no base relaxer.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
I. Activator Solution:		
1. R.I.T.A. GC (Guanidine Carbonate)	30.00	Activator
2. Distilled/Deionized Water	70.00	-----
3. Color, Preservative		q.s.Preservative

Compounding Procedure:

Combine ingredients at 20C with adequate mixing.

II. No Base Cream:

1. Ritachol 5000 (R.I.T.A. Blend)	12.00	Emulsifier
2. Ritaderm (R.I.T.A. Blend)	4.00	Emollient
3. Petrolatum	10.00	Texture
4. Mineral Oil 70 wt.	16.00	Spread
5. Supersat AWS 4 (PEG-20 Hydrogenated Lanolin)	2.00	Moisture
6. Calcium Hydroxide, Dry	7.00	Relaxer
7. Propylene Glycol	5.00	Moisture
8. Distilled/Deionized Water	44.00	-----

Compounding Procedure:

Combine ingredients 1-5 and heat to 70C. Combine ingredients 6-8 and heat to 70C. Combine both phases, mix well and cool with mixing to 45C. Add remaining ingredients and cool with mixing to 40C. Package I at 1.75 fl.oz. Package II at 7.50 fl. oz.

Directions:

Mix I in II, stir well with wooden stick until color is completely dispersed. Use as per normal relaxer instructions.

Ref. No. 117-82

Potassium Relaxer

Potassium Hydroxide relaxer based on the emulsification power of Ritachol 5000.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 5000 (R.I.T.A. Blend)	15.00	Emulsifier
2. Mineral Oil 70 wt.	17.00	Emollient
3. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00	Spread
4. Petrolatum	17.50	Spread
5. Ritahydrox (Hydroxylated Lanolin)	0.50	Stability
6. Propylparaben	0.13	Preservative
7. Rita SA (Stearyl Alcohol)	2.00	Emulsifier
8. Glycerine @ 99%	6.00	Humectant
9. Distilled/Deionized Water	29.67	-----
10. Methylparaben	0.20	Preservative
11. Potassium Hydroxide @ 25%	10.00	Relaxer

Compounding Procedure:

Combine items 1-7 in separate container and heat to 80C.

Combine items 8-10 and heat to 80C and add to items 1-7. Mix in variable speed mixer for 1 minute. Add water to cooling pan and mix until 65C. Slowly add KOH. Add ice to cooling pan and cool to 25C.

Ref. No. 118-176

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Brushing Lotion

	<u>Wt%</u>
A. Amihope LL	0.5
TL-10 (PEG-20 Sorbitan Monolaurate)	0.5
1,3-Butanediol (Butylene Glycol)	0.5
Stearyl Alcohol	0.3
Carbopol 941 (Carbomer 941)*	10.0
B. Water	68.2
C. Ethanol	20.0

*0.5% wt Carbomer 941 aqueous solution (neutralized by NaOH)

Procedure:

1. Each chemical cited in (A) is weighed in a glass vessel. Heat it to 60-70C and stir until the solution is homogeneous.
2. Add a previously warmed water (B) [60-70C] to the former prepared solution and cool it to room temperature with stirring.
3. Add a 20.0g ethanol (C) to the cooled solution with stirring.

Note:

This hair brushing lotion has a good antistatic effect and gives good combability. Amihope LL decreased the friction between hair and comb or brush remarkably.

Usage: Spray the hair before brushing.

Hair Brushing Lotion

	<u>Wt%</u>
Amihope LL	0.5
POE (20) Sorbitan Monolaurate (Polysorbate 20)	0.5
Ethanol	99.0

Procedure:

Mix all components at room temperature.

Note:

This hair brushing lotion alcoholic type has good antistatic effect and smoothness for the hair.

Amihope LL acts as hair conditioning agent instead of the cationic surfactant.

Usage: Spray the hair before brushing.

SOURCE: Ajinomoto USA, Inc.: **Suggested Formulations**

Hair Conditioner

This formula incorporates a mixture of protein and extracts the have a good affinity for hair, especially when bleached and damaged, leaving your hair smooth, silky and more manageable.

Water Phase I:

Water (Distilled)	61.20%
Butylene Glycol (Hoechst)	3.00%
Glycerine (Unichema)	2.00%
Cellosize (Hercules)	0.30%
Methylparaben (Sutton)	0.30%
Sorbitol 70%	2.00%
Carbopol 940 2%	6.00%
Tris(hydroxymethyl)aminomethane	0.60%

Oil Phase:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	5.00%
Liquapar (Sutton)	0.40%
Glycerol Monostearate (Henkel)	2.00%
Deo. Orange Wax (Koster Keunen)	1.00%
Vitamin E (BASF)	0.10%
Vitamin A Palmitate (BASF)	0.10%
Propylparaben (Sutton)	0.20%
Stearic Acid (Unichem)	2.00%
Wheat Germ Oil (Lipo)	1.20%
Sweet Almond Oil (Lipo)	1.20%
Propylene Glycol Dioctanate (Inolex)	2.50%

Water Phase II:

Water (Distilled)	5.00%
Triethanolamine (Dow)	1.00%

Active Phase:

Ginseng Extract (Active Organics)	1.00%
Arnica Extract (Active Organics)	1.00%
Wheat Protein (Vege-Tech)	0.70%
Fragrance	0.20%

Procedure:

Disperse the cellosize in the water and when dispersed and added the rest of phase. Heat the water phase I to 80C and the oil phase to 82C. Slowly add the oil phase to water phase I under moderate agitation. Cool to 70C and add water phase II. Continue mixing and added the active phase at 35C. Cool to room temperature.

Adaptation of formula and its influence on the product:

Other active compounds and conditioning agents are easily introduced into this type of formula.

SOURCE: Koster Keunen Inc.: Suggested Formulation

**Hair Conditioner with Moisturizers & Quaternium-79 Hydrolyzed
Animal Protein**

	<u>Weight, %</u>
Mackol 1618 (Cetearyl Alcohol)	3.0
Mackernium SDC-85 (Stearalkonium Chloride)	3.0
Propylene Glycol	1.0
Glycerin	1.0
Mackamide AME-100 (Acetamide MEA)	1.0
Mineral Oil	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 3.5-4.5

Viscosity (cps 25 degrees C): 1500-3000

Procedure:

1. Melt waxes and oils to 70 degrees C.
2. Separately heat water plus Mackpro NLP to 70 degrees C. and add hot water solution to hot oils and waxes.
3. Start stirring vigorously for 10 minutes and then start slow cooling while mixing and at 40 degrees C. add Mackstat DM then fragrance and dye and slow mixing down close to room temperature.
4. Stop mixing at 30 degrees C.
5. Adjust pH with citric acid.

High Quality Conditioner

	<u>Weight, %</u>
Mackernium SDC-25 (Stearalkonium Chloride)	10.0
Mackol 1618 (Cetearyl Alcohol)	2.0
Brij 72	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 70 degrees C.
2. With mild agitation blend until homogeneous.
3. Cool to 50 degrees C. and add dye and fragrance.
4. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Hair Conditioning Gel

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	89.94
Hydroxyethylcellulose	0.80
Hydroxypropyl Guar	
Hydroxypropyltrimonium Chloride	0.40
Citric Acid	0.06
Methylparaben	0.02
Part B:	
Panthenol	0.30
Sodium PCA/Ajidew N-50	3.00
Partially Deacetylated Chitin (1% Solution)/Marine-Dew	3.00
Polyquaternium-11	2.00
Diazolidinyl Urea	0.30

Procedure:

Add part A ingredients in order. Heat to 75 degrees Centigrade. Mix until clear and uniform. Cool to 50 degrees Centigrade. Add part B ingredients in the given order, mixing well after each addition. Continue mixing and cooling to 35 degrees Centigrade.

Appearance: Clear gel

pH: 4.5-5.5

Viscosity: 7,000-10,000 (RVT #5 @ 10rpm @ 25 degrees C)

Hair Conditioner with CAE

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Cetanol	3.0
Amitec LGS-2	2.0
Nikkol MYS-55	1.0
Phase B:	
CAE	1.0
A-SM	3.0
Prodew 100	2.0
Glycerin	10.0
Methylparaben	0.2
Water	77.8

Specifications: pH: 5.0 Vis: 2500 cps

Procedure:

Mix ingredients Phase A and heat to 75-80 degrees C. Mix ingredients Phase B and heat to 75-80 degrees C. Add Phase A to Phase B and mix with homomixer (1500 to 2500 RPM). Cool to 35 degrees C.

This hair conditioner has good antistatic and conditioning effects.

Formula No. 1 CR-56-11

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hair Conditioning Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Brij 721S	1.30
Cetyl alcohol	0.90
Stearyl alcohol	0.60
Stearalkonium	0.50
B Water, deionized	96.70

Procedure:

Heat (A) to 60C and (B) to 62C. Add (B) to (A) with moderate agitation. Cool while agitating to 40C. Add water to compensate for loss due to evaporation.

Clear Hair Conditioner Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Hydroxyethyl cellulose, Natrosol 250HR	40.00
B Forestall	1.40
Water, deionized	58.60

Procedure:

Mix (A) in advance by dispersing hydroxyethyl cellulose in water to yield a 3% solution. Prepare solution (B). Add (B) to (A) with stirring until homogeneous.

Hair Conditioning Gel

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	11.00
Arlasolve 200	20.00
Brij 93	6.00
B Water, deionized	49.60
Propylene glycol	5.00
Sorbo	7.00
Forestall	1.40

Procedure:

Heat (A) and (B) to 90C. Add (B) to (A) with gentle stirring. Cool to 60C and add make-up water. Stir until uniform and pour while still fluid.

SOURCE: ICI Surfactants: Suggested Formulations

Hair Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	38.0
Isopropyl Myristate	3.0
Squalane	0.5
Nikkol WCB	0.5
Polyoxyethylene (6300) Monostearate	0.1
Glyceryl Monostearate (Self Emulsifying Type)	4.1
Polyoxyethylene (20) Cetyl Ether	2.9
(W) Ajidew N-50	3.0
Water	47.9
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Finish stirring at 40C.

pH: 7.3

Viscosity: 900 cps

Hair Tonic

	<u>Wt%</u>
(O) Pyroter GPI-25	2.7
Pyroter CPI-40	0.3
Ethyl Alcohol (95%)	50.0
L-Menthol	0.4
Camphor	0.05
Methylparaben	0.05
Perfume	q.s.
(W) Ajidew T-50	4.0
Water	42.5

Procedure:

1. Dissolve (O) and (W) separately at room temperature to be clear solutions.
2. Add (W) to (O) with stirring.

pH: 7.5

Viscosity: 5 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hair Dressing
W/O Cold Process

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	7.3
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Cyclomethicone (Abil B 8839)	5.0
Polyglyceryl-4 Isostearate (Isolan GI 34)	1.0
Cetearyl Isononoanoate (Tegosoft CI)	1.5
Cetyl Octanoate (Tegosoft CO)	0.8
Fragrance	Q.S.
Phase B:	
Water	72.9
Propylene Glycol	3.0
Quaternium-80 (Abil Quat 3270)	0.5
Glycerin	1.2
Sodium Chloride	0.8
Preservatives	Q.S.

Procedure:

- Mix the ingredients of Phase A together.
- Dissolve the Sodium Chloride into the water. Add the Glycerin and Propylene Glycol. Mix until clear.
- Add the preservatives and Quaternium-80 to the water phase. Mix until fully dispersed.
- Add Phase B to Phase A slowly with soft propeller mixing. Maintain, at all times, a creamy appearance. 5. Homogenize.

Hair Styling Gel

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	22.20
Phenyl Trimethicone (Abil AV-20)	3.00
Cyclomethicone (Abil B 8839)	3.00
Propylene Glycol	42.00
Hexylene Glycol	4.55
Water	22.00
Glycerin	1.00
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	2.25

Procedure:

Add the ingredients in order, mixing well between additions. When all ingredients are combined, continue mixing until viscosity increases. Final product is a translucent, colorless gel.

Formula BAM-5-43

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Gloss to Control Gel Concentrate

<u>Ingredients:</u>	<u>%w/w</u>
Methacryloyl Ethyl Betaine/Methacrylates Copolymer	1.50
Water	20.00
Dimethicone (Abil 350)	4.00
Phenyl Trimethicone (Abil AV-20)	4.00
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	25.00
Propylene Glycol*	35.00
Hexylene Glycol	7.50
Preservatives	Q.S.
Fragrance	Q.S.
Polyacrylamide (and) C13-14 Isoperaffin (and) Laureth-7	3.00

Procedure:

Blend the ingredients together in the order given with mixing. When all ingredients are combined, continue mixing until clear. Viscosity will develop after mixing.

*Ethanol can be substituted for part of the propylene glycol if a lighter product is needed.

Iridescent Hair Gel Concentrate

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	27.27
Phenyl Trimethicone (Abil AV-20)	4.55
Propylene Glycol	40.93
Hexylene Glycol	4.55
Water	20.45
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	2.25

Procedure:

Add the ingredients in order, mixing well between additions. When all ingredients are combined, continue mixing until clear and iridescent.

Formulation BAM-3-5

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Pomade

High luster hair pomade based on natural Simchin and Shebu. Pationic SSL and Ritapan DL provide moisturization for healthy looking hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil - 90 wt.	5.00	Luster
2. Simchin Refined (Jojoba Oil)	2.00	Emollient
3. Petrolatum	85.70	Hold
4. Shebu (Shea Butter)	2.00	Luster
5. Lanolin USP (Lanolin)	2.00	Hold
6. Ritapan DL (Panthenol DL)	0.50	Health
7. Pationic SSL (Sodium Stearoyl Lactylate)	2.40	Moisture
8. Fragrance	0.20	Odor
9. Glydant	0.20	Preservative

Compounding Procedure:

Blend items 1-7 at 70C. Stir until uniform. Cool to 40C and add remaining items. Fill into containers.

Ref. No. 118-173

Hair Pomade

Quality hair pomade formulated with Simchin and Shebu for luster. Pationic ISL provides moisturization.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritawax (Lanolin Alcohol)	1.50	Feel
2. Mineral Oil	5.00	Spread
3. Simchin Refined (Jojoba Oil)	2.00	Luster
4. Shebu (Shea Butter)	1.00	Luster
5. Petrolatum	84.60	Spread
6. Ritalan (Lanolin Oil)	3.00	Luster
7. Pationic ISL (Sodium Isostearoyl Lactylate)	2.50	Moisture
8. Glydant	0.20	Preservative
9. Fragrance - Jergens Type R-30318	0.20	Odor

Compounding Procedure:

Blend items 1-7 and heat until clear. Cool with mixing until 50C. Add perfume and preservative. Fill hot while mixing.

Ref. No. 118-178

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hair Relaxer - Glycerine

Glycerine based hair relaxer which moisturizes hair. Emulsion stability based on Ritachol 2000.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 2000 (R.I.T.A. Blend)	15.00	Emulsifier
2. Mineral Oil 70 Wt.	17.00	Spread
3. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00	Feel
4. Petrolatum	17.50	Viscosity
5. Ritahydrox (Hydroxylated Lanolin)	0.50	Stability
6. Propylparaben	0.13	Preservative
7. Rita SA (Stearyl Alcohol)	2.00	Emulsifier
8. Glycerine	6.00	Moisture
9. Distilled/Deionized Water	29.67	-----
10. Methylparaben	0.20	Preservative
11. Sodium Hydroxide (25% Solution)	10.00	Relaxing

Compounding Procedure:

Combine items 1-7 in Kitchen Aid mixer bowl and heat to 80C. In separate beaker heat items 8-10 to 85C. Add this water mixture to oil mixture and mix at low speed for 1 minute. Add cold water to cooling pan and cool to 65C. Add Sodium Hydroxide solution and mix. Then add ice to cooling pan and cool to 25C.

Note: Inversion will occur during mixing.

Ref. No. 118-168

Hair Relaxer - Glycol

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 2000 (R.I.T.A. Blend)	15.00	Emulsifier
2. Mineral Oil NF	17.00	Emollient
3. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00	Spread
4. Petrolatum	17.50	Spread
5. Ritahydrox (Hydroxylated Lanolin)	0.50	Stability
6. Propylparaben	0.13	Preservative
7. Rita SA (Stearyl Alcohol)	2.00	Emulsifier
8. Propylene Glycol	6.00	Humectant
9. Distilled/Deionized Water	29.67	-----
10. Methylparaben	0.20	Preservative
11. Sodium Hydroxide (25% Solution)	10.00	Active

Compounding Procedure:

Weigh and melt items 1-7 at 80C in Kitchen Aid mixer bowl. In separate beaker heat items 8-10 to 85C. Add water phase to oil phase and mix for one minute. Add cooling water to mixer cooling pan and cool to 65C. Add Sodium Hydroxide, then add ice to cooling pan, and then cool to 25C with constant agitation. Note inversion during cooling process.

Ref. No. 118-169

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Hair Sculpting Cream

This cream gives shine to the hair without being greasy and makes hair easy to style and manage. The Geahlene gives viscosity to the cream and helps hold hair in place. Inclusion of wheat protein adds body and conditioning effects.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	62.86
Soluble Wheat Protein/Tritisol	1.00
Sodium Chloride	0.80
Panthenol/DL-Panthenol	0.10
Diazolidinyl Urea/Germall II	0.30
PVP/PVP K-30	1.00
B Phenoxyethanol/Emeressence 1160	0.70
Methylparaben	0.20
Propylene Glycol	5.00
C Polyglycerol-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate/Abil WE-09	5.00
Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	20.00
Phenyl Trimethicone/Dow Corning 556	3.00
Fragrance	0.04

Procedure:

Mix part A ingredients until uniform. Heat part B to 60C with gentle stirring until clear. Add part B to part A with mixing. In a separate container, premix part C. Slowly add parts A and B to part C in small increments with high shear mixing until uniform.

SOURCE: Penreco: Suggested Formulation

Hair Conditioner**Part A:**

Deionized Water	90.60
Busan 1504	0.10
Panthenol	0.25
Aloe Vera 200X	0.05
Disodium EDTA	0.05
Cetearyl Alcohol & Cetearath-20	1.10
Stearyl Alcohol & Cetrimonium Bromide	5.00
Jojoba Oil	0.30

Part B:

Acetamide MEA & Lactamide MEA	1.00
Hydrolyzed Wheat Protein & Wheat Oligosaccharides	1.25
Sodium PCA	0.30

Procedure:

Heat DI water to 75C. Add Busan 1504 preservative to water and mix until dissolved. Maintain temperature at 75C and add remaining Part A ingredients in order shown, ensuring that each is completely blended into batch before the addition of the next ingredient. Mix while cooling to 40C. Add Part B ingredients in order shown and mix until each is dissolved. Cool while mixing to 35C.

SOURCE: Buckman Laboratories, Inc.: Suggested Formulation

Hair Straightener

<u>Formula:</u>	<u>%Wt.</u>
Phase A:	
Deionized Water	56.00
Propylene Glycol	2.00
Phase B:	
Polawax	15.00
Petrolatum (Protopet 1S)	8.00
Hydrogenated Polyisobutene	10.00
Phase C:	
Sodium Hydroxide (25% Sol)	8.00
Phase D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Procedure:

Combine and heat water phase A and oil phase B separately to 75C. Add the oil phase to the water phase with rapid mixing. Cool to 40C before adding C and D. Cool to room temp. and package.

Conditioning Styling Gel

	<u>Percent</u>
Part A:	
Water, D.I.	q.s. to 100
Merquat 100	2.00
Part B:	
Blandol	10.00
Brij	21.00
Arlatone G	10.00
Propylene glycol	8.00
Glycerine	7.00
Part C:	
Fragrance	q.s.
Preservative and color	q.s.

Procedure:

Mix Part A and B in separate vessels, heating each to 90C. Then, add Part B to Part A with moderate agitation. When the mixture is uniform begin to cool, continuing agitation. Add Part C at 53C and continue cooling. Pour at 50C.

SOURCE: Witco Corp.; Petrolatum Specialties Group; Suggested Formulations

High Petrolatum Mousse
Aerosol

<u>Oil Phase:</u>	<u>%W/W</u>
Protopet 1S Petrolatum	15.00
Crodamol PMP	5.00
Volpo 3	1.20
<u>Water Phase A:</u>	
Deionized Water	69.30
Carbopol 941	0.13
10% Sodium Hydroxide Solution	0.52
<u>Water Phase B:</u>	
Glycerine	5.00
Volpo S-10	2.85
Germaben II	1.00

Procedure:**Water Phase A:**

Charge a vessel with water and dust in the carbomer. Start heating to 80C. When completely dispersed, add the sodium hydroxide solution and continue mixing.

Water Phase B:

Combine components in a separate vessel and mix, heat to 80C. When uniform add to Water Phase A.

Oil Phase:

Combine all components of the oil phase, mix and heat to 80C. When uniform add the combined water phases slowly while mixing. Continue mixing to room temperature.

Fill Ratio:

Concentrate 4.0%, Propellant A-46 96%.

Hot Oil Hair Treatment Mousse

	<u>Percent</u>
Water	57.80
Disodium EDTA	0.20
Carnation Mineral Oil	10.00
Avocado Oil	5.00
Dimethicone	2.00
Cetearyl Alcohol (and) Ceteareth-20 (Promulgen D)	5.00
Jjoba Oil	1.00
Mink Oil	1.00
Castor Oil	5.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	10.00
Quaternium 26 (Ceraphyl 65)	2.00
Germaben II	1.00

Procedure:

Combine all ingredients except the Germaben II and heat to 80C. Cool to 50C and add the Germaben II. Cool to room temperature and fill. 95% concentrate/5% Propellant A-46.

Application:

Apply small amount to wet hair. Cover hair with hot towel for 15-20 minutes. Rinse well.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Hot Oil Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	25.0
Dimethicone (100 cst)	50.0
Cyclomethicone	22.0
Phenyl Trimethicone (Abil AV 20)	3.0
Fragrance	Q.S.

Procedure:

Combine all ingredients in order with mixing.

Hot Oil Super Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	25.0
Dimethicone (100 cst)	42.0
Cyclomethicone	30.0
Phenyl Trimethicone (Abil AV 20)	2.5
Quaternium-80 (Abil Quat 3474)	0.5
Fragrance	Q.S.

Procedure:

Combine all ingredients in order with mixing.

Soft Glossing Spritz

<u>Ingredients:</u>	<u>%w/w</u>
Phenyl Trimethicone (Abil AV-20)	10.0
Cyclomethicone (Abil B 8839)	22.7
Dimethicone (Abil 1000)	2.5
Dimethicone (Abil 100)	14.5
Cyclomethicone (and) Dimethicone (and) Dimethicone (Abil OSW-12)	50.0
Benzophenone-3	0.3
Fragrance	Q.S.

Procedure:

Combine all ingredients in order - mixing well.

Caution: Traces of water will cause turbidity.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Intensive Conditioning Pomade

High oil, moisturizing pomade for control of dry, overworked hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Paraffin (59-60C)	10.70	Control
2. Petrolatum	48.97	Moisture
3. Mineral Oil	30.00	Moisture
4. Forlan L (R.I.T.A. Blend)	5.00	Shine
5. Ritachol (R.I.T.A. Blend)	3.00	Shine
6. Patlac IL (Isostearyl Lactate)	2.00	Repair
7. Fragrance #163-478	0.30	Odor
8. Preservative	0.03	Preservative

Compounding Procedure:

Mix all items except perfume at 65C. Cool to 40C and add perfume and preservative. Let set up in proper container.
Ref. No. 118-122

Light Oil Free Conditioner

Basic conditioner to provide good combing and conditioning to all hair types.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	93.67	-----
2. Rita-STAC (Steartrimonium Chloride)	1.50	Conditioner
3. Ritapro 165 (R.I.T.A. Blend)	2.00	Stability
4. Rita CA (Cetyl Alcohol)	2.00	Re-fatting
5. Ritawax ALA (R.I.T.A. Blend)	0.50	Shine
6. Fragrance - Salon #169-122	0.30	Odor
7. Kathon CG	0.03	Preservative

Compounding Procedure:

Heat water to 180F. In separate beaker heat items 2-5 to 165F. Add to water and mix until uniform. Cool to 120F and add perfume and preservative.

Ref. No. 118-115

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Intensive Hair Conditioner

An intensive conditioner with nourishing oil to make hair more healthy.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	84.52	-----
2. Polyquta 3000 (Polyquaternium-10)	0.50	Anti-Static,Thickener
3. Methylparaben	0.15	Preservative
4. Rita-STAC (Steartrimonium Chloride)	1.50	Anti-Static, Conditioner
5. Rita-CTAC (Cetrimonium Chloride)	2.00	Anti-Static, Conditioner
6. Ritachol 2000 (R.I.T.A. Blend)	8.00	Emulsifier
7. Wheat Germ Oil	1.00	Nourishing Oil-Health
8. Tocopherol	0.20	-----
9. Propylparaben	0.10	Preservative
10. Kathon CG	0.03	Preservative
11. Distilled/Deionized Water	2.00	-----
12. Fragrance	q.s.	Odor

Compounding Procedure:

Disperse Polyquta 3000 in water. When dispersed, add Methylparaben. Heat to 60C. Add items 4 and 5 and heat to 70C. Heat items 6-9 to 70-75C and add with mixing. While mixing, cool to 45C and add items 10-12.

Ref. No. 116-168

Salon Strength Hair Conditioner

Balanced conditioning and repair are achieved through proper balance of Polyquta and emollient additives.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita CA (Cetyl Alcohol)	2.00	Re-fatting
2. Mineral Oil 9NF	2.00	Shine
3. Rita SA (Stearyl Alcohol)	0.50	Re-fatting
4. Ritalan C (R.I.T.A. Blend)	1.00	Shine, Combing
5. Rita-CTAC (Cetrimonium Chloride)	2.00	Conditioning
6. Polyquta 3000 (Polyquaternium-10)	0.50	Combing
7. Distilled/Deionized Water	88.23	-----
8. Glycerine	2.00	Moisture
9. Sorbitol (70% Soln.)	0.50	Moisture
10. Supersat AWS-4 (PEG-20 Hydrogenated Lanolin)	1.00	Shine
11. Kathon CG	0.02	Preservative
12. Fragrance	0.25	Odor

Compounding Procedure:

Heat water to 70C. Add item 6 and mix until clear. Add items 8-10 with mixing and heat to 75-80C. Heat items 1-5 to 65C. Add to water mixture. Cool to 50C and add preservative and fragrance.

Ref. No. 119-25

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Leave-On Scalp & Hair Conditioner

A dab of leave-on scalp and hair conditioner massaged into the hair and scalp, will provide conditioning and manageability to the hair while providing moisturization of the scalp. Phospholipid GLA will help maintain a healthy scalp and minimize itch and scaling caused by excessive dryness. It is also a delivery system for gamma linolenic acid, an essential fatty acid for normalizing skin.

<u>Ingredients:</u>	<u>Wt. %</u>
Water	90.2
Hydroxyethyl Cellulose	0.5
Glycol Distearate	1.5
Cetyl Alcohol	1.8
Monaquat SL-5	5.5
Phospholipid GLA	0.3
Preservative	q.s.

Procedure:

Charge water, slowly add hydroxyethyl cellulose with good agitation. Add remaining ingredients plus preservative and heat to 65-70C. Stir cool to 40C and add fragrance, color, etc. package.

Appearance: White pearly lotion

Viscosity: 2500 cP

pH: 6.5

Formula F-653

Extra Hold Conditioning Mousse

	<u>% By Weight</u>
I. Water	37.35
Amphomer	3.75
Aminomethyl Propanol	0.60
Dow Corning 929 Emulsion	0.40
Phospholipid EFA	0.60
SD3A Alcohol	10.00
II. Hydroxyethyl Cellulose	0.30
Water	37.00
III. Propellant	10.00

Procedure:

Prepare Part I and II separately. To prepare Part II, carefully sprinkle hydroxyethyl cellulose into water with good agitation. Heat may be applied to help solubilization. Blend Part II to I and then aerosolize.

Formula F-554

SOURCE: Mona Industries, Inc.: Suggested Formulations

Light Oil Free Conditioner

Light oil free with a touch of foaming to cleanly condition hair to the ends.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grilloten LSE-87K (Sucrose Cocoate)	2.00	Conditioning, Mild
2. Grilloten PSE 141G (Sucrose Stearate)	4.00	Cleaning, Mild
3. Rita Cetearyl 70/30 (Cetearyl Alcohol)	2.50	Re-fattig
4. PEG-20 Cetearyl Alcohol	0.50	Combing
5. Propylene Glycol	1.00	Humectant
6. Polyquta 400 (Polyquaternium-10)	1.50	Combing, Style
7. Glycerine	3.00	Moisture
8. Distilled/Deionized Water	85.17	-----
9. Fragrance-Pert Type 189-724	0.30	Odor
10. Kathon CG	0.03	Preservative
11. Citric Acid (25% Soln.)	q.s.	pH Control

Compounding Procedure:

Heat 1-4 to 70C. Separately disperse item 6 in water. Then add items 5 and 7. Heat to 80-85C. Then add items 1-4 to mixture. Cool to 40C and add perfume and preservative. Adjust pH with Citric Acid to pH 5.0.

Ref. No. 118-121

Aloe Vera Hair Conditioner (Light)

A light strength conditioner specially formulated for normal hair. Adds sheen to hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	94.47	----
2. Ritaloe 200M (Aloe Vera Gel)	0.25	Shine
3. Rita CA (Cetyl Alcohol)	2.00	Emulsifier, Thickener
4. Rita SA (Stearyl Alcohol)	1.00	Emulsifier, Thickener
5. Rita-STAC (Steartrimonium Chloride)	1.50	Conditioner, Anti-static
6. Simchin Refined (Jojoba Oil)	0.75	Conditioner, Shine
7. Kathon CG	0.03	Preservative
8. Fragrance	q.s.	Odor

Compounding Procedure:

Heat items 1 and 2 to 70C. Heat items 3-6 to 65-70C and add with stirring. Continue mixing until batch reaches 40-45C. Add Kathon and Fragrance.

Ref. No. 116-174

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Low Cost Relaxer

A lower cost relaxer with reduced oil phase materials. Laneto-100 provides scalp protection from irritation.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 2000 (R.I.T.A. Blend)	15.00	Emulsifier
2. Rita SA (Stearyl Alcohol)	1.00	Emulsifier
3. Ritoleth-10 (Oleth-10)	2.00	Emulsifier
4. Petrolatum	8.00	Viscosity
5. Mineral Oil 70 wt.	10.00	Spread
6. Laneto-100 (PEG-75 Lanolin)	0.50	Feel
7. Propylene Glycol	2.00	Moisture
8. Distilled/Deionized Water	52.50	-----
9. Sodium Hydroxide (25% Soln.)	9.00	Relaxer

Compounding Procedure:

Combine items 1-5 and heat to 60C. In a separate container, heat items 6-8 and heat to 60C. Add to oil phase and mix at low speed. Cool to 45C and add Sodium Hydroxide solution. Continue mixing and fill to jars at 30C.

Ref. No. 120-26

Extra Stable Relaxer

Very cost efficient, stable relaxer formulation which is easy to process.

<u>Ingredients:</u>	<u>% W/W</u>	<u>Function</u>
1. Ritachol 5000 (R.I.T.A. Blend)	10.00	Emulsifier
2. Mineral Oil 70 Wt.	16.00	Spread
3. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00	Feel
4. Petrolatum	17.00	Texture
5. Ritahydrox (Hydroxylated Lanolin)	0.60	Stability
6. Rita SA (Stearyl Alcohol)	2.00	Emulsifier
7. Ritox 52 (PEG-40 Stearate)	1.50	Stability
8. Glycerine	6.00	Moisture
9. Distilled/Deionized Water	34.70	-----
10. Methylparaben	0.20	Preservative
11. Sodium Hydroxide (20% Solution)	10.00	Relaxer

Compounding Procedure:

Combine items 1-7 in orbital mixer at 80C. Combine items 8-10 at 80C and add to oil mixture. Cool to 65C. Add Sodium Hydroxide solution with agitation. Cool in ice bath to 25C. Homogenize if necessary to further improve stability.

Ref. No. 117-21A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Medium Hold, 80% VOC Pump Hair Spray

Diaformer Z-A provides a medium hold in this clear, water white spray. It also reduces static and improves manageability when the hair is combed. Its clear, flexible film gives a natural looking hold while offering excellent curl retention.

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Diaformer Z-A	5.00
Dow Corning 190	0.20
Monamide 716	0.10
SD 40 Alcohol	75.00
Fragrance	0.10
Deionized Water	Q.S.

Procedure:

Add Diaformer Z-A to alcohol, mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Properties:

Appearance: Crystal clear, water white liquid

Formulation CHF-12

55% VOC Pump Hair Spray

This 55% VOC hair spray incorporates Diaformer Z-400. This deodorized polymer is well suited to lightly fragranced products. It provides a medium hold in this crystal clear, water white spray. Velsan P8-3 acts a non-greasy superfatting agent.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Diaformer Z-400	4.00
SD 40 Alcohol	40.00
Velsan P8-3	0.50
Fragrance	0.05
Deionized Water	Q.S.

Procedure:

Add Diaformer Z-400 to alcohol, mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Properties:

Appearance: Crystal clear, water white liquid

Formulation CHF-14

SOURCE: Sandoz Chemicals Corp.: Suggested Formulations

Medium Strength Hair Conditioner

Conditioning designed to provide nourishing and combing benefits while leaving a clean feel in the wet mode due to Dimethyl Quat.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita-SBC (Stearalkonium Chloride)	1.14	Conditioner
2. Rita-CTAC (Cetrimonium Chloride)	0.48	Conditioner
3. Rita-CA (Cetyl Alcohol)	0.85	Re-fattening
4. Citric Acid @ 100%	0.09	pH Control
5. Dimethyl Stearamine (Adogen MA-108)	0.13	Conditioner
6. Distilled/Deionized Water	94.81	-----
7. Promois WK-HQ (Hydroxypropyl trimonium Hydrolyzed Keratin)	0.05	Body
8. Ritaleo 200M (Aloe Vera Gel)	0.05	Body
9. Ritapan DL (dl-Panthenol)	0.05	Body
10. Propylene Glycol	0.50	Clean Feel
11. Hydroxyethyl Cellulose (Natrosol 250 HHR)	1.00	Viscosity
12. Kathon CG	0.03	Preservative
13. Dow Corning 2-7224	0.40	Combing
14. Dow Corning 344 Fluid	0.17	Combing
15. Fragrance	0.25	Odor

Compounding Procedure:

To 15% of total water at 65C add separately items 1-4. Heat to 70C, add item 5 and mix 20 min. Add another 10% of the water at room temperature and continue mixing 20 min. To remaining 75% of water add items 7,8 and 9 at room temperature. Add item 10 and slowly sift in item 11. Agitate 15 min. while heating batch to 35C. When batch thickens, increase agitation for up to 60 min. until uniform. Add items 12,13 and 14, continue mixing. Then add quaternary/fatty alcohol phase (items 1-6) and fragrance. Mix until uniform.

Ref. No. 116-181B

Medium Hair Conditioner

Humectant conditioner to maximize combing from silicone and body from glycerine.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita-STAC (Steartrimonium Chloride)	2.40	Conditioner
2. Rita GMS (Glyceryl Stearate)	1.00	Control
3. Rita CA (Cetyl Alcohol)	5.00	Coating
4. Ritaceti (Cetyl Esters)	2.00	Combing
5. Ritacet-20 (Ceteareth-20)	0.50	Emulsifier
6. Glycerine	1.00	Humectancy
7. Distilled/Deionized Water	85.77	-----
8. Dow Corning 344 Fluid	2.00	Combing, Shine
9. Fragrance - Finesse Type	0.30	Odor
10. Kathon CG	0.03	Preservative

Compounding Procedure:

Heat items 1-5 to 70C. In separate beaker heat items 6 and 7 to 75C. Add 1-5 to water. Mix and cool to 50C. Add silicone and mix. Add perfume and preservative.

Ref. No. 118-117

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Moisture Balance Conditioner w/Cropeptide W

Although this easy-to-make conditioner contains few ingredients, it delivers big conditioning benefits.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incroquat CR Conc. (Cetearyl Alcohol (and) PEG-40 Castor Oil (and) Stearalkonium Chloride)	6.00
Part B:	
Deionized Water	92.70
Part C:	
Cropeptide W (Hydrolyzed Wheat Protein (and) Wheat Oligosaccharides)	1.00
Methyl paraben	0.20
Propyl paraben	0.10

Procedure:

Heat Part A and Part B separately to 70-75C with mixing. At 70-75C, add Part B to Part A with mixing and cool to 40C. Add ingredients of Part C individually with mixing and cool to desired fill temperature.

pH: 4.0+-0.5

Viscosity: 2,000+-10% (@25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-158

"Leave-On" Conditioner Concentrate

1. Incorporate fragrance. Take an exact weight of Concentrate and add exact weight of fragrance (depending on level after dilution. Blend together with thorough mixing.

Note: Concentrate contains only enough preservative to protect the concentrate. Please add additional preservative to product diluted solution.

2. Dilute the above concentrated blend with 7 parts of deionized water for a firm set, or with 9 parts deionized water for regular setting product.
3. Apply finished product to shampooed and towel dried hair. Don't rinse. Style hair.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Natural Lipid Conditioner for Professional Salon

	<u>Weight, %</u>
Mackernium SDC-85 (Stearalkonium Chloride)	1.5
Mackalene NDC (Oleamidopropyl Dimethylamine (Oleamidopropyl Dimethylamine Lactate (and) Palmit- amidopropyl Dimethylamine Lactate (and) Palmitol- eamidopropyl Dimethylamine Lactate)	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	2.0
Mackol 1618 (Cetearyl Alcohol)	1.8
Steareth-2	1.8
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add first five components to water and heat to 70 degrees C.
2. Cool to 45 degrees C. and add remaining components.
3. Cool and fill.

Mild Opaque Conditioner

	<u>Weight, %</u>
Mackalene 326 (Stearamidopropyl Morpholine Lactate)	8.0
Cetyl Alcohol	1.8
Phosphoric Acid	0.6
Sodium Chloride	0.3
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance, qs to	100.0

Procedure:

1. Add first four components to water and heat to 70 degrees C.
2. With stirring, cool and add dye, preservative and perfume at 40 degrees C.

Mild Pearl Conditioner

	<u>Weight%</u>
Mackalene 326 (Stearamidopropyl Morpholine Lactate)	7.0
PEG 400 Distearate	0.5
Sodium Chloride	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, dye, fragrance, qs to	100.0

Procedure:

1. Add the first three components to water and heat to 65 degrees C.
2. With continuous stirring, cool to 40 degrees C. and add dye, preservative and fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Non-Aerosol Hair Spray with Protein

A non-aerosol hair spray based on protein (Promois WK-HQ) and Ritapan DL. Extra sheen is derived from Ritalan AWS.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. SD Alcohol - 40	66.70	Solubility
2. Ethyl Ester of PVM/MA-Copolymer	7.00	Hold
3. AMP-95	0.20	Neutralization
4. Dimethicone Copolyol	0.50	Sheen
5. Ritalan AWS (PPG-12-PEG-65 Lanolin Oil)	0.20	Sheen
6. Fragrance	0.10	Odor
7. Promois WK-HQ (Protein)	0.20	Repair
8. Ritapan DL	0.10	Moisture
9. Distilled/Deionized Water	25.00	-----

Compounding Procedure:

Combine item 2 to alcohol and mix until clear. Add AMP and mix well. Add items 4-6 in order with good agitation. Pre-mix items 7-9 and mix until uniform.

SOURCE: R.I.T.A. Corp.: Ref. No. 120-24

Hair Rinse for Stressed Hair

<u>Component:</u>	<u>%</u>
I. Emulgade 1000 Ni	4,0
Eutanol G	2,0
Cocopherol 1250	2,0
II. Dehyquart A	4,0
Water, demin./Preservation	88,0

pH-Value: approx. 4

Viscosity mPas, approx.: 10.000

Preparation in the Laboratory:

Melt phase I at 80-85C. Heat phase II to 80-85C and stir into Phase I. Stir at this temperature for 5 minutes. Cool down to 40C while stirring. Add preservative and, if necessary, heat sensitive additives. Cool down to 30C while stirring. Adjust the pH value e.g. with citric acid.

SOURCE: Henkel KGaA: Formulation No. 90/322/7

Pearly Lotion Conditioner

	<u>Weight, %</u>
Mackalene 316 (Stearamidopropyl Dimethylamine Lactate)	7.0
PEG 400 Distearate	0.5
Sodium Sulfate	0.5
Propylene Glycol	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 65 degrees C.
2. With mild agitation cool to 45 degrees C. and add remaining components.
3. Cool and fill.

Protein Lotion Conditioner

	<u>Weight, %</u>
Mackine 301 (Stearamidopropyl Dimethylamine)	1.5
Mackol 16 (Cetyl Alcohol)	2.5
Lactic Acid 88%	0.7
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	1.5
Sodium Chloride	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Dissolve sodium chloride in water.
2. Add first four components and heat to 70 degrees C.
3. Blend until homogenous.
4. Cool to 45 degrees C. and add remaining components.
5. Cool and fill.

Spray Leave-On Conditioner

	<u>Weight, %</u>
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	1.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	3.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedures:

1. Add components to water.
2. Heat to 40 degrees C. and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Pump Gel Type Spritz

A gel setting lotion which can be dispensed from a pump. Contains setting agents, anti-stats and Ritapan DL for repair and luster.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	88.87	-----
2. Propylene Glycol	5.00	Humectant
3. Ritapan DL (Panthenol DL)	1.00	Repair
4. Ritaloe 200M (Aloe Gel)	1.00	Repair
5. Polyquta 3000 (Polyquaternium-10)	2.00	Set, Anti-Stat
6. Ritabate 20 (Polysorbate 20)	1.00	Stability
7. Hydroxyethylcellulose	1.00	Gelling
8. Rita CTAC (Cetrimonium Chloride)	0.50	Conditioning
9. Fragrance	0.20	Odor
10. Kathon CG	0.03	Preservative

Compounding Procedure:

Combine items 3 and 4 with the water and heat to 60C. Mix until clear. Disperse items 5 and 7 into batch. Mix until uniform (about 30 minutes). Then add remaining items in order and mix well.

Ref. No. 118-180

Moisturizing Hair Styling Gel

<u>Ingredient</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	58.20	-----
2. Acritamer 940 (Carbomer 940)	0.60	Gelling
3. Glycerine	10.00	Conditioning
4. Ritapan DL (Panthenol dl)	0.20	Moisturization
5. Ethanol @ 95%	10.00	Clarity
6. Laneto 50 (PEG-75 Lanolin)	5.00	Shine
7. Ritaphenone 3 (Benzophenone-3)	0.10	UV Absorber
8. Tetrasodium EDTA	0.10	Clarity
9. PPG-12-Buteth-16	5.00	Set
10. PVP	1.50	Set
11. Fragrance	0.10	Odor
12. DMDM Hydantoin	0.20	Preservative
13. Triethanolamine @ 99%	0.60	pH
14. Distilled/Deionized Water	5.40	-----
15. Ritalastin EL 30	3.00	Moisture

Compounding Procedure:

Combine items 1 + 3 and mix. Add item 2 slowly with agitation until uniform. Separately combine items 4-12 and item 15. Mix until uniform. Add to Acritamer mixture. Premix 13 & 14 for 10% TEA solution. Add to mixture and agitate during thickening.

Ref. No. 118-142

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Pump Spray Hair Detangler

Healthy shine detangling spray based on cationics.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita-CTAC (Cetrimonium Chloride)	2.00	Cationic
2. Distilled/Deionized Water	88.50	-----
3. Dimethicone Copolyol (Abil B 88183)	1.00	Slip
4. Supersat AWS-4 (PEG-20 Hydrogenated Lanolin)	1.00	Feel
5. Glycerine @ 99%	4.00	Moisture
6. Propylene Glycol	2.00	Moisture
7. Ritapan DL (Panthenol DL)	1.00	Health
8. Simchin Refined (Jojoba Oil)	0.15	Shine
9. Glydant	0.20	Preservative
10. Fragrance - Pert Plus Type #189-724	0.15	Odor

Compounding Procedure:

Heat water to 87C and add item 4. Mix until clear. Add remaining ingredients except preservative and perfume. Cool to 46C and add items 9 and 10.

Ref. No. 118-171

Hot Oil Treatment

Hot oil treatment for deep penetration of the hair shaft. Rejuvenates hair to its healthy state.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil 65/70	89.00	Moisture, Shine
2. Pationic ISL (Na Isostearoyl Lactylate)	5.00	Substantive
3. Lauryl Myristyl Alcohol	2.00	Coupling
4. Phenoxyethanol	1.00	UV Protection
5. Shebu Refined (Shea Butter)	0.50	Emollient
6. Lanolin-X-tra Deodorized (Lanolin)	2.00	Repair
7. Fragrance-Floral #169-120	0.30	Odor
8. Glydant	0.20	Preservative

Compounding Procedure:

Combine items 1-6 and heat to 165F. Mix and cool to 120F. Add perfume and preservative.

Ref. No. 118-119

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Ringin_g Gel

Clear ringin_g gel with moisturization from Pationic ISL and gel structure from Supersat.

Ingredients:

	<u>W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	42.40	-----
2. Glycerine	15.00	Feel
3. Mineral Oil 70 sus.	12.00	Coat
4. Ritoleth 5 (Oleth-5)	10.00	Emulsifier
5. Supersat AWS 4 (Peg-20 Hydrogenated Lanolin)	17.00	Gel
6. Pationic ISL (Sodium Isostearoyl Lactylate)	1.00	Mildness
7. 2-Phenoxyethanol	2.00	Solubilizer
8. Germall II	0.40	Preservative
9. Fragrance	0.20	Odor

Compounding Procedure:

Heat items 1 and 2 to 165F. Heat items 3-7 to 165F. Add items 3-7 to items 1 and 2. Mix until uniform. Pour in jars at 135F.
Ref. No. 118-160

Micro Emulsion Ringin_g Gel

Shebu WS ringin_g micro emulsion gel. Ideal for hair dressing with mildness and shine.

Ingredients:

	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	53.70	-----
2. Glycerine	10.00	Feel
3. Mineral Oil, Light	12.00	Shine
4. Ritoleth 5 (Oleth-5)	10.00	Emulsifier
5. Supersat AWS 4 (PEG-20 Hydrogenated Lanolin)	12.00	Ring\Gel
6. Pationic ISL (Sodium Isostearoyl Lactylate)	1.00	Mildness
7. Shebu WS (PEG-50 Shea Butter)	1.00	Shine
8. Glydant (DMDM Hydantoin)	0.20	Preservative
9. Fragrance	0.10	Odor

Compounding Procedure:

Heat items 1,2 and 7 to 175F. Combine items 3,4,5 and 6 and heat to 175F. Add this to the first phase with agitation. (Note: process may need an add-back of 3-5% water). Cool to 130F or until thickening occurs. Add items 8 and 9. Add back water loss. Fill at this temperature into jars and cover.

Ref. No. 118-162

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Salon Type Hair Conditioner

State of the art protein/panthenol based hair conditioner designed for achievement of salon type performance.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita CA (Cetyl Alcohol)	0.85	Clean Feel
2. Rita-STAC (Steartrimonium Chloride)	0.44	Conditioner
3. Rita-CTAC (Cetrimonium Chloride)	0.48	Conditioner
4. Citric Acid @ 100%	0.09	pH Control
5. Dimethyl Stearamine (Adogen MA-108)	0.13	Conditioner
6. Distilled/Deionized Water	95.51	-----
7. Promois WK-HQ (Hydroxypropyl trimonium Hydrolyzed Keratin)	0.05	Body
8. Ritaloe 200M (Aloe Vera Gel)	0.05	Body
9. Ritapan DL (dl-Panthenol)	0.05	Body
10. Propylene Glycol	0.50	Clean Feel
11. Hydroxyethyl Cellulose (Natrosol 250 HHR)	1.00	Viscosity
12. Kathon CG	0.03	Preservative
13. Dow Corning 2-7224	0.40	Combing
14. Dow Corning 344 Fluid	0.17	Combing
15. Fragrance	0.25	Odor

Compounding Procedure:

To 15% of total water at 65C add separately items 1-4. Heat to 70C, add item 5 and mix 20 min. Add another 10% of the water at room temperature and continue mixing 20 min. To remaining 75% of water add items 7,8 and 9 at room temperature. Add item 10 and slowly sift in item 11. Agitate 15 min. while heating batch slightly to 35C. When batch thickens, increase agitation for up to 60 min. until uniform.

Ref. No. 116-181A

Salon Type Hair Conditioner

Salon type hair conditioning is achieved with the help of Shebu and an all-natural conditioning agent.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 1000 (R.I.T.A. Blend)	5.00	Emulsifier
2. Shebu Refined (Shea Butter)	0.50	Natural Shine
3. Ritoleth-10 (Oleth-10)	0.50	Application
4. Rita-CTAC (Cetrimonium Chloride)	2.00	Conditioning
5. Glycerine	3.00	Moisture
6. Distilled/Deionized Water	88.67	-----
7. Fragrance - Silkience Type #169-120	0.30	Odor
8. Kathon CG	0.03	Preservative

Compounding Procedure:

Combine items 1-4 and heat to 70C. In a separate beaker combine items 5 and 6 and heat to 75-80C. Add items 1-4 to water mixture and mix until uniform. Cool to 40C and add fragrance and preservative.

Ref. No. 118-120

SOURCE: R.I.T.A. Corp.; Suggested Formulations

Silicone Hair Gel

Silicone based setting gel. High glycerine appropriate for curl activation. Ritapan D1 for humectancy.

<u>Ingredients:</u>	<u>%</u>	<u>Function</u>
1. Distilled/Deionized Water	81.10	-----
2. Acritamer 940 (Carbomer 940)	0.80	Gelling
3. Glycerine	10.00	Curl
4. Propylene Glycol	5.00	Emollient
5. Dimethicone Copolyol	1.00	Shine
6. Ritapan DL (Panthenol d1)	0.80	Moisture
7. Laneto 50 (PEG-75 Lanolin)	0.50	Shine
8. Fragrance	0.10	Odor
9. Glydant (DMDM Hydantoin)	0.20	Preservative
10.TEA @ 99%	0.80	pH

Compounding Procedure:

Disperse slowly item 2 into 90% of the water with agitation. Premix items 4,5,6 and 7 with agitation. Premix items 8 and 9 into item 3. Combine item 10 with remaining 10% of the water. Neutralize Acritamer solution. When complete add other premixes and mix until uniform.

Ref. No. 118-156

Shebu Hair Setting Gel

Water based setting gel with Shebu. The setting agent is plasticized with Supersat for softer hold.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	60.80	-----
2. Acritamer 940 (Carbomer 940)	0.70	Gelling
3. Distilled/Deionized Water	26.50	-----
4. Glycerine	4.00	Moisture
5. Shebu WS (PEG-50 Shea Butter)	3.00	Luster
6. Supersat AWS 4 (Peg 20-Hydrogenated Lanolin)	1.00	Plasticizer
7. PVP K-30	2.00	Set
8. Ritapan DL (Panthenol d1)	0.20	Moisture
9. TEA @ 50%	1.40	pH
10.Fragrance	0.20	Odor
11.DMDM Hydantoin	0.20	Preservative

Compounding Procedure:

Slowly disperse Acritamer into item 1. Agitate until fully hydrated. Combine items 3-9 until uniform (slight heating may be necessary). Add this to the Acritamer mixture, add items 10 and 11, and agitate until uniform.

Ref. No. 118-158

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Stiff Holding Hairspray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Amphomer	4.75
AMP	0.80
Crotein AD	0.20
Dow Corning 556	0.15
Citroflex 2	0.20
Octyl Dimethyl PABA	0.05
SDA 40	6.85
Propellant A-46	30.00

Preparation:

Dissolve AMP in the anhydrous alcohol. While maintaining good agitation, slowly add Amphomer to the vortex. Continue mixing until solution is complete. Add balance of ingredients. When completely dissolved and homogeneous, filter and fill concentrate Charge propellant.

Precision Specifications:

Actuator: 21-8173 0.020" MB Body: 07-3415 0.062" x 0.020" VT
 Stem: 0.4-1230 0.020" Cup: 12-8700
 Stem Gasket: 05-0310 Buna Dip Tube: 09-3530 0.060"
 Spring: 06-6010 SS
 Formula 5887-80-4

Aerosol Shaping Hairspray

<u>Materials:</u>	<u>Parts/Weight</u>
Versatyl-42	3.75
AMP-95	0.96
DC-193 Silicone	0.10
DC-556 Silicone	0.10
Glycerine	0.10
Citroflex-2	0.10
Monamid 716	0.20
Sunarome OMC	0.05
Fragrance	Q.S.
Ethanol, Anhydrous	64.64
Propellant A-46	30.00

Valve: Precision
 .018" stem
 .018 x .013" body
 .018" FT Actuator

Spray Rate: 0.56 g/sec

Preparation:

Add alcohol to the tank. While maintaining good agitation, slowly add Versatyl-42 to the vortex. Add AMP-95 and continue mixing until solution is complete. Add remaining ingredients of the concentrate. When completely dissolved and homogeneous, filter and fill concentrate to the can. Charge propellant.
 Formula 6258-07

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Styling/Conditioning Mousse

<u>Ingredients:</u>	<u>%W/W</u>
A Forestall	1.40
Brij 721	0.50
Dow Corning 929 Emulsion	0.10
Water, deionized	78.00
B Gaffix VC-713	5.00
SD Alcohol 40	10.00
C Hydrocarbon Propellant A-46	5.00

Procedure:

Heat (A) to 60C with stirring until uniform. Cool to 40C. Add (A) to (B) with stirring. Pack in suitable aerosol containers and pressurize with (C) at room temperature. Formula PC 8216

Clear Gel Grooming Agent & Conditioner

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Marcol 70	14.10
Brij 97	15.50
Arlatone G	15.50
Atlas G-3570	0.10
Propylene glycol	8.60
Sorbo	6.90
B Water, deionized	39.30

Procedure:

Heat (A) to 90C and (B) to 95C. Add (B) to (A) with moderate stirring. Remove from heat and continue to stir as the mixture cools. When the mixture turns clear (about 65C) pour into tubes or jars.

Hair Straightening Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Glycerol monostearate	20.00
Brij 35	2.00
Stearyl alcohol	5.00
Mineral oil	5.00
B Sodium lauryl sulfate	1.00
Water	40.00
*Preservative	
C Sodium hydroxide	3.50
Water	23.50
D *Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) to 60C and (B) to 62C. Add (B) to (A) with constant agitation until cool. Add (C). Mix thoroughly. Add (D). Formula HC-17

SOURCE: ICI Surfactants: Suggested Formulations

Styling Mousse
X22176-106 (Hydroalcoholic)

<u>Concentrate:</u>	<u>%W/W</u>
Distilled water	q.s.* to 100
Eastman AQ 55S polymer	8.0
Myvatex Texture Lite emulsifier	2.0
Monamid 150 ADD	1.0
Myvatex 60 emulsifier	0.3
SDA-40C alcohol	20.0
Fragrance	q.s.*
Citric acid	q.s.*

*q.s.= quantity sufficient

Procedure:

1. Heat Eastman AQ 55S and water to 80-85C with mixing until the polymer is completely dispersed in the water.
2. Cool to room temperature.
3. Slowly add Myvatex Texture Lite with high-speed agitation. Care should be taken when mixing to avoid aeration.
4. When uniform, add Myvatex 60 and Monamid 150 ADD.
5. Slowly add SDA-40C alcohol.
6. Add fragrance.
7. Adjust pH to 6.5-7.0 with citric acid.
8. Aerosol final concentrate at 5.23 g/mL of A46 propellant (Aeropress).

Styling Mousse
X22176-107 (Alcohol-Free)

<u>Concentrate:</u>	<u>%W/W</u>
Distilled water	q.s.* to 100
Eastman AQ 55S polymer	8.0
Myvatex Texture Lite emulsifier	5.5
Monamid 150 ADD	1.0
Myvatex 60 emulsifier	0.3
Preservative	q.s.*
Fragrance	q.s.*
Citric acid	q.s.*

*q.s.=quantity sufficient

Procedure:

1. Heat Eastman AQ 55S and water to 80-85C with mixing until the polymer is completely dispersed in the water.
2. Cool to room temperature and add preservative.
3. Slowly add Myvatex Texture Lite with high-speed agitation. Care should be taken when mixing to avoid aeration.
4. When uniform, add Myvatex 60 and Monamid 150 ADD.
5. Add fragrance.
6. Adjust pH to 6.5-7.0 with citric acid.
7. Aerosol final concentrate at 5.23 g/mL of A46 propellant (Aeropress).

SOURCE: Eastman Chemical Co.: Suggested Formulations

Water-Based Hair Spray
X21980-057 (Pump)

<u>Phase A:</u>	<u>%W/W</u>
Distilled water	90.4
Eastman AQ 55S polymer	5.0

<u>Phase B:</u>	
Germall II diazolidinyl urea	0.3
Methylparaben	0.3

<u>Phase C:</u>	
Luviskol VA 73W PVP/VA copolymer--50% solids	4.0

Procedure:

1. Heat Phase A to 85C.
 2. With mixing, hold at 80-85C for 15 minutes.
 3. Cool to 60C, add Phase B, and mix until dissolved.
 4. Cool to 40C and add Phase C.
 5. Add water lost during heating.
 6. Mix until uniform; filter and package.
- pH: 6.0+-1.0

Water-Based Hair Spray
X21980-058 (Aerosol)

<u>Phase A:</u>	<u>%W/W</u>
Distilled water	60.4
Eastman AQ 38S polymer	5.0

<u>Phase B:</u>	
Germall II diazolidinyl urea	0.3
Methylparaben	0.3

<u>Phase C:</u>	
Luviskol VA 73W PVP/VA copolymer--50% solids	4.0

<u>Phase D:</u>	
Dymel A dimethyl ether	30.0

Procedure:

1. Heat Phase A to 85C.
 2. When mixing, hold at 80-85C for 15 minutes.
 3. Cool to 60C, add Phase B, and mix until dissolved.
 4. Cool to 40C and add Phase C.
 5. Add water lost during heating.
 6. Add phase D at room temperature.
 7. Mix until uniform; filter and package.
 8. Agitate aerosol container to ensure solution of propellant.
- pH: 6.0+-1.0

SOURCE: Eastman Chemical Co.: Suggested Formulations

Wheat Germ Foaming Conditioner

	<u>Weight, %</u>
Mackam 35 (Cocamidopropyl Betaine (Via Glyceride)	10.0
Mackalene 116 (Cocamidopropyl Dimethylamine Lactate)	8.0
Mackalene 716 (Wheat Germamidopropyl Dimethylamine Lactate)	1.0
Natrosol 250 HHR	0.7
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely hydrate Natrosol.
2. Add first three components and heat to 40 degrees C.
3. Blend until clear.
4. Add remaining components and cool.

Natural Lipid Styling Mousse

	<u>Weight, %</u>
PVP/VA E335	4.5
SDA Alcohol	21.5
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	4.0
Deionized Water, Fragrance, Dye qs to	100.0

Procedure:

1. Combine components and blend until clear.
2. Pressurize with suitable propellant

Pump Type Hair Spray

	<u>Weight, %</u>
Resyn 26-1314	6.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	1.0
Deionized Water	7.6
Ethanol, Fragrance qs to	100.0

Procedure:

1. Dissolve Resyn 26-1314 in alcohol.
2. Add remaining components and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

55% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl 47	8.00
AMP	1.38
Deionized Water	35.62
Anhydrous Ethanol, SDA-40	22.00
Fragrance	q.s.
Preservative	q.s.
DME	33.00

Cloud Point: <-35C

Valve: Seaquist Valve NS-34
 Stem: 0.013"
 Gasket: Butyl 0.042" THK. Code: 501
 Cup: Regular, Epoxy top, Laminate Bottom, Dimpled,
 Code: 1610
 Spring: 0.020" SS
 Body: Capillary
 Vapor Tap: 0.013"
 Dip Tube: 0.040"
 Actuator: Excel 200 Misty 0.016" Misty

Preparation:

Dissolve AMP in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl 47. Mix until dissolved. Filter and fill, then charge with propellant.
 Formula 7625:63B

80% VOC Non-Aerosol Hair Spray

This 80% VOC non-aerosol hair spray has a natural feel and excellent drying time with a fine, misty spray.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl-47	5.00
NaOH	0.40
DC 193	0.30
d1-Panthenol	0.21
Citroflex-2	0.20
Deionized Water	13.89
Anhydrous Ethanol, SDA-40	80.00

Valve Specification: Calmar Mark II
 Actuator: WTS Head

Preparation:

Dissolve NaOH in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl-47. When solution is complete, add remaining ingredients and mix well until homogeneous. Filter and fill.
 Formula 7577-65

SOURCE: National Starch and Chemical Co.: Suggested Formulas

80% VOC Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Amphomer	5.00
AMP	0.82
Citroflex-2	0.30
Monamid 716	0.20
Glycerine	0.10
d1 Panthenol	0.10
Solulan-75	0.10
Neo-Heliopan AV	0.05
Anhydrous Ethanol, SDA-40	55.00
Propellant 152A	13.33
N-butane	25.00

Valve Specifications: Precision Valve Corp.

Stem: 04-1215 .016"	Dip Tube: 09-2010
Stem Gasket: 05-0350 Butyl	Actuator Style: 21-8146 Kosmos
Spring: 06-6010 SS	Orifice Size: .025" MB Concave
Body: 07-7970 .016" LD	Mounting Cup: 32-7300-62 Flat, Epon T/B Dimpled Full Bond

Preparation:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift in Amphomer. When solution is complete, add remaining ingredients and mix until homogeneous. Filter, fill and charge with propellants.

Formula 7924:28

55% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl	5.00
AMP	0.89
Rhodorsil Oils 70041 VO .65	1.00
DI Water	38.11
Anhydrous Ethanol, SDA-40	22.00
Propellant DME	33.00

Valving Specifications:

Seaquist NS 34
Stem Orifice: 0.013"
Gasket: Butyl 0.042" Thk.Code: 501
Cup: Regular, Epoxy Top, Laminate Bottom, Dimpled, Code: 1610
Spring: 0.020" SS
Vapor Tap: 0.013"
Tubing ID: 0.040"
Actuator: Excell 200 Misty/0.106" Misty

Preparation:

Dissolve AMP in ethanol and water. While maintaining good agitation, slowly sift in Lovocryl. When solution is complete, add Rhodorsil Oils 70041 VO .65 and mix until homogeneous. Filter and fill-charge can with propellant.

Formula 7746-137

SOURCE: National Starch and Chemical Co.: Suggested Formulas

80% VOC Hair Spray

Resyn 28-2930	3.00
Amphomer LV-71	0.81
AMP	0.44
Citroflex-2	0.30
Monamid 716	0.20
Glycerine	0.10
Panthenol	0.10
Solulan-75	0.10
Neo-Heliopan AV	0.05
Anhydrous Ethanol, SDA-40	55.00
Propellant 152A	14.90
N-butane	25.00
Fragrance	q.s.
Cloud Point: <-35C	

Valve: Precision Valve Corp.
 Stem: 04-1215 .016"
 Stem Gasket: 05-0350 Butyl
 Spring: 06-6010 SS
 Body: 07-7970 .016" LD
 Mounting Cup: 32-7300-62/Flat, Epon T/B Dimpled Full Bond
 Dip Tube: 09-2010
 Actuator Style: 21-8146 Kosmos
 Orifice Size: .025" MB Concave
 Formula 7318-93

High Humidity Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Resyn 28-2913	2.50
AMP	0.24
Croteen AD Anhydrous	0.20
DC-190	0.20
Fragrance	Q.S.
Anhydrous Ethanol, SDA-40	71.86
Propellant A-46	25.00

Valve: Precision
 Stem: 0.018" (#04-1220)
 Stem Gasket: Buna (#05-0310)
 Spring: SS (#06-6010)
 Body: 0.018" x 0.013" VT (#07-0131)
 Mounting Cup: Flat, Epon Top/Bottom, Dimpled (#12-7100)
 Actuator: 0.018" FT (#01-1836)

Preparation:

Dissolve AMP in anhydrous ethanol, SDA-40. Slowly add Resyn 28-2913 to the solution while maintaining good agitation. Add remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge propellant.

Formula 6472:103

SOURCE: National Starch and Chemical Corp.: Suggested Formulas

80% VOC Aerosol Shaper Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Amphomer LV-71	3.50
AMP Regular	0.60
Armeen DM 18D	0.25
Citroflex-2	0.20
Monamid 716	0.20
Solulan 75	0.10
Neo Heliopan AV	0.05
Varion C ADG LS	0.20
Deionized Water	14.90
Anhydrous Ethanol, SDA-40	50.00
N-butane	11.00
DME	19.00

Valve Specifications: Precision Valve

Stem: 0.016" (04-1215)

Stem Gasket: Butyl (05-0350)

Spring: SS (06-6010)

Body: 0.016" LD (07-7970)

Mounting Cup: Flat, Epon T/B Dimpled Full Bond

Actuator: Kosmos MB Concave 0.025" (21-8146)

Preparation:

Dissolve AMP Regular and Armeen DM 18D in water and ethanol. While maintaining good agitation, slowly sift in Amphomer LV-71. When solution is complete, add remaining ingredients and mix well until homogeneous. Filter and fill.

Formula 8002:183

High Solids 80% VOC Hair Spray

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl 47	10.00
AMP	1.73
Citroflex-2	0.20
Monamid 716	0.15
Glycerine	0.10
Panthenol	0.10
Deionized Water	7.72
Anhydrous Ethanol, SDA-40	50.00
N-butane	12.00
DME	18.00
Fragrance	q.s.

Cloud Point: <-35C

Valve: Precision Valve Corp.

Stem: 04-1215 0.016"

Gasket: 05-0350 Butyl

Spring: 06-6010 SS

Body: 07-7970 0.016" LD

Cup: 32-7300-62 Flat, Epon T/B, Dimpled, Full Bond

Vapor Tap: None

Dip Tube: 09-2010 0.122"

Actuator: 0.016" MB Concave Delta

Preparation:

Dissolve AMP in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl 47. When dissolved, add remaining ingredients and mix until homogeneous. Filter and fill, then charge with propellants.

Formula 7625:95

SOURCE: National Starch and Chemical Co.: Suggested Formulas

Section VII

Lotions

After Exercise Body Lotion

This refreshing lotion is an excellent carrier for fragrances and will provide moisturizing along with a skin smoothing effect.

	<u>% by Weight</u>
Part I:	
Water	51.65
Carbomer 940	0.25
Triethanolamine (99%)	0.40
Part II:	
Water	30.00
Phospholipid SV	1.00
SD3A Alcohol	15.00
Part III:	
Phenyl Dimethicone	1.50
Titanium Dioxide (Cosmetic White)	0.20

Procedure:

Slowly add Carbomer 940 to water with good agitation. After the Carbomer 940 is dissolved, add triethanolamine. In a separate container, mix water with Phospholipid SV and heat to 65C with mixing. When dissolved, cool to 30-35C then add SD3A alcohol. Blend Part II to I mixing well, and part III as a slurry and blend together until a uniform white lotion is obtained. Add color, fragrance and preservative as required and package.

Therapeutic Humectant Lotion

	<u>% by Weight</u>
Part A:	
Phospholipid SV	1.7
Glycerin	15.0
TiO ₂	0.5
Water	72.6
Methyl Paraben	0.2
Part B:	
Steareth-2	3.3
Hexyl Laurate	3.0
C12-C15 Alcohol Benzoates	2.0
Dimethicone and Trimethylsiloxysilicate	1.5
Propyl Paraben	0.2

Procedure:

Combine phases A and B separately with heating to 65C. Homogenize B into A for a sufficient time to ensure good emulsification. Stir cool to 45C, add fragrance, and package.

Comments:

This smooth pourable lotion provides instant relief of dry, chapped skin and provides a generous amount of emollients and glycerin. The use of Phospholipid SV eliminates any greasiness and leaves the skin with an elegant afterfeel.

SOURCE: Mona Industries, Inc.: Suggested Formulations

Alcoholic Milk Lotion

	<u>Wt%</u>
(O) Stearic Acid	2.0
Cetyl Alcohol	1.0
Isopropyl Myristate	2.0
Glyceryl Monostearate (Self Emulsifying Type)	1.1
Polyoxyethylene (20) Cetyl Ether	1.9
Methyl Paraben	q.s.
(W) Ajidew N-50	3.0
Propylene Glycol	5.0
Water	74.0
(E) Ethyl Alcohol	10.0

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Cool to 50C with stirring and add (E).
4. Finish mixing at 35-40C.

pH: 5.1

Viscosity: 270 cps

Milk Lotion

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	31.6
Paraffin Wax (mp 42-44C)	4.5
Cetyl Alcohol	4.5
Sorbitan Monostearate	1.8
Polyoxyethylene (20) Sorbitan Monooleate	2.8
Tocopherol Acetate	0.2
(W) Ajidew T-50	4.0
Water	50.5
Preservative	0.1

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) with agitation.
3. Cool to 42C with stirring.

pH: 6.2

Viscosity: 25,000 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Alpha Hydroxy Acid Lotion

Resulting product is a highly absorbent lotion that can be dispensed from a flexible tube or soft bottle. The alpha hydroxy acid (AHA) contained in this formula is buffered lactic acid with a use level of approximately 10%. The formulation utilizes a cationic and nonionic emulsification system consisting of Lexemul 561, Lexemul AR and Lexamine S-13. The cationic Lexamine S-13 enhances the substantivity of the formulation and may act as an auxiliary AHA buffer. The product produces minimal whitening during rub-out.

	<u>%w/w</u>
A. Deionized Water	67.42
Glycerin USP (99.7%)	3.00
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Lactic Acid USP (88%)	0.60
B. Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.00
Glyceryl Stearate (and) Stearamidoethyl Diethylamine (Lexemul AR)	1.25
Stearamidopropyl Dimethylamine (Lexamine S-13)	0.50
Cetyl Alcohol (Adol 52)	0.50
Caprylic/Capric Triglyceride (Lexol GT-865)	8.00
Isobutyl Stearate (Lexol BS)	1.00
Propylparaben (Lexgard P)	0.10
C. Lactic Acid USP (88%)	5.90
Sodium Lactate (Purasal S/SP 60%)	8.33

Procedure:

1. Combine section "A". Begin heating to 75-80C.
2. Combine section "B". Heat to 80-85C with constant slow agitation.
3. When sections "A" and "B" are homogeneous and at the designated temperatures, slowly add "B" to "A". Mix with rapid agitation for 5 minutes then begin cooling.
4. Reduce mixing speed during cooling to prevent vortexing.
5. At 40-50C, add section "C" to sections "AB".
6. When the batch is homogeneous and at 35-40C adjust for water loss.
7. Mix to 30C.
8. Adjust final pH to 3.50-3.75 with Lactic Acid or Sodium Lactate, as required.

SOURCE: Inolex Chemical Co.: Formulation 398-156-1

Alpha Hydroxy Acid Lotion

Resulting product is a lotion that could be dispensed from a flexible tube or flexible bottle. The alpha hydroxy acid (AHA) contained in this formula is buffered lactic acid with a use level of approximately 10%. This formulation utilizes a cationic and nonionic emulsification system consisting of Lexemul 561 and Lexamine S-13. The cationic Lexamine S-13 enhances the substantivity of the formulation and may act as an auxiliary AHA buffer. The product produces minimal whitening during rub-out.

	%w/w
A. Deionized Water	68.50
Glycerin USP (99.7%)	3.00
Hydroxyethylcellulose (Cellosize QP-4400-H)	1.00
B. Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Lactic Acid USP (88%)	0.60
C. Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	2.00
Stearamidopropyl Dimethylamine (Lexamine S-13)	1.00
Cetyl Alcohol (Adol 52)	0.50
Caprylic/Capric Triglyceride (Lexol GT-865)	7.00
Isobutyl Stearate (Lexol BS)	2.00
Propylparaben (Lexgard P)	0.10
D. Lactic Acid (88%)	5.90
Sodium Lactate (Purasal S/SP 60%)	8.00

Procedure:

1. Combine section "A". Begin heating to 75-80C. Sift Hydroxyethylcellulose into vortexing water.
2. When section "A" is homogeneous, add section "B" to section "A". Continue agitation. Continue heating to 75-80C.
3. Combine section "C". Heat to 80-85C with constant slow agitation.
4. When sections "AB" & "C" are homogeneous and at the designated temperatures, slowly add "C" to "AB". Mix with rapid agitation for 5 minutes then begin cooling.
5. Reduce mixing speed during cooling to prevent vortexing.
6. At 40-50C, add section "D" to sections "ABC".
7. When the batch is homogeneous and at 35-40C adjust for water loss.
8. Mix to 30C.
9. Adjust final pH to 3.50-3.75 with Lactic Acid or Sodium Lactate, as required.

SOURCE: Inolex Chemical Co.: Formula 398-157-2

Banana Hand Lotion

	<u>Parts by Weight</u>
Water	568.0gr
Carbomer 934	2.0gr
GMS-SE	4.0gr
Avocado Oil	16.0gr
Rosswax 573	4.0gr
Coconut Oil #76	16.0gr
Ross Jojoba Oil	4.0gr
TEA	4.0gr
Germaben II	6.0gr
Fragrance GK-17	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Avocado Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in separate kettle. As soon as the Oil Phase has been mixed well, add the Germaben II and then the TEA under high agitation, then the fragrance. Cool to 55C for filling.

O/W Lotion

Phase 1:	
Ross Wax 63-0412	1.6
Ross Wax 1641	1.0
Mineral Wax #9	2.1
Ross Wax 63-0212	1.0
Amerchol L-101	5.2
Ross Jojoba Oil	2.1
GMS SE	2.1
Phase 2:	
Triethanolamine	1.0
Propylene Glycol	4.7
Water	78.2
Preservative Germaben II	1.0
Novarome DE-47 Fragrance	q.s.

Procedure:

In separate kettles bring Phase (1) and (2) to 170F. When temperature is reached add Phase (1) to (2) with agitation. Cool to 120F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Behenyl Hand Lotion

This lotion features the combination of Incromine BB and Crodacid B, that provide great stability (1 month at 50C). Crodamol PMP helps to formulate a non-oily lotion with smooth rub in.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incromine BB (Behenamidopropyl Dimethylamine)	3.0
Crodacid B (Behenic Acid)	2.5
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	20.0
Dimethicone	3.0
Part B:	
Deionized Water	70.5
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methyl Paraben (and) Propyl Paraben	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 85-90C. Heat Part B to 85-90C. Add Part B to Part A with mixing and cool to 45C. Add Part C with mixing and cool to desired fill temperature.

N.A.T.C. Approved
Formula SC-215

Velvet 44-Behenyl Lotion

This lotion features a unique combination of emulsifiers (Incromine BB and Crodacid B) that provide great stability (3 months @ 50C) and leave a soft velvety feel on the skin. Crodamol PMP helps reduce the oiliness of the mineral oil and promotes a smooth rub in.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incromine BB (Behenamidopropyl Dimethylamine)	3.00
Crodacid B (Behenic Acid)	2.50
Mineral Oil (70ssu)	15.00
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	10.00
Silicone Fluid (200 cps) DC 200	1.00
Part B:	
Deionized water	67.50
Part C:	
Germaben II	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 85-90C. Heat Part B to 85-90C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature.

N.A.T.C. Approved
Formula SC-213

SOURCE: Croda Inc.: Suggested Formulations

Body Lotion

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Methyl Glucose Distearate (Tego Care 450)	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	6.5
Octyl Stearate (Tegosoft OS)	5.7
Phase B:	
Glycerin	3.0
Water	81.4
Phase C:	
Mineral Oil	0.8
Carbomer 941	0.2
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B or B to A without stirring.
4. Stir.
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize.
6. Cool to 35-40C with stirring.
7. Add Phase D/E. Stir.
8. Mix until viscosity is correct.

Emollient Lotion
O/W Cold Process

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
PEG-25 Glyceryl Trioleate (Tagat T0)	0.5
Polyglyceryl-4 Isostearate (Isolan GI 34)	1.5
Mineral Oil	4.0
Isopropyl Palmitate (Tegosoft P)	3.0
Caprylic/Capric Triglycerides (Tegosoft CT)	2.0
Dimethicone (Abil 350)	0.2
Phase B:	
Water	83.6
Glycerin	3.0
Preservative	Q.S.
Phase C:	
Carbomer 934	0.3
Mineral Oil	1.2
Phase D:	
NaOH (10% Solution)	0.7

Procedure:

1. Homogenize A + B, oil particle size <1.0 um.
2. Add C and D, stir intensively for 30 minutes. Temperature of the phases A, B, C, D: are 20-25C

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

Body Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Isohexadecane	9.00
Mineral oil	5.00
Isostearic acid	3.00
Arlamol E	2.00
Cyclomethicone	1.00
B Xanthan gum	0.10
C Water	73.90
Sorbo, sorbitol solution	2.00
Arlatone 2121	4.00
D *Preservative	
E *Perfume	
*q.s. these ingredients.	

Procedure:

Heat (C) to 80C with occasional vigorous stirring. Add (B) to (C) at 75C with vigorous stirring. Add (A) with vigorous stirring or homogenization. Add (D) and (E) upon cooling.

Moisturizing Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	8.00
CR-15 alcohols benzoate	7.00
Jojoba oil	5.00
B Xanthan gum	0.10
C Water	70.90
Propylene glycol	4.00
Arlatone 2121	5.00
D *Preservative	
E *Perfume	
*q.s these ingredients.	

Procedure:

Heat (C) to 80C with occasional vigorous stirring. Add (B) to (C) at 75C with vigorous stirring. Add (A) with vigorous stirring or homogenization. Add (D) and (E) upon cooling.

SOURCE: ICI Surfactants: Suggested Formulations

Concentrated Alpha Hydroxy Acid Lotion

Resulting product is a pourable lotion that could be dispensed from a glass or rigid plastic bottle. The formulation utilizes a buffered alpha hydroxy acid (AHA), Lactic Acid, at a use level of approximately 15%. The formula utilizes a cationic and nonionic emulsification system consisting of Lexquat AMG-IS and Lexemul 561. In addition to functioning as the primary emulsifier, Lexquat AMG-IS, also enhances skin substantivity. This formulation offers a high level of activity in a buffered form.

	<u>%w/w</u>
A. Deionized Water	52.30
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Propylene Glycol USP	2.70
Lactic Acid USP (88%)	0.50
B. Hydroxyethylcellulose (Cellosize QP-15,000H)	0.50
C. Isostearamidopropyl PG-Dimonium Chloride (Lexquat AMG-IS)	10.10
D. Glyceryl Stearate (Lexemul 515)	1.75
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.40
Propylene Glycol Dicaprylate/Dicaprate (Lexol PG-865)	2.50
Cetyl Alcohol (Adol 52)	0.80
Jojoba Oil (Golden Jojoba Oil)	2.50
Myristyl Myristate (Ceraphyl 424)	0.85
Propylparaben (Lexgard P)	0.10
E. Lactic Acid USP (88%)	7.25
Sodium Lactate (Purasal S/SP 60%)	14.35

Procedure:

1. Combine section "A" heating to 80-85C. Use propeller mixer for agitation.
2. Sprinkle section "B" into section "A". Increase mixing speed to create a vortex during addition, then slow to highest speed which does not produce a vortex.
3. When sections "A" and "B" are homogeneous and at the designated temperatures add section "C" to sections "AB".
4. Combine section "D". Heat to 80-85C with continuous slow mixing.
5. When sections "ABC" and section "D" are homogeneous and at the designated temperatures, slowly pour section "D" into Sections "ABC". Increase mixing speed to a high speed. Maintain at 80-85C for 5 minutes, then begin cooling. Slow mixing speed to highest speed possible that will not cause vortexing.
6. Add section "E" to sections "ABCD" at 60-65C. Continue mixing and cooling.
7. At 40-45C adjust for water loss.
8. Mix batch until it reaches room temperature.
9. Adjust final pH to 3.60-3.80 with Lactic Acid or Sodium Lactate, as required.

Physical Properties:

Viscosity: 2400 cPs @ 24C (Brookfield RVT, TA @ 10 rpm)
pH: 3.7 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-99-2

Deep Skin Cleansing Lotion

<u>Materials:</u>	<u>% by Weight</u>
1. Mineral Oil SUS 65/75	50.0
2. Amerchol L-101	3.0
3. Cerasynt PA	3.0
4. Tween 20	3.0
5. Stearic Acid T.P.	1.0
6. Propylparaben	0.1
7. Methylparaben	0.2
8. Water (deionized)	38.6
9. Borax U.S.P.	0.5
10. Bentone LT rheological additive	0.3
11. Perfume	0.3

Manufacturing Directions:

- Part 1-In a stainless steel vessel, add items 1 through 7 and heat to 75C. Maintain this temperature and stir slowly until everything is in solution. Bring temperature to 60C.
- Part 2-In a separate stainless steel vessel, add item 8 and heat to 60C. Add and dissolve item 9. Add item 10 and mix at medium speed (1200 rpm) for about 20 minutes, or until completely dispersed, while maintaining temperature at 60C.
- Part 3-Add Part 2 to Part 1 slowly and mix together.
- Cool lotion to 50C and add item 11. Stir slowly to room temperature.

Formula TS-105

Hand Lotion

<u>Materials:</u>	<u>% by Weight</u>
1. Water	87.59
2. Triethanolamine	0.42
3. Propylene Glycol	4.00
4. Methylparaben	0.10
5. Bentone LT rheological additive	0.80
6. Ceraphyl 424	3.00
7. Stearic Acid T.P.	0.79
8. Pluronic F-127	1.00
9. Glyceryl Monostearate	2.00
10. Propylparaben	0.10
11. Perfume	0.20

Manufacturing Directions:

- Part 1-In a stainless steel jacketed kettle, add items 1 through 4 and heat to 60C. Using a homomixer at about 1400 rpm, add item 5 slowly to avoid lumps, and mix for 20 minutes or until homogeneous. If foam develops, add a minute amount of Antifoam 60. Heat Part 1 to 78C.
- Part 2-In a separate vessel, add items 6 through 10 and heat to 78C. Mix until completely melted and homogeneous.
- Mix Part 2 slowly in Part 1 at 78C using sweep blades.
- Cool to 50C. Add item 10, mix and cool to room temperature.

Formula TS-200

SOURCE: Rheox, Inc.: Suggested Formulations

Deep Moisturizing Lotion

This after-bath lotion gives the benefits of potent skin conditioners while eliminating the tackiness associated with lanolin and petrolatum through the unique emolliency provided by Phospholipid EFA.

Part A:	<u>% By Weight</u>
Phospholipid EFA	4.00
Steareth-21	0.40
Water	82.00

Part B:	
Steareth-2	1.60
Anhydrous Lanolin	1.50
Petrolatum	3.00
Octyldodecyl Myristate	2.00
Cetearyl Alcohol	4.00
Dimethicone (100cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 45-50C, then add fragrance, color, and preservative as needed before filling.

Hand and Body Lotion

A superior product designed for after-bath use on traditionally dry areas such as hands, elbows and heels. Phospholipid EFA is strongly substantive towards skin providing non-greasy moisturizing and a pleasant after feel.

Part A:	<u>% by Weight</u>
Phospholipid EFA	4.00
Water	83.00

Part B:	
Steareth-2	2.00
Light Mineral Oil	4.00
Cetearyl Alcohol	3.00
Octyldodecyl Myristate	2.50
Dimethicone (100cS)	1.50

Combine ingredients in both phases separately and heat to 65C. Homogenize (B) into (A) with continued heating until sufficiently mixed. Stir-cool to 45C. Add fragrance, color, and preservative as needed and fill.

SOURCE: Mona Industries, Inc.: PHOSPHOLIPID EFA: Suggested Formulations

Emollient Lotion

Illustrates the use of Veegum Pro magnesium aluminum silicate as an emulsion stabilizer and thickener. The formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

A	Veegum Pro	1.5%
	Water	83.8
B	Triethanolamine	0.1
	Glycerin	3.5
C	Marcol 130	3.6
	Petrolatum	0.4
	Stearic acid XXX	1.6
	Cetyl alcohol	1.5
	Kessco Glycerol Monostearate SE	1.4
	Acetulan	2.0
	Dow Corning 200 Fluid	0.6
	Preservative	q.s.

Procedure:

Heat the water to 70 to 75C, then slowly add the Veegum PRO while agitating at maximum available shear. Mix until smooth. Add B to A with slow agitation until smooth. Maintain A/B at 70 to 75C, heat C to 75 to 80C. Add C to A/B and mix until cool.

Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottle.

Comments: Veegum PRO effectively thickens and stabilizes the lotion, even at elevated temperatures. This lotion is absorbed rapidly, leaving the skin smooth and greaseless.

Hand and Body Lotion

Illustrates the use of Veegum PRO magnesium aluminum silicate as an emulsion stabilizer and thickener. The formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

A	Veegum Pro	2.00%
	Water	70.75
	Glycerin	6.00
B	Marcal 130	10.00
	Petrolatum	4.00
	Arlacel 165	5.00
	Synchrowax AW1-C	1.25
C	Allantoin	1.00
	Preservative	q.s.

Procedure:

Heat the water to 70 to 75C, then slowly add the Veegum PRO while agitating at maximum available shear. Mix until smooth. Add glycerine and mix until uniform. Heat B to 75 to 80C. Add B to A and mix until cool. Add C and mix until uniform.

Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottle.

Comments: Veegum PRO effectively thickens and stabilizes the emulsion even at elevated temperatures. Glycerin helps to rapidly hydrate dry skin and the selection of oils and waxes produces a smooth and non-greasy feel. The allantoin provides soothing relief for wounds, burns, and skin problems in general.

SOURCE: R.T. Vanderbilt Co., Inc.; Formula Nos. 417 & No. 420

European O/W Cleansing Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	15.00
Arlamol E	3.00
B Arlatone 2121	2.00
Propylene glycol	1.25
Glycerol	1.25
Water	72.50
C Carbomer 934 (3% solution)	5.00
D Sodium Hydroxide (10% solution) to pH of 6.5-7.0	
E *Perfume	
*q.s. these ingredients.	

Procedure:

Disperse (C) in (B) at 75C with moderate stirring. Heat (A) and add at 75 with vigorous stirring. Homogenize during addition of (A). Stir vigorously until cool. Add (D) around 50C. Add (E) at below 35C.

Water/Oil Cleansing Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	15.00
Beeswax	0.50
Ceresin wax	0.50
Sorbo	27.00
Arlace1 186	3.00
Tween 80	0.50
B Water, deionized	53.50
*Preservative	
*q.s these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Gentle Moisturizing Alpha Hydroxy Acid Lotion

Resulting product is a thixotropic lotion which can be dispensed from a flexible tube or soft plastic bottle. The product utilizes a blend of two alpha hydroxy acids (AHA's), and buffered citric acid at a combined use level of approximately 2.5%. This product could be used as a daily use moisturizing AHA product.

	%w/w
A. Deionized Water	76.70
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Hexylene Glycol	1.00
B. Hydroxyethylcellulose (Cellosize QP-15,000H)	1.00
C. Isostearamidopropyl PG-Dimonium Chloride (Lexquat AMG-IS)	2.00
D. Glyceryl Stearate (Lexemul 515)	3.00
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	4.00
Propylene Glycol Dipelargonate	2.10
Isopropyl Palmitate (and) Isopropyl Myristate (and) Isopropyl Stearate (Lexol 3975)	1.00
Sesame Oil	2.00
Tocopherol (Copherol 1300)	0.10
Propylparaben (Lexgard P)	0.10
E. Deionized Water	4.00
Malic Acid (Granular)	1.00
Sodium Citrate USP-FCC	1.60

Procedure:

1. Combine section "A" heating to 70-75C. Use a propeller mixer for agitation.
2. Sprinkle section "B" into section "A". Increase mixing speed to create a vortex during addition, then slow to highest speed which does not produce a vortex.
3. When sections "A" & "B" are homogeneous and at the designated temperatures add section "C" to sections "AB".
4. Combine section "D". Heat to 75-80C with continuous slow mixing.
5. When sections "ABC" and section "D" are homogeneous and at the designated temperatures, slowly pour section "D" into sections "ABC". Increase mixing speed to a high speed. Maintain at 80-85C for 5 minutes, then begin cooling. Slow mixing speed to highest speed possible that will not cause vortexing.
6. Combine section "E" and mix until it becomes a clear solution.
7. Add section "E" to sections "ABCD" at 60-65C. Continue mixing and cooling.
8. At 40-45C adjust for water loss.
9. Mix batch until it reaches 30-35C.
10. Adjust final pH to 4.00-4.10 with a Malic Acid solution, as required.

Physical Properties:

Viscosity: 4,500 cPs @ 24C (Brookfield RVT, TA @ 10 rpm)
24 hour sample.

pH: 4.1 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-87-3

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Isopropyl palmitate	2.00
Oleic acid	2.00
Stearic acid, triple pressed	2.00
Atmul 84S	3.20
Sorbo	2.00
Triethanolamine	1.00
Water, deionized and .1% preservative	83.30
B Alcohol, SDA 40	4.00
Fragrance	0.50

Procedure:

Heat (A) to 95C. Agitate until a milky emulsion forms and is cooled to 45C. Dissolve fragrance in the alcohol. Add (B) to (A). Stir to insure thorough agitation.

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Light mineral oil	4.00
Stearic acid	2.00
Acetylated lanolin	3.00
Arlacel 165	5.00
Cetyl alcohol	1.00
Silicone fluid, 200 cs	1.00
B Water	78.80
Sorbo, Sorbitol solution, USP	5.00
Methyl paraben	0.18
Propyl paraben	0.02

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with agitation. Cool to set point and homogenize.
Formula SK-9

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	30.00
Brij 52	5.20
Brij 58	4.80
Triethanolamine	0.20
B Carboxy vinyl polymer, Carbopol 934	0.20
Water, deionized	59.60
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) rapid agitation. Stir until set.

SOURCE: ICI Surfactants; Suggested Formulations

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	8.00
Arlasolve 200L	1.70
Brij 72	2.80
Stearyl alcohol	2.00
B Water, deionized	85.10
Carbopol 934	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative	
*Perfume	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

Formula AE-9

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	5.00
Brij 721S	1.50
B Water, deionized	92.80
Carbopol 934	0.20
C Sodium Hydroxide (10% W/W aqueous)	0.20
D Dowicil 200	0.10
E Fragrance	0.20

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using propeller type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5

SOURCE: ICI Surfactants: Suggested Formulations

Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlacel 165, acid stable g.m.s.	5.00
Cetyl alcohol	5.00
B Sorbo, 70% sorbitol solution U.S.P.	5.00
Water, deionized	85.00
*Preservative	
C *Mild acid to adjust pH	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with rapid agitation. Cool to room temperature with stirring.

Protective Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Silicone fluid, 50 cs	10.00
Brij 52	2.60
Brij 56	4.90
Triethanolamine	0.20
B Carboxy vinyl polymer, Carbopol 934	0.20
Water, deionized	82.10
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) rapid agitation. Stir until set.

Protective Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Silicone fluid, 50 cs	10.00
Brij 52	4.00
Brij 58	3.60
Triethanolamine	0.20
B Carboxy vinyl polymer, Carbopol 934	0.20
Water, deionized	82.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) rapid agitation. Stir until set.

SOURCE: ICI Surfactants: Suggested Formulations

Hand Lotion

<u>Materials:</u>	<u>% by Weight</u>
Part A:	
1. Deionized Water	85.89
2. Triethanolamine	0.42
3. Glycerine	4.00
4. Methyl Paraben	0.10
5. Bentone EW rheological additive	1.50
Part B:	
6. Ceraphyl 424	3.00
7. Stearic Acid XXX	0.79
8. Isopropanol Lanolate Distilled	1.00
9. Pluronic F-127	1.00
10. Glyceryl Monostearate	2.00
11. Propyl Paraben	0.10
Part C :	
12. Fragrance	0.20

Manufacturing Directions:

1. Part A-In a stainless steel steam jacketed kettle, add item 1 to 4 and heat to 60C. Using a homomixer, add item 5 slowly to avoid lumps and mix for 20 minutes or until homogeneous. Heat to 80C.
 2. Part B-In a separate vessel, add items 6 to 11 and heat to 80C. Mix until completely melted and homogeneous.
 3. Mix Part B slowly in Part A at 80C using sweep blades.
 4. Cool to 50C. Add Part C, mix and cool to room temperature.
 5. Viscosity of lotion after 24 hours should be 9100 cps.
- Formula TS-246

Soft Hand Lotion

<u>Materials:</u>	<u>% by Weight</u>
1. Deionized Water	84.1
2. Bentone LT rheological additive	0.5
3. Glycerine	2.5
4. Triethanolamine	0.7
5. Methyl Paraben	0.1
6. Ceraphyl 424	1.5
7. Isocetyl Stearate	1.0
8. Acetol	1.7
9. Stearic Acid	4.0
10. Lexemul 55G	3.4
11. Volatile Silicone 7158	0.2
12. Propyl Paraben	0.1
13. Fragrance	0.2

Manufacturing Directions:

1. Using vigorous agitation, add the Bentone LT to the water. Mix for 20 minutes.
 2. Add ingredients 3 through 5 to Step 1, heat to 80C.
 3. In a separate vessel, combine ingredients 6,7,8,9,10 and 12. Heat to 80C.
 4. Add the Oil Phase to the Water Phase.
 5. Cool to 50C, then add ingredients 11 and 13.
 6. Cool to 35C and package.
- Formula TS-287

SOURCE: Rheox, Inc.: Suggested Formulations

Hand and Body Lotion

Part 1:	%
Water	78.6
Carbomer 934	0.2
Part 2:	
Modulan	1.6
IPP	3.8
Amerchol L-101	0.8
GMS SE	2.1
Rosswax 63-0412	4.0
IPM	4.0
Jojoba Oil	1.6
Part 3:	
Germaben IIE	1.0
Part 4:	
Fragrance	q.s.
Part 5:	
Triethanolamine	2.3

Procedure:**Part A:**

Disperse the Carbomer 934 in the water phase in a stainless steel kettle.

Part B:

In a separate heated kettle, heat the oil phase until all ingredients are melted. When everything is melted add the Oil Phase to the Water Phase. When everything is blended add the preservative, the fragrance and the Triethanolamine with increased agitation. Cool to room temperature and package.

Jojoba Lotion

Part A:	%
Modulan	1.6
Amerchol L-101	0.8
Isopropyl Palmitate	5.0
Glyceryl Mono Stearate Pure	2.1
Rosswax 63-0412	4.0
Isopropyl Myristate	4.0
Ros Jojoba Oil	1.6
Part B:	
Water	74.4
Glycerine Pure Emery 916	4.2
Triethanolamine	2.3

Procedure:

Heat Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached mix Part (A) to Part (B), and cool. Package in container at below 120F.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

High Petrolatum Lotion

High petrolatum for severely dry, chapped or chafed skin.

<u>Oil Phase:</u>	<u>%W/W</u>
White Protopet 1S	30.00
Crodamol PMP	10.00
Volpo 3	2.30
<u>Water Phase A:</u>	
Deionized Water	46.35
Carbopol 941	0.13
10% Sodium Hydroxide Solution	0.52
<u>Water Phase B:</u>	
Glycerin	5.00
Volpo S-10	5.70
Germaben II	qs

Procedure:Water Phase A:

Charge a vessel with water and dust in the carbomer. Start heating to 80C. When completely dispersed, add the sodium hydroxide solution and continue mixing.

Water Phase B:

Combine components in a separate vessel and mix, heat to 80C. When uniform, add to water phase A.

Oil Phase:

Combine all components of the oil phase, mix and heat to 80C. When uniform, add the combined water phases slowly while mixing. Continue mixing to room temperature.

Low Irritation Moisturizing Lotion

Disodium laurylsulfosuccinate	0.30%
Glycerin	5.00
Methylparaben	0.20
Cetyl alcohol	2.00
Carnation Mineral Oil	20.00
Methyl phenyl polysiloxane	2.00
Beeswax	0.20
Water	q.s. to 100.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Hydroalcoholic Mineral Oil Emulsion

<u>Ingredients:</u>	<u>%W/W</u>
A Light mineral oil	8.00
Stearyl alcohol	1.00
Brij 721, Steareth-21	2.28
Brij 72, Steareth-2	1.72
B Water, deionized	66.00
Carbomer 934	0.40
C Sodium Hydroxide Solution (10%)	0.40
D *Preservative	0.00
E Fragrance	0.20
F Ethanol, SDA-40, (190 Proof)	20.00
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C and (B) to 75C with good propeller agitation. Add (C) below 50C and mix thoroughly. Add the remaining phases below 35C. Replace water lost due to evaporation. Package.

Mineral Oil Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	10.00
Arlacel 165, acid stable g.m.s.	10.00
B Water, deionized	80.00
*Preservative	
C *Mild acid to adjust pH	
*q.s. these ingredients.	

Procedure:

Heat (A) to 60C. Heat (B) to 62C. Add (B) to (A) with thorough but gentle stirring. Cool to 25C with gentle stirring.

SOURCE: ICI Surfactants: Suggested Formulations

Hydrogen Peroxide Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	10.00
Stearyl alcohol	0.50
Cetyl alcohol	1.00
Brij 721S	5.00
Silicone oil, 350 cs.	0.50
B Water, deionized	51.06
EDTA	0.20
Phenacetin	0.04
C Hydrogen peroxide, 27% dilution grade	22.20
D *Phosphoric acid, 10% C.P.	9.50
*q.s. these ingredients.	

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) slowly with moderate agitation. Add (C) below 35C. Replace water lost by evaporation and adjust pH to 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Formula HC-14

Hydrogen Peroxide Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	4.00
Brij 52	1.50
Brij 58	3.50
B Water, deionized	73.86
C Hydrogen peroxide, 35% dilution grade	17.14
D Phosphoric acid (10% C.P.) as required	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with thorough agitation. Cool to 45C with agitation. Compensate for lost water due to evaporation. Add (C). Adjust pH to 3.5-4.0 by adding (D).

SOURCE: ICI Surfactants: Suggested Formulations

Isopropyl Myristate Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Isopropyl myristate	10.00
Arlacel 60	1.60
Arlasolve 200L	3.33
B Water, deionized	84.07
Carbopol 934	0.40
C Sodium hydroxide (10% W/W aqueous)	0.40
D Dowicil 200	0.10
E Fragrance	0.10

*q.s. these ingredients.

Procedure:

Heat (A) to 65C and (B) to 60C. Add (A) to (B) slowly with moderate anchor type agitation and add (C). Add (D) at about 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.

Formula PC 8186

Vanishing Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol ISML	4.00
Stearyl alcohol	1.00
Silicone oil (350 cs)	0.50
Arlamol E	1.00
Brij 700	2.00
Brij 72	2.00
B Water, deionized	79.05
Veegum (5% aqueous solution)	10.00
Carbopol 934	0.15
C Sodium hydroxide (10% aqueous)	0.15
D Germall II	0.10
E Herbal Fragrance SL 79-1224, PFW	0.05

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Add (C). Add (D) below 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Lanolin & Aloe Lotion

Lotions have a wide range of applications in today's cosmetic market. Ideally they should leave a smooth luxurious afterfeel to the skin and help alleviate such problems as dry skin or chapping from wind and sunburn. SC-188 is an economical lotion which achieves both ends. Crodamol PTC, a non-oily ester which gives a "cushiony" feel at low levels of addition, also works with the lanolin and lanolin derived products to leave a satiny, non-greasy, protective film on the skin.

Ingredients:

	%
<u>Part A:</u>	
Super Refined Babassu Oil (Babassu Oil)	2.00
Corona Pure New Lanolin (Lanolin)	2.00
Crodacol CS-50 (Cetearyl Alcohol)	1.50
Super Sterol Ester (C10-30 Cholesterol/Lanosterol Esters)	1.00
Crodamol PTC (Pentaerythrityl Tetracaprylate/Caprate)	0.80
Crodacol C-95 (Cetyl Alcohol)	0.50
Crodamol MM (Myristyl Myristate)	0.50
Incropol CS-20 (Ceteareth-20)	1.00
Mineral Oil (70ssu)	4.00
Stearic Acid XXX	0.50
Silicone L-45 (100cps)	0.30
Propyl Paraben	0.15
 <u>Part B:</u>	
Deionized Water	81.55
Glycerin	3.00
Verage1 200 Powder	0.50
Methyl Paraben	0.30
Carbopol 941	0.10
Dowicil 200	0.10
PEG-15 Cocamine	0.20

Procedure:

Dust the Carbopol 941 of Part B into the water with mixing. When completely dissolved, add the remaining ingredients of Part B and heat to 75-80C. Combine ingredients of Part A with mixing and heat to 75-80C. Add Part B to Part A with good mixing and cool to desired fill temperature. Adjust pH with 1.0% NaOH.

pH: 6.0+-0.5

Viscosity: 7,500+-10% (RVT Spindle #5, 20 rpm @ 25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-188-2

Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	8.00
Brij 721S	4.00
Silicone oil, 350 cs.	0.50
B Water, deionized	65.30
C Hydrogen peroxide, 27% dilution grade	22.20

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) slowly with moderate agitation. Add (C) below 35C. Replace water lost by evaporation and adjust pH to 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Formula PC-8202

Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	3.00
Brij 721S	3.00
Silicone oil, 350 cs.	0.50
B Water, deionized	66.30
Sorbo	5.00
C Hydrogen peroxide, 27% dilution grade	22.20

Procedure:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) slowly with moderate agitation. Add (C) below 35C. Replace water lost by evaporation and adjust pH to 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Formula PC-8203

Glossy Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Carnation	8.00
Stearyl alcohol	1.00
Brij 721S	2.00
Brij 72	2.00
B Water, deionized	86.80
C Dowicil 200	0.10
D Fragrance	0.10

Procedure:

Heat (A) to 70C and (B) to 75C with good propeller agitation. Add (C) at 50C and mix thoroughly. Add (D) at 35C. Add water to compensate for loss due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Low Solids Almond Lotion II

	<u>Parts by Weight</u>
Water	568.0gr.
Carbomer 934	2.0gr.
Rosswax 573	4.0gr.
GMS SE	4.0gr.
Almond Oil-Lipoval A1M	16.0gr.
Coconut Oil #76	16.0gr.
Jojoba Oil	4.0gr.
TEA	4.0gr.
Preservative Germaben II	6.0gr.
Fragrance GG44	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Almond Oil, Coconut Oil, and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as they have been mixed well add the preservative, the fragrance and then the TEA under high agitation. Cool the batch to 55C, and package.

Peach Hand Lotion

	<u>Parts by Weight</u>
Water	568.0gr
Carbomer 934	2.0gr
Rosswax 573	4.0gr
GMS-SE	4.0gr
Almond Oil	16.0gr
Lipoval ALM	
Coconut Oil #76	16.0gr
Ros Jojoba Oil	4.0gr
TEA	4.0gr
Germaben II	6.0gr
Fragrance GK-16	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed add the 573, GMS, Almond Oil, Coconut Oil, and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the Oil Phase has been mixed well, add the Germaben II, the Fragrance, and then the TEA under high agitation. Cool to 55C for filling.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Milk Lotion

	<u>Wt%</u>
A. Liquid Petrolatum	4.7
Amiter LG-OD	2.2
Propylene Glycol Monostearate	0.4
POE (5) Hydrogenated Castor Oil (Emalex HC-5)*	1.3
POE (5) Glyceryl Monostearate (Emalex GM-5)*	2.8
Butyl Paraben	0.1
Amihope LL	3.0
B. Acylglutamate HS-11	0.3
1,3-Butylene Glycol	5.0
Methyl Paraben	0.2
C. Carboxyvinyl Polymer	0.2
Water	79.72
D. Sodium Hydroxide (NaOH)	0.08
*Nihon Emulsion Co.	

Procedure:

1. Dissolve (A) at 80C.
2. Dissolve (C), and then neutralize with (D).
3. Add (B) to #2, and dissolve at 80C.
4. Add #3 slowly to (A) as mixing, and then cool to 30C.

Note: This milk lotion has light touch, and spreads well.

Milk Lotion

	<u>Wt%</u>
A Mineral Oil	5.00
Amiter LGOD	2.00
Propylene Glycol Stearate	0.50
PEG-5 Hydrogenated Castor Oil	1.50
PEG-5 Glyceryl Stearate	2.50
Butyl Paraben	0.10
Amihope LL	3.00
B Acylglutamate HS-11	0.30
Carbomer 941	0.20
Sodium Hydroxide	0.08
Butylene Glycol	5.00
Methyl Paraben	0.20
Water	79.62

Milk lotion with smooth touch and good spreadability.

Procedure:

Dissolve Carbomer 941 and sodium hydroxide in water first. Add other ingredients of (B) to the solution and dissolve at 75-80 degrees C. Dissolve (A) ingredients at 80 degrees C and add (A) to (B) with agitation. Cool down to room temperature with agitation.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Milk Lotion

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	10.0
Paraffin Wax (mp 54-56C)	5.0
Cetyl Alcohol	3.0
Isopropyl Palmitate	2.0
Squalane	0.5
Nikkol WCB	4.0
Lanolin	0.5
Polyoxyethylene (10) Lanolin Alcohol	1.0
Polyethylene Glycol (6300) Monostearate	0.5
Polyoxyethylene (5) Stearyl Ether	2.1
Polyoxyethylene (25) Cetyl Ether	2.9
(W) Ajidew N-50	3.0
Polyethylene Glycol - 1500	3.0
Water	62.5
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Cool to 35C with stirring.

pH: 5.3

Viscosity: 20,000 cps

Milk Lotion

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	10.45
Beeswax	1.0
Stearyl Alcohol	1.5
Isopalmityl Alcohol	1.2
Polyoxyethylene (10) Glyceryl Triisostearate	2.35
Polyoxyethylene (15) Cetyl Ether	0.8
(W) Ajidew N-50	3.0
Water	79.7
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly.
3. Cool to 40C with stirring.

pH: 5.2

Viscosity: 1,700 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Mineral Oil Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Carnation brand	20.00
Brij 72	2.70
Arlasolve 200L	4.60
B Water, deionized	71.80
Carbopol 934	0.40
C Sodium hydroxide (10% W/W aqueous)	0.40
D Dowicil 200	1.00

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Add C. Add (D) below 50C. Add (E) at 35C and add water to compensate for loss due to evaporation.
Formula PC-8184

Mineral Oil Lotion - O/W

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	30.00
Brij 52 (Ceteth-2)	5.20
Arlasolve 200 Liquid (Isoceteth-20)	6.60
B Water, deionized	52.80
Carbomer 934	0.20
Arlasolve DMI	5.00
C Sodium hydroxide-10% aqueous solution	0.20
D *Preservative	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in the water and Arlasolve DMI with rapid agitation. Heat (B) to 65 deg. C and (A) to 60 deg. C. Add (B) to (A) with good agitation. Add (C). Add (D) below 50 deg. C. Stir to 35 deg. C and replace evaporated water.

SOURCE: ICI Surfactants: Suggested Formulations

Mineral Oil Free Lotion Contains Ethanol (20%)

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	20.00
Brij 721S	2.00
Brij 72	4.00
Stearyl alcohol	4.00
B Water, deionized	48.80
Carbopol 934	0.40
C Sodium hydroxide (10% aqueous)	0.40
D Germall II	0.20
E Fragrance, H 45756 (P. Robertet)	0.20
F Ethanol, SDA-40 (190 proof)	20.00

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using blade type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5.

Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	1.00
Brij 721S	1.00
B Water, deionized	95.30
Sorbo, Sorbitol Solution USP	2.00
Carbopol 934	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D Dowicil 200	0.10
E Fragrance	0.20

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly using propeller type agitation. Add (C). Add (D) when the temperature drops below 50C. Add (E) below 40C. Add water to compensate for evaporation. Homogenize. Adjust pH to 5.5-6.5

SOURCE: ICI Surfactants: Suggested Formulations

Moisturizing Lotion

	<u>Percent</u>
Phase A:	
Protopet 1S	2.00
PPG-15 Stearyl Ether (Arlamol E)	2.00
Stearyl Alcohol	1.00
Steareth-2 (Brij 72)	3.00
Steareth-20 (Brij 78)	1.00
Dimethicone	0.10
Phase B:	
Water	50.00
Carbomer 940 (Carbopol 940)	0.10
Phase C:	
Polyquaternium-19 (Arlatone PQ220)	10.00
Water	30.20
Triethanolamine	0.10
Phase D:	
Germaben II	0.50

Procedure:

Disperse Carbopol 940 in water (B) and heat to 75C. Heat A to 70C. Add A to B and mix using propeller-type agitation. Heat C to 70C and add to AB with thorough agitation. Cool to 60C with agitation and add D.

Pomade Lotion

	<u>Percent</u>
Oil Phase:	
Protopet 1S Petrolatum	30.00
Crodamol PMP	10.00
Volpo 3	2.30
Water Phase A:	
Deionized Water	46.35
Carbopol 941	0.13
10% Sodium Hydroxide Solution	0.52
Water Phase B:	
Glycerine	5.00
Volpo S-10	5.70
Germaben II	q.s.

Procedure:

Water Phase A. Charge a vessel with water and dust in the Carbomer. Start heating to 80C. When completely dispersed, add the Sodium Hydroxide solution and continue mixing.

Combine water Phase B in a separate vessel and mix and heat to 80C. When uniform add to water Phase A.

Combine the oil phase, mix and heat to 80C. When uniform add the combined water phases slowly while mixing. Continue mixing to room temperature.

SOURCE: Witco Corp.; Petroleum Specialties Group; Suggested Formulations

Neutralizing Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Forestall	1.40
Brij 35 SP	2.00
Water, deionized	92.30
*Stabilizer	
B Hydrogen peroxide, 35%	4.30
C *Phosphoric acid	

*q.s. these ingredients.

Procedure:

Mix (A) until uniform. Add (B) at 25 deg. C. Adjust pH to 4.5 to 5.0 with (C). Optional stabilizers may include sequestrants or antioxidants.

Formula HC-16

Neutralizing Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Sodium bromate	12.00
Brij 30	4.50
Polyglycol palmitic amide	4.50
Water	79.00
*Preservative	
B *Acetic acid, glacial	

*q.s. these ingredients.

Procedure:

Add the sodium bromate to water. Stir with heat until dissolved. Add the remainder of (A). Heat to 70-75C. Agitate continually until cooled to room temperature. Adjust pH to 6.5-7.0 with (B). Package.

Formula HC-18

Quick Dry Roll-On Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Cyclomethicone, DC 344 fluid	12.70
Brij 52	3.10
Brij 35SP	0.90
B Water, deionized	48.30
C Aluminum chlorhydroxide, 50% aqueous	35.00

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with agitation. Cool to 35-40C with stirring and slowly add the remainder of ingredients.

SOURCE: ICI Surfactants: Suggested Formulations

O/W Broad Spectrum Protective Moisturizing Lotion with Vitamins*

Ingredients:	%w/w
A) Parsol MCX	2.00
Parsol 1789	1.00
Parsol 5000	0.60
Glyceryl Monostearate	2.00
Cetyl Alcohol Extra	2.00
Dermol 185	6.00
Ganex V-220	2.00
Prisorine 3505	2.00
Butylated Hydroxytoluene	0.05
Edeta BD	0.10
Phenonip	0.60
Amphisol A	1.50
B) Deionized Water	10.00
AMP 10% sol'n	3.97
C) Deionized Water	22.26
Propylene Glycol	5.00
Carbopol 981 1% sol'n	10.00
D) AMP 10% sol'n	1.02
E) Deionized Water	20.00
Parsol HS	0.60
AMP 10% sol'n	1.80
F) Vitamin E Acetate	2.00
G) Ropufa 25N-6 Oil	2.00
H) Panthenol	2.00
I) Ponceau Red SX 0.2% sol'n	0.25
J) Parflex 49915	0.40**

Procedure:

Heat part A) to 85C while stirring. When homogeneous, add parts B),C) and D) pre-heated to 75C, while mixing. Add Part E) pre-heated to 75C, while mixing (be sure that the Parsol HS has been completely dissolved, if traces remain, add a small quantity of the neutralizing base until the solution is clear). Cool to 40C, add parts F), G), H, I) and J). Compensate for water loss and continue stirring while cooling to ambient temperature.

Remark:

*While not a sunscreen, this formulation scored an SPF 8 when tested according to the FDA/OTC method (range-finding assay on six subjects: IRI Ref. 582627).

**Dermatologically tested perfume for sunscreens. The final pH value should be around 7.0 to prevent recrystallization of Parsol HS.

SOURCE: Givaudan-Roure: Formulation 08 COS 029

O/W Lotion

	<u>Wt. %</u>
1. A-C Copolymer 580	2.0
2. Mineral Oil (70 ss)	5.0
3. Dow 556 Fluid	1.0
4. Propylene Glycol Dipelargonate	10.0
5. Amerchol 400	2.0
6. Ethoxyl 24	1.0
7. Arlachel 60	1.0
8. Tween 60	2.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Carbopol 941	0.5
12. Methyl-P-Hydroxybenzoate	0.2
13. Triethanolamine	0.75
14. Water	69.45

Procedure:

Disperse Carbopol in water. Weigh 1-9 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

Ref: 5189-2-7

O/W Lotion

	<u>Wt. %</u>
1. A-C Copolymer 580	2.0
2. Distilled Isopropyl Lanolate	3.0
3. Dow 556 Fluid	2.0
4. Propylene Glycol Dipelargonate	13.0
5. Ethoxyl 24	1.0
6. Arlachel 60	1.0
7. Tween 60	2.0
8. Propyl-P-Hydroxybenzoate	0.1
9. Sorbitol (70%)	5.0
10. Carbopol 941	0.5
11. Triethanolamine	0.75
12. Methyl-P-Hydroxybenzoate	0.2
13. Water	69.45

Procedure:

Disperse Carbopol in water. Weigh 1-8 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

Ref: 5189-2-8

SOURCE: Allied Signal Inc.: Suggested Formulations

O/W Lotion

	Wt. %
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Mineral Oil (70 ss)	5.0
4. Dow 556 Fluid	1.0
5. Propylene Glycol Dipelargonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlacial 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol (70%)	5.0
12. Carbopol 941	0.25
13. Germall 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.8

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, deaerate and package.

Ref: 5189-2-5

O/W Lotion

	Wt. %
1. A-C Copolymer 540	2.0
2. Mineral Oil, 70 ss	10.0
3. Glycerine	5.0
4. Isopropyl Palmitate	10.0
5. Anhydrous Lanolin	3.0
6. Arlacial 165	5.0
7. Propyl-P-Hydroxybenzoate	0.1
8. TEA	3.0
9. Tween 60	1.0
10. Methyl-P-Hydroxybenzoate	0.2
11. Germall 115	0.2
12. Water	60.5

Procedure:

Weigh 1-7 and heat to 85-95C. If higher solvating temperatures are used, solvation will be much faster. Hold wax blend at 85-95C. Weigh 9-12 and heat to 90-95C.

Place aqueous phase in mixing container, add wax phase, and shear in homomixer or equivalent. Cool to 40C while shearing. Add perfume and package.

Ref: 5011-38-9

SOURCE: Allied Signal Inc.; Suggested Formulations

O/W Lotion with α -Hydroxy Acids

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetareth-15 (and) Glycerol Stearate (Tego Care 215)	6.0
Mineral Oil	4.0
Octyl Stearate (Tegosoft OS)	5.0
Caprylic/Capric Triglyceride (Tegosoft CT)	5.0
Stearyl Alcohol (Tego Alkanol 18)	5.0
Phase B:	
Glycerin	3.0
Water	62.0
Phase C:	
α -Hydroxy Acids (20%)*	10.0
Perfume, Preservatives	Q.S.

*solution contains 10% citric acid and 10% malic acid. pH is adjusted to pH 3-3.5 with NaOH.

Procedure:

Heat A and B to 65C and mix. Homogenize. Cool with stirring to 40C. Add Phase C and cool to 30C or lower.

O/W Lotion
Cold/Cold Process

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
PEG-25 Glyceryl Trioleate (Tagat T0)	2.0
Mineral Oil	5.5
Octyl Stearate (Tegosoft OS)	5.5
Caprylic/Capric Triglycerides (Tegosoft CT)	5.5
Phase B:	
Water	76.3
Glycerin	3.0
Preservatives	Q.S.
Phase C:	
Carbomer 934	0.3
Mineral Oil	1.2
Phase D:	
NaOH (10% solution)	0.7

Procedure:

1. Homogenize A + B, oil particle size <1.0 μ m.
2. Add C and D, stir intensively for 30 minutes. Temperature of the Phases A, B, C, D: are 20-25C.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Oil-In-Water Body Care Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Arlatone 985	4.00
Brij 721	2.00
Arlamol HD	10.00
Almond oil	3.00
B G-2330	1.25
Propylene glycol	1.25
Alpantha	1.00
Water	74.00
C *Perfume	
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) and (B) to 70C separately. Slowly add (B) to (A) while stirring vigorously. Homogenize around 40C. Remove from the homogenizer and allow to cool to 35C while stirring. Add (C) and cool to 30C. Package.

Oil/Water Foundation Lotion

<u>Ingredients:</u>	<u>%W/W</u>
Arlacel 165	6.00
Cetyl alcohol	0.50
Lanolin	0.50
Triethanolamine lauryl sulfate	1.00
Water, deionized	92.00

Procedure:

Heat ingredients together to 90C. Use continuous vigorous agitation to form the emulsion. Continue agitation until temperature drops below 60 deg. C.

Oil/Water Foundation Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Synthetic spermaceti, Spermwax	5.00
Arlacel 165	12.00
B Glycerin	5.00
Water, deionized	78.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Oil/Water Emollient Lotion

<u>Ingredients:</u>		<u>%W/W</u>
A	Octyl dimethyl PABA	7.00
	Benzophenone-3	3.00
	Arlamol E	7.00
	Stearyl alcohol	2.50
	Dimethicone	1.00
	Arlasolve 200	3.10
	Brij 72	3.90
B	Water, deionized	72.10
	Carbomer 934	0.20
C	Sodium hydroxide (10% W/W aqueous)	0.20
D	*Preservative	
	*Fragrance	
	*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 60C. Heat (A) to 65C and add (B) to (A) with propeller agitation. Slowly add (C) and stir until uniform. Cool to 50C and add makeup water.

Oil/Water Emollient Lotion

<u>Ingredients:</u>		<u>%W/W</u>
A	Octyl dimethyl PABA	5.00
	Arlamol E	7.00
	Stearyl alcohol	2.50
	Dimethicone	1.00
	Arlasolve 200	3.10
	Brij 72	3.90
B	Water, deionized	77.10
	Carbomer 934	0.20
C	Sodium hydroxide (10% W/W aqueous)	0.20
D	*Preservative	
	*Fragrance	
	*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 60C. Heat (A) to 65C and add (B) to (A) with propeller agitation. Slowly add (C) and stir until uniform. Cool to 50C and add makeup water.

SOURCE: ICI Surfactants: Suggested Formulations

Perfumed Body Lotion

This creamy body lotion rubs in easily and relieves dryness. Skin is left feeling soft, smooth, and moisturized. Geahlene enhances the richness and moisturizing properties of this lotion.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	67.20
Carbomer/Carbopol 940	0.20
Propylene Glycol	7.00
Methylparaben	0.20
Panthenol/DL-Panthenol	0.10
B Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	7.00
Propylene Glycol Dicaprylate/Dicaprate//Myritol PC	7.00
Isostearyl Alcohol/Prisorine 3515	2.00
Propylparaben	0.10
Cetyl Alcohol/Lanette 16	2.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	2.50
Dimethicone/Dow Corning 200, 100 cSt	0.50
Potassium Cetyl Phosphate/Amphisol K	1.75
Tocopheryl Acetate/Vitamin E Acetate	0.10
C Triethanolamine, 99%	0.15
D Diazolidinyl Urea/Germall II	0.20
E Soy Lecithin/Sedermaosome	1.00
Fragrance	1.00

Procedure:

Disperse Carbomer into rapidly agitated deionized water. Add remaining part A ingredients. Heat to 75-80C and mix until uniform and lump-free. Combine part B. Heat to 80C and mix until all the solids are dissolved. Add part B to part A. Mix for 30 minutes with good agitation. Add part C. Mix until completely smooth and homogeneous. Cool to 50C. Add part D. Cool to 40C. Add part E. Continue mixing and cooling to 30C.

SOURCE: Penreco: Suggested Formulation

Silk Protein Skin Lotion

	<u>Weight, %</u>
1. Mineral Oil	3.00
2. Mackester SP (Glycol Stearate Modified)	2.00
3. Emulsifying Wax N.F.	3.00
4. Glyceryl Stearate & PEG-100 Stearate	2.00
5. Polysorbate 80	0.66
6. Sorbitan Palmitate	0.60
7. Glycerin	2.00
8. Acetamide MEA 100%	1.00
9. Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/ Silkhydroxypropyl Dimonium Chloride)	2.50
10. Mackstat DM (DMDM Hydantoin)	qs
11. Fragrance	qs
12. Deionized Water	qs

Procedure:

1. Melt 1,2,3,4,5,6,7,8, in a separate container to 75 degrees C.
2. In the mixing tank heat the water #12 to 78 degrees C. and add #9.
3. Start mixing and add the hot mixture of 1 thru 8 slowly with good agitation and mix well for 20 minutes.
4. Then start slow cooling with good mixing without aeration.
5. At 45 degrees C. add #10 and #11 and mix in.
6. Check pH and adjust if needed to 4.8-5.8.
7. Mix until cool.

Pearlescent Bath Lotion

	<u>Weight, %</u>
Sodium Lauryl Sulfate	40.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	30.0
Mackam 35 HP (Cocamidopropyl Betaine)	5.0
Mackester SP (Glycol Stearate Modified)	1.5
Sodium Chloride	1.0
Mackstat DM (DMDM Hydantoin)	0.5
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 70C.
2. Blend until EGMS is completely dispersed.
3. Add sodium chloride and cool to 45C.
4. Add preservative, fragrance and dye.
5. Cool to room temperature and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Skin Care Body Lotion

This product imparts good skin feel and has a high quality appearance, though the production is cost effective. There are also barrier and moisturizing properties which act as a highly effective hydration system for all skin types. A formula of this type also help reduce transepidermal water loss.

Oil Phase:

Cetylstearyl Alcohol 1618 (P&G)	3.50%
NF White Beeswax (Koster Keunen)	1.50%
Light Mineral Oil (Witco)	4.00%
Isostearic Acid (Unichema)	1.00%
Amerchol L101 (Amerchol)	2.00%
Propyl Paraben (Sutton)	0.20%

Water Phase:

Water (Distilled)	76.85%
Glycerine (Unichema)	6.00%
Polyethylene Glycol 1450 (Union Carbide)	3.50%
Carboxymethyl Cellulose (CMC, Hercules)	0.30%
Carbopol 940 (BF Goodrich)	0.25%
Sodium Borate (Borax)	0.50%
Triethanolamine (Dow)	0.20%
Methyl Paraben (Sutton)	0.20%

Procedure:

Add to the water phase under agitation, in order; CMC until dissolved, then propyl paraben while mixing. Add carbopol, mix till homogeneous making sure there are no agglomerations. Then the remainder of the water phase components can be added, mix and heat to 75C. Add all the oil phase components, heat till 75C. and mix. Add slowly the oil phase to the water phase under agitation maintaining a temperature of 75C. When the oil phase is added, cool and pour into container.

Adaption of formula and its influence on the product:

By reducing the concentrations of mineral oil by 2.0%, polyethylene glycol 1000 by 0.5% and the addition of 2.5% Escalol 507 (Van Dyk) the cream will take on an SPF of 6-8. The product has the same appearance, skin feel and stability. Fragrance can also be added without affecting texture.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

Skin Moisturizing Lotion

<u>Phase A:</u>	<u>Percent</u>
Poly-pentaerythrityl Tetralaurate (Miranol Ester PO-LM4)	4.00
Glyceryl Stearate (and) PEG 100 Stearate (Arlacel 165)	5.00
Carnation Mineral Oil	3.50
Isopropyl Myristate	2.00
Propylene Glycol Dipelargonate (Emerest 2388)	1.00
Beeswax	2.00
Stearic Acid	1.00
Stearyl Alcohol	0.50
Cyclomethicone (Dow Corning Fluid 344)	0.50
 Phase B:	
Water	67.70
Carbomer 934, 3% solution (Carbopol 934)	7.50
Propylene Glycol	3.50
 Phase C:	
Triethanolamine	0.80
 Phase D:	
Germaben II-E	1.00

Procedure:

Heat Phase A & Phase B separately to 75C and add B to A with agitation. Then add Phase C. Cool to 40C and add Phase D.

Dry Skin Lotion

Phase A:	
Cetyl Alcohol	2.00%
Estol EHP 1543	2.00
Trivent NP-13	4.00
Carnation Mineral Oil	1.00
DC Silicone	1.00
Brij 58	1.00
Brij 20	1.00
 Phase B:	
Deionized water	81.50
Carbopol 940	0.50
Dermacryl-79	1.00
Pricerine 9083	3.00
Triethanolamine (99%)	1.00
 Phase C:	
Germaben II E	1.00
 Phase D:	
Fragrance	q.s.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Skin Softening Lotion

	<u>%w/w</u>
A. Glyceryl Stearate (and) PEG-100 Stearate (Lexemu1 561)	3.00
Glyceryl Dilaurate (Lexemu1 GDL)	5.00
Cetearyl Alcohol (and) Ceteareth-20 (Lexemu1 CS-20)	3.00
Propylene Glycol Dicaprylate/Dicaprate (Lexol PG-865)	4.00
Mineral Oil	2.50
Propylparaben (Lexgard P)	0.10
B. Glycerin USP	3.00
Deionized Water	76.13
Methylparaben (Lexgard M)	0.25
C. Quaternium-76 Hydrolyzed Collagen (Lexein QX-3000)	3.00
D. 2-Bromo-2-Nitropropane-1,3-Diol (Lexgard Bronopol)	0.02

Procedure:

1. Heat phase "A" and phase "B" to 75C.
2. Add phase "A" to phase "B" with good agitation at 75C.
3. Continue to mix with good agitation and cool to 50C.
4. Add phase "C" to "AB" and mix till homogeneous.
5. When phase "ABC" is below 50C add phase "D".
6. Continues agitation and cool to 30C, then fill.

Formula 297-86

Skin Lotion

This moisturizing lotion applies effortlessly. The Lexorez 100 adds an elegant skin feel which also may act as a protectant aid.

	<u>%w/w</u>
A. Octyl Stearate (Lexol EHS)	7.50
Glyceryl Stearate (and) PEG-100 Stearate (Lexemu1 561)	3.50
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	2.00
Propylparaben (Lexgard P)	0.05
B. Carbomer (Carbopol 941)	0.30
Triethanolamine NF (99%)	0.20
Methylparaben (Lexgard M)	0.15
Deionized Water	86.30

Procedure:

1. Heat water to 70C and combine ingredients of Phase "B". Mix until all of the Carbomer is in solution.
2. In a separate vessel, melt components of phase "A" together. Heat to 70C.
3. Slowly add phase "A" to phase "B" with good agitation. Mix well until homogeneous.
4. Begin to cool. Continue agitation until mixture is at ambient temperature then fill.
5. Adjust for water loss.

Formula SK-114

SOURCE: Inolex Chemical Co.: Suggested Formulations

Soft & Silky Lotion

Part (A):	%
Rosswax 63-0412	1.6
Rosswax 1641	1.2
Rosswax 63-0212	1.0
GMS-SE	2.1
Ross Lotion Oil 2745	9.4

Part (B):	
Water	78.0
Propylene Glycol	4.7
Germaben II	1.0
Triethanolamine	1.0

Part (C):	
Fragrance	q. s.

Procedure:

Heat Part (A) and Part (B) to 170F in separate steam jacketed kettles under agitation. When fully heated, add Part (A) to Part (B) under agitation. Cool to 130F, Fragrance and package.

Low Cost Low Solids Lotion

	<u>Parts by Weight</u>
Water	500.0gr.
Carbomer 934	4.0gr.
Rosswax 573	4.0gr.
GMS SE	4.0gr.
Jojoba Oil	3.0gr.
Dow Corning Silicone 344	6.0gr.
Triethanolamine	4.0gr.
Perfume	q. s.
Preservative Germaben II	q. s.

Procedure:

Heat the water under agitation and slowly add the Carbomer 934. When fully mixed add the 573, GMS, Jojoba Oil and Silicone have been blended in a separate kettle maintaining a temperature of 140F. As soon as all the ingredients have been mixed well add the preservatives, the Perfume, and add the TEA, under high agitation, cool to 120F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Strawberry Hand Lotion

	<u>Parts by Weight</u>
Water	568.0gr
Carbomer 934	2.0gr
GMS-SE	4.0gr
Apricot Oil Lipoval P	16.0gr
Rosswax 573	4.0gr
Coconut Oil #76	16.0gr
Ross Jojoba Oil	4.0gr
TEA	4.0gr
Germaben II	6.0gr
Fragrance DO-60	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed, add the 573, GMS, Apricot Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the oil phase has been mixed well, add the Germaben II, the fragrance, and then the TEA under high agitation. Cool to 55C for filling.

Apricot Hand Lotion

	<u>Parts by Weight</u>
Water	568.0gr
Carbomer 934	2.0gr
GMS-SE	4.0gr
Apricot Oil-Lipoval P	16.0gr
Rosswax 573	4.0gr
Coconut Oil #76	16.0gr
Ross Jojoba Oil	4.0gr
TEA	4.0gr
Germaben II	6.0gr
Fragrance GK-17	q.s.

Procedure:

Heat the water to 60C under agitation and slowly add the Carbomer 934. When the water is fully mixed, add the 573, GMS, Apricot Oil, Coconut Oil and Jojoba Oil that have been heated to 65C in a separate kettle. As soon as the Oil Phase has been mixed well, add to the Water Phase with agitation. When fully mixed, add the Germaben II and then the TEA under high agitation, then fragrance. Cool to 55C for filling.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Super Moisturizing Lotion

This silky-feeling emulsion is stabilized and thickened using a synergistic combination of Veegum Magnesium Aluminum Silicate and Rhodigel Xanthan Gum. It also contains the sodium salt of pyrrolidone carboxylic acid as a natural moisturizing factor along with the well known humectant, glycerine. This lotion spreads easily and is quickly absorbed leaving the skin moist and supple.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum	1.0
Rhodigel	0.5
Deionized Water	74.5
B Sodium PCA (2)	3.0
Glycerine	5.0
C Hydrogenated Polyisobutene (3)	4.0
Mineral Oil (and) Lanolin Alcohol (4)	3.0
Cetyl Alcohol	2.0
Isopropyl Myristate	2.0
Sorbitan Palmitate	1.2
Polysorbate 40	3.8
D Citric Acid to pH 5.5	q.s.
Preservative, Dye, Fragrance	q.s.
(2) Ajidew N-50	
(3) Polysynlane	
(4) Amerchol L-101	

Preparation:

Dry blend Veegum and Rhodigel and add to the water, mixing with maximum available shear until smooth and uniform. Add B ingredients and mix until dissolved. Mix C ingredients and heat to 50C until a uniform clear mixture is obtained. Add C to (A+B) with high speed mixing. Avoid incorporating air. Cool with continuous stirring to 30C and add D.

Consistency: Medium Viscosity Lotion (Viscosity: 1900-2400 cps)

Suggested Packaging: Plastic squeeze bottle or pump.

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 437

TRF Facial Lotion

<u>Phase A:</u>	<u>Percent</u>
Cetearyl Alcohol (and) Ceteareth-20	0.80
Sorbitan Stearate (Arlacel 60)	0.50
Stearic Acid, triple pressed	0.50
Glyceryl Stearate (Emerest 2400)	1.00
Cetearyl Alcohol	1.40
Cetyl Acetate (and) Acetylated Lanolin Alcohol	0.50
C12-15 Alcohols Benzoate (Finsolv TN)	0.40
PPG-15 Stearyl Ether (Arlamol E)	0.40
Dimethicone	0.20
Carnation Mineral Oil	3.00
 Phase B:	
Carbomer 941 (2% Disp.) (Carbopol 941)	7.50
Magnesium Aluminum Silicate (Veegum)	0.30
Potassium Hydroxide (pellets)	0.15
Tetrasodium EDTA	0.10
Glycerin	3.00
Water	78.55
 Phase C:	
Tissue Respiratory Factors (Biodynes TRF)	0.70
Germaben II	0.50
Fragrance	0.50

Procedure:

Melt Phase A to 75C. Heat water to 70C and disperse the Veegum. Add the Carbopol slurry and the glycerin and EDTA. Add to Phase A and add the potassium hydroxide. Cool to 50C and add Phase C.

Facial Moisturizing Lotion (W/O)

<u>Ingredients:</u>	<u>%Wt.</u>
Carnation Mineral Oil	40.00
Aldo MCT	2.00
Synthetic Beeswax	10.00
Lanolin	1.00
Polyaldo 10-6-0	2.50
Deionized Water	43.90
Sodium Borate	0.60
Glydant Plus	q.s.

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Ultra Moisturizing Lotion

This creamy, oil-in-water emulsion is thickened and stabilized with a synergistic combination of Veegum Ultra and Carbomer. The well-known humectant glycerin performs the moisturizing function. Veegum Ultra also enhances the whiteness and brightness of the emulsion and helps adjust the pH to approximate that of the skin. The lotion spreads easily and is rapidly absorbed, leaving the skin moist and supple.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum Ultra (Magnesium Aluminum Silicate)	0.15
Carbomer 980 (2)	0.15
Deionized Water	73.70
 B Glycerin	 5.00
C Mineral Oil (and) Lanolin Alcohol (3)	4.00
Cetyl Alcohol	2.00
Isopropyl Palmitate	2.00
Hydrogenated Polyisobutene (4)	5.00
Isopropyl Myristate	3.00
Sorbitan Palmitate	1.20
Polysorbate 40	3.80
 D Preservative, Fragrance	 q.s.
Sodium Hydroxide, (10% Solution) to pH 6.0	q.s.
 (2) Carbopol 980	
(3) Amerchol L-101	
(4) Polysynlane	

Procedure:

Dry blend Veegum Ultra and Carbomer and add them slowly to the water while stirring with a propeller mixer at 700 rpm. Increase the mixer speed to 1500-1700 rpm and continue mixing for 30 minutes. Add B and mix 5 minutes. Mix C ingredients and heat to 50C. Heat (A and B) mixture to 50C. Add C to (A and B) and mix at 50C and 1500-1700 rpm for 10 minutes. Slow the mixer to 1000 rpm while cooling to 30C. Add D and mix until uniform.

Product Characteristics:

Viscosity: 2200-2800 cps
pH: 6.0+-0.2

Comments:

This prototype formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 450

Un-Buffered Alpha Hydroxy Acid Lotion

The resulting product is a thin lotion that would be compatible for use in a glass or rigid plastic bottle. The formulation contains Lactic Acid, as the alpha hydroxy acid (AHA), at a use level of approximately 4.5%.

	<u>%w/w</u>
A. Deionized Water	80.50
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
B. Glyceryl Stearate (and) Stearamidoethyl Diethylamine (Lexemul AR)	1.50
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	1.50
Glyceryl Stearate (Lexemul 515)	4.00
Caprylic/Capric Triglyceride (Lexol GT-865)	3.00
Stearamidopropyl Dimethylamine (Lexamine S-13)	2.00
Mineral Oil NF (Light)	2.00
Propylparaben (Lexgard P)	0.10
C. Lactic Acid (88%)	5.00

Procedure:

1. Combine section "A" heating to 75-80C. Use a propeller mixer for agitation.
2. Combine section "B" heating to 80-85C. Agitate slowly with a propeller mixer.
3. When sections "A" & "B" are homogeneous and at the designated temperatures slowly add "B" to "A", then begin cooling.
4. Reduce mixing speed during cooling to prevent vortexing.
5. At 55-60C add section "C" to sections "AB".
6. At 45C adjust for water loss.
7. Mix to room temperature.

Physical Properties:

Viscosity: 700 cPs @ 24C (Brookfield RVT, TA @ 10 rpm).
24 hour sample
pH: 2.3 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-30-3

W/O Lotion

A. Miglyol 840 Gel B	%
Miglyol 840	4.0
Miglyol 812	7.5
Arlacel 481	5.0
Arlacel 989	3.0
Isopropyl myristate	5.0
Vaseline	5.0
	2.0
B. Glycerol	5.0
Magnesium sulphate	0.7
Carbopol 934	0.2
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are mixed and heated to 75-80C. Those of B. are mixed with a high speed stirrer, heated to the same temperature and emulsified, in small amounts, in A. with the high speed stirrer. C. is added at approx. 30C.

Body Lotion

A. Miglyol 840	Wt%
Imwitor 960 flakes	7.0
Marlophor T10 Na salt	4.0
Cetyl alcohol	2.0
	0.3
B. Hostacerin gel 1%*	12.5
Karion F	5.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are mixed and heated to 75-80C. Those of B. are brought to the same temperature and gradually stirred into A. C. is incorporated at approx. 30C.

*Preparation of the Hostacerin gel: Hostacerin PN73 1.0%
Water to 100.0%

The Hostacerin is mixed with water until homogeneous and the mixture stirred until the gel is clear.

SOURCE: Huls America Inc.; Formulations for Cosmetics: Formulas

W/O Lotion with Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Di-(Cholesteryl, behenyl, octyldodecyl)	
N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.00
Cetearyl Octanoate	10.00
C12-C15 Alkyl Benzoate	5.00
Phenoxyethanol	0.60
Tocopheryl Acetate	0.05
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate	5.00
Cetyl Dimethicone	3.00
Part C:	
Deionized Water	65.55
Sodium Chloride	0.80
Glycerin (99.5%)	5.00
Partially Deacetylated Chitin (1.0%)/Marine Dew	2.00
Part D:	
Methylparaben	0.20
Butylene Glycol	0.80

Procedure:

Pre-melt part A at 50 degrees Centigrade. Add part B to part A. Pre-melt part D by heating to 50 degrees C. Add to part C. Slowly add Part C and D mixture to Parts A and B with high shear mixing.

Appearance: White, smooth, shiny lotion pH: 6.0-6.5

Viscosity: 20,000-20,000 (RVT #6 @ 10rpm @ 25 degrees C)

Mild Lotion with Amihope

<u>Ingredients:</u>	<u>% Weight</u>
Phase A:	
Mineral Oil	5.00
Amiter LGOD	2.00
Propylene Glycol Stearate	0.50
PEG-5 Hydrogenated Castor Oil	1.50
PEG-5 Glyceryl Stearate	2.50
Butylparaben	0.10
Amihope-LL	3.00
Phase B:	
Acylglutamate HS-11	0.30
Carbomer 941	0.20
Sodium Hydroxide	0.08
Butylene Glycol	5.00
Methylparaben	0.20
Water	79.62

Procedure:

Dissolve Carbomer 941 and Sodium Hydroxide in water first. Add all other ingredients of Phase B to the solution and dissolve at 75 to 80 degrees centigrade.

Dissolve Phase A ingredients at 80 degrees centigrade. When both phases are at 80 degrees centigrade add A to B with agitation.

Cool down to room temperature while continuing mixing.

This lotion has a smooth feeling and good spreadability.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Section VIII

Shampoos

Acid Balanced Conditioning Shampoo

	<u>Weight, %</u>
TEA Lauryl Sulfate (40%)	35.0
Mackam 35HP (Cocamidopropyl Betaine)	10.0
Mackalane 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust pH to 4.0 with citric acid.
4. Cool and fill.

All Purpose Shampoo

	<u>Weight, %</u>
Mackadet SBC-8 (Mild Blend)	20.0
Sodium Chloride	qs
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackadet SBC-8 to water and blend until clear.
2. Add Mackstat DM and adjust viscosity to 2000-3000 cps with sodium chloride.
3. Add dye, fragrance, and blend until clear.

Aloe Vera Gel Shampoo

	<u>Weight, %</u>
Aloe Vera Gel Liquid (1:1)	50.0
Water	14.5
Mackernium 007 (Polyquaternium 7)	3.0
Mackadet SBC-8 (Mild Blend)	32.0
Mackstat DM (DMDM Hydantoin)	qs
Fragrance, Dye qs to	100.0

Procedure:

1. Disperse Mackernium 007 in water and Aloe Vera Liquid.
2. Add Mackadet SBC-8 and heat to 45 degrees C.
3. Blend until homogeneous.
4. Adjust viscosity with sodium chloride.
5. Add remaining components and blend until clear.
6. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Aloe Vera Shampoo

<u>Ingredients:</u>	<u>Percent</u>
A. D.I. Water	64.84
Aloe Veragel 200 Powder	0.1
Sodium Chloride	1.3
Hydrolyzed animal protein	1.0
B. Sodium lauryl sulfate	26.0
Citric acid	0.40
Fragrance	0.15
D.M.D.M. Hydantoin	0.20
Germall 115 (preservative)	0.10
C. Richamide liquid	6.0

Procedure:

Mix Phase "A" together. Mix Phase "B" together and add to Phase "A". Blend together. Add Phase "C" and mix together.

Aloe Vera Premium-Type Shampoo with Protein

<u>Ingredients:</u>	<u>Percent</u>
Aloe Veragel 1:1	28.0
Cycloryl WAT	60.0
Cycloteric BET-C30	5.0
Peptein 2000	1.0
Cyclomide DC212S	4.0
NaCl	1.0
Citric Acid	q.s.
Perfume, Preservative, Color	q.s.

Procedure:

Warm Aloe Veragel and WAT to 40C, and blend in ingredients as listed. Adjust viscosity with NaCl and adjust pH with Citric Acid.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Anti-Dandruff Lotion Shampoo

	<u>Weight, %</u>
Part A:	
Veegum	1.0
Methocel FYM	0.8
Water qs to	100.0
Part B:	
Sodium Olefin Sulfonate (40%)	35.0
Mackamide LLM (Lauramide DEA)	4.0
Mackamide S (Soyamide DEA)	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	2.0
Part C:	
Zinc Omadine (48%)	4.0

Procedure:

1. Thoroughly disperse Veegum in water at 70 degrees C.
2. Then slowly add Methocel FYM and blend until homogeneous.
3. Add Part B to Part A and adjust pH to 6.5 with citric acid.
4. Add Zinc Omadine and blend until homogeneous.

Anti-Dandruff Shampoo Cream Type

	<u>Weight, %</u>
Sodium Lauryl Sulfate (30%)	61.8
Mackam 35HP (Cocamidopropyl Betaine)	10.0
Sodium Chloride	7.0
Triple Pressed Stearic Acid	5.0
Mackamide LLM (Lauramide DEA)	4.0
Propylene Glycol	4.0
Zinc Pyrithione (48%)	4.0
Mackamide PK (Palmkernelamide DEA)	2.0
Caustic Soda (50%)	1.6
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat stearic acid, Mackamide LLM, Mackamide PKM and propylene glycol to 70 degrees C.
2. Heat SLS, Mackam 35HP, Sodium Chloride, Caustic Soda and water to 70 degrees C.
3. Add oil to water and cool to 55 degrees C.
4. Slowly add Zinc Pyrithione.
5. Cool to 45 degrees C. and add remaining components.
6. Fill at 40 degrees C.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Anti-Dandruff Shampoo

Anti-dandruff shampoo: with conditioning action coupled with natural suspension resulting in cosmetically elegant, highly efficacious anti-dandruff shampoo.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-3 Sulfate (Standard ES-3)	57.69	Lather, Cleaning
2. Pationic ISL/85*	3.00	Conditioning, Deposition
3. Rita EGDS (Glycol Distearate)	3.00	Opacity, Stability
4. Propylene Glycol	2.00	Stability
5. Zinc Omadine	2.00	Active
6. Ritavena-5 (Hydrolyzed Oat Flour)	4.50	Suspension, Clean Feel
7. Fragrance	0.25	Odor
8. Patiac LA (44%) (Lactic Acid)	0.40	pH Adjustment
9. Distilled/Deionized Water	27.16	----

* Sodium Isostearoyl Lactylate @ 85% in Propylene Glycol

Compounding Procedure:

Pre-mix items 1 to 4 at 165F. Add item 5 with high sheer mixing. Hydrate item 6 in 210F water. Cool to 165F and mix. Cool to 120F. Add perfume and adjust pH and viscosity.

Ref. No. 113-141C

Cleaning Shampoo Type

Clear viscous shampoo designed for oily hair types.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ammonium Lauryl Sulfate (Stepanol AM)	30.00	Cleaning, Lather
2. Ammonium Laureth Sulfate (Standard EA-2)	25.00	Cleaning, Lather
3. Oleamidopropyl Betaine (Mirataine BET-0-30)	6.00	Mildness, Viscosity
4. Ritaloe 40X (Aloe Vera Gel)	0.50	No Static Fly-Away
5. Pationic ISL (Na Isostearoyl Lactylate)	2.50	Mildness, Conditioning
6. Kathon CG	0.30	Preservation
7. Fragrance - Squeaky Clean #165-047	0.03	Odor
8. Citric Acid (50% Soln.)	q.s.	pH Adjustment
9. Distilled/Deionized Water	35.67	----

Compounding Procedure:

To the water add ingredients 1 to 5. Heat to 165F. Mix to uniformity. Cool to 120F and add preservative and perfume. Adjust pH if necessary to 5.8.

Ref. No. 118-69

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Dandruff Shampoos

B 40/39:

Zetesol 856 T	25.0%
Amphotensid B 4	4.0%
Bio-sulphur CLR	1.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 41/24:

Zetesol 856T	20.0%
Perlglanzmittel GM 4175	4.0%
Condipon	4.0%
Anti-dandruff-Usnat AO	2.0%
Perfume	0.3%
Water, sodium chloride, preservative	q.s. to make 100.0%

B 41/26:

Zetesol 2056	28.0%
Amphotensid B 4	8.0%
Perlglanzmittel GM 4175	4.0%
Anti-dandruff-Usnat AO	2.0%
Perfume	0.5%
Water, preservative	q.s. to make 100.0%

Shampoos for Greasy Hair

B 40/56:

Zetesol 856 T	30.0%
Mulsifan RT 275	2.0%
Purton SFD	1.0%
Water, perfume, preservative	q.s. to make 100.0%

B 41/27:

Zetesol 2056	28.0%
Amphotensid B 4	8.0%
Perlglanzmittel GM 4175	4.0%
Mulsifan RT 275	1.0%
Perfume	0.5%
Water, preservative	q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH; Suggested Formulations

Antidandruff Shampoo

Materials:	% by Weight
1. Deionized Water	48.55
2. Bentone MA Rheological Additive	1.00
3. Methocel E 4M Premium	0.75
4. Zinc Omadine 48%	4.20
5. Super Amide GR	4.00
6. Standapol T	38.00
7. Triethanolamine	3.00
8. Color and Fragrance	0.50

Manufacturing Directions:

1. Heat Deionized Water to 70C, and with rapid stirring, add Bentone MA additive slowly and mix it for 20 minutes or until homogeneous. Maintain the temperature through step 4.
2. Add Methocel and mix it for 15 minutes with continuous stirring.
3. Add Zinc Omadine and mix for 5 minutes.
4. Reduce the stirrer speed and at low speed add Super Amide GR. Mix for 10 minutes.
5. Turn off the heat and while cooling, add Standapol T. Mix for 15 minutes at low speed.
6. Add Triethanolamine and color solution, stir slowly until mixed. Adjust the water loss and cool it to room temperature. Add fragrance and mix it.

SOURCE: Rheox, Inc.: Formulation TS-261

Protein Shampoo

Deionized Water	42.85
Busan 1504	0.10
Panthenol	0.25
Disodium EDTA	0.05
Citric Acid	0.20
Aloe Vera 200X	0.05
Sodium Laureth-2 Sulfate	42.00
Cocamide DEA	4.00
Cocamidopropyl Betaine	5.50
Hydrolyzed Collagen Protein-55%	5.00

Procedure:

Add Busan 1504 preservative into water, and mix until dissolved. Follow with remaining ingredients in order shown, mixing well between each addition.

SOURCE: Buckman Laboratories Inc.: Suggested Formulation

Balsam & Protein Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A CP 1052 (shampoo base)	31.50
Water	67.20
Hydrolyzed Collagen (Hormel-Peptidein 2000x1)	0.25
Balsam	0.25
B NaCl	0.80

Procedure:

Add water to shampoo base with moderate agitation. Add Protein and balsam with moderate agitation. Slowly add salt under faster stirring to build viscosity.
Formula CP 1060

Balsam & Protein Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A G-9600 (shampoo base)	31.50
Water	68.17
Hydrolyzed Collagen (Hormel-Peptidein 2000x1)	0.30
Balsam	0.03
B *Preservative	

*q.s. these ingredients.

Procedure:

Add water to shampoo base with moderate agitation. Add Protein and balsam with moderate agitation.
Formula CP 1067

SOURCE: ICI Surfactants: Suggested Formulations

Cleaning Shampoo

Viscous, high foaming shampoo which maximizes cleaning by removing styling and residues from hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium (C14-C16) Olefin Sulfonate (Bioterge AS 40)	20.00	Cleaning, Lather
2. Sodium Lauryl Sulfate @ 25%	20.00	Cleaning, Lather
3. Ritamide C (Cocamide DEA)	3.00	Lather Density
4. Cocamidopropyl Betaine (Mackam 35 HP)	3.00	Mildness
5. Ritapeg 150 DS (PEG-150 Distearate)	1.00	Viscosity
6. Pationic ISL (Na Isostearyl Lactylate)	2.50	Mildness, Body
7. Kathon CG	0.03	Preservation
8. Fragrance--Nature Harvest #165-050	0.30	Odor
9. Citric Acid (50% Soln.)	q.s.	pH Adjustment
10. Sodium Chloride (25% Soln.)	q.s.	Viscosity Adjustment
11. Distilled Water	50.17	-----

Compounding Procedure:

To the water add ingredients 1 to 6 in order at 165F. Cool to 120F and add fragrance and preservative. Cool to 95F and adjust pH to 5.5 and viscosity as desired.

Ref. No. 118-18

Cleaning Shampoo

Neutralizing shampoo to thoroughly clean hair. Can be used after relaxer or hair straightener treatments.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Alpha Olefin Sulfonate (Bioterge AS-40)	37.50	Cleaning, No Residue
2. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Rinse Out, Combing
3. Ritamide C (Cocamide DEA)	3.00	Bubble Toughness
4. Fragrance-Nature Harvest 165-050	0.30	Odor
5. Citric Acid (50% Soln.)	q.s.	pH Adjustment
6. Distilled/Deionized Water	56.20	-----

Compounding Procedure:

To the water at 165F add 1 and 2. Cool to 120F. Pre-mix items 3 and 4 and add at 120F. Thoroughly mix and adjust pH to 5.5 with citric acid.

Ref. No. 118-51

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Conditioning Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A Sodium laureth sulfate, 26% solution	15.50
Ammonium lauryl sulfate, 28% solution	15.00
Cocoamphocarboxypropionate, 38% sol.	12.50
Lauramide DEA	3.00
Tween 20	2.00
Water	50.60
B Forestall	1.40
C *Citric acid	

*q.s. these ingredients.

Procedure:

Mix (A) with gentle stirring and heat until homogeneous. Add (B). Adjust pH to 5.0 to 5.5 with (C).

Conditioning Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A CP 1052 (shampoo base)	31.50
Water	66.84
Polyquaternium-11 (Gafquat 755)	1.32
B Hydroxypropyl methylcellulose (Methocel E4M)	0.34

*q.s. these ingredients.

Procedure:

Add water to shampoo base with moderate agitation. Add polyquaternium with medium agitation. Heat (A) to 80C and slowly add hydroxypropyl methylcellulose with faster stirring. Stir with medium agitation until cooled to room temperature. Formula PC 1057

Conditioning Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A CP 1052 (Shampoo base)	31.50
Water	67.40
Polyquaternium-11 (Gafquat 755)	1.00
B NaCl	0.10

Procedure:

Add water to shampoo base with moderate agitation. Add Glycerin and Arlamol E with medium agitation. Heat (A) to 80C and add glycol stearate with fast stirring. Stir with medium agitation until cooled to room temperature and stir NaCl. Formula CP 1062

SOURCE: ICI Surfactants: Suggested Formulations

Conditioning Shampoo

<u>Ingredients:</u>		<u>%W/W</u>
A	Polyox WSR	0.02
	Water	71.38
	G-9600	25.00
	Vitamin E	1.00
	Protein	1.00
	NaCl	0.60
	Panthenol	1.00
B	*Color	
	*Preservative	
	*Fragrance	

*q.s. these ingredients.

Procedure:

Add the Polyox WSR to the water until completely dissolved with heat if necessary. Add the remaining ingredients.

Conditioning Shampoo

<u>Ingredients:</u>		<u>%W/W</u>
A	G-9600 (Shampoo base)	31.50
	Water	68.01
	Polyquaternium-11 (Gafquat 755)	0.30
B	NaCl	0.19
	*Preservative	

*q.s. these ingredients.

Procedure:

Add water to shampoo base with moderate agitation. Add polyquaternium with medium agitation. Slowly add salt and stir with medium agitation.

Formula CP 1064

Professional Salon Type Shampoo

<u>Ingredients:</u>		<u>%W/W</u>
A	CP 1052 (shampoo base)	31.50
	Water	65.40
	Roche-DL-Panthenol Cosmetic Grade	0.50
	Calgon Merquat 550	2.50
B	NaCl	0.10

Procedure:

Add water to shampoo base with moderate agitation. Add Panthenol and polyquaternium-7 with medium agitation. Slowly add salt under faster stirring to build viscosity.

Formula PC 1058

SOURCE: ICI Surfactants; Suggested Formulations

Conditioning Shampoo

<u>Ingredients:</u>	<u>%</u>
<u>Part A:</u>	
Deionized Water	49.05
SLES (3 mol)	40.00
Disodium EDTA	0.30
<u>Part B:</u>	
Incromide LR (Lauramide DEA)	5.50
Incromide CAC (Cocamide DEA Cocoyl Sarcosine)	1.00
Incromine Oxide BA (Babassuamidopropylamine Oxide)	2.00
Incrodet TD-7C (Trideceth-7 Carboxylic Acid)	0.15
<u>Part C:</u>	
Hydrotriticum 2000 (Hydrolyzed Whole Wheat Protein)	0.50
Crodacel QS (Stearyldimonium Hydroxypropyl Oxyethyl Cellulose)	0.50
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben*	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 65-70C. Add ingredients of Part B individually with mixing, and cool batch to 45C. Add the ingredients of Part C individually with mixing. Adjust the pH with a 10% citric acid solution. Continue mixing and cool to desired fill temperature.

pH: 5.5+-0.5

Viscosity: 6,500 cps+-10% *Germaben II
 N.A.T.C. Approved Formula SH-71

Cold Mix Shampoo w/Crosultaine C-50

<u>Ingredients:</u>	<u>%</u>
<u>Part A:</u>	
Deionized Water	59.85
Incromide CA (Cocamide DEA)	2.00
<u>Part B:</u>	
Teals	25.00
Incromide BAD (Babassuamide DEA)	1.00
Incrosultaine C-50 (Cocamidopropyl Hydroxysultaine)	8.00
Croquat L (Lauryldimonium Hydroxypropyl Collagen)	0.25
Citric Acid (10% Soln)	2.90
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben*	1.00

Procedure:

Combine ingredients of Part A with mixing. Add ingredients of Part B in order with mixing. Adjust pH with a 10% citric acid.

pH: 6.5+-0.5

*Germaben II
 N.A.T.C. Approved Formula SH-78

SOURCE: Croda Inc.: Suggested Formulations

Conditioning Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Water, Deionized	50.32
Sodium Laureth Sulfate (Standapol ES-1)	20.00
Sodium Lauryl Sulfate (Standapol WAQ-Special)	20.00
Lauramide DEA (Monamid 716)	3.00
Quaternium-22 (Ceraphyl 60)	2.00
Quaternium-26 (Ceraphyl 65)	2.00
Citric Acid (Fine Granular, 30% Aq. Solution)	1.40
Sodium Chloride	0.08
Phase B:	
Sodium Hydroxymethylglycinate (Suttocide A)	0.40
Phase C:	
Fragrance (Floral Spice-NP49)	0.50
Processed Ingredient:	
D & C Green No. 5 (0.1% Aq. Sol.)	0.19
FD & C Green No. 5 (0.1% Aq. Sol.)	0.11

Procedure:

1. Add ingredients in Phase A with mixing, being careful not to aerate batch, heat to 75C.
2. Cool Phase A to 40C. Add Phase B with slow mixing.
3. Add ingredients in Phase C with mixing until uniform.
4. Sweep to 25C.

SOURCE: ISP Van Dyk Inc.: Formulation #D9843-85-1

Everyday Hair Shampoo

<u>Ingredients:</u>	<u>% w/w</u>
1 A) Genapol LRO liquid	35,00
2 B) Water demineralized	39,90
3 Phenonip	0,50
4 Euxyl K-200	0,30
5 C) Genapol AMG	8,00
6 Sericin	3,00
7 Sodium Chloride	3,00
8 Fragrance: Adriano 0/235970	0,30
9 Genagen CAB	10,00
10 D) Sodiumhydroxyd solution 30%	

Procedure:

Dissolve item 3 and 4 in water (2). Dissolve phase B) in item 1. Then add and dissolve items 5-9 one after another. Adjust the pH with items 10 to pH 6-7.

SOURCE: Pentapharm Ltd.: Application No. F 011.A/05.94

Conditioning Shampoo

A gentle, pearlized, moderately viscous shampoo to thoroughly cleanse and condition hair. Helps maintain ideal moisture balance and leaves hair with added softness, manageability and body.

	<u>% by Weight</u>
Part A: Deionized Water	50.28
Polyquaternium-10 (Celquat SC-240)	00.25
Panthenol (dl-Panthenol)	00.20
Methylparaben	00.15
Cocamidopropyl Betaine (Cycloteric BET C-30)	06.00
Glycol Stearate (Lexemul EGMS)	01.00
Sodium Laureth Sulfate (Standapol ES-2)	20.00
TEA-Cocoyl Glutamate (Amisoft CT-12)	16.00
Part B: Cocamide DEA (Cyclomide DC 212/S)	03.50
Part C: Quaternium-75 (Finquat CT)	01.00
Methylchloroisothiazolinone (and)	
Methylisothiazolinone (Kathon CG)	00.08
Fragrance (Givaudan #PSC 10,435/6)	00.30
Citric Acid	00.04
Sodium Chloride	01.20

Compounding Procedure:

Disperse Celquat SC-240 in the water. Heat to 70C. Add the rest of Part A. Mix until completely uniform. Start cooling. At 60C, add Cyclomide DC 212/S. At 40C, add Part C in the given order.

Color: Off-white (pearlized)

pH: 5.50

Viscosity (@ 25C): 5.000 cps (#4 spindle @ 10 rpm)

Gentle Shampoo

A clear, moderately viscous shampoo that provides rich, lubricous lather and softness to the hair. The pH-balanced formula is extremely gentle and provides effective cleansing without harsh stripping.

	<u>% by Weight</u>
Part A: Deionized Water	45.55%
Methylparaben	00.20
Lauroamphoglycinate (and) Trideceth Sulfate (Miranol MHT)	30.00
TEA-Cocoyl Glutamate (Amisoft CT-12)	20.00
Sodium Cocoyl Glutamate (Amisoft CS-11)	01.00
PEG-150 Distearate	01.50
Sodium PCA (Ajidew N-50)	01.00
Part B: Methylchloroisothiazazolinone (and)	
Methylisothiazolinone (Kathon CG)	00.05
Fragrance (Noville #84504)	00.20
Citric Acid	00.50

Compounding Procedure:

Heat Part A to 65C until completely homogeneous. Cool to 40C. Add Part B.

Color: Light straw - clear pH: 5.65

Viscosity: 3,750 cps (#4 spindle @ 10 rpm)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Conditioning Shampoo

	<u>% by Weight</u>
Water	45.35
Sodium Laureth Sulfate (2 Mole 26%) (Sipon ES2)	20.00
Sodium Lauryl Sulfate and Disodium Lauryl Sulfosuccinate (Monaterge 1164)	20.00
Trisodium Lauroampho PG Acetate Phosphate Chloride (Phosphoteric QL-38)	10.00
Dimethicone (Dow Corning 200 Fluid 200 CS)	2.50
Glycol Distearate (Kessco Ethylene Glycol Distearate, Armak)	1.00
Cocamide MEA (Monamid CMA)	1.00
Sodium Chloride	0.15

Procedure:

Add ingredients in order listed with agitation. Heat to 70C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Appearance: White pearled lotion
Viscosity @ 25C: 7,100 cps

Formula F-578

Mild Conditioning Shampoo

	<u>% by Weight</u>
Water	34.0
Monateric CLV	8.5
Phospholipid EFA	1.5
Sodium Lauryl Sulfate (28%)	27.0
Sodium Laureth (2) Sulfate	29.0

Procedure:

Blend in order listed, adjust pH down 5.5 to 6.0 with 50% citric acid.

Typical Properties:

Appearance: Clear Liquid
Viscosity @ 25C: Approximately 17,000 cps.

Formula F-644

SOURCE: Mona Industries, Inc.: Suggested Formulations

Cream Shampoo

	<u>Weight, %</u>
Mackanate LO-Special (Disodium Lauryl Sulfosuccinate)	88.0
Mackol 16 (Cetyl Alcohol)	2.0
Brij 52	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance qs to	100.0

Solids, %: 40.0

pH (as is): 5.5

Appearance: Pearly Cream

Procedure:

1. Add Mackol 16, Brij 52 and water to Mackanate LO-Special and heat to 70 degrees C.
2. Blend until homogeneous.
3. Adjust pH to 5.5 to 6.0 with sodium hydroxide.
4. Cool to 50 degrees C, and add Mackstat DM and fragrance.
5. Adjust solid to 40.0+/-1.0 at this point.
6. Cool and fill.

Highly Pearlescent Shampoo

	<u>Weight, %</u>
Sodium Lauryl Ether Sulfate 60%	20.0
Mackamide C (Cocamide DEA (1:1))	2.0
Mackester SP (Glycol Stearate Modified)	2.0
Stearic Acid	2.0
Magnesium Sulfate (7H ₂ O)	6.0
Diethanolamine	0.67
Mackstat DM (DMDM Hydantoin)	qs
Deionized Water, Fragrance, Dye qs to	100.0

pH: 7.5-8.0

Viscosity (cps 25 degrees C): 1000-2500

Procedure:

1. Heat water to 75 degrees C. and add Magnesium Sulfate.
2. Dissolve completely then add other surfactants and DEA then add waxes.
3. Keep temperature at 70 degrees C. for 20 minutes start cooling slowly.
4. At 35 degrees C. add remainder of ingredients and cool while mixing to room temperature.
5. Adjust pH with DEA or Sulfuric Acid diluted solutions.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Emollient Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	0.50
Arlacel 186	0.50
B Tween 20	4.00
C Water, deionized	71.00
Tensagex EOC-670	6.00
D Sodium Cocoyl Sarcosinate	6.00
Lauryl Polyglucose	8.00
E PEG 6000 Distearate	4.00

Procedure:

Mix (A) and add (B). Mix until clear and add (C) slowly. Mix (D) and with slight heat and add to (A,B,C). Heat to 65C and add (E) while stirring.

Moisturizing Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A CP 1052 (shampoo base)	31.50
Water	66.50
Glycerine	0.50
Arlamol E, ICI (PPG-15 stearyl ether)	0.25
Jojoba Oil	0.25
B Glycol distearate (Stepan-Kessco Ethylene Glycol Distearate)	1.00

Procedure:

Add water to shampoo base with moderate agitation. Add Glycerin and Arlamol E with medium agitation. Heat (A) to 80C and add glycol stearate with fast stirring. Stir with medium agitation until cooled to room temperature.

Formula CP 1059

Shampoo Concentrate

<u>Ingredients:</u>	<u>%W/W</u>
Ammonium lauryl sulfate (Stepanol AM)	75.59
Water	0.30
Cocamidopropyl betaine (Tegobetaine L-7)	17.78
NaCl	0.47
Citric acid	0.53
Cocamide DEA (Monamid 150ADD)	5.33

Procedure:

Heat ingredients to about 45C. Stir each ingredient in one at a time in order using moderate agitation.

Formula CP 1052

SOURCE: ICI Surfactants: Suggested Formulations

Ethnic Hair Care
Amphoteric Shampoo
(Cold Process)
Clear

<u>Ingredients:</u>	<u>%W/W</u>
Tetrasodium EDTA	0.1
Water	48.1
Sodium Lauryl Sulfate	20.0
Cocamidopropyl Betaine (Tego Betaine F)	25.0
Dimethicone Propyl PG Betaine (Abil B 9950)	0.5
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 88183)	0.5
PEG-30 Glyceryl Laurate (Tagat L)	0.5
Citric Acid (25% Solution)	to pH 6
Fragrance	Q.S.
Cocamidopropyl Betaine (and) Glyceryl Laurate (Antil HS 60)	5.0
Sodium Chloride (25% Solution to adjust viscosity)	Q.S.

Procedure:

1. Mix ingredients in order.
2. Adjust viscosity with Sodium Chloride.

Ethnic Hair Care
Amphoteric Shampoo
(Cold Process)
Pearled

<u>Ingredients:</u>	<u>%W/W</u>
Tetrasodium EDTA	0.1
Water	45.1
Sodium Lauryl Sulfate	20.0
Cocamidopropyl Betaine (Tego Betaine F)	25.0
Dimethicone Propyl PG Betaine (Abil B 9950)	0.5
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 88183)	0.5
PEG-30 Glyceryl Laurate (Tagat L)	0.5
Citric Acid (25% Solution)	to pH 6
Fragrance	Q.S.
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Cocamidopropyl Betaine (and) Glyceryl Laurate (Antil HS 60)	5.0
Sodium Chloride (25% Solution to adjust viscosity)	Q.S.

Procedure:

1. Mix ingredients in order.
2. Adjust viscosity with Sodium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Everyday Family Shampoo

Inexpensive shampoo utilizing Pationic ISL for mildness and conditioning shampoo designed to be used by all family members with all hair types.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium C14-C16 Olefin Sulfonate (Bioterger AS-40)	37.50	Cleaning
2. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Mildness
3. Ritapeg 150 DS (PEG-150 Distearate)	3.50	Viscosity
4. Kathon CG	0.03	Preservative
5. Fragrance-Baby Powder #165-848	0.30	Odor
6. Sodium Chloride (25% Soln.)	q.s.	Viscosity
7. Sodium Hydroxide (20% Soln.)	q.s.	pH Adjustment
8. Distilled/Deionized Water	55.67	

Compounding Procedure:

Heat the water and item 1 to 165F. Heat the Pationic ISL and Ritapeg 150 DS in a separate vessel to 165F. Add to the water with good mixing. Cool to 120F and add fragrance and preservative. Add Sodium Chloride until salt curve response. Adjust pH to 6.5.

Ref. No. 118-37C

Everyday Family Shampoo

A mild everyday formula for all family members.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	25.00	Cleaning
2. Ritamide C (Cocamide DEA)	8.00	Lather
3. Ritox 35 (Laureth-23)	3.00	Combing
4. Grillocam E-20 (Methyl Gluceth-20)	3.00	Mildness
5. Ritacet-20 (Cetareth-20)	2.00	Body
6. Promois W-32 (Hydrolyzed Collagen)	0.20	Body
7. Citric Acid (50% Soln.)	q.s.	pH adjustment
8. Preservative - Kathon CG	0.03	Preservative
9. Fragrance - Nature Harvest	0.30	Odor
10. Distilled/Deionized Water	58.47	-----

Compounding Procedure:

Heat water to 165F. Combine items 3,4 and 5 and heat until clear. Add to the water with constant agitation. Add item 1 and mix. Cool to 120F. Add item 6. Pre-mix item 2 and fragrance. Add to mixture. Add preservative. Adjust pH to 5.5.

Ref. No. 118-85

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Gel Shampoo

	<u>% by Weight</u>
Water	55.00
Sodium Chloride	1.00
Sodium Laureth (2) Sulfate (25%)	35.00
Monateric CAB	5.00
Phospholipid PTC	2.00
Monamid 1089	2.00

pH adjusted to 5.0-6.0

Procedure:

Add ingredients in the order listed making sure each one is completely dissolved before adding the next one. Add fragrance, coloring, or preservative as required.

Mild Conditioning Shampoo

	<u>% by Weight</u>
Water	34.0
Monateric CLV	8.5
Phospholipid EFA	1.5
Sodium Lauryl Sulfate (28%)	27.0
Sodium Laureth (2) Sulfate	29.0

Procedure:

Blend in order listed, adjust pH down 5.5 to 6.0 with 50% citric acid.

Typical Properties:

Appearance: Clear Liquid

Viscosity @ 25C: Approximately 17,000 cps.

Formula F-644

Conditioning Shampoo

	<u>% by Weight</u>
Water	31.0
Sodium Laureth (2) Sulfate (26%)	57.7
Monateric COAB	9.4
Phospholipid EFA	1.4
Sodium Chloride	0.5

Procedure:

Blend ingredients together. Adjust pH down to 5.0 with 50% citric acid. Add fragrances, color, and preservatives as required and package.

Formula F-621

SOURCE: Mona Industries, Inc.: Suggested Formulations

Hair ShampooDilutable Viscous Shampoo (For Customer Dilution 1:4)

Rhodaterge DCA	80 parts
Water	18
Perfume, Preservative, Dye	2

Viscous Consumer Shampoo

Rhodaterge DCA	25.0 parts
Water	74.7
Perfume	0.3
Color, Preservative	Q.S.

Transparent Shampoo

	<u>% by Weight</u>
Water	64.5
Miracare ANK	33.0
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	2.5

Blending Procedure:

Charge water into mixing vessel and blend balance of ingredients in order listed.

Lotion Shampoo

	<u>% by Weight</u>
Water	67.5
Miracare ANK	25.0
Mirasheen 202	5.0
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	2.5

Blending Procedure:

Charge water into mixing vessel and blend balance of ingredients in order listed.

SOURCE: Rhone-Poulenc: Suggested Formulations

Hair Shampoo Clear

	<u>Wt%</u>
Ampholyt JB 130	17.8
Marlinat 242/28	13.9
Marlinat SL 3/40	11.4
Dionil OC/K	2.0
Lamepon S	2.0
Panthenol	0.2
Vitamin F	0.1
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Hair Shampoo

	<u>Wt%</u>
Marlinat 242/28	29.0
Marlinat CM 105	14.0
Ampholyt JB 130	10.0
Dionil OC/K	3.0
Lamepon S	5.0
Panthenol	0.3
Hair Complex Aquosom	0.5
Camomile Special	2.0
Collagen CLR	0.5
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.; Formulations for Cosmetics; Formulas

Hair Shampoos, Clear

B 40/5:	
Zetesol NL	40.0%
Purton NFD	1.0%
Perfume	0.5%
Water, sodium chloride, preservative	q.s. to make 100.0%

B 40/30:	
Zetesol 2056	30.0%
Purton SFD	1.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B40/31:	
Sulfetal KT 400	37.0%
Amphotensid GB 2009	10.0%
Purton CFD	2.0%
Water, perfume, preservative	q.s. to make 100.0%

B40/50:	
Extrakt 52	27.0%
Amphotensid B 4	12.0%
Purton SFD	0.5%
Extracts of plants, aqueous (10%)	2.0%
Water, perfume, preservative	q.s. to make 100.0%

Hair Shampoos, Pearlescent

B 41/1:	
Zetesol 856 T	20.0%
Perlganzmittel GM 4175	4.0%
Perfume	0.3%
Water, sodium chloride, preservative	q.s. to make 100.0%

B 41/3:	
Sulfetal KT 400	25.0%
Perlganzmittel GM 4175	8.0%
Amphotensid B 4	9.0%
Water, perfume, sodium chloride, preservative	q.s. to make 100.0%

B 41/25:	
Zetesol 2056	28.0%
Amphotensid B 4	8.0%
Perlganzmittel GM 4175	4.0%
Perfume	0.5%
Water, preservative	q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulas

Hair Shampoo with Conditioner

	<u>Wt%</u>
Marlinat 242/28	35.0
Marlinat CM 105	10.0
Ampholyt JB 130	5.0
Marlamid DF 1218	2.0
Lamepon S	2.0
Marlazin KC 30/50	1.6
Panthenol	0.2
Vitamin F	0.1
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Hair Shampoo with Conditioner for Everyday Use

	<u>Wt%</u>
Marlinat 242/28	46.0
Marlinat CM 105	7.0
Marlinat SL 3/40	3.8
Marlazin KC 30/50	1.6
Panthenol	0.2
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Herbal Shampoo Pearlescent

	<u>Wt%</u>
Marlinat 242/28	30.0
Ampholyt JB 130	8.0
Marlamid PG 20	3.0
Hair Complex Aquosum	1.0
Stinging Nettle Special	0.5
Rosemary Special	0.3
Vitamin F	0.2
Horse-chestnut Special	1.3
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Highly Concentrated Hair Shampoo

	<u>Wt%</u>
A. Marlinat 242/28	54.0
Marlinat SL 3/40	25.0
Ampholyt JB 130	16.0
Softigen 767	3.0
Water	to 100.0
B. Perfume	qs
Preservative	qs
Colour	qs
NaCl	qs

Preparation:

The constituents of A. are added together in sequence, and stirred while warm until homogeneous. The ingredients of B. are added to A. at approx. 30C. The pH is adjusted to 5.5-6.6.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

High Foaming 2 in 1 Shampoo

	<u>Weight, %</u>
Ammonium Lauryl Sulfate (28%)	65.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	4.0
Ethylene Glycol Distearate	1.0
Mackamide PKM (Palmkernalamide MEA)	2.0
Mackernium 007 (Polyquaternium 7)	0.4
Mackstat DM (DMDM Hydantoin)	Q.S.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Combine the first five components and heat to 70 degrees C. with continuous mixing.
2. Dilute the Mackernium 007 in the remaining water and slowly add to the blend.
3. Blend until product is homogeneous and cool to 50 degrees C.
4. Add Mackstat DM, fragrance and dye.
5. Adjust pH with citric acid to 5.0-6.0 and cool.

Silicone Free 2:1 Shampoo

	<u>Weight, %</u>
Ammonium Lauryl Sulfate (30%)	40.0
Mackanate LA (Diammonium Lauryl Sulfosuccinate)	20.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackamide CMA (Cocamide MEA)	2.0
Mackernium 007 (Polyquaternium 7)	1.2
Mackester EGDS (Glycol Distearate)	1.0
Sodium Chloride	0.8
Paragon (DMDM Hydantoin (and) Methyl Paraben)	q.s.
Water, Fragrance, Dye q.s to	100.0

Procedure:

1. Add the first seven components to water and heat to 70C.
2. Blend until completely homogeneous.
3. Cool to 50C. and add Paragon, fragrance and dye.
4. Adjust pH to 5.0-6.0 with citric acid.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Light Conditioning Shampoo

Light conditioning shampoo based on hair substantivity of Pationic SSL (Sodium Stearoyl Lactylate). Promotes style retention.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Lauryl Sulfate (Standapol WAQ-LC)	21.43	Cleaning
2. Sodium Laureth-2 Sulfate (Standapol ES-2)	21.43	Cleaning
3. Pationic SSL (Na Stearoyl Lactylate)	3.00	Style, Conditioning
4. Rita EGDS (Glycol Distearate)	3.50	Viscosity
5. Ritamide C (Cocamide DEA)	4.50	Lather Density
6. Fragrance - Pert Type #189-724	0.30	Odor
7. Kathon CG	0.03	Preservative
8. Citric Acid (50% Soln.)	q.s.	pH Adjustment
9. Sodium Chloride (25% Soln.)	q.s.	Viscosity Adjustment
10. Distilled/Deionized Water	45.81	-----

Compounding Procedure:

Heat items 3 and 4 until melted. Add to 165F water items 1 and 2. Blend in pre-mix with constant agitation. Cool to 140F. Heat item 5 and mix with perfume. Add these and preservative at 120F.

Ref. No. 118-98

Light Conditioning Shampoo

A light conditioning shampoo with reduced skin and eye irritation due to the effects of Grilloten (Sucrose Cocoate).

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-3 Sulfate (Standapol ES-3)	40.00	Lather
2. Cocamidopropyl Betaine (Mackam 35HP)	8.00	Mildness
3. Grilloten LSE-65K (Sucrose Cocoate)	2.80	Non-Irritation
4. Ritasynt IP (Glycol Stearate and others)	3.00	Conditioning
5. Polyquta-400 (Polyquaternium-10)	1.00	Combing, Style
6. Kathon CG	0.03	Preservative
7. Sodium Chloride (25% Soln.)	q.s.	Viscosity
8. Citric Acid (50% Soln.)	q.s.	pH Adjustment
9. Fragrance	0.30	Odor
10. Distilled/Deionized Water	44.87	-----

Compounding Procedure:

To the water at 165F slowly add item 5. When solubilized add item 3, which has been melted. Then add 1, 2 and 4 with constant agitation at 165F. Cool to 120F and add perfume and preservative. Adjust pH to 5.5 and viscosity to desired level.

Ref. No. 118-2

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Light Conditioning Shampoo

Light conditioning shampoo designed to leave the hair with a soft, conditioned feel from ethoxylated lanolin (Laneto 50).

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	50.00	Cleaning
2. Ritasynt IP (Glycol Stearate and Others)	4.50	Conditioning, Soft Feel
3. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Mildness, Combing
4. Laneto 50 (PEG-75 Lanolin)	1.50	Soft Feel, Shine
5. Ritapeg 150 DS (PEG-150 Distearate)	0.50	Opacity
6. Ritapan DL (dl-Panthenol)	0.50	Conditioner, Body
7. Fragrance - Squeaky Clean 165-047	0.30	Odor
8. Kathon CG	0.03	Preservative
9. Sodium Hydroxide (20% Soln.)	q.s.	pH adjustment
10. Sodium Chloride (25% Soln.)	q.s.	Viscosity Control
11. Distilled Water	39.67	-----

Compounding Procedure:

To the water add 1-6, heat to 165F. Mix and cool to 120F. Add preservative and fragrance. Note pH should be near 6.0. Adjust with sodium hydroxide to 7.2-7.6 to maximize deposition of the Laneto 50 if desired.

Ref. No. 118-46

Light Conditioning Shampoo

A light conditioning shampoo optimized for permed hair. Contains moisturizers and repair agents to give hair new life.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	53.60	Cleaning
2. Pationic ISL (Na Isostearoyl Lactylate)	2.25	Moisturization
3. Ritapeg 150 DS (PEG-150 Distearate)	0.75	Viscosity
4. Rita EGMS (Glycol Stearate)	2.00	Opacity
5. Ritalan DL (dl-Panthenol)	0.25	Body, Feel
6. Laneto 50 (PEG-75 Lanolin)	0.75	Feel
7. Propylene Glycol	2.50	Moisturization
8. Fragrance - Nature Harvest 165-050	0.30	Odor
9. Kathon CG	0.03	Preservative
10. Distilled/Deionized Water	37.57	-----

Compounding Procedure:

Heat items 2,3 and 4 until uniform. Separately heat water until 165F disperse item 5 and mix until uniform. Add item 1 followed by pre-mix. Add item 7 to batch. Pre-mix item 6 and perfume and add to batch which has been cooled to 125F. Mix thoroughly. Add other ingredients. pH should be near 5.5.

Ref. No. 118-94

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Low pH, Protein Gel Shampoo

	<u>Weight, %</u>
Ammonium Lauryl Sulfate (30%)	35.0
Mackam 35HP (Cocamidopropyl Betaine)	12.0
Mackpro NLP (Quaternium-79 Hydrolyzed Animal Protein) (Natural Lipid Protein)	2.0
Mackamide LLM (Lauramide DEA)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Lactic Acid	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 60 degrees C.
2. Adjust pH to 5.0 with lactic acid.
3. Cool and add remaining components at 40 degrees C.

Mild Conditioning Shampoo

	<u>Weight, %</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	10.0
Mackam 35 (Cocamidopropyl Betaine (Via Glyceride)	25.0
Sodium Laureth Sulfate (60%)	10.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	1.0
Mackamide C (Cocamide DEA (1:1)	2.0
Polysorbate 20	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0
pH: 5.5-6.7	
Viscosity (cps 25 degrees C.): 600-1200	

Procedure:

1. Add surfactants to water.
2. Start mixing at room temperature until all components are clearly dissolved.
3. Blend fragrance with Polysorbate and add to batch.
4. Adjust pH if necessary with citric acid.
5. Adjust viscosity with Sodium Chloride.

Economy Shampoo

	<u>Weight, %</u>
Mackadet SBC-8 (Mild Blend)	10.0
Sodium Chloride	qs
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackadet SBC-8 to water and blend until clear.
2. Add Mackstat DM and adjust viscosity to 3000-4000 cps with sodium chloride.
3. Add dye and fragrance and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Mild Shampoo

Ultra mild shampoo for gentle cleaning of hair. Exceptionally easy to rinse out and leaves minimal residue.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth Sulfate (Standapol ES-1)	30.00	Cleaning
2. Cocamidopropyl Betaine (Mackam 35 HP)	20.00	Mildness
3. Ritabate 20 (Polysorbate 20)	5.00	Mildness
4. Ritapeg 150 DS (PEG-150 Distearate)	2.00	Light Conditioning
5. Preservative	q.s.	Preservative
6. Fragrance-Baby Powder #165-848	0.30	Odor
7. Sodium Chloride (25% Solution)	q.s.	Viscosity
8. Distilled/Deionized Water	42.70	

Compounding Procedure:

To water add items 1 and 4. Heat to 60C and mix until uniform. Add items 2 and 3 and continue mixing. Cool to 30C. Add fragrance and preservative. Adjust pH to 6.5. Adjust viscosity with Sodium Chloride solution.

Ref. No. 118-71

Mild Shampoo

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	46.50	Cleaning
2. Pationic ISL (Sodium Isostearoyl Lactylate)	2.25	Damage Repair
3. Ritapeg 150 DS (PEG-150 Distearate)	0.75	Viscosity, Manageability
4. Conditioning Agent*	q.s.	Conditioning
5. Fragrance-Nature Harvest 165-050	0.30	Odor
6. Kathon CG	0.03	Preservative
7. Sodium Hydroxide (20% Soln.)	q.s.	pH Adjustment
8. Sodium Chloride (25% Soln.)	q.s.	Viscosity Control
9. Distilled/Deionized Water	50.17	-----

* Optional conditioning agent, such as jojoba oil, panthenol, protein, etc. could be added.

Compounding Procedure:

To the water add item 1 at 165F. Pre-mix items 2 and 3 and add at 165F. Cool to 120F and add perfume and preservative. Adjust pH to 6.0-6.5 and viscosity as desired.

Ref. No. 118-102

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Moisture Balance Shampoo with Cropeptide W

This formula gives hair more body control in all humidities, an effect created by Cropeptide W. Especially recommended for dry, damaged hair, Cropeptide W can reduce its brittleness at low RH and its limpness at high RH. The shampoo is an easy-to-make and economical cold mix formula with very good cleansing properties.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incromide LR (Lauramide DEA)	5.00
Incronam 30 (Cocamidopropyl Betaine)	5.00
Sodium Pareth-25 Sulfate	15.00
Cropeptide W (Hydrolyzed Wheat Protein (and) Wheat Oligosaccharides)	1.00
Deionized Water	73.70
Part B:	
Methyl paraben	0.20
Propyl paraben	0.10

Procedure:

Combine ingredients of Part A with mixing until clear. Add the ingredients of Part B individually with good mixing. Adjust pH with a 10% citric solution.

pH: 5.0+-0.5

Viscosity: 7,500+-10% (RVT Spindle #4, 20 rpm, 25C)

N.A.T.C. Approved

Formula SH-82

Shampoo with Tritisol

A rich foaming shampoo with wheat derived Tritisol added for conditioning. Excellent wet combing characteristics are produced by this pearlescent product.

<u>Ingredients:</u>	<u>%</u>
Part A:	
SLES (3 mole)	16.50
Crosultaine C-50 (Cocamidopropyl Hydroxysultaine)	7.00
Deionized Water	61.50
Incromectant AMEA-100 (Acetamide MEA)	3.75
Part B:	
Incromide CAC (Cocamide DEA Cocoyl Sarcosine)	3.00
Incromide ALD (Almondamide DEA)	1.00
Incromate OLL (Olivamidopropyl Dimethylamine Lactate)	1.00
Part C:	
Tritisol (Soluble Wheat Protein)	2.25
Crodapearl Liquid (Sodim Laureth Sulfate (and) Hydroxyethyl Stearamide MIPA)	3.00
Germaben II	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 60-65C. Combine ingredients of Part B with mixing and heat to 80-85C. Slowly add B to A with mixing and cool to 40C. Add Part C with mixing. Adjust pH to 6.0 with a 10% citric acid solution. Cool to desired fill temperature.

pH: 6.00+-0.5

Viscosity: 2,500+-10% (@25C)

N.A.T.C. Approved

Formula SH-83-1

SOURCE: Croda Inc.: Suggested Formulations

Protein Shampoos

B 40/65:		
Sulfetal KT 400		30.0%
Amphotensid B 4		10.0%
Purton SFD		1.5%
Hydrolastan		1.0%
Water, perfume, sodium chloride, preservative		q.s. to make 100.0%

B 40/148:		
Part A:		
Sulfetal CJOT 60		25.0%
Purton SFD		1.0%
Perfume		0.5%
Croquat L		1.0%
Part B:		
Polymer JR 400		0.3%
Water, preservative		q.s. to make 100.0%

Vitamin Shampoos

B 40/29:		
Zetesol 856 T		30.0%
Purton SFD		1.5%
Solvit CLR		3.0%
Water, perfume, preservative		q.s. to make 100.0%

B 40/38:		
Sulfetal KT 400		40.0%
Amphotensid B 4		5.0%
Purton CFD		1.5%
Vitamin F, water-soluble		1.0%
Water, perfume, sodium chloride, preservative		q.s. to make 100.0%

Shampoo for Dry Hair

B 40/131:		
Zetesol 856 T		22.0%
Amphotensid B 4		8.0%
Oxypon 288		4.0%
Avocado oil		0.5%
Perfume		1.0%
Sodium chloride		approx. 2.0%
Water, preservative		q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Salon Conditioning Shampoo

Optimal conditioning level is achieved.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth Sulfate (Standapol ES-2)	54.35	Cleaning
2. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Mild, Combing
3. Ritapeg 150 DS (PEG-150 Distearate)	1.00	Style, Viscosity
4. Ritapan DL (dl-Panthenol)	0.25	Body
5. Laneto 50 (PEG-75 Lanolin)	0.75	Combing
6. Polyquta 400 (Polyquaternium-10)	0.50	Combing, Style
7. Sodium Chloride (25% Soln.)	0.25	Viscosity
8. Kathon CG	0.03	Preservative
9. Fragrance - Nature Harvest 165-050	0.30	Odor
10. Distilled/Deionized Water	39.57	-----

Compounding Procedure:

Disperse items 6 and 4 in order in water at 165F. Pre-dissolve item 3 in item 2. Add to 165F main batch and mix until uniform. Add items 5 and 1 in order and mix until uniform. Cool to 120F. Add preservative and perfume. Adjust viscosity with NaCl.

Ref. No. 118-28

Salon Conditioning Shampoo

A mild salon conditioning shampoo with extremely rich lather and aloe and panthenol to penetrate the hair shaft to produce healthy hair.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Lauryl Sulfate (Standapol WAQ LC)	25.00	Cleaning
2. Cocamidopropyl Betaine (Mackam 35 HP)	10.00	Lather, Mild
3. Ritamide C (Cocamide DEA)	5.00	Lather, Density
4. Pationic ISL (Na Isostearoyl Lactylate)	1.75	Mildness
5. Ritaloe 200M (Aloe Vera Gel)	0.15	Conditioning
6. Ritapan DL (dl-Panthenol)	0.50	Health
7. Kathon CG	0.03	Preservative
8. Fragrance - Nature Harvest	0.30	Odor
9. Sodium Chloride (25% Soln.)	q.s.	Viscosity Control
10. Citric Acid (50% Soln.)	q.s.	pH Adjustment
11. Distilled/Deionized Water	57.27	-----

Compounding Procedure:

To the water add items 5 and 6, heat to 120F. Combine items 1, 2 and 4, add heat to 120F. Add to water mixture with uniform mixing. Pre-mix Ritamide C and perfume and add to batch. Add preservative. Adjust pH and viscosity as needed.

Ref. No. 118-63

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Salon Style Shampoo

Salon conditioning is achieved through balanced blend of surfactants, polymers and proteins which give hair great combing and shine.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ammonium Lauryl Sulfate (Stepanol AM)	45.00	Cleaning
2. Cocamidopropyl Betaine (Mackam 35HP)	5.50	Mildness
3. Cocamidopropyl Amine Oxide (Mazox CAPA)	5.50	Lather
4. Ritamide C (Cocamide DEA)	1.00	Lather Density
5. Polyquta 400 (Polyquaternium-10)	0.10	Conditioning
6. Hydroxypropyl Methylcellulose (Methocel 40-100)	0.20	Body, Viscosity
7. Triethanolamine @ 99%	0.10	pH
8. Tetrasodium EDTA	0.20	Clarity
9. Methylparaben	0.20	Preservative
10. Germall 115	0.20	Preservative
11. Promois WK (Hydrolyzed Keratin)	0.40	Shine, Body
12. Fragrance-Nature Harvest #165-050	0.30	Odor
13. Citric Acid (50% Soln.)	q.s.	pH Control
14. Distilled/Deionized Water	41.30	-----

Compounding Procedure:

To the water add items 5 and 6 and neutralize with TEA. Add items 1,2,8,9,10 and 11 in order. Pre-mix items 3,4 and fragrance and add to mix. Mix until uniform. Adjust pH to 6.0 and viscosity.

Ref. No. 118-111

2 in 1 High Conditioning Shampoo

High conditioning 2 in 1 type shampoo with excellent wet combing/dry combing.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-3-Sulfate (Standapol ES-3)	30.00	Cleaning
2. Ritamide C (Cocamide DEA)	3.75	Lather
3. Polyquta 400 (Polyquaternium-10)	1.00	Conditioning
4. Fragrance	0.30	Odor
5. Kathon CG	0.03	Preservative
6. Distilled/Deionized Water	64.92	----

Compounding Procedure:

To the water at 165F add items 3 and mix until clear. Add items 1 and 2 in order and mix until clear. Cool to 120F and add fragrance and preservative. Adjust pH with Citric Acid and viscosity with Sodium Chloride to desired ranges.

Ref. No. 115-205B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shampoo for Permed Hair

	<u>Weight, %</u>
Mackanate OP (Disodium Oleamido MIPA Sulfosuccinate)	20.0
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	12.0
Sodium Laureth Sulfate (30%)	15.0
Mackamine WGO (Wheat Germamidopropylamine Oxide)	4.0
Mackalene 716 (Wheat Germamidopropyl Dimethylamine Lactate)	1.0
Mackstat DM (DMDM Hydantoin)	qs
Citric Acid to pH=6.0	
Sodium Chloride qs to 2000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 40 degrees C.
2. Blend until clear and adjust pH with citric acid.
3. Add remaining components and adjust viscosity with sodium chloride.

Pearlescent Shampoo Concentrate

	<u>Weight, %</u>
TEA Lauryl Sulfate	50.0
Mackamide LLM (Lauramide DEA)	30.0
Mackester SP (Glycol Stearate Modified)	5.0
Propylene Glycol	5.0
Sodium Chloride	1.0
Phosphoric Acid to pH = 7.5	
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Add first five components to water and heat to 70 degrees C.
2. Blend until homogeneous.
3. Cool to 40 degrees C. and add Mackstat DM, dye and fragrance.

Remarks: This product can be diluted one pint to a gallon with water. The viscosity can be controlled by regulating the propylene glycol.

Neutralizer Shampoo

	<u>Weight, %</u>
Mackanate OM (Disodium Oleamido MEA Sulfosuccinate)	30.0
Sodium Laureth Sulfate (30%)	20.0
Mackamine CAO (Cocamidopropylamine Oxide)	6.0
Mackamine WGO (Wheat Germamidopropylamine Oxide)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0
Solids, %: 19.5	
pH: 5.3	
Viscosity (cps, 25 deg C.): 1500	

Procedure:

Add surfactants to water and blend until clear. Adjust pH to 5.0-5.5 with citric acid. Add dye and fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Sport Shampoo

	<u>Wt%</u>
A. Marlinat DFN 30	35.0
Marlinat CM 105	11.0
Ampholyt JB 130	10.0
Dionil OC/K	2.5
Antil 141 liquid	qs
Water	to 100.0
 B. Avocado Special	 1.5
Perfume	qs
Colour	qs
Preservative	qs

Preparation:

The ingredients of A. are added together in sequence, warmed and stirred until homogeneous. The ingredients of B. are added to A. at approx. 30C. The pH is adjusted to 5.5-6.6.

Herbal Shampoo Against Greasy Hair

	<u>Wt%</u>
A. Marlinat 242/28	28.0
Marlinat CM 105	18.0
Ampholyt JB 130	13.0
Marlamid M 1218	3.0
Water	to 100.0
 B. Avocado Special	 1.0
Camomile Special	0.5
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs

Preparation:

The constituents of A. are added together in sequence and stirred while warm until homogeneous. The constituents of B. are added to A, at approx. 30C. The pH is adjusted to 5.5-6.6.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9043, Silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9049	

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9044, Silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9050	

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9045, silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9051	

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9046, silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9052	

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9047, silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9053	

Two in One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
PC 9048, silicone emulsion	10.00
Shampoo concentrate	90.00
<u>Procedure:</u>	
Heat (A) to approx. 65C. Mix with very slowly with anchor type agitation.	
Formula PC 9054	

SOURCE: ICI Surfactants: Suggested Formulations

Two in One Shampoo

True 2 in 1 formula with exceptional wet and dry combing.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2-Sulfate (Standapol ES-2)	30.00	Cleaning
2. Cocamidopropyl Betaine (Mirataine BET C-30)	3.00	Lather
3. PEG-120 Methyl Glucose Dioleate	3.00	Mildness, Viscosity
4. Dow Corning 1401 Fluid	2.60	Combing
5. Ritamide C (Cocamide DEA)	4.00	Lather Density
6. Fragrance	0.20	Odor
7. Preservative - Kathon CG	0.03	Preservation
8. Citric Acid (50% Soln.)	q.s.	pH Adjustment
9. Distilled/Deionized Water	57.17	-----

Compounding Procedure:

To the water at 60C add items 1,2 and 3. Premix items 4 and 5 and add to mix at 60C. Stir until uniform. Add fragrance, preservative and adjust pH to 6.0-6.5.

Ref. No. 116-153

Two in One Shampoo

Unique combination of excellent combability, overall conditioning and mildness.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2-Sulfate (Standapol ES-2)	45.00	Cleaning, Lather
2. Grilloten LSE-65K (Sucrose Cocoate)	1.50	Mildness
3. Cocamidopropyl Betaine (Mirataine BET C-30)	10.00	Lather, Mildness
4. Dimethicone Copolyol (Abil B88183)	1.95	Combing
5. Quaternium 80 (Abil Quat 3272)	0.65	Conditioning
6. Fragrance - Squeeky Clean	0.30	Odor
7. Kathon CG	0.03	Preservative
8. Citric Acid (50% Soln.)	0.05	pH Adjustment
9. Sodium Chloride (25% Soln.)	q.s.	Viscosity Control
10. Distilled/Deionized Water	40.52	----

Compounding Procedure:

To the water at 120F add items 4,5 and 3 in order. Pre-mix the items 1 and 2 while heating gently and add perfume and mix until uniform. Now mix both phases together. Adjust pH and viscosity.

Ref. No. 119-4

SOURCE: R.I.T.A. Corp.: Suggested Formulations

2-In-1 Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A Dimethicone Copolyol Dow Corning Q2-5000	0.25
Dow Corning 345 fluid	0.25
Carbopol 1382	0.10
Water	66.13
B CP 1052 (shampoo base)	31.50
C Stepan-Kessco Ethylene glycol distearate	1.00
D NaCl	0.77

Procedure:

Blend ingredients in (A) together with moderate agitation at 35C. Add shampoo base to (A) with moderate agitation. Heat mixture to 80C and add glycol distearate with fast stirring. Allow to cool with medium agitation, stirring in salt at 50C or below.

Formula CP 1061

Two-in-One Shampoo

<u>Ingredients:</u>	<u>%W/W</u>
A Water	67.36
Dow Corning Q2-5200	0.10
Dow Corning 345 fluid	0.20
BF Goodrich Carbopol 1382	0.08
B Stepan-Kessco Ethylene glycol distearate	0.50
C G-9600 1053 (Shampoo base)	31.50
D NaCl	0.26
*Preservative	

*q.s these ingredients.

Procedure:

Blend ingredients in (A) together with moderate agitation at 35C. Add shampoo base to (A) with moderate agitation. Heat mixture to 80C and add glycol distearate with fast stirring. Allow to cool with medium agitation, stirring in salt at 50C or below.

Formula CP 1063

SOURCE: ICI Surfactants: Suggested Formulations

Three in One Shampoo

Resulting product is a clear rich shampoo which cleans; conditions and improves combability with Lexquat AMG-BEO; and styles with PVP/VA copolymer.

	<u>%w/w</u>
A. Sodium Lauryl Sulfate (Standapol WAQ)	15.00
TEA-Lauryl Sulfate (Standapol T)	10.00
Cocamidopropyl Betaine (Lexaine C)	10.00
Cocamide DEA (Standamid KD)	3.00
Potassium Cocoyl-Hydrolyzed Collagen (Maypon 4C)	3.00
B. Deionized Water	42.10
Propylene Glycol USP	3.00
Methylparaben (Lexgard M)	0.20
Propylparaben (Lexgard P)	0.10
Benzophenone-4 (Uvinul MS-40)	0.10
Tetrasodium EDTA (Hamp-ene Na4)	0.10
C. Behenamidopropyl PG Dimonium Chloride (Lexquat AMG-BEO)	7.00
D. PVP/VA copolymer (Luvisko1 VA 73-W)	6.00
E. Fragrance	0.20
Color	QS
F. Citric Acid NF	QS

Procedure:

1. Combine ingredients in phase "A". Heat to 75C with continuous slow oscillation. Do not entrap air.
2. Combine ingredients in phase "B". Heat to 75-80C. Mix rapidly to dissolve parabens.
3. When phases "A&B" are both homogeneous and are 75C, add Phase "A" to "B". Adjust mixing speed to avoid foaming and air entrapment.
4. Combine phase "C" and mix until homogeneous.
5. Add phase "C" to "AB". Maintain 75C.
6. When phase "ABC" is homogeneous add "D" to "ABC". Mix until homogeneous.
7. When phase "ABCD" is homogeneous begin cooling to ambient temperature.
8. At 30C add phase "E" to "ABCD". Continue mixing and cooling.
9. When batch reaches ambient temperature, adjust pH to 7 with phase "F".
10. Adjust for water loss.

SOURCE: Inolex Chemical Co.: Formulation SP-116

Three in One Shampoo

Resulting product is a rich clear shampoo which cleans; provides conditioning and improved combability with Lexquat AMG-BEO and quaternized chitosan; and styles with PVP/VA copolymer.

	<u>%w/w</u>
A. Sodium Lauryl Sulfate (Standapol WAQ)	15.00
TEA-Lauryl Sulfate (Standapol T)	10.00
Cocamidopropyl Betaine (Lexaine C)	10.00
Cocamide DEA (Standamid KD)	3.00
Potassium Cocoyl-Hydrolyzed Collagen (Maypon 4C)	3.00
B. Deionized Water	42.10
Propylene Glycol USP	3.00
Methylparaben (Lexgard M)	0.20
Propylparaben (Lexgard P)	0.10
Benzophenone-4 (Uvinul MS-40)	0.10
Tetrasodium EDTA (Hamp-ene Na4)	0.10
C. Behenamidopropyl PG Dimonium Chloride (Lexquat AMG-BEO)	7.00
Polyquaternium-29 (Kytamer KC)	0.20
D. PVP/VA co-polymer (Luviskol VA 73-W)	6.00
E. Fragrance	0.20
Color	QS
F. Citric Acid NF	QS

Procedure:

1. Combine ingredients in phase "A". Heat to 75C with continuous slow oscillation. Do not entrap air.
2. Combine ingredients in phase "B". Heat to 75-80C. Mix rapidly to dissolve parabens.
3. When phases "A&B" are both homogeneous and are 75C, add Phase "A" to "B". Adjust mixing speed to avoid foaming and air entrapment.
4. Combine phase "C" and mix until homogeneous.
5. Add phase "C" to "AB". Maintain 75C.
6. When phase "ABC" is homogeneous add phase "D" to "ABC". Mix until homogeneous.
7. When phase "ABCD" is homogeneous begin cooling to ambient temperature.
8. At 30C add phase "E" to "ABCD". Continue mixing and cooling.
9. When batch reaches ambient temperature, adjust pH to 7 with phase "F".
10. Adjust for water loss.

SOURCE: Inolex Chemical Co.: Formulation SP-115

Wheat & Sesame Shampoo

Hydrotritricum WAA is the key ingredient in this shampoo, which acquires its unique quality from a blend of wheat derived materials. This shampoo has excellent foam with a rich, creamy lather and leaves the hair feeling refreshingly clean. Hydrotritricum WAA, a powerful humectant, helps to retain moisture that is vital to maintaining healthy hair. Incromectant AMEA-100 and Incromate SEL improve wet combing and detangling.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Incromine Oxide WG (Wheat Germamidopropylamine Oxide)	3.00
Incronam WG-30 (Wheat Germamidopropyl Betaine)	3.00
Incromectant AMEA-100 (Acetamide MEA)	5.00
SLES (3 mol EO)	40.00
Disodium EDTA	0.10
Deionized Water	41.45
Part B:	
Incromide WGD (Wheat Germamide DEA)	2.00
Incromate SEL (Sesamidopropyl Dimethylamine Lactate)	1.00
BHT	0.10
Part C:	
Hydrotritricum WAA (Wheat Amino Acids)	3.00
Part D:	
Methylparaben	0.25
Propylparaben	0.10
Propylene Glycol	1.00
Citric Acid (10% soln) to pH 5.4	

Combine Part A and heat to 60C. Combine Part B and heat to 60C, mixing until homogeneous. Add Part B to Part A with mixing. Continue mixing and cool to 45C. Add Part C, followed by Part D, mixing until uniform. Adjust pH with citric acid solution.

N.A.T.C. Approved Formula SH-84

Detangling Shampoo

<u>Ingredients:</u>	<u>%</u>
Part A:	
SLES (3 mol.)	20.0
Crosultaine C-50 (Cocamidopropyl Hydroxysultaine)	7.0
Deionized Water	58.0
Incromectant AMEA-100 (Acetamide MEA)	2.0
Part B:	
Incromide CAC (Cocamide DEA Cocoyl Sarcosine)	3.0
Incromate ISML (Isostearamidopropyl Morpholine Lactate)	4.0
Part C:	
Crodacel QM (Cocodimonium Hydroxypropyl Cellulose)	2.0
Crodapearl Liquid (Sodium Laureth Sulfate (and) Hydroxyethyl Stearamide-MIPA)	3.0
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben*	1.0

Combine ingredients of Part A with mixing and heat to 60-65C. Combine ingredients of Part B with mixing and heat to 60-65C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature. Adjust pH with 10% citric acid solution.

Formula SH-92 *Germaben II

SOURCE: Croda Inc.: Suggested Formulas

Wheat Germ Conditioning Shampoo

	<u>Weight, %</u>
Mackanate OP (Disodium Oleamido MIPA Sulfosuccinate)	20.0
Sodium Laureth Sulfate (30%)	24.0
Mackanate WGD (Disodium Wheatgermamido PEG-2 Sulfosuccinate)	8.0
Mackam WGB (Wheat Germamidopropyl Betaine)	5.0
Citric Acid to pH = 5.5	
Sodium Chloride qs to viscosity = 20000 cps	
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 40 degrees C.
2. Adjust pH to 5.5.
3. Add remaining components and adjust viscosity with sodium chloride.

No-Sting 2:1 Shampoo

	<u>Weight, %</u>
Mackam 2C	35.0
Sodium Laureth-1 Sulfate	20.0
Mackanate DC-30	4.0
Mackernium 007	3.0
Mackester SP	2.0
Mackstat DM	q.s.
Citric Acid q.s. to pH	7.0-7.5
Water, Dye, Fragrance q.s. to	100.0

Procedure:

1. Add Mackam 2C, Sodium Laureth-1 Sulfate, Mackanate DC-30 and Mackester SP to water.
2. Heat to 70C to blend until homogenous.
3. Slowly add Mackernium 007.
4. Cool to 50C and add Mackstat DM.
5. Add fragrance, dye and adjust pH to 7.0-7.5.

Stripper Shampoo

	<u>Weight, %</u>
Dodecylbenzene Sulfonic Acid	21.5
Caustic Soda (50%)	5.4
Sodium Laureth Sulfate (60%)	4.0
Mackam 35 (Cocamidopropyl Betaine)	5.5
Sodium Xylene Sulfonate (40%)	8.0
Water, Dye, Fragrance qs to	100.0
Solids, %: 30+-1.0	
pH: 6.5-7.0	
Viscosity (cps, 25C): 250-350	
Cloud Point: 5C	

Procedure:

1. Add caustic soda to water and adjust pH to 7.0-8.0 with DDBSA.
2. Add remaining components and adjust pH to 6.5-7.0 with citric acid.
3. If necessary, lower viscosity with SXS, or raise viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Suggested Formulations

Section IX
Shaving Products

Aerosol Shaving Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	6.30
Stripped coconut fatty acid	2.70
Sorbo	10.00
B Water, deionized	50.00
Allantoin	0.20
C Potassium hydroxide	1.70
Water	29.10
D *Perfume	
*q.s. these ingredients.	

Procedure:

Heat (A) to 75C. Add (B) and reheat to 75C. Add (C) slowly, with agitation. Mix for 30 minutes, maintaining temperature at 75C. Cool slowly while agitating slowly. Add (D) at 35C. Prepare aerosol shaving cream cans and pressure fill each can with 3% to 4% isobutane-propane, 40 psig to 46 psig.

Nonionic Aerosol Foam

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	4.30
Brij 721S	2.20
B Water, deionized	93.25
Sorbic acid	0.17
C Fougere Lavender, Fritzsche, D&O	0.08

-PRESSURIZE-

D Above concentrate (160.0g)
Difluoro ethane, Dymel 152A (8 mls)

Procedure:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly with agitation and add (C) at 35C. Adjust pH to 5.5 with dilute NaOH. Add water to compensate for loss due to evaporation. Continue agitation until viscosity is low enough to pour.

SOURCE: ICI Surfactants: Suggested Formulations

After Shave Balm

Dry Flo PC is a highly water resistant starch, provides a silky smooth elegant feel, and is talc free.

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Estol 1550	4.00
Cutina CP	2.50
Lonzest 143-S	3.00
Ivarlan 3230	1.50
Phase B:	
Deionized Water	61.60
Alcolec BS	1.00
Carbopol 941 (2% Aq. Soln.)	10.00
NaOH (25%)	0.40
Methylparaben	0.15
Propylparaben	0.15
Phase C:	
Glycerin (99.5%)	7.00
Dry-Flo PC	8.00
Phenoxyethanol	0.20
Phase D:	
Fragrance	0.50
Procedure:	

Combine Phase B, heat to 80C. Combine Phase A, heat to 80C. At 80C add A to B, mix for 15 minutes. Cool to 40C. Phase C; slurry Dry-Flo PC into Glycerin, add to A/B at 40C. Add Phenoxyethanol, mix well. Add Phase D. Mix until uniform.

SOURCE: National Starch and Chemical Co.: Formula 8062-16

Shave Gel

The product will raise the hair off the face to make for a closer cut without irritation. The Hexanediol Behenyl Beeswax stabilizes the silicone oil to leave the skin silky and smooth.

Phase A:	
Hexanediol Behenyl Beeswax (Koster Keunen)	3.0%
Orange Wax (Koster Keunen)	2.0%
Permethyl 104A (Permethyl)	3.0%
Polybutene (Amoco)	4.0%
Isostearic Acid (Unichema)	0.6%
Palmitic Acid (Proctor & Gamble)	1.4%
Phase B:	
Purified Water	63.9%
Triethanolamine (Dow)	0.8%
Carbopol 940 2% dispersion (B.F. Goodrich)	12.0%
Aloe Vera Gel (Active Organics)	0.8%
Phase C:	
Silicone 345 (Dow)	6.7%
Allantoin (Sutton)	0.8%
Germaben II (Sutton)	1.0%

Heat and mix Phase A and add to a heated and mixed Phase B. Cool to 50C and add phase C, one at a time. Cool to 40C and pour into containers.

Fragrances, actives and other silicone oils can be incorporated into this type of formula, with only minimal changes in stability and performance.

SOURCE: Koster Keunen, Inc.: Suggested Formulation

After Shave Conditioner

This multi-phase emulsion (o/w/a) is very stable and has wonderful skin feel. Besides the previously mentioned advantages, Cera Bellina produces a product with good viscosity characteristics in a product of low solids content.

Oil Phase:

Light Mineral Oil, Carnation (Witco)	7.5%
Cera Bellina (Pg-3 Beeswax, Koster Keunen)	4.0%
Glycerol Monostearate (Henkel)	3.3%
Deodorized Orange Wax	2.0%
Vitamin E (Van Dyk)	0.5%
Propyl Paraben (Sutton)	0.1%

Water Phase:

Water (distilled)	64.0%
Butylene Glycol (Arco)	5.0%
Glycerol (Unichema)	1.0%
Methyl Paraben (Sutton)	0.3%
Triethanolamine (Dow)	1.0%

Alcohol Phase:

SDA-30 (Quantum)	10.0%
Benzocaine (National Starch)	1.0%
Carboxy Methyl Cellulose (Hercules)	0.3%

Procedure:

Combine components of the wax phase in a vessel, melt and mix maintaining a temperature of 75C. Heat the water phase to 75C in a separate vessel making sure the components are all dissolved. Slowly add the oil phase to the water phase under low shear. Cool to 35 to 40C and then add the alcohol phase under low shear. This will ensure that the friction will not increase the temperature which will evaporate the alcohol.

Adaptation of formula and its influence on the product:

Alterations in component concentrations can be achieved by the addition of the secondary emulsifying agents. This will allow for active ingredients to be added at the same time as maintaining the stability and rheological properties.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Alcohol Free After Shave Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
Part I:	
Water	66.00
Phenyl Dimethicone	1.50
Carbomer 940	0.30
Triethanolamine (99%)	0.60
Part II:	
Water	30.00
Phospholipid SV	1.00
Menthol	0.10

Procedure:

Slurry Carbomer 940 into Dimethicone then mix well with the water. After the Carbomer 940 is dissolved, add triethanolamine. In a separate container blend and heat the water, menthol and Phospholipid SV to 75-80C. When dissolved, blend Part II to Part I mixing well. Add color, fragrance and preservative as required and package.

Conditioning After Shave Toner

	<u>% by Weight</u>
Part I:	
Water	51.00
Carbomer 940 (Premix)	0.35
Phenyl Dimethicone (Premix)	2.00
Triethanolamine (99%)	0.60
Part II:	
Water	30.05
Phospholipid SV	1.00
SD3A Alcohol	15.00

Procedure:**Part I:**

Slurry Carbomer 940 into water by first mixing it with Phenyl Dimethicone. Allow to mix until homogenous. When Part II is ready, neutralize Part I with TEA. Add Part II and blend together until a smooth lotion is formed.

Part II:

Mix water and Phospholipid SV. Heat to 65 with agitation until the Phospholipid SV is dissolved. Cool to 30-40C and add SD3A alcohol. Add to Part I.

SOURCE: Mona Industries, Inc.: Suggested Formulations

Brushless Shave Cream

This formulation features Vanseal NACS-30, sodium cocoyl-sarcosinate, Vanseal CS, cocoylsarcosine and potassium cocoate as high foaming yet mild surfactants. Sorbitol adds humectancy while PVP and talc provide lubricity. Stearic acid, propylene glycol stearate, and cetyl alcohol are included as thickeners and to provide pleasant after-feel.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Vanseal NACS-30	15.00
Vanseal CS	2.50
Deionized Water	25.75
Potassium Cocoate (2)	35.00
Sorbitol, 70%	5.00
PVP (3)	0.75
B Talc (4)	5.00
C Stearic Acid	7.00
Propylene Glycol Stearate (5)	2.50
Cetyl Alcohol	1.50
D Preservative, Dye, Fragrance	q.s.
(2) Liquid Coconut Soap, 40%	
(3) PVP K-30	
(4) AGI Talc	
(5) Cerasynt PA	

Preparation:

Mix A ingredients together and heat to 55C with gentle stirring until clear. Add B to A with adequate agitation. Heat C to 60C. Add C to (A + B), mixing until uniform and homogeneous. Cool to 30C and add D.

Consistency: Flowable gel (Viscosity: 2500-3500 cps)

Suggested Packaging: Plastic bottle or pump.

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 434

Emulsion for Shaving

<u>Ingredients:</u>	<u>%W/W</u>
A Cetearyl alcohol	3.00
Arlacel 186	1.00
Brij 721S	3.00
B Water, deionized	93.00
C *Dowicil 200	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C and heat (B) to 72C. Add (B) to (A) and stir. Cool to about 35C and add (C) and water to compensate for the loss due to evaporation. Stir to room temperature and package. Adjust pH to 5-6.
Formula CP 1082

Soap Free - Nonionic Shaving Emul

<u>Ingredients:</u>	<u>%W/W</u>
A Cetearyl alcohol	3.00
Arlacel 186	1.00
Brij 721S	3.00
B Water, deionized	83.00
Sorbo, 70% sorbitol solution	10.00
C *Dowicil 200	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C and heat (B) to 72C. Add (B) to (A) and stir. Cool to about 35C and add (C) and water to compensate for the loss due to evaporation. Stir to room temperature and package. Adjust pH to 5-6.
Formula CP 1091

SOURCE: ICI Surfactants: Suggested Formulations

Hemostatic After Shave

<u>Ingredients:</u>		<u>% w/w</u>
1	A) Irgasan DP 300	0,01
2	Crodamol DA	1,00
3	Ethanol 95%	50,00
4	B) Propylenglycol USP	2,00
5	Water demineralized	44,49
6	C) Fragrance: Courage 0/243101	0,50
7	D) Cephalipin	2,00

Procedure:

Dissolve phase A).

Mix phase B).

Slowly add phase B) to phase A). Then add item (6).

Finally add item (7).

Application No. I 001.A/4.91

Shaving Foam

<u>Ingredients:</u>		<u>% w/w</u>
1	Water demineralized	71,08
2	Glycerin	4,00
3	Triethanolamine 95%	3,21
4	Genapol LRO liquid	5,00
5	Euxyl K-200	0,30
6	Stearic Acid	8,30
7	Luvitol EHO	1,00
8	Nipasol M	0,20
9	BHT	0,01
10	Cocamide DEA	0,40
11	Fragrance	0,50
12	Cephalipin	3,00
13	Phytaluronate	3,00

Procedure:

The filling data are: Concentrate 95%

Isobutane (at 3,2 psi) 5%

Application No. I 003.0/02.93

SOURCE: Pentapharm Ltd.: Suggested Formulations

Shaving Creme

	%
A. Softisan 601	20.0
Miglyol 812	12.0
Marlowet TA 6	5.0
Imwitor 900	3.0
B. NaCl	5.0
Ampholyt JB 130	5.0
Locron L	5.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The constituents of A. are mixed together and heated to 75-80C. B. is heated to the same temperature and gradually stirred into A. Perfume is introduced at approx. 30C.

Shaving Gel

	%
A. Marlinat 242/28	50.0
Ampholyt JB 130	10.0
Marlamid DF 1218	5.0
Antil 141 liquid	1.0
Water	to 100.0
B. Softigen 767	2.0
Perfume	qs
Sicomet Patentblau*	0.05
Preservative	qs

*Sicomet Patentblau (Patent blue) 80E 131 1% in Softigen 767

Preparation:

The constituents of A. are mixed together and warmed to approx. 40C. The constituents of B. are mixed together and added to A. Viscosity at 20C measured in a Brookfield viscometer: 1900 mPa.s.

SOURCE: Huls America Inc.: Formulations for Cosmetics:
Suggested Formulations

Ultra Aerosol Shave Cream for Sensitive Skin

Veegum Ultra, magnesium aluminum silicate, is used in this emulsion formula to improve the stability of the luxurious lather produced by combining Vanseal NACS-30 (sodium cocoyl sarcosinate) with stearic and coconut acid soaps. Vanox PCX acts as an anti-oxidant in this formulation.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum Ultra (Magnesium Aluminum Silicate)	1.00
Deionized Water	75.80
B Glycerin	3.00
Triethanolamine	4.00
C Stearic Acid XXX	6.00
Coconut Acid (2)	1.30
Mineral Oil	2.50
Cetyl Alcohol	1.00
Vanox PCX (BHT)	0.20
D Vanseal NACS-30 (Sodium Cocoyl Sarcosinate)	5.00
Methylparaben	0.20
Fragrance	q.s.
(2) Emery 622	

Procedure:

Sift Veegum Ultra into the water while stirring with a propeller mixer at 700 rpm. Increase the mixer speed to 1700 rpm and mix for 30 minutes. Add the B ingredients in the order shown while mixing at 1700 rpm and heating to 75C. Mix the C ingredients and heat to 75C. Slowly add C to (A and B). Adjust the mixer speed to avoid air entrapment and excessive foaming. Mix for 10 minutes at 75C, then slow the mixer while cooling to 30C. Add the D ingredients in the order shown and mix each until uniform. Package in aerosol containers using 95.0 wt % of Formula No. 451 and 5.0 wt.% A-46 propellant.

Product Characteristics:

Viscosity: 500-700 cps

pH: 8.0+-0.2

Comments:

This prototype formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 451

Section X
Soaps and Hand Cleaners

Economy Heavy-Duty Hand Cleaners

	<u>Wt. %</u>
Rhodapon SB 8208/S	17.5
Alkamide LE	0.7
Rhodacal A-246/L	3.8
Triethanolamine	0.5
Oleic Acid	1.0
Glycerine	0.6
Alkamuls EGMS	0.9
Sodium Chloride	3-4
Fragrance, Dye, Preservative	Q.S.
Water	Q.S. to 100

	<u>Wt. %</u>
Rhodapon SB 8208/S	17.5
Alkamide DIN 295/S	0.7
Rhodacal A-246/L	3.8
Triethanolamine	0.5
Oleic Acid	1.0
Glycerine	0.5
Alkamuls EGMS	0.9
Sodium Chloride	2-3
Fragrance, Dye, Preservative	Q.S.
Water	Q.S. to 100

Procedure:

Charge water into reactor and warm to 75-80C. With rapid but smooth agitation, blend in ingredients as listed. Cool to 30-35C and blend in fragrance, dye, preservative.

Typical Properties:

Appearance @ 25C: Pearl, lotion-like liquid
 Viscosity @ 25C: 4,000-5,000 cps

Formula HA-0097

SOURCE: Rhone-Poulenc: Suggested Formulations

Emulsion Cleaner

<u>Ingredients:</u>	<u>% as Supplied</u>
Water	88.1
Acusol 820 Stabilizer (30%)	1.7
Deodorized Kerosene	10.0
NaOH (50%)	0.2

Brookfield Viscosity cps, @ 0.5 rpm: 21,000
 @ 12 rpm: 2,300

pH: 9.2

Mixing Instructions:

Add the ingredients in the listed order.

High-shear mixing is necessary to disperse the solvents
 (kerosene, oil)

Waterless Hand Cleaner

<u>Ingredients:</u>	<u>% as Supplied</u>
Water	47.1
Acusol 820 Stabilizer (30%)	1.7
NPE10	3.0
Deodorized Kerosene	38.0
Mineral Oil	10.0
NaOH (50%)	0.2

Brookfield Viscosity cps, @ 0.5 rpm: 4,000,000

pH: 7.8

Mixing Instructions:

Add the ingredients in the listed order.

High-shear mixing is necessary to disperse the solvents
 (kerosene, oil).

SOURCE: Rohm and Haas Co.: ACUSOL 820 Stabilizer: Suggested Formulations

Emulsion Cleaner and Waterless Hand Cleaner
Emulsion Cleaner

<u>Ingredients:</u>	<u>% as supplied</u>
Water	88.1
Acusol 820 Stabilizer (30%)	1.7
Deodorized Kerosene	10.0
NaOH (50%)	0.2

Brookfield Viscosity cps @ 0.5 rpm: 21,000
 @ 12 rpm: 2,300
 pH: 9.2

Waterless Hand Cleaner

<u>Ingredients:</u>	<u>% as supplied</u>
Water	47.1
Acusol 820 Stabilizer (30%)	1.7
NPE10	3.0
Deodorized Kerosene	38.0
Mineral Oil	10.0
NaOH (50%)	0.2

Brookfield Viscosity @ 0.5 rpm: 4,000,000
 pH: 7.8

Mixing Instructions:

Add the ingredients in the listed order.

High-shear mixing is necessary to disperse the solvents
 (kerosene, oil)

**SOURCE: Rohm and Haas Co.: Acusol 820 Stabilizer: Suggested
 Formulation**

Fast Set Waterless Hand Cleaner with d-Limonene F-453

	<u>% By Weight</u>
d-Limonene*	40.0
Monamine 1255	12.0
Monafax 785	0.5
Glycerine	1.0
Mineral Oil	2.0
Water	44.5

Procedure:

Combine in order listed, adding water last with good agitation.

Formulation Properties:

Physical Appearance: White ringing gel

* TABS-D from Union Camp may be substituted for d-Limonene

Clear Gel d-Limonene Waterless Hand Cleaner F-454

	<u>% By Weight</u>
d-Limonene*	20.0
Glycerine	20.0
Monamine 1255	12.0
Monafax 785	0.5
Water	47.5

Procedure:

Combine in order listed, adding water last with good agitation.

Formulation Properties:

Physical Appearance: Clear ringing gel

* TABS-D (Union Camp) may be substituted for d-Limonene

SOURCE: Mona Industries, Inc.: Suggested Formulations

Hand Cleaners
Hand Cleaning Paste

B 22/2:	
Sulfetal TC 50	4.0%
Purton SFD	1.0%
Carboxymethyl cellulose 100%	1.0%
Soft soap	12.0%
Quartz sand	60.0%
China clay	6.0%
Sodium tripolyphosphate	1.0%
Water, perfume, preservative	q.s. to make 100.0%

Hand Cleaning Cream, Free of Solvents

B 27/8:	
Part A:	
Mulsifan CPA	4.0%
Oxypon 288	1.0%
Paraffin oil DAB	25.0%
Oleic acid	5.0%
Triethanolamine	2.5%
Part B:	
1,2-Propylene glycol	6.0%
Water	56.2%
Part C:	
Perfume	0.2%
Preservative	0.1%

Hand Cleaning Cream with Solvent

B 27/2:	
Part A:	
Zusolat 1005/85	10.5%
Shellsol T	34.5%
Paraffin oil DAB	9.0%
Aerosil 200	1.0%
Perfume	0.1-0.2%
Part B:	
Oxypon 2145	2.5%
Extrakt 52	15.0%
Euxyl K 400	0.2%
Water	27.1-27.2%

Manufacture:

Part A and Part B are to be mixed separately. Finally add Part B to Part A whilst stirring.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Hand Cleaners from Concentrate
Economy

	<u>Wt. %</u>
Miracare ANL	30.0
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	2-3
Water	67.5

Pearlescent

	<u>Wt. %</u>
Miracare ANL	32.5
Mirasheen 202	7.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.5-1.5
Water	59.0

Premium

	<u>Wt. %</u>
Miracare ANL	40.0
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.5-1.5
Water	59.0

Lotion

	<u>Wt. %</u>
Miracare ANL	37.5
Opacifier E-305	0.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1-2
Water	60.5

Procedure:

Charge water into mixing vessel and slowly blend in Miracare ANL. Mix until completely uniform and then blend in remaining ingredients in order listed. Adjust formulation viscosity to desired level with addition of sodium chloride, as needed.

Physical Properties:

Appearance: Clear, yellow, pearlized or opaque
pH, as is: 7-8
Viscosity: 2000-4000 cps

Formula HA-0096

SOURCE: Rhone-Poulenc: Suggested Formulations

Industrial and Institutional Liquid Hand Soaps
Glucopon & AS

	<u>Wt %</u>
Water	61.0
Standapol WAQ-SP	27.0
Glucopon 425 CS	6.0
Velvetex BA-35	2.8
Sodium Chloride	3.2

Glucopon & LAS

	<u>Wt %</u>
Water	77.2
Sodium LAS (60%)	10.0
Glucopon 600 CSUP	8.0
Velvetex BA-35	2.8
Standamid SD	2.0

Glucopon & AES

	<u>Wt %</u>
Water	58.9
Standapol ES-2	30.0
Glucopon 600 CSUP	6.0
Standamid SD	1.0
Velvetex BA-35	2.8
Sodium Chloride	1.3

Glucopon & AOS

	<u>Wt %</u>
Water	67.0
Sodium AOS (40%)	20.0
Glucopon 600 CSUP	6.0
Standamid SD	1.0
Velvetex BA-35	2.8
Sodium Chloride	3.2

Viscosity of Products: 4000-5000 cPs

Procedure:

Add in the order listed, dissolving each ingredient completely using moderate agitation. Adjust pH to 6.5-7.0 with citric acid. Incorporate color and fragrance as needed.

SOURCE: Henkel Corp.: Suggested Formulations

Liquid Hand Soap Concentrate (Antimicrobial)

<u>Components:</u>	<u>Wt %</u>
Velvetex BA-35	11.7
Glycerine	1.0
Propylene Glycol	1.0
Triclosan*	1.0
Glucopon 625 CSUP	15.6
Sodium Chloride	2.0
Tetrasodium EDTA	1.0
Standapol WAQ-LC	66.7

Procedure:

Add in the order listed, dissolving each ingredient completely using moderate agitation. Adjust pH to 6.5-7.0 with Citric Acid. Incorporate preservative; color and fragrance as needed.

For use, concentrate should be diluted by the addition of 25 wt % concentrate to 71.5 wt % deionized water and 3.5 wt % sodium chloride solution (25%). The resulting clear liquid hand soap will have a viscosity of approximately 6,000 cps.

* May also use P-Chloromela xlenol (PCMX)

Waterless Hand Cleaner (Gel)

<u>Oil Phase:</u>	<u>Wt %</u>
Deodorized Kerosene	40.0
Emersol 213	7.5
Trycol 5963	5.0
Standamid KD	1.0
<u>Water Phase:</u>	<u>Wt %</u>
Water	41.0
Triethanolamine	3.5
Glycerine	2.0

Waterless Hand Cleaner (Lotion)

<u>Oil Phase:</u>	<u>Wt %</u>
Deodorized Kerosene	40.0
Emersol 213	7.5
Glycerine or PEG Stearate	2.0
<u>Water Phase:</u>	
Water	40.0
Triethanolamine	3.0
Propylene Glycol	3.0
Glucopon 425 CS	4.5

Procedure:

Mix the oil and water phases separately in the order listed, heating both to 60C. Slowly pour the oil into the water while stirring. Continue stirring while cooling until a homogeneous product is formed. Incorporate color and fragrance as needed.

SOURCE: Henkel Corp.: Suggested Formulations

Liquid Hand Soap Formulations

Miracare ANK is also an ideal base for preparation of emollient "Liquid Hand Soap" products. The rich creamy lather typical of formulations derived from Miracare ANK is extremely stable even in the presence of heavy soils.

Lotion Hand Soap
Requires No Heat

Water	61.0
Miracare ANK	30.0
Mirasheen 202	7.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.5

Blending Procedure:

Charge water into mixing vessel and blend balance of ingredients in order listed.

Cream Soap
(Requires Heat)

Water	62.0
Miracare ANK	35.0
Alkamuls EGMS	1.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.5

Blending Procedure:

Charge water and ANK into mixing vessel and heat to 75C. Add and disperse Alkamuls EGMS. Cool with mixing to 40C and blend in remaining ingredients.

Liquid Hand Soap

	<u>Parts by Weight</u>
Rhodaterge SMC	8
Water	92
Perfume, Dye, Preservative	Q.S.

SOURCE: Rhone-Poulenc: Suggested Formulations

Liquid Soap

	<u>%</u>
Marlinat 242/28	32.0
Marlinat CM 105	18.0
Ampholyt JA 140	10.0
Dionil OC/K	3.0
Lamepon S	2.0
Camomile Special	0.5
Lime Blossom Special	0.5
Collagen CLR	0.8
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

Liquid Soap

	<u>%</u>
Marlinat 242/28	22.0
Lamepon S	10.0
Marlinat DFN 30	6.0
Marlamid PG 20	3.0
Marlamid DF 1218	1.0
Perfume	qs
Colour	qs
Preservative	qs
NaCl	qs
Water	to 100.0

Preparation:

The components are mixed together in sequence and stirred until homogeneous. The pH is adjusted to 5.5-6.5.

SOURCE: Huls America Inc.: Formulations for Cosmetics:
Suggested Formulations

Liquid Synthetic Soaps

B 21/65:

Zetesol NL	43.00%
Purton SFD	3.00%
Sodium sulfate	3.00%
Perfume	0.20%
Citric acid	0.05%
Water, preservative	q.s. to make 100.00%

B 21/64:

Extrakt 52	30.0%
Purton SFD	2.0%
Water, perfume, preservative, sodium chloride	q.s. to make 100.0%

B 21/61:

Zetesol 856 T	25.0%
Setacin 103 Spezial	10.0%
Periglanzmittel GM 4055	5.0%
Purton SFD	1.0%
Water, preservative, perfume, sodium chloride, citric acid	q.s. to make 100.0%

B 21/92:

Zetesol 2056	25.0%
Setacin 103 spezial	30.0%
Periglanzmittel GM 4175	10.0%
Oxypon 288	2.0%
Sodium chloride	2.0%
Water, preservative	q.s. to make 100.0%

B 21/87:

Zetesol 2056	20.0%
Amphotensid B 4	9.0%
Purton CFD	1.5%
Perfume	0.3%
Water, preservative	q.s. to make 100.0%

SOURCE: Zschimmer & Schwarz GmbH & Co.: Suggested Formulations

Liquid Soap with Aloe Vera Gel

This is a cleansing and conditioning liquid soap with Aloe Vera.

Phase A:	%w/w
Ammonium lauryl sulfate, 28% active	35.70
Ammonium laureth sulfate, 26% active	19.20
Phase B:	
Citric acid, anhydrous	0.20
Phase C:	
Deionized water	20.45
Polyquaternium-10	0.75
Phase D:	
Lauramide DEA	3.00
Lauryl methyl gluceth-10 hydroxypropyl dimonium chloride	8.00
PEG-120 methyl glucose deoleate	2.00
Tetrasodium EDTA	0.20
Phase E:	
Aloe Vera Gel (Terry AG002)	10.00
Phase F:	
Suttocide A	0.30
Fragrance	qs
Procedure:	

Add Phase A ingredients to main mixing vessel, and combine with propeller agitation. Heat to 60C. Dissolve Phase B ingredients. In a premix container, disperse Phase C ingredients. Heat to 60C to hydrate. When Phase A is uniform, add Phase C to main vessel, agitating between each addition. Cool batch to 40C. Slowly add Phases E and F with adequate mixing.

SOURCE: Terry Laboratories, Inc.: Suggested Formulation

Pearlescent Liquid Hand Soap

Ingredient:	Wt%
Water	54.70
DDBSA, Na salt (60%)	23.50
Add, mix well	
Lauryl ether sulfate, Ammon. salt (60%)	16.50
Add, mix well	
Lytron 295 opacifier	0.10
Add, mix well	
Euperlan PK-771 pearlizer	2.20
Add, mix well	
Tomah AO-728 Special	3.00
Add, mix well	

pH: 7.85

Recommended Dilutions: 1 oz./gal

Applications: Hand soap or dishwash

Notes: High foam, degreasing-lanolin can be added for feel
Viscosity 360 cps

SOURCE: Tomah Laboratories, Inc.: Formula PC-101

Low Cost Clear Cleansing Bar

<u>Ingredients:</u>	<u>%</u>
Part A:	
Propylene Glycol	11.0
Glycerin	7.0
Crovol PK-70 (PEG-45 Palm Kernel Glycerides)	3.0
Incromectant AMEA-70 (Acetamide MEA)	9.3
Crodasinic LS30 (Sodium Lauryl Sarcosinate)	6.7
Incromide CAC (Cocamide DEA Cocoyl Sarcosine)	7.0
Teals*	9.0
Deionized Water	6.0
Sodium Cumenesulfonate (45%)	2.0
TEA (99%)	2.0
Part B:	
Sucrose	9.0
Part C:	
Tallow Soap #7325	28.0

Procedure:

Combine ingredients of Part A with mixing and heat to 80-90C. Add Part B with mixing until uniform. Add Part C with mixing while heating to 95-100C. Mixing until tallow is dissolved (20-30 minutes). Avoid water loss by covering mixing vessel. Skin off surface foam and pour into molds. Allow molded soap to cool.

N.A.T.C. Approved

*Standamide T

SOURCE: Croda Inc.: Formulation SC-252

Shower Soap

	<u>Weight,%</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	20.0
Mackanate OM (Disodium Oleamido MEA Sulfosuccinate)	15.0
Sodium Lauryl Sulfate	10.0
Mackamide LLM (Lauramide DEA)	6.0
Mackpearl LV (Pearl Agent)	3.0
Mackernium 007 (Polyquaternium 7)	2.5
Mackstat DM (DMDM Hydantoin)	qs
Citric Acid qs to pH 6.0	
Sodium Chloride qs to 10,000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Disperse Mackernium 007 in water.
2. Add remaining component and heat to 40 degrees C.
3. Adjust pH with citric acid.
4. Adjust viscosity with sodium chloride.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

"Medicated" Skin Cleaner

	<u>Wt. %</u>
Rhodapon LT-6	25.0
Rhodapon 21LS	30.0
50% Sodium Hydroxide Aqueous Solution	1.S. to pH 8.0
PCMX	1.0
Water	23.4
Alkamide DL 203/S	2.5
Cycloteric BET C 30	7.5
Geroxon SBFA 30	10.0
Alkamuls EGMS	0.6
Fragrance and Dye	Q.S.

Procedure:

1. Charge Rhodapon LT-6 and Rhodapon 21LS into mixing vessel. Warm system to 45-50C. With smooth agitation, adjust pH to 8.0 with sodium hydroxide solution (50% Aq.), as needed.
2. With rapid but smooth agitation, slowly blend in PCMX. Mix until system is completely uniform.
3. With smooth agitation, slowly blend in Alkamide DL 203/S and water. Heat system to 70-75C with smooth agitation.
4. Slowly blend in Cycloteric BET C 30, Geroxon SBFA 30 and Alkamuls EGMS. Maintain 70-75C temperature until system is completely uniform. Cool to 40-45C and blend in compatible fragrance and dye.

Typical Properties After 24 Hours:

Appearance: Viscous, pearlescent liquid

pH (as is): 8.0-8.5

Viscosity @ 25C: 10,000-14,000 cps

Approx. Solids (%): 30.4

Active Ingredient: Parachlorometaxylenol (PCMX)

Formula HA-0100

Heavy-Duty Hand Cleaner

	<u>Wt. %</u>
Rhodapon SB 8208/S	30.0
Rhodacal A-246/L	6.3
Oleic Acid	1.6
Triethanolamine	0.9
Mirasheen 202	10.0
Sodium Chloride	1-3
Fragrance, Dye, Preservative	Q.S.
Water	Q.S to 100

Procedure:

Charge Rhodapon SB 8208/S, Rhodacal A-246/L, Triethanolamine, Mirasheen 202 and Water into reactor and mix until uniform. Slowly blend in oleic acid followed by fragrance, dye, preservative. Adjust viscosity by blending in sodium chloride. Continue agitation until system is uniform and then package.

Typical Properties:

Appearance: White, pearlized liquid

pH, as is: 7-8

Viscosity: 2000-3000 cps

Formula HA-0098

SOURCE: Rhone-Poulenc: Suggested Formulations

Mild Lotion Soap

	<u>Wt. %</u>
Rhodapon L-22	17.0
Rhodapex MA-360	3.0
Cycloteric BET-C-30	2.0
Alkamide DC 212/S	1.5
Geropon SBFA-30	5.0
Alkamuls EGMS	1.0
Citric Acid	Q.S. to pH 5-6
Sodium Chloride	0.5-1.5
Water	69.5
Fragrance, Dye, Preservative	Q.S.

Procedure:

Charge water into mixing vessel and slowly blend in Rhodapon L-22, Rhodapex MA-360, Cycloteric BET-C-30, Alkamide DC 212/S, and Rhodacal SBFA-30. Mix until completely uniform. Heat systems to 65-70C. Disperse Alkamuls EGMS into heated system and mix until uniform. Cool to 40-45C and blend in citric acid, fragrance, dye and preservative. Add sodium chloride, as needed, to adjust formulation to desired range (3,000-6,000 cps at 25C).

Typical Properties:

Appearance at 25C: Pearlescent liquid
 Viscosity at 25C: 3,000-6,000 cps (as desired)
 pH (as is): 5-6
 % Solids: 13.5-14.5

Formula HA-0103

Liquid Hand Soap

	<u>Wt. %</u>
Mirataine CB	10.0
Rhodapon LSB	30.0
Cyclomide DC-212/S	2.0
Water	58.0

Procedure:

Add the water. With mixing, add the remaining materials and mix until uniform.

Physical Properties:

Appearance: Clear, very light yellow solution
 pH: 8.9-9.0
 Viscosity: 600-700
 Specific Gravity: 1.04

Formula HA-0071

SOURCE: Rhone-Poulenc: Suggested Formulations

Premium Emollient Hand Soap

	<u>Wt. %</u>
Rhodacal A-246/L	23.0
Cycloteric BET-C 30	4.5
Alkamide LE	1.5
Alkamul EGMS	2.0
Disodium EDTA	0.1
Glycerine	0.2
Citric Acid	Q.S. to pH 6.2-6.7
Sodium Chloride	Q.S. to 3,000-5,000 cps
Fragrance, Dye, Preservative	Q.S.
Water	Q.S. to 100

Procedure:

Combine Rhodacal A-246/L and Water and with moderate agitation, warm to 70-75C. Blend in Alkamide LE, Alkamul EGMS, Disodium EDTA and Glycerine. Once system is uniform, cool to 35C with smooth agitation and blend in fragrance, dye, preservative. Adjust pH to 6.2-6.7 with citric acid and add sodium chloride as needed to viscosity to 3,000-5,000 cps (25C).

Typical Properties:

Appearance: Pearlized liquid
 pH, as is: 6.2-6.7
 Viscosity: 3000-5000 cps

Formula HA-0095

Hand Cleaner

	<u>Wt. %</u>
Miranol C2M Conc. NP	16.0
Mirataine CB	5.0
Rhodapon LSB	16.0
Water	63.0

Adjust pH to 7.5 with citric acid.

Procedure:

Add the water. With mixing, add the remaining materials and mix until uniform.

Physical Properties:

Appearance: Slightly hazy gel
 pH: 7.5
 Viscosity: 1500-2000
 Specific Gravity: 1.0408

Formula HA-0070

SOURCE: Rhone-Poulenc: Suggested Formulations

All quantities indicated in the following formulations are expressed as parts by weight of the finished soap. These weights are on a percentage basis so that quantities necessary to produce any size batch may be conveniently calculated.

6) Triethanolamine Oleic-Coconut Shampoo (40% Real Soap)

Emery 621 Coconut Fatty Acid (acid value 263)	12.7
Emery 213 Low Titer Oleic Acid (acid value 203)	12.7
Triethanolamine (avg. mol. wt. 140)	14.7
Carbitol	7.0
Water	to 100.0

Procedure:

Blend the oleic and coconut fatty acids. Dissolve the triethanolamine in the required amount of water and proceed as for the coconut shampoo, formula 4, with the exception that heating is not essential. Longer standing is required without heat, but the ability to make soaps without heating may be valuable in particular situations.

Properties and Variations:

This soap product is a clear liquid of amber to red color, very mild and nonirritating. The Carbitol gives the soap a pleasing odor and contributes to the cleansing power of the shampoo.

Triethanolamine soaps cannot be checked for neutrality by the usual methods, but even if an excess of triethanolamine is present, the soap will be only mildly alkaline.

7) Coconut-Oleic Hand Soap (15% Real Soap)

Emery 621 Coconut Fatty Acid (acid value 263)	6.5
Emersol 213 Low Titer Oleic Acid (acid value 203)	6.5
Caustic potash (100%)	3.0
Water	to 100.0

Procedure:

Prepare as for formulation 4:

Dissolve the caustic in the necessary amount of water, heating to 49-54C (120-130F), then add the fatty acid in a slow steady stream. Agitate while mixing the fatty acid and caustic until saponification is complete. The reaction mixture should be heated to 66-71C (150-160F) during the final stages of saponification.

Check the neutrality of the soap and adjust as necessary. Perfume as desired. Allow the soap to stand and settle for several days at near freezing temperatures, if possible, and decant or filter the soap.

Properties and Variations:

Distilled pine oil or other perfume may be added. This is a typical formula for soaps used in liquid soap dispensers, and many such products contain fluorescein, a dye that imparts a greenish-yellow fluorescence.

SOURCE: Henkel Corp./Emery Group: Fatty Acids and Their Water Soluble Soaps: Suggested Formulations

Water Free Hand Cleaner

<u>Ingredients:</u>	<u>%W/W</u>
Isostearic acid	20.00
Mineral oil	60.00
Brij 30	15.00
Tween 81	5.00

Procedure:

Mix well at room temperature.

Waterless Hand Cleaner

<u>Ingredients:</u>	<u>%W/W</u>
A Isoparaffinic hydrocarbon	30.00
Lanolin	1.00
Cetyl alcohol	3.00
Paraffin wax	2.00
Arlacel 60	1.00
Tween 60	4.00
B Glycerin	5.00
Water, deionized	54.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

Waterless Hand Cleaner

<u>Ingredients:</u>	<u>%W/W</u>
A Magnesium aluminum silicate	2.50
Water, deionized	30.00
B Arlacel 60	2.00
Tween 60	8.00
Deodorized kerosene	35.00
C Methylcellulose, 4000 cps	0.50
Water, deionized	22.00
*Preservative	
*q.s. these ingredients.	

Procedure:

A-Add MAS to H2O slowly, agitating continually until smooth. (About 1 hour). Heat (A) to 62C. B-Heat to 60C. Add (A) to (B). Stir until cool. C-Heat 1/2 of H2O to 90C and add methylcellulose slowly with agitation until dispersed. Add (C) to (A&B) with agitation.

SOURCE: ICI Surfactants: Suggested Formulations

Waterless Hand Cleaner

	<u>Wt%</u>
A. Montmorillonite (1)	3.0
Water	39.5
B. Potassium Hydroxide	1.5
Water	10
C. Oleic Acid	6.0
Deodorized Kerosene	25.0
Polysorbate 80, Acetylated Lanolin Alcohol, Cetyl Acetate (2)	3.0
Petrolatum	2.0
D. Acuscrub 50	10.0
Preservatives	q. s.

Procedure:

Slowly add the Montmorillonite to the water while agitating at maximum available shear. Dissolve the potassium hydroxide in the water. Add B to A with medium shear. Heat A/B to 60C. Combine C and heat to 65C. Cool to 50C, then slowly add Acuscrub 50 until cooled to 30C. Add preservatives and mix until smooth and uniform.

(1) Mineral Colloid BP (2) Solulan 98

Waterless Hand Cleaner

	<u>Wt%</u>
A. Oil Phase:	
Petroleum Distillates (1)	30.0
Oleic Acid	6.0
C12-15 Pareth-3 (2)	4.0
Lanolin	0.5
B. Water Phase:	
Water	44.5
Triethanolamine	3.0
Glycerin	2.0
C. Acuscrub 50	10.0

Procedure:

Heat both oil and water phases separately to 55C. Add Acuscrub 50 slowly to the oil phase with moderate agitation. Slowly pour the water phase into the oil phase with constant stirring until a smooth and uniform gel is formed.

(1) Shell Sol 71 (2) Neodol 25-3

SOURCE: Allied Signal Inc.: Suggested Formulations

Waterless Hand Cleaner No. 390

	Van Gel B	1.7
A	CMC 7MF	0.3
	Water	44.0
B	Potassium hydroxide	1.0
	Water	3.0
	Oleic acid	10.0
C	Carnation White Mineral Oil	10.0
	Deodorized kerosene	30.0
	Preservative	q.s.

Procedure:

Blend Van Gel B and CMC. Slowly add to the water while agitating at maximum available shear. Continue mixing until smooth. Add B to A and mix until uniform. Add C to A/B and mix until emulsion is smooth and uniform. Add desired preservative.

Consistency: Medium viscosity cream.

Suggested Packaging: Pump or wide mouth container.

Comments:

Van Gel B/CMC thickens this cold process formula to a medium viscosity cream while stabilizing the emulsion from bleed and separation. Potassium oleate allows good cleansing action at a pH of 8. The mineral oil minimizes defatting of the skin caused by the deodorized kerosene.

Liquid Waterless Hand Cleaner No. 243

	Veegum	2.0
A	Water	73.0
	Glycerin	4.0
B	Tergitol NP-10	3.0
	2-Amino-2-methyl-1-propanol	0.5
	Deodorized kerosene	10.0
	Oleic acid	1.5
C	Arlacel 186	5.0
	Clearlan	1.0
	Preservative	q.s.

Procedure:

Slowly add Veegum to the water while agitating at maximum available shear. Continue mixing until smooth. Add B to A and heat to 50C. Heat C to 55C. Add C to A/B. Mix until uniform. Add desired preservative.

Consistency: Pourable liquid

Suggested Packaging: Pump dispenser

Comments:

Veegum stabilizes and thickens this liquid emulsion. In this formulation, glycerin serves as a humectant while the lanolin helps prevent defatting of the skin.

SOURCE: R.T. Vanderbilt Co.: Suggested Formulations

Section XI

Sun Care Products

Absorbing Sunscreen

<u>Formula:</u>	<u>%Wt.</u>
Phase A:	
Veegum Ultra	1.50
Deionized Water	70.50
Glycerin	5.50
Phase B:	
PEG-150 Distearate	3.00
Dioctyl Malate	2.00
Carnation Mineral Oil	4.00
Cetyl Alcohol	0.50
Benzophenone-3	3.00
Octyl Dimethyl PABA	7.00
Steareth-2	0.90
Steareth-20	2.10
Phase C:	
Preservative, Fragrance	q.s.

Synergistic Sunscreen

4-tert-Butyl-4-methoxydi-benzoylmethane	2.00%
Amyl N,N-dimethyl-p-aminobenzoate	3.00
2-Hydroxy-4-methoxy-benzophenone	2.00
Cetyl alcohol	3.00
Stearic acid	3.00
Protopet 1S Petrolatum	3.00
Olive Oil	3.00
Squalane	5.00
Propylene glycol	3.00
Potassium hydroxide	0.20
Talc	5.00
Trisodium EDTA	0.02
Water	q.s to 100.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Absorbing SunscreenFormula:Phase A:

L-Tyrosine	0.20%
Phenylalanine	0.10
Aspartic acid	0.10
Escin	0.05
Copper gluconate	0.01
Hydrolyzed collagen	1.50
Carrot oleoresin	0.15
St. John's Wort extract	1.00
Dihydroxyacetone	0.50
Cetyl alcohol	1.00
Preservative	q.s.
Emulsifiers, thickening agents	4.00
Carnation Mineral Oil	15.00
Lanolin	3.00
Stearin	3.00
Triethanolamine (85%)	1.00
Water	q.s. up to 100.00

Water Resistant SP4 Sunscreen Composition

Water	67.00%
Glycerin	5.00
Polyglyceryl-8 oleate	3.00
Padimate O	4.00
Cyclomethicone	10.00
Carnation Mineral Oil	5.00
Lanolin alcohol	5.00
Propylene glycol (and) diazolidinyl urea (and) methyl paraben (and) propyl paraben (Germaben II)	0.50
Perfume oil	0.50

Non-Alcoholic Sunscreen

Octyl dimethyl PABA	7.00%
Benzophenone-3	3.00
Carnation Mineral Oil	10.00
Oleth-2	6.25
Isoceteth-20	18.75
Water	40.00
Propylene glycol	4.00
Sorbitol	11.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

After Sun Lotion

Part I:	<u>Parts by Weight</u>
Water	500.0
Carbomer 934	2.0
Part II:	
Rosswax 2540	6.0
Rosswax 1824	15.0
Coconut Oil #76	25.0
GMS SE	6.0
Ross Jojoba Oil	4.0
Part III:	
Aloe Vera Liquid	10.0
Part IV:	
Germaben II	6.0
Part V:	
Fragrance	q. s.
Part VI:	
Triethanolamine	4.5

Procedure:

Heat the water in a steam jacketed kettle and add the Carbomer 934 with agitation. In a separate jacketed kettle heat Part II until clear. Next add Part III, then Part IV, then Part V, fragrance and finally add Part VI. Cool to 130F and package.

Solar Tanning Oil Mousse

Part (A):	<u>%</u>
Ross Base Oil 2539	62.3
Escalol 507	5.0
Arlacel 60	3.0
Tween 60	4.0
Part (B):	
Water	24.7
Germaben II	1.0
Fragrance	q. s.

Procedure:

Heat Part (A) and Part (B) in separate stainless steel vessels under gentle agitation to 170F. When temperature is reached and both are clear, add Part (B) to Part (A), cool to 120F, Fragrance and package.

Aerosol Fill: 90% of above concentrate
10% of A-46 Propellant

Note: Pack in Epon lined cans with Precision Valve Systems.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Aloe After Sun Lotion (40% Aloe)

<u>Ingredients:</u>	<u>Percent</u>
A. Water	74.00
Glycerin	3.0
Triethanolamine	1.0
Germaben II	0.5
B. Stearic Acid	8.0
Light mineral oil	5.0
Finesolv TN	2.0
Cetyl Alcohol	1.0
Silicon Fluid 225	0.5
Cocoa Butter	2.0
Isopropyl Lanolate	2.0
C. Aloe Veragel Liquid Concentrate 1:40	1.0
D. Fragrance	q.s.

Procedure:

Heat phases to 80C. At 80C add oil phase to water phase. Mix and cool to 55C. Add Aloe concentrate to batch at 55C. Add fragrance at 45C.

Suntan Lotion

<u>Ingredients:</u>	<u>Percent</u>
A. Lexemul 561	4.00
Stearic acid	2.00
Cetyl alcohol	1.00
Mineral oil	4.00
Sesame oil	1.00
Laneth 10 Acetate	0.50
Ethyl Dihydroxypropyl PABA	3.00
Mink oil	0.10
Polysorbate 20	0.20
Lexgard P	0.05
B. Propylene Glycol	4.00
Carbomer 934	0.20
Triethanolamine	qs to pH 7.2-7.5
Aloe Vera Liquid 1:1	10.00
Lexgard M	0.15
Water	qs to 100

Procedure:

Heat water to 70C. Disperse Carbomer 934. Mix until dissolved, then neutralize. Dissolve Lexgard M in propylene glycol and add to the water with the remaining contents of Part B. Separately melt contents of Part A together. Slowly add Part A to Part B with agitation. Cool to set point and fill. Full conditioning develops in 24 hours.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Aloe Suntan Lotion

<u>Ingredients:</u>	<u>Percent</u>
A. Water	q.s.
Glycerin	4.0
Glucamate SSG-20	1.5
Carbopol 934	0.1
Preservatives	q.s.
B. Glucate-SS	1.5
Cetyl alcohol	1.0
Cetyl palmitate	1.0
Glyceryl stearate	0.22
P.E.G. 100 stearate	0.28
Stearic acid	4.0
Escalol 507	4.0
Mineral oil	5.0
C. A.M.P.-95	0.32
D. Aloe Veragel 200 Powder	0.1
Water	9.9

Procedure:

Dissolve the S.D. Aloe Vera in water to prepare gel. Heat balance of water to 80C and dissolve Carbopol. Add rest of Phase "A" and keep temperature at 80C. Heat phase "B" to 80C. and add to "A". Add phase "C". Cool to 35C. and add "D". Mix well.

After Sun Lotion

<u>Ingredients:</u>	<u>Percent</u>
A. Water	500.0 gr.
Carbomer	2.0 gr.
B. Rosswax 2540	6.0 gr.
Rosswax 1824	15.0 gr.
Coconut Oil #6	15.0 gr.
Gms SE	6.0 gr.
Ross Jojoba Oil	4.0 gr.
C. Aloe Vera Liquid 1:1	10.0 gr.
D. Germaben II	6.0 gr.
E. Fragrance	q.s.
F. Triethanolamine	4.5 gr.

Procedure:

Heat the water in steam jacketed kettle and add the Carbomer 934 with agitation. In a separate jacketed kettle, heat B till clear. Next add B to the water phase with agitation. Next add C, then D, then E, fragrance and finally add F. Cool to 130F and package.

SOURCE: Dr. Madis Laboratories Inc.: Suggested Formulations

Buffered Self Tanning Lotion

Resulting product is a pourable lotion that could be dispensed from an opaque glass or rigid plastic bottle. The formulation utilizes a 5% Dihydroxyacetone (DHA) as the self tanning ingredient. The formulation contains no amines to react with Dihydroxyacetone and the final pH is adjusted to approximately 4, to insure natural colored tan development. The formulation applies easily and evenly. The finished product should be stored away from light and at temperature conditions below 40C to prevent DHA from degrading.

	<u>%w/w</u>
A. Deionized Water	62.18
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Propylene Glycol USP	3.00
Glycerin	1.00
Citric Acid USP-FCC (Anhydrous Fine Granular)	0.24
Sodium Citrate USP-FCC	0.28
B. Hydroxyethylcellulose (Cellosize QP-15,000H)	0.20
C. Glyceryl Stearate (Lexemul 515)	2.00
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	4.00
Sorbitan Stearate (Arlacel 60)	0.60
Propylene Glycol Dicaprylate/Dicaprate (Lexol PG-865)	2.00
Caprylic/Capric Triglyceride (Lexol GT-865)	3.00
Octyl Stearate (Lexol EHS)	1.00
Propylparaben (Lexgard P)	0.10
D. Dihydroxyacetone	5.00
Deionized Water	15.00

Procedure:

1. Combine section "A" heating to 75-80C. Use a propeller mixer for agitation.
2. Sprinkle section "B" into section "A". Increase mixing speed to create a vortex during addition, then slow to highest speed which does not produce a vortex.
3. Combine section "C". Heat to 80-85C with continuous slow mixing.
4. When sections "AB" and "C" are homogeneous and at the designated temperatures add section "C" to sections "AB". Increase mixing speed to a high speed. Begin cooling. Slow mixing speed to highest speed possible that will not cause vortexing.
5. Using gloves, combine section "D" and mix until clear.
6. Add section "D" to sections "ABC" at 35-40C. Continue mixing and cooling.
7. At 30-35C adjust for water loss.
8. Mix batch until it reaches room temperature.
9. Adjust final pH to 4.00-4.10 with Citric Acid or Sodium Citrate solutions, as required.

Physical Properties:

Viscosity: 1,700 cPs @ 24C (Brookfield RVT, TA @ 10 rpm)
pH: 1.0 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-101-1

Cooling After Sun Lotion

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Methyl Glucose Distearate (Tego Care 450)	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	6.5
Mineral Oil	5.7
Phase B:	
Glycerin	3.0
Water	71.4
Phase C:	
Mineral Oil	0.8
Carbomer 941	0.2
Ethanol	10.0
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B or B to A without stirring. 4. Stir.
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize
6. Cool to 35-40C with stirring. 7. Add Ethanol.
8. Add phase D/E. Stir.
9. Mix until viscosity is correct.

Suntan Lotion

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Methyl Glucose Distearate (Tego Care 450)	2.0
Decyl Oleate (Tegosoft DO)	6.5
Isopropyl Palmitate (Tegosoft P)	5.7
Octyl Methoxycinnamate	7.0
Oxybenzone	3.0
Phase B:	
Glycerin	3.0
Water	71.4
Phase C:	
Isopropyl Palmitate (Tegosoft P)	0.8
Carbomer 941	0.2
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C. 2. Heat the ingredients of Phase B to 80C. 3. Add A to B or B to A without stirring. 4. Stir. 5. Disperse Carbomer into the oil/ester add to A/B. Homogenize. 6. Cool to 35-40C with stirring. 7. Add Phase D/E. Stir. 8. Mix until viscosity is correct.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Daily UV Protection Lotion (Approximate SPF 18)

Dermacryl LT provides increased moisture protection, rub-off resistance and water resistance as well as improved rub-in properties.

<u>Ingredients:</u>	<u>%W/W</u>
Phase A:	
Neo Heliopan AV	7.50
Brij 76	1.00
Cerasynt Q	1.50
Cetyl Alcohol	1.00
Emersol 132	1.50
Tioveil FIN	1.70
Finsolv TN	5.00
DC 334 Fluid	3.00
DC 556 Fluid	1.00
Abil B8852	0.50
Phase B:	
Deionized Water	40.30
Triethanolamine (99%)	4.00
Dermacryl LT	1.00
Neo Heliopan Hydro	4.00
Carbopol 940 (2% Aq. Soln.)	20.00
Phase C:	
Propylene Glycol	3.00
Dry-Flo PC	3.00
Phase D:	
Germaben IIE	1.00

Procedure:**Phase B:**

Combine Triethanolamine 99% and Deionized Water, heat to 60C. Slowly sift in Dermacryl LT, heat to 80C. When complete, sift in Neo Heliopan Hydro and Carbopol 940, mix until complete.

Phase A:

Combine and heat to 80C. Add Phase A to Phase B at 80C, mix for 15-30 minutes. Cool to 40C. Slurry Dry-Flo PC in Propylene Glycol, add to A and B at 40C and mix thoroughly. Add Phase D. Cool to room temperature and package.

SOURCE: National Starch and Chemical Co.: Formula 7528-149B

European O/W Sun Protection Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	10.00
Isohexadecane	5.00
Octyl Methoxycinnamate	5.00
Cyclomethicone	2.80
Arlamol E	1.20
Behenyl alcohol	2.00
Tocopherol Acetate	5.50
B Arlatone 2121	5.50
Glycerol	4.00
*Preservative	
Water	62.85
C Xanthan gum	0.10
D *Perfume	
*q.s. these ingredients.	

Procedure:

Melt Arlatone 2121 and add to remainder of (B) at 80C. Disperse (C) and (B) at 75C with moderate stirring. Add heated (A), (E), and (F) to mixture with vigorous stirring. Homogenize mixture between 75C and 65C and cool to 40C with moderate stirring. Homogenize at 30C to 40C with addition of (D).

O/W Moisturizing Sunscreen Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	7.00
Benzophenone-3	3.00
Mineral oil	5.00
Stearyl alcohol	0.50
Brij 721	2.00
Brij 72	2.00
Dimethicone	0.50
B Water	79.60
Carbomer 940	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative and Fragrance	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C. and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Lip Balm with Sunscreen-A

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Petrolatum	40.7
Cetyl Alcohol	4.0
Beeswax	6.0
Carnauba Wax	6.4
Paraffin	16.4
Ozokerite	6.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Stearyl Dimethicone (Abil Wax 9800)	1.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Cetearyl Octanoate (Tegosoft Liquid)	3.0
Mineral Oil	5.0
Phase B:	
Octyl Methoxycinnamate	4.0
Benzophenone-3	1.5
Phase C:	
Color	Q.S.
Fragrance	Q.S.

Lip Balm with Sunscreen-B

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Petrolatum	44.5
Cetyl Alcohol	6.0
Beeswax	14.0
Carnauba Wax	2.0
Paraffin	8.0
Ozokerite	3.0
Cetyl Dimethicone (Abil Wax 9801)	0.5
Stearyl Dimethicone (Abil Wax 9800)	0.5
Caprylic/Capric Triglycerides (Tegosoft CT)	8.0
Cetearyl Octanoate (Tegosoft Liquid)	3.0
Mineral Oil	5.0
Phase B:	
Octyl Methoxycinnamate	4.0
Benzophenone-3	1.5
Phase C:	
Color	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat Phase A ingredients together until melted. Begin cooling.
2. Add Phase B, mix until uniform.
3. Add color and fragrance when batch is cooled to a creamy consistency. 4. Mold.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Non-Chemical Sunscreen Lotion (approx. SPF 15)

This lotion incorporates titanium dioxide as the sunscreen agent. It has a smooth feel upon application and rubs in easily without whitening. The Geahlene 750 adds thickness and may contribute to water resistance and product stability.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	64.80
Magnesium Aluminum Silicate/Veegum Ultra	0.80
Xanthan Gum/Keltrol	0.25
Methylparaben	0.20
Tetrasodium EDTA/Hamp-Ene 220	0.10
B Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	10.00
C12-15 Alkyl Benzoate/Finsolv TN	10.00
Titanium Dioxide/Micronized TiO ₂ LA-20	6.00
Phenoxyethanol/Emeressence 1160	0.70
Stearic Acid/Emersol 132	2.50
Glyceryl Stearate SE/Lexemu1 T	2.00
DEA-Cetyl Phosphate/Amphisol	2.50
Propylparaben	0.10
C Fragrance	0.05

Procedure:

Disperse Veegum Ultra in rapidly agitated deionized water. Mix well. Add Keltrol. Mix until uniform. Heat to 80C. Add remaining part A ingredients. Homogenize Finsolv TN and Micronized Titanium Dioxide until smooth. Add remaining part B ingredients. Heat to 80-85C. Mix until all the added solids are completely dissolved. Add part B to part A while mixing with good agitation. Mix for 30 minutes, until homogeneous. Cool to 40C. Add part C. Continue mixing and cooling to 30C.

SOURCE: Penreco: Suggested Formulation

O/W After Sun Milk

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol S7	10.00
Arlamol HD	8.00
B Arlatone 2121	2.00
Alpantha	0.50
Glycerol	2.50
*Preservative	
C Water	76.78
Carbopol EDT	0.07
D *NaOH (10% solution)	
E Perfume	0.15
*q.s. these ingredients.	

Procedure:

Disperse Carbopol in water while stirring. Heat to 80C. Mix the Arlatone 2121 into the heated (C) phase while stirring moderately. Homogenise this mixture until a homogeneous dispersion formed. Heat (A) to 80C and add to (B+C) while stirring intensively. Homogenise the mixture between 75 and 65C. Allow to cool down to 50C while stirring. Add (D) until pH of 6.5 to 7 is reached. Add (E) at 40C while stirring.

W/O After Sun Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlancel 582	2.50
Arlatone T	0.50
Magnesium stearate	0.50
Beeswax	1.50
Candelilla wax	0.50
Arlamol HD	15.00
Sunflower seed oil	3.00
B a-Tocopherol acetate	1.00
Tegiloxan 100	0.50
Oxynex K liquid	0.05
Aerosil R972	0.30
C Atlas G-2330	4.00
MgSO4.7H2O	0.50
Alpantha	0.50
D *Preservative	
Water	69.45
E Perfume Dinalya 129.051	0.20
*q.s. these ingredients.	

Procedure:

Mix (A and B). Mix (C+D). Heat (A+B) and (C+D) separately to 75C. Add (C+D) to (A+B) while stirring intensively. Homogenise for 1 minute. Allow to cool to 35C while stirring. Add (E) while stirring. Homogenise again for 1 minute. Package.

SOURCE: ICI Surfactants: Suggested Formulations

O/W Cream (SPF 5)
[UVA/UVB Ratio 0.9]

	%W/W
Phase A:	
Glycerine	5.00
Glucamate SSE-20	1.50
Glucate SS	1.50
Glyceryl Monostearate	5.00
Myritol 318	5.00
Spectraveil TG (60% solids dispersion)	10.00
Phase B:	
Veegum Regular	1.50
Kelzan	0.30
Methyl Paraben	0.15
Demineralised water	69.60
Phase C:	
Germall II	0.25
Perfume	0.20

Manufacture:

- * Heat both phases to 65-70C mixing with high shear mixer.
- * Add phase A to phase B with mixing.
- * Stir on the high shear mixer allowing product to cool.
- * When below 60C add the Germall II. When below 40C add the perfume * At 35C stop stirring and allow to cool.

In-Vitro SPF Value: 4-6 In-Vivo SPF Value: 5.9

Formulation Number 22

W/O Sun Protection Cream (SPF 15+)
[UVA/UVB Ratio 0.75]

	%W/W
Phase A:	
DC200/100cs	2.00
Elfacos C26	5.00
Elfacos E200	2.00
Elfacos ST9	4.00
Cocoa Butter	3.00
Propyl Paraben	0.08
Spectraveil 90/MOTG (40% solids dispersion)	25.00
Phase B:	
Propylene Glycol	5.00
Methyl Paraben	0.10
Demineralised water	53.82

Manufacture:

- * Into a suitable vessel weigh out the ingredients of phase A (except the Elfacos C26). Bring the temperature of the oils slowly to 75C with occasional stirring. The Elfacos C26 constituent is warmed to 85C and added separately.
- * Pre-mix the Propylene Glycol and Methyl Paraben. Add to the water, stirring well and heat to 75C.
- * When both phases are completely dissolved and at 75-80C, add phase B to phase A while mixing with a high shear mixer. Mix for five minutes and then commence cooling.
- * Cool to approximately 25C with slow speed mixing.
- * Mix briefly at high speed until smooth.

In-Vitro SPF Value: 17-21 In-Vivo SPF Value: 20.5

Formulation Number 24

SOURCE: Tioxide Specialties Ltd.: SPECTRAVEIL Custom UV Protection

O/W Hydroalcoholic Sunscreen

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Glyceryl Stearate (and) Ceteth-20 (Teginacid H)	4.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Stearyl Alcohol	2.0
Mineral Oil	3.5
Cyclomethicone (Abil B 8839)	5.0
Stearoxy Dimethicone (Abil Wax 2434)	1.5
Isopropyl Stearate (Tegosoft S)	5.0
Octyl Methoxycinnamate	4.0
Benzophenone-3	2.0
Phase B:	
Propylene Glycol	3.0
Carbomer 934 (1.5% - NaOH Neutralized)	0.3
Water	45.7
Preservatives	Q.S.
Phase C:	
SD Alcohol 40A	20.0
Fragrance	Q.S.
<u>Procedure:</u>	
1. Combine the ingredients of Phase A. Heat to 80C.	
2. Combine the ingredients of Phase B. Heat to 80C.	
3. Mix Phases A & B. Cool to 60C while mixing. Maintain a milky appearance at all times. Homogenize.	
4. Cool to 45C with sweep mix.	
5. Add Phase C. Rehomogenize. Cool to 25C with sweep mix.	

W/O Sunscreen
(SPF 17)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	4.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Polyethylene Wax	1.0
Benzophenone-3	2.0
Octyl Salicylate	3.0
Octyl Methoxycinnamate	2.0
Sesame Oil	1.0
Isopropyl Palmitate (Tegosoft P)	3.0
Cyclomethicone (Abil B 8839)	4.0
Octyl Stearate (Tegosoft OS)	3.0
Octyl Palmitate (Tegosoft OP)	2.5
Phase B:	
Water	71.4
Sodium Chloride	0.5
Polyquaternium-10	0.3
Germaben II	0.3
<u>Procedure:</u>	
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize	
SOURCE: Goldschmidt Chemical Corp.: Formulations BAM-1-97	

O/W Moisturizing Sunscreen Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	5.00
Mineral oil	5.00
Stearyl alcohol	0.50
Brij 721	2.00
Brij 72	2.00
Dimethicone	0.50
Water	84.60
B Carbomer 940	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative and fragrance	
*q.s. these ingredients	

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C. and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

W/O Sunscreen Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Arlachel 186	3.00
Sorbo	27.00
B Ceresin wax	1.00
Beeswax	1.00
Mineral oil	11.00
Sunscreen agent	6.00
C Water	51.00
D *Preservative	
*q.s. these ingredients.	

Procedure:

Add Sorbo to Arlachel 186 slowly with continuous agitation. Add (B) to (A) and heat to 70C. Add (C) and mix to a uniform dispersion. Heat (D) to 72C. and add to (A,B,C) with agitation. Cool and mill to improve smoothness and shelf life.

SOURCE: ICI Surfactants: Suggested Formulations

O/W Sunscreen Lotion

	<u>Wt. %</u>
1. A-C Polyethylene 617	1.0
2. A-C Copolymer 540	1.0
3. Escalol 507	5.0
4. Dow 556 Fluid	2.0
5. Propylene Glycol Dipelargonate	10.5
6. Hydroxyol	2.0
7. Ethoxyol 24	1.0
8. Arlancel 60	1.3
9. Tween 60	1.8
10. Propyl-P-Hydroxybenzoate	0.1
11. Sorbitol	5.0
12. Carbopol 941	0.5
13. Germa11 115	0.4
14. Methyl-P-Hydroxybenzoate	0.2
15. Triethanolamine	0.75
16. Water	68.45

Procedure:

Disperse Carbopol in water. Weigh 1-10 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the wax phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, deaerate and package.

Ref: 5189-2-6

O/W Sunscreen Lotion

	<u>Wt. %</u>
1. A-C Copolymer 580	2.0
2. Distilled Isopropyl Lanolate	3.0
3. Escalol 507	5.0
4. Dow 556 Fluid	2.0
5. Propylene Glycol Dipelargonate	10.0
6. Ethoxyol 24	1.0
7. Arlancel 60	1.0
8. Tween 60	2.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Carbopol 941	0.5
12. Triethanolamine	0.75
13. Methyl-P-Hydroxybenzoate	0.2
14. Water	67.45

Procedure:

Disperse Carbopol in water. Weigh 1-9 and heat to 80-90C with slow agitation. Add remaining ingredients to Carbopol/water dispersion, except triethanolamine, and heat to 80-90C. Add the water phase to the aqueous phase and shear in homomixer. Continue shearing while cooling to 40C, then add triethanolamine, mixing well. Cool to 30C, add perfume, de-aerate and package.

Ref: 5189-2-9

SOURCE: Allied Signal Inc. Suggested Formulations

O/W Sunscreen Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	24.50
Arlacel 60	1.50
Tween 60	8.50
Benzyl salicylate	2.00
Benzyl cinnamate	2.00
B Water	61.50
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 60C. Heat (B) to 62C. Add (B) to (A) with thorough but gentle stirring. Cool to 25C with gentle stirring.

O/W Sunscreen Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	18.80
Cetyl alcohol	5.00
Arlacel 60	2.50
Tween 60	7.50
Amyl para-dimethylaminobenzoate	1.20
B Water	65.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 55C. and (B) to 60C. Add (B) to (A) with agitation. Stir until cool.

O/W Emollient Sunscreen Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	5.00
Arlamol E	7.00
Stearyl alcohol	2.50
Dimethicone	1.00
Arlasolve 200	3.10
Brij 72	3.90
B Water	77.10
Carbomer 934	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative and fragrance	
*q.s. these ingredients.	

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C. and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

O/W Sunscreen Lotion (SPF 12)

Phase A:	%W/W
Arlacel 165	5.00
Stearyl Alcohol	0.50
Span 60	0.50
Tween 60	0.90
Petrolatum	3.00
DC200/350	1.00
Sweet Almond Oil	5.00
Mineral Oil	8.00
Evening Primrose Oil	0.50

Phase B:	
Deionized water	56.76
Sorbic Acid	0.20
Glycerine	5.00
Tioveil AQ	12.50
Keltrol	0.10

Phase C:	
Deionised water	1.00
Bronopol	0.04

Manufacture:

- * Heat the deionised water, sorbic acid and glycerine to 75C, stirring occasionally until all the sorbic acid has dissolved.
- * Sprinkle in the Keltrol and homogenise until this is fully dispersed. (or: paddle stir for 1 hour to hydrate the Keltrol). Maintain temperature at 75C.
- * Add the Tioveil AQ and homogenise briefly.
- * Heat phase A to 75C.
- * Add A to B and homogenise for appropriate time. Paddle stir to cool.
- * Add phase C at 40C. Continue cooling with stirring to 25C.

In-Vitro SPF Value: 12-15

SOURCE: Tioxide Specialties Ltd.; TIOVEIL Physical Sunscreen

O/W Sunscreen Lotion (SPF 15)

	<u>%W/W</u>
Phase A:	
DC 593 fluid	7.00
Mineral oil	6.00
Crodamol ML	2.00
Cetyl alcohol	2.00
GMS/SE	1.20
Eumulgin B2	0.40
Stearic acid	1.00
Propylparaben	0.05
Phase B:	
Deionised water	58.45
Glycerine	1.00
Triethanolamine	1.00
Aloe vera gel 10:1	0.50
Methylparaben	0.15
Tioveil AQ	18.75
Perfume	0.20
Germall 115	0.30

Manufacture:

- * Heat phases A and B separately to 70-75C.
- * Add phase A to phase B and homogenize for appropriate time.
- * Cool down to 50C with slow stirring, then add perfume
- * Continue cooling with stirring. Add Germall at 35C. Stop stirring at 30C.

In-Vitro SPF Value: 17-21 In-Vivo SPF Value: 17.6
 Viscosity: 60000 mPas (Brookfield LVT, Spindle E, 3 rpm)

Formulation Number 9

O/W Sunscreen Lotion (SPF 10)

	<u>%W/W</u>
Phase A:	
Isopropyl myristate	4.00
Mineral oil	6.50
Grape seed oil	2.50
Stearyl alcohol	1.00
Petrolatum	2.00
Tioveil MOTG	5.00
Phase B:	
Deionised water	62.90
Grilloten LSE87K	0.10
Grilloten PSE141G	6.00
Glycerine	4.00
Allantoin	0.20
d-Panthenol	0.80
Phase C:	
Tioveil AQ	5.00
Phase D:	
Preservative	qs

Manufacture:

- * Heat A and B separately to 80C. * Add A to B, stirring intensively. Add C with intensive stirring. * Homogenize
- * Allow to cool for 25C with slow agitation. Add D.

In-Vitro SPF Value: 12-15 Viscosity: 144 mPas (Brookfield)

Formulation Number 18

SOURCE: Tioxide Specialties Ltd.: TIOVEIL Physical Sunscreens

O/W Sunscreen Lotion (SPF 15)

Phase A:	<u>%W/W</u>
Octyl Palmitate	5.00
Crodamol CAP	5.00
DC200/100cs	3.00
Oxyhex 2004	0.05
White Beeswax	3.50
Phase B:	
Arlatone 2121	5.50
Keltrol RD	0.20
Veegum Ultra	0.80
Sodium Lactate (70% soln.)	0.30
Demineralised water	61.65
Tioveil AQ	15.00
Preservatives	qs

Manufacture:

- * Mix water and sodium lactate and heat to 80C
 - * Melt Arlatone 2121 and add this to the hot water phase with vigorous stirring
 - * Disperse Keltrol and Veegum in the hot water phase
 - * Add Tioveil AQ with vigorous stirring
 - * Heat phase A to 75-80C, until fully melted and homogeneous.
 - * Heat phase A to phase B with high-shear mixing.
 - * Cool with moderate stirring to 30C. Homogenize briefly when cold
- In-Vitro SPF Value: 15-19 Viscosity: 49680 mPas
Formulation Number 19

W/O Sunscreen Lotion (SPF 20)

Phase A:	<u>%W/W</u>
Abil EM90	2.00
Mineral oil	5.00
Arlamol HD	5.00
Caprylic-capric Triglyceride	5.00
Octyl Palmitate	8.00
Arlamol S3	5.00
Naturechem GMHS	0.80
Lunacera M	1.20
Phase B:	
Demineralised water	47.50
Sodium Chloride	0.50
Preservative	qs
Phase C:	
Tioveil MOTG	20.00

Manufacture:

- * Heat phases A and B separately to 75C * Heat phase C to >60C
 - * Slowly add B to A with intensive stirring * Add C with intensive stirring * Cool to 25-30C, maintaining the same stirrer speed * Homogenize
- In-Vitro SPF Value: 20-24 Viscosity: 2000 mPas (Brookfield)
Formulation Number 20

SOURCE: Tioxide Specialties Ltd.; TIOVEIL Physical Sunscreens

O/W Vitaminized Broad Spectrum Sunscreen Lotion
 (Indicative SPF 8)*

<u>Ingredients:</u>	<u>% w/w</u>
A) Parsol MCX	2.00
Parsol 1789	1.00
Parsol 5000	0.60
Glyceryl Monomyristate	4.00
Ganex V-220	2.00
Cetyl Alcohol Extra	1.00
Dermol 185	10.00
Amphisol K	2.00
Edeta BD	0.10
Butylated Hydroxytoluene	0.05
Phenonip	0.60
B) Deionized Water	34.93
Carbopol 981 1% sol'n	10.00
Propylene Glycol	5.00
C) KOH 10% sol'n	0.64
D) Deionized Water	20.00
Parsol HS	0.60
KOH 10% sol'n	1.08
E) Vitamin E Acetate	2.00
F) Panthenol	2.00
G) Parfex 49915	0.40**

Procedure:

Heat part A) to 85C while stirring. When homogeneous, add parts B) and C) pre-heated to 75C, while mixing. Add part D) pre-heated to 75C, while mixing (be sure that the Parsol HS has been completely dissolved, if traces remain, add a small quantity of neutralizing base until the solution is clear). Cool to 40C, add parts E), F) and G). Compensate for water loss and continue stirring while cooling to ambient temperature.

Remark:

*SPF determination: IRI Ref. 582627. Test method based on FDA/OTC conditions with six subjects.

**Dermatologically tested perfume for sunscreens.

The final pH value should be around 7.0 to prevent recrystallization of Parsol HS

SOURCE: Givaudan-Roure: Formulation 38 COS 085

O/W Vitaminized Broad Spectrum Sunscreen Lotion
(Indicative SPF 25+)*

<u>Ingredients:</u>	<u>%w/w</u>
A) Parsol MCX	5.50
Parsol 1789	2.50
Parsol 5000	2.00
Glyceryl Monomyristate	4.00
Ganex V-220	2.00
Cetyl Alcohol Extra	1.00
Dermol 185	10.00
Amphisol K	2.00
Edeta BD	0.10
Butylated Hydroxytoluene	0.05
Phenonip	0.60
B) Deionized Water	24.61
Carbopol 981 1% sol'n	10.00
Propylene Glycol	5.00
C) KOH 10% sol'n	0.64
D) Deionized Water	20.00
Parsol HS	2.00
KOH 10% sol'n	3.60
E) Vitamin E Acetate	2.00
F) Panthenol	2.00
G) Perfex 49915	0.40**

Procedure:

Heat part A) to 85C while stirring. When homogeneous, add parts B) and C) pre-heated to 75C, while mixing. Add part D) pre-heated to 75C, while mixing (be sure that the Parsol HS has been completely dissolved, if traces remain, add a small quantity of the neutralizing base until the solution is clear). Cool to 40C, add Parts E), F), and G). Compensate for water loss and continue stirring while cooling to ambient temperature.

Remark:

*SPF determination: IRI Ref. 582627. Test method based on FDA/OTC conditions with five subjects.

**Dermatologically tested perfume for sunscreens.

The final pH value should be around 7.0 to prevent recrystallization of Parsol HS.

SOURCE: Givaudan-Roure: Formula 38 COS 087

O/W Vitaminized Broad Spectrum Sunscreen Lotion
(Indicative SPF 15)*

<u>Ingredients:</u>	<u>%W/W</u>
A) Parsol MCX	3.30
Parsol 1789	1.50
Parsol 5000	1.20
Glyceryl Monomyristate	4.00
Ganex V-220	2.00
Cetyl Alcohol Extra	1.00
Dermol 185	10.00
Amphisol K	2.00
Edeta BD	0.10
Butylated Hydroxytoluene	0.05
Phenonip	0.60
B) Deionized Water	30.86
Carbopol 981 1% sol'n	10.00
Propylene Glycol	5.00
C) KOH 10% sol'n	0.64
D) Deionized Water	20.00
Parsol HS	1.20
KOH 10% sol'n	2.15
E) Vitamin E Acetate	2.00
F) Panthenol	2.00
G) Parfex 49915	0.40**

Procedure:

Heat part A) to 85C while stirring. When homogeneous, add parts B) and C) pre-heated to 75C, while mixing. Add part D) pre-heated to 75C, while mixing (be sure that the Parsol HS has been completely dissolved, if traces remain, add a small quantity of the neutralizing base until the solution is clear). Cool to 40C, add parts E), F) and G). Compensate for water loss and continue stirring while cooling to ambient temperature.

Remark:

*SPF determination: IRI Ref. 582627. Test method based on FDA/OTC conditions with six subjects.

**Dermatologically tested perfume for sunscreens.

The final pH value should be around 7.0 to prevent recrystallization of Parsol HS.

SOURCE: Givaudan-Roure: Formulation 38 COS 086

Solar Tanning Cream

	<u>Part By Weight</u>
Water Phase:	Soft
Water	427.9
Carbomer 934	3.0
Oil Phase:	
Prottox T-25	1.0
Rosswax 573	4.0
GMS SE	4.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
Rosswax 1824	12.0
Escalol 507	25.0
Fragrance	q.s.
Germaben II	5.0
Triethanolamine	4.4

Procedure:

Disperse the Carbomer 934 in the water. In a second vessel heat the Oil Phase including the Escalol 507 until completely clear. When both phases are ready add the Oil Phase to the Water Phase, add the preservative, fragrance and add the Triethanolamine under high agitation. When fully mixed you may package.

Solar Tanning Cream

	<u>Parts by Weight</u>
Water Phase:	Hard
Water	410.0
Carbomer 934	3.0
Oil Phase:	
Prottox T-25	1.0
Rosswax 573	4.0
GMS SE	4.0
Coconut Oil #76	16.0
Jojoba Oil	4.0
Rosswax 1824	12.0
Escalol 507	25.0
Fragrance	q.s.
Germaben II	4.8
Triethanolamine	4.4

Procedure:

Disperse the Carbomer 934 in the water. In a second vessel heat the Oil Phase including the Escalol 507 until completely clear. When both phases are ready add the Oil Phase to the Water Phase, add the preservative, Fragrance and add the Triethanolamine under high agitation. When fully mixed you may package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Cream
High Protection

	<u>%</u>
Part (A):	
Water	79.9
Carbomer 934	0.6
 Part (B):	
Protox T 25	0.2
Rosswax 573	0.8
Rosswax 1824	2.0
Ross Jojoba Oil	0.8
GMS-SE	0.8
Coconut Oil #76	3.0
Escalol 507	7.0
Escalol 567	3.0
 Part (C):	
Germaben II	1.0
 Part (D):	
Fragrance	q. s.
 Part (E):	
Triethanolamine	0.9

Procedure:

Heat the water in a steam jacketed kettle and add the Carbomer 934 under agitation. Heat Part (B) in a steam jacketed kettle until clear under agitation. When fully mixed add Part (B) to Part (A) under agitation. Then add Part (C) and mix thoroughly. Next add Part (D) and finally add Part (E) with agitation. Cool to 120F and package.

Tanning Jelly

	<u>%</u>
Petrolatum USP	49.0
Mineral Oil #7	20.0
Henkel Cutina-LM	23.9
Ross Jojoba Oil	2.0
Escalol 507	5.0
Propyl Paraben	0.1
Fragrance	q. s.

Procedure:

Load ingredients in steam jacketed kettle and melt to a liquid state under agitation. When thoroughly mixed, cool to 130F, fragrance and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Cream
Super Protection

Part (A):	<u>%</u>
Water	69.1
Carbomer 934	0.6
Part (B):	
Protox T 25	0.2
Rosswax 573	0.8
Rosswax 1824	2.0
Ross Jojoba Oil	1.0
GMS-SE	0.8
Coconut Oil #76	3.2
Escalol 507	8.0
Escalol 567	4.5
Escalol 557	7.5
Part (C):	
Germaben II	1.0
Part (D):	
Fragrance	q.s.
Part (E):	
Triethanolamine	0.9

Procedure:

Heat the waxes in a steam jacketed kettle and add the Carbomer 934 under agitation. Heat Part (B) in a steam jacketed kettle until clear under agitation. When fully mixed add Part (B) to Part (A) under agitation. Then add Part (C) and mix thoroughly. Next add Part (D) and finally add Part (E) with agitation. Cool to 120F and package.

Jojoba After Sun Lotion

Part A:	<u>%</u>
Mineral Oil 60/70	8.2
Modulan	5.0
Rosswax 63-0412	7.6
Propylene Glycol	2.3
Ross Jojoba Oil	1.7
Part B:	
Water	69.7
Aloe Vera Liquid	3.3
Triethanolamine	1.2
Fragrance	q.s.
Germaben II	1.0

Procedure:

Melt Part (A) and Part (B) in separate vessels to 170F under agitation. When temperature is reached, mix Part (A) to Part (B) and cool. Package in containers at below 120F.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Lotion-A

	<u>Parts by Weight</u>
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	13.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

Solar Tanning Lotion-B

	<u>Parts by Weight</u>
Part I:	
Water	568.0
Carbomer 934	2.0
Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	13.0
Part III:	
Fragrance	q.s.
Part IV:	
Germaben II	6.0
Part V:	
Triethanolamine	4.0

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt Part II until clear. As soon as everything is melted add Part II to Part I with agitation. Then add Part III and Part IV with increased agitation; then add Triethanolamine. Cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Lotion-C

Part I	<u>Parts by Weight</u>
Water	568.0
Carbomer 934	2.0
 Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	25.0
 Part III:	
Fragrance	q.s.
 Part IV:	
Germaben II	6.0
 Part V:	
Triethanolamine	4.0

Solar Tanning Lotion-D

Part I:	
Water	568.0
Carbomer 934	2.0
 Part II:	
Rosswax 573	4.0
GMS SE	4.0
Jojoba Oil	4.0
Escalol 507	32.0
 Part III:	
Fragrance	q.s.
 Part IV:	
Germaben II	6.0
 Part V:	
Triethanolamine	4.0

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt Part II until clear. As soon as everything is melted add Part II to Part I with agitation. Then add Part III and Part IV with increased agitation; then add Triethanolamine. Cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Lotion
High Protection

	<u>Parts by Weight</u>
Water	517.0
Carbomer 934	2.0
Rosswax 573	3.6
Gms SE	3.6
Jojoba Oil	42.0
Escalol 507	18.0
Germaben II	6.0
Fragrance	q. s.
Triethanolamine	3.6

Procedure:

Heat the water with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt the Oil Phase till clear with agitation. Now add the Oil Phase to the Water Phase with agitation, add the Germaben II, fragrance and finally add the Triethanolamine with high agitation. Next cool to 130F and package.

Solar Tanning Lotion
Super Protection

	<u>Parts by Weight</u>
Water	381.5
Carbomer 934	1.5
Rosswax 2540	3.0
GMS-SE	3.0
White Jojoba Oil	3.0
Escalol 507	40.0
Escalol 567	22.5
Escalol 557	37.5
Germaben II	5.0
Fragrance	q. s.
Triethanolamine	3.6

Procedure:

Heat the water in a steam jacketed kettle with agitation and add the Carbomer 934. In a separate steam jacketed kettle melt the Oil Phase until clear with agitation. Now add the Oil Phase to the Water Phase with agitation, then the Germaben II, then the Fragrance and finally add the Triethanolamine with high agitation. Next cool to 130F and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Oil-A

	%
Cocoanut Oil #76	15.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	2.0
Fragrance	q.s.

Solar Tanning Oil-B

	%
Cocoanut Oil #76	14.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	3.0
Fragrance	q.s.

Solar Tanning Oil-C

	%
Cocoanut Oil #76	13.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	4.0
Fragrance	q.s.

Solar Tanning Oil-D

	%
Cocoanut Oil #76	12.0
Dow Corning #344	16.0
Isopropyl Myristate	13.0
Mineral Oil #7	42.0
Acetulan	8.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.

Procedure:

Mix all of the above ingredients in a stainless steel vessel, run thru a filter and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Solar Tanning Stick
White Color

	<u>%</u>
Rosswax 26-1152	15.0
Rosswax 1641	15.0
Rosswax 1824	20.0
Mineral Oil #7	17.5
Dow Silicone 344	8.0
Isopropyl Myristate	6.5
Coconut Oil #76	5.0
Acetulan	4.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.
Preservative	q.s.

Procedure:

Load the waxes and the oils in a steam jacketed kettle, under agitation until melted. Cool to just before cloudy, add preservatives. Mold in containers. (Note: Capping may be necessary).

Solar Tanning Stick
Tan Color

	<u>%</u>
Rosswax 26-1152	30.0
Rosswax 1824	20.0
Mineral Oil #7	17.5
Dow Silicone 344	8.0
Isopropyl Myristate	6.5
Coconut Oil #76	5.0
Acetulan	4.0
Glucam P-20	2.0
Jojoba Oil	2.0
Escalol 507	5.0
Fragrance	q.s.
Preservative	q.s.

Procedure:

Heat the waxes and the oil in a steam jacketed kettle to 175F under agitation. When mixed fully, cool to just before cloudy, and add Fragrance and Preservative. Mold in containers. (Note: Capping may be necessary).

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Sun Block Soft Cream (O/W)
Tested SPF 26

<u>Ingredients:</u>	<u>%(w/w)</u>
A Arlace1 165	3.00
Eumulgin B 2	1.00
Lanette O	2.00
Myritol 318	4.00
Cetiol OE	3.00
Abil 100	1.00
Bentone Gel MIO	3.00
Neo Heliopan, Type OS	3.00
Neo Heliopan, Type AV	5.00
Neo Heliopan, Type E 1000	5.00
Neo Heliopan, Type MBC	1.50
Cutina CBS	2.00
 B Demineralized water	 31.70
Veegum ultra	1.00
Glycerin 86%	3.00
Phenonip	0.50
Neo Heliopan, Type Hydro; used as a 15% solution	20.00
neutralized with sodium hydroxide	(active: 3.00%)
Zinc Oxide neutral H&R	10.00
 C Perfume oil	 0.30

Manufacturing Process:

Part A: Heat up to 75C with thorough agitation.

Part B:

Heat the water to 90C. Disperse the Veegum in the water during high speed agitation. Then add the other ingredients and disperse the Zinc Oxide neutral H&R in the solution. Put Part B to Part A while stirring.

Part C:

At 30C add the perfume oil to Part A/B and homogenize the emulsion.

The pH-value of the finished emulsion should be approx. 7.5 and has to be checked.

SOURCE: Haarman & Reimer: Formulation K 18/2-21302/E

Sun Filter Foam

	Wt%
A. Miglyol 840	10.0
Miglyol 812	5.0
Softisan 649	1.0
Softigen 767	1.5
Softigen 701	0.5
Cetyl alcohol	1.0
Stearic acid	4.0
Triethanolamine	2.0
Neo Heliopan E 1000	3.0
B. Perfume	qs
Water	to 100.0

Preparation:

All components under A. are heated to 70-75C. Water is then emulsified in and perfume is incorporated at 30C.

Aerosol filling:

90% Active ingredient

10% Drivosol 27

After Sun Stick

	Wt%
A. Softigen 767	40.0
Sodium stearate	8.0
Glycerol	10.0
Sugar	8.0
D-Panthenol, 50%	6.0
Allantoin	0.2
Water	24.4
B. Perfume	0.1
Ethanol 96%	3.3
Preservative	qs

Preparation:

The ingredients of A. are melted and dissolved at approx. 60C, the mix is stirred, B. being added at approx. 40C, and when cold it is cast into moulds.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Sun Protection Lotion

This medium viscosity lotion utilizes a synergistic Veegum/Rhodigel blend to help stabilize the emulsion and modify the viscosity. In addition, this formula incorporates A-C 617G polyethylene to provide a luxurious after feel and improve the water resistance of the sun protection film. This product is designed to have an SPF (Sun Protection Factor) of about 15.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum	1.00
Rhodigel	0.20
Glycerin	5.50
Deionized Water	68.80
B A-C 617G Polyethylene	2.00
Glyceryl Monostearate, SE (2)	3.00
Dioctyl Malate (3)	2.00
Cetyl Alcohol	0.50
Mineral Oil	4.00
Steareth-2 (4)	0.30
Steareth-20 (5)	2.70
Benzophenone-3 (6)	3.00
Octyl Dimethyl PABA (7)	7.00
C Preservative, Fragrance	q.s.
(2) Kessco Glycerol Monostearate S.E.	
(3) Ceraphyl 45	
(4) Brij 72	
(5) Brij 78	
(6) Escalol 567	
(7) Escalol 507	

Preparation:

Dry blend Veegum and Rhodigel. Add Veegum/Rhodigel blend to water preheated to 85-90C. Hydrate using maximum available shear until smooth, uniform and free of undispersed particles. Add glycerin and maintain temperature at 85-90C. In a separate container, add all B ingredients and heat to 85-90C until all components are in a liquid state. Stir gently as necessary. Slowly add B to A and homogenize for 5 minutes. Cool emulsion quickly to room temperature with gentle stirring. Add C and mix until uniform.

Consistency:

Flowable Liquid; Viscosity measured after 30 days at room temperature: 1500-1900 cps.

Suggested Packaging: Plastic bottles or tubes.

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 444

Sun Protection Lotion

This medium viscosity lotion utilizes a synergistic Veegum/Rhodigel blend to help stabilize the emulsion and modify the viscosity. It is designed to have an SPF (Sun Protection Factor) of about 15.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum	1.00
Rhodigel	0.20
Glycerin	5.50
Deionized Water	70.80
B Glyceryl Monostearate, SE (2)	3.00
Diocetyl Malate (3)	2.00
Cetyl Alcohol	0.50
Mineral Oil	4.00
Steareth-2 (4)	0.30
Steareth-20 (5)	2.70
Benzophenone-3 (6)	3.00
Octyl Dimethyl PABA (7)	7.00
C Preservative, Fragrance	q.s.
(2) Kessco Glycerol Monostearate S.E.	
(3) Ceraphyl 45	
(4) Brij 72	
(5) Brij 78	
(6) Escalol 567	
(7) Escalol 507	

Preparation:

Dry blend Veegum and Rhodigel. Add Veegum/Rhodigel blend to water preheated to 75 to 85C. Hydrate using maximum available shear until smooth, uniform and free of undispersed particles. Add glycerin and maintain temperature at 75 to 85C. In a separate container, add all B ingredients and heat to 75 to 85C until all components are in a liquid state. Stir gently as necessary. Slowly add B to A and homogenize for 5 minutes. Cool emulsion to room temperature with gentle stirring. Add C and mix until uniform.

Consistency: Flowable liquid; Viscosity measured after 30 days at room temperature: 750 to 1000 cps

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 446

Sunscreen with Amihope

An elegant sunscreen of about SPF-15 using micronized Titanium Dioxide. Amihope LL provides improved spreadability and an excellent afterfeel.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A: Deionized Water	64.30
Synthetic Hectorite	0.80
Disodium EDTA	0.10
Glycerin	6.00
Part B: C12-15 Alkyl Benzoate	15.00
Titanium Dioxide	6.50
Cetearyl Alcohol (and) Cetareth-20	5.00
PEG-80 Sorbitan Laurate	1.00
Part C: Lauroyl Lysine/Amihope LL	1.00
Part D: Isopropylparaben (and) Isobutylparaben (and) Butylparaben	0.10
DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	0.20

Disperse the Synthetic Hectorite in deionized water. Heat to 80C. Add remaining part A ingredients. Mix until uniform. In a separate container, homogenize the C12-15 Alkyl Benzoate and Titanium Dioxide until smooth. Add remaining part B ingredients. Heat to 80C. Add part B to part A with mixing. Mix at 80C for 30 minutes until smooth and uniform. Cool to 70C. Add part D. Mix well. (Homogenize to ensure complete dispersion.) Cool to 40C. Add part E. Continue mixing and cooling to 35C.

Appearance: Off-white, smooth, viscous cream pH: 7.20-7.80

Viscosity: 30,000-36,000 cps (Brookfield #6 @ 10rpm @ 25C)

W/O SPF20 Sunscreen with Elder

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Stearic Acid Triple Pressed	4.00
Cetyl Alcohol	1.00
DEA-Cetyl Phosphate/Amphisol	2.00
Dimethicone(and)Trimethylsiloxysilicate/Dow Corning 593	5.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	6.00
Octyl Salicylate/Uvinul O-18	5.00
Octyldodecyl Neopentanoate/Elefac I-205	5.00
Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben/Nipastat	0.20
Di (cholesteryl, behenyl, octyldodecyl) N-Lauroyl-L-Glutamic Acid ester/Eldew CL-301	5.00
Part B:	
Deionized Water	57.75
Sodium Carbomer/PNC 400	0.25
Part C:	
Diazolidinyl Urea/Germall II	0.30
Deionized Water	1.00

Combine part A and heat to 75 degrees Centigrade with mixing. Heat deionized water of part B to 75 degrees C. Disperse PNC 400 into the water with high shear mixing until uniform gel is formed. Add part A to part B with mixing. Hold at 75 degrees for 15 minutes. Cool to 40 degrees C and add premixed part C with continued mixing. Cool to 30 degrees C.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Sunscreen Balm, (Cold Processing)
SPF 8 (DIN 67501)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Demineralized water	72,900
Ethylalcohol (96 vol.%) denatured	8,500
Trilon B liquid	0,100
D-Panthenol	0,500
Germall 115	0,200
Phenonip	0,300
Carbopol 940	0,500
 B Sodium hydroxide (10% aq. solution)	 2,200
C 1,2-Propylene glycol	3,000
Cremogen Aloe Vera	2,000
D Neo Heliopan, Type AV	6,500
Baysilone Fluid PK 20	3,000
Bisabolol	0,100
Perfume Oil	0,200

***Sun Protection Factor:**

Tested mean SPF 8.2 according to the German DIN 67501 method.

Manufacturing Process:

Part A:

Dissolve Trilon B, Panthenol and Germall 115 in the mixture of alcohol and water. Then slowly add under stirring Carbopol 940 and continue until completely dispersed.

Part B:

Add slowly the sodium hydroxide solution to part A for neutralization. A transparent high viscid gel will be formed.

Part C:

Successively add with stirring propylene glycol and Cremogen Aloe Vera into the gel part A/B.

Part D:

Blend the ingredients and add the mixture with stirring into the gel part A/B/C.

After complete mixing it is necessary to pass the dispersion through a homogenizer (colloid mill).

The Sunscreen Balm contains no emulsifier.

SOURCE: Haarman & Reimer: Formulation K 18/5-51132 A/E

Sunscreen Cream

Illustrates the use of Veegum Pro as a suspending agent and viscosity modifier. Veegum Pro effectively thickens and stabilizes the emulsion even at elevated temperatures. This lotion has an estimated SPF of 12 and has a light feel with quick, greaseless rub-in. Benzophenone-3 is a UV-A absorber for protection against tanning radiation. Octyl Methoxycinnamate is a UV-B absorber for protection against burning radiation.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum Pro	1.5
Water	67.7
Propylene glycol	3.0
Triethanolamine	0.6
B Benzophenone-3 (1)	5.0
C12-15 Alcohols Benzoate (2)	7.5
Octyl Methoxycinnamate (3)	7.5
Mineral Oil (and) Lanolin Alcohol (4)	4.0
Stearic acid XXX	2.0
C18-36 Acid (5)	0.2
Glycol Stearate SE (6)	0.5
Cetyl alcohol	0.5
C Preservative, Dye, Fragrance	q.s.
(1) Uvinul M-40	
(2) Finsolv TN	
(3) Parsol MCX	
(4) Ritachol	
(5) Synchronowax AW1-C	
(6) Cerasynt MN	

Procedure:

Heat the water to 75 to 80C, then slowly add the Veegum Pro while agitating at maximum available shear. Mix until smooth. Add remaining ingredients in order shown with careful mixing until smooth, maintain at 75 to 80C. Heat B to 75 to 80C. Add B to A and mix until cool. Add C.

Consistency: Cream

Suggested Packaging: Pump bottle or tube

Comments:

This prototype formula is designed to serve as a guide for the development of new products or improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 421

Sunscreen Cream

	<u>Wt. %</u>
1. A-C Polyethylene 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Mineral Oil, 70 s.s.	6.2
5. Dow Fluid 200, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	7.0
7. Triglycerol Diisostearate	5.5
8. Escalol 507	5.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Water	59.4

Procedure:

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-14 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5189-4-1

W/O Sunscreen Cream

	<u>Wt. %</u>
1. A-C Polyethylene 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Isopropyl Palmitate	6.2
5. Dow 200 Fluid, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	7.0
7. Triglycerol Diisostearate	5.5
8. Escalol 507	5.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Water	59.4

SOURCE: Allied Signal Inc.: Suggested Formulations

Sunscreen Cream
Water-in-Oil (Expected SPF 15+)

A)	
Laurylmethicone copolyol	2.00%
Carnation Mineral Oil	5.00
Octyl p-methoxy cinnamate	7.50
Benzophenone-3	2.00
Titanium dioxide (small particle size)	4.00
Glyceryl monooleate	1.00
C12-15 alcohols benzoate	5.00
Hydrogenated castor oil	0.50

B)	
Water	q.s.
Sodium chloride	2.00
Sorbitol (70%)	3.00

C)
Preservative

Procedure:

Combine A using moderate agitation. Combine B. Add B to A very slowly using very vigorous agitation, heating to melt hydrogenated castor oil. Add C. Pass through homogenizer to insure small uniform particles are produced. Package.

Skin Bronzing Cream

L-Tyrosine	0.20%
Phenylalanine	0.10
Aspartic acid	0.10
Escin	0.05
Copper gluconate	0.01
Hydrolyzed collagen	1.50
Carrot oleoresin	0.15
St. John's Wort extract	1.00
Dihydroxyacetone	0.50
Cetyl alcohol	1.00
Preservative	q.s.
Emulsifiers, thickening agents	4.00
Carnation Mineral Oil	15.00
Lanolin	3.00
Stearin	3.00
Triethanolamine (85%)	1.00
Water	q.s. to 100.00

SOURCE: Witco Corp.: Petroleum Specialties Group: Suggested Formulations

Sunscreen Cream

	Wt. %
1. A-C Polyethylene 617	3.0
2. Beeswax	2.0
3. Amerchol L-101	5.0
4. Isopropyl Palmitate	6.2
5. Dow 200 Fluid, 350 cs.	1.0
6. 2-Ethyl Hexyl Stearate	7.0
7. Triglycerol Diisostearate	5.5
8. Escalol 507	5.0
9. Propyl-P-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Sodium Borate, Anhydrous	0.3
12. Methyl-P-Hydroxybenzoate	0.2
13. Germall 115	0.3
14. Water	59.4

Procedure:

Weigh 1-9 and heat to 85C with slow agitation. The blend has a cloud point of approximately 80C. Above the cloud point all waxes will eventually dissolve in the blend. If a higher solvating temperature is used, solvation can be much faster. Hold the wax blend at 85C. Heat 10-14 to 85-90C and stir gently until all has dissolved. Hold at 85C.

Place wax blend in mixing container, add aqueous phase to it and shear with homomixer or colloid mill. At 67C the crude dispersion inverts and a thick creamy emulsion forms. Continue shearing while scraping the sides of the container to make sure the whole content is properly sheared. Add perfume, de-aerate and package.

Ref: 5189-4-9

O/W Sunscreen Lotion

	Wt. %
1. A-C Copolymer 580	2.0
2. Distilled Isopropyl Lanolate	3.0
3. Escalol 507	5.0
4. Dow 556 Fluid	2.0
5. Propylene Glycol Dipelargonate	10.0
6. Ethoxyl 24	1.0
7. Arlace1 60	1.0
8. Tween 60	2.0
9. Propyl-p-Hydroxybenzoate	0.1
10. Sorbitol (70%)	5.0
11. Carbopol 941	0.5
12. Triethanolamine	0.75
13. Methyl-p-Hydroxybenzoate	0.2
14. Water	67.45

SOURCE: Allied Signal Inc.: Suggested Formulations

Sun Screen Cream W/O

	<u>Wt%</u>
A. Miglyol Gel B	20.0
Imwitor 780K	10.0
Alugel DF 30	3.0
B. Hard paraffin	3.0
Paraffin oil	5.0
Eusolex 6300	4.0
Antioxidants	qs
C. Perfume	qs
Preservative	qs
D. Eusolex 232	6.0
Triethanolamine	5.0
Mowiol 10-98	3.0
Water	100.0

Preparation:

The ingredients of A. are mixed and heated to 80C. Those of B. are brought to the same temperature and heated to A. D. is heated to approx. 75C and emulsified in A. + B. Perfume is incorporated at approx. 30C.

Sun Screen Cream O/W

	<u>Wt%</u>
A. Imwitor 960 flakes	10.0
Miglyol 840	8.0
Lanette N	6.0
Neo Heliopan E 1000	3.0
B. 1,2-Propylene glycol	3.0
Hygroplex HHG	5.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The ingredients of A. are heated to 75-80C. Those of B. are heated to the same temperature and emulsified in A. Perfume is added at approx. 30C.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Sun Screen Cream W/O, Oily

	<u>Wt%</u>
A. Miglyol 840 Gel B	20.0
Softisan 649	5.0
Imwitor 780 K	5.0
Paraffin oil	8.0
Neo Heliopan E 1000	3.0
Hard paraffin	3.0
B. Magnesium sulphate	2.0
Water	to 100.0
C. Perfume	qs
Preservative	qs

Preparation:

The ingredients of A. are mixed and heated to 75-80C. Those of B. are brought to the same temperature and emulsified in A. Perfume is incorporated at 30C.

Self Tanning Lotion

	<u>Wt%</u>
A. Miglyol 812	5.0
Marlowet TA 25	1.5
Marlowet TA 6	1.5
Cremophor EL	1.0
1,2-Propylene glycol	5.0
Cetyl alcohol	2.5
B. Water	to 100.0
C. Perfume	qs
D. Dihydroxyacetone	5.0
Water	5.0
Preservative	qs

Preparation:

The ingredients of A. are heated to 75-80C. Those of B. are brought to the same temperature and emulsified in A. D. is dissolved and added, together with C, at approx. 30C.

SOURCE: Huls America Inc.: Formulations for Cosmetics: Formulas

Sunscreen Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl methoxycinnamate	7.00
Benzophenone-3	3.00
Arlamol E	5.00
Stearyl alcohol	0.50
Dimethicone, 350 cps.	0.50
Brij 721S	2.00
Brij 72	2.00
B Water, deionized	69.60
Carbomer 940	0.20
C Water, deionized	10.00
Sodium hydroxide (10% W/W aqueous)	0.20

Procedure:

Heat (A) to 60 deg. C and (B) to 65 deg. C. Add (B) to (A) and stir with propeller agitation. Add (C) below 60 deg. C. Stir to 35 deg. C. Add water to replace loss by evaporation and package.

Sunscreen Cream

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl methoxycinnamate	5.00
Benzophenone-3	0.50
Arlamol E	5.00
Stearyl alcohol	0.50
Dimethicone, 350 cps.	0.50
Brij 721S	2.00
Brij 72	2.00
B Water, deionized	74.10
Carbomer 940	0.20
C Water, deionized	10.00
Sodium hydroxide (10% W/W aqueous)	0.20

Procedure:

Heat (A) to 60 deg. C and (B) to 65 deg. C. Add (B) to (A) and stir with propeller agitation. Add (C) below 60 deg. C. Stir to 35 deg. C. Add water to replace loss by evaporation and package.

SOURCE: ICI Surfactants: Suggested Formulations

Sunscreen Cream

<u>Ingredient:</u>	<u>%W/W</u>
Part A:	
Deionized Water	78.16
Rheolate 5000	0.3
Propylene Carbonate	2.5
Part B:	
Panalene	8.0
Silicone 7207	1.0
Promulgen D	0.5
Ceraphyl 494	2.0
Part C:	
AMP-95	0.24
Part D:	
Euxyl K-400	0.3
Finsolv TN	2.0
Escalol 507	5.0

Manufacturing Directions:

1. Combine the ingredients in Part A by slowly sifting in the polymer to the water, mixing for 20 minutes, then adding the propylene glycol. Heat to 80C.
 2. Combine all ingredients in Part B, then heat to 78C.
 3. Add Part B to Part A while stirring. Mix for 10 minutes, then add Part C.
 4. Cool to 40C before adding Part D. Package at Room Temperature.
- Formula TS-330

Suntan Cream

<u>Materials:</u>	<u>% by Weight</u>
Part A:	
1. Deionized Water	73.50
2. Glycerine	2.50
3. Triethanolamine	0.70
4. Methyl Paraben	0.10
5. Bentone LT rheological additive	0.50
Part B:	
6. Ceraphyl 424	3.00
7. Isocetyl Stearate	2.00
8. Acetol	2.50
9. Cocoa Butter	1.00
10. Hystrene 5016	4.00
11. Lexemul 503	6.80
12. Escalol 507	3.00
13. Propyl Paraben	0.10
Part C: Fragrance	0.30

Manufacturing Directions:

1. Part A-In a stainless steel steam jacketed kettle, add items 1 to 4 and heat to 60C. Using a homomixer, add item 5 slowly to avoid lumps and mix for 20 minutes or until homogeneous. Heat to 80C.
 2. Part B-In a separate vessel, add items 6 to 13 and heat to 80C. Mix until completely melted and homogeneous.
 3. Add Part B slowly in Part A at 80C using sweep blades.
 4. At 50C, add Part C, homogenize and fill units.
- Formula TS-256

SOURCE: Rheox, Inc.: Suggested Formulations

Sunscreen Gel (approx. SPF 10)

A clear sunscreen gel designed to provide UV protection while leaving the skin soft and conditioned. Geahlene provides viscosity, emolliency, and water repellency to this formula.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	73.80
Octyldodecyl Neopentanoate/Elfac I-205	14.00
Tocopherol Acetate/Vitamin E Acetate	0.50
Fragrance	0.10
B Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	2.00
Octyl Salicylate/Uvinul O-18	2.00
Propylparaben	0.10
C D&C Green No. 6	q.s.

Procedure:

Mix A until homogeneous. Heat B to 60C until clear. Add B to A with moderate mixing. Add C as necessary.

Sunscreen Gel (approx. SPF 12)

A clear sunscreen gel with excellent spreadability and a pleasant, emollient after feel. Geahlene provides viscosity, lubricity, and water repellency to this formula.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer//Geahlene 750	65.00
Isopropyl Isostearate/Prisorine 2021	20.80
Tocopherol Acetate/Vitamin E Acetate	0.50
Fragrance	0.10
B Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	4.00
Octyl Salicylate/Uvinul O-18	2.00
Propylparaben	0.10
C D&C Red No. 4 Aluminum Lake	q.s.

Procedure:

Mix A until homogeneous. Heat B to 60C until clear. Add B to A with moderate mixing. Add C as necessary.

SOURCE: Penreco: Suggested Formulations

Sunscreen Gel
SPF 6 (FDA-OTC)*

<u>Ingredients:</u>	<u>%w/w</u>
A Ethylalcohol (96 Vol. %) denatured	5,000
Deminerlized water	60,350
1,2-Propylene glycol	5,000
Germaben II	1,000
Allantoin	0,100
D-Panthenol	0,500
Carbopol 940	1,100
 B Deminerlized water	 5,000
Triethanolamine	2,200
 C Deminerlized water	 15,000
Neo Heliopan, Type Hydro	2,000
Triethanolamine	1,200
 D Cremophor NP 14	 1,200
Perfume Oil	0,300
 E Sunset Yellow 307009	 0,050
1% aq. solution	

***Sun Protection Factor:**

Tested SPF 5.9 on a five subject panel according to the FDA-OTC proposed method.

Manufacturing Process:

Part A:

Dissolve propylene glycol, Germaben II, Panthenol and Allantoin in the alcohol-water solution. Then slowly add while stirring Carbopol 940 and continue until completely dispersed.

Part B:

Dilute the neutralizing agent with water and add slowly into part A for neutralization. A high viscid gel will be formed.

Part C:

Add Neo Heliopan, Type Hydro while stirring into the water to get a suspension. Continue stirring and add slowly triethanolamine until the neutralization of Neo Heliopan, Type Hydro is complete and a clear solution is obtained. Before adding the solution into the gel part A/B, it is recommendable to filter the solution.

Part D:

Blend the perfume oil with the solubilizer and add the mixture while stirring into the gel A/B/C.

Part E:

While stirring, add the colorant to the transparent gel.

The pH value of the gel should be approx. 7.2-7.5. At a pH value below 7 Neo Heliopan, Type Hydro could precipitate.

SOURCE: Haarman & Reimer: Formula K 18/5-51282 D/E

Sunscreen Lotion

This formula demonstrates the rheological and stabilizing properties of Cera Bellina and of Siliconyl Beeswax. Incorporated into this formula is the sunscreen Neo Heliopan AV (Octyl methoxycinnamate) giving this formula an appropriate SPF value. The product has high gloss and excellent skin feel. The rheological properties of Cera Bellina allow for this product to be packaged in convenient tubes or squeeze bottles.

Oil Phase:	
Neo Heliopan AV (H&R)	5.00%
Squalane (Centerchem)	2.00%
Cera Bellina (Pg-3 Beeswax; Koster Keunen)	4.00%
Glycerol Monostearate (Henkel)	0.50%
Light Mineral Oil (Witco)	1.50%
Isostearic Acid (Unichema)	4.00%
Liquapar (Sutton)	0.40%
Octyl Palmitate (Inolex)	5.00%
Shea Butter (Koster Keunen)	4.00%
Emulsifying Wax (Koster Keunen)	1.50%
Vitamin E (BASF)	0.10%
Vitamin A Palmitate (BASF)	0.10%
Stearic Acid (Unichema)	0.50%
Ceresine 130/135 (Koster Keunen)	0.70%
Hexanediol Behenyl Beeswax (Koster Keunen)	1.00%
Siliconyl Beeswax (Koster Keunen)	1.40%
Propyl Paraben (Sutton)	0.20%
Elefac I 205 (Bernel)	1.40%
Sunflower Oil (Lipo)	3.00%
Propylene Glycol Dioctanate (Inolex)	5.00%
Isopropyl Palmitate (Unichema)	3.00%
Diisostearyl Malate (Bernel)	1.20%
Gamma Orzanol (Koster Keunen)	1.00%
Water Phase:	
Water (Distilled)	41.70%
1,3-Butylene Glycol (Hoechst)	3.00%
Carboxymethyl Cellulose (Hercules)	0.30%
Keltrol TF (Kelco)	0.30%
Methyl Paraben (Sutton)	0.30%
Sodium Borate (Borax)	0.60%
Water Phase II:	
Water (Distilled)	5.00%
Tea 99% (Dow)	0.80%
Active Phase:	
Silicone 245 (Dow)	1.00%
Phenonip (Nipa)	0.50%

Heat the water phase to 80C under agitation ensuring that the entire phase is solubilized. Heat and mix the oil phase to 82C. Slowly add the oil phase to the water phase, cool to 70C and add water phase II. Cool to 40 and add the active phase. Cool to room temperature.

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance SPF.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Sunscreen Lotion (approx. SPF 15)

This nongreasy sunscreen is easily applied and has a dry after feel. The Geahlene 750 adds viscosity and richness to the lotion, and should contribute to water resistance.

<u>Ingredient/Trade Name:</u>	<u>Weight%</u>
A Deionized Water	69.80
Acrylates C10-30 Alkyl Acrylate Cross-polymer/Carbopol 1382	0.20
Methylparaben	0.15
Tetrasodium EDTA/Hamp-Ene 220	0.10
B Triethanolamine, 99%	0.20
C Mineral Oil (and) Hydrogenated Butylene/Ethylene/Styrene Copolymer (and) Hydrogenated Ethylene/Propylene/Styrene Copolymer//Geahlene 750	10.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	4.00
Octyl Salicylate/Uvinul O-18	2.00
Cetyl Alcohol/Lanette 16	1.00
Propylparaben	0.05
Phenoxyethanol/Emeressence 1160	0.60
Stearic Acid/Emerso1 132	2.00
Potassium Cetyl Phosphate/Amphisol K	2.00
D Diazolidinyl Urea/Germall II	0.30
Fragrance	0.10

Procedure:

Disperse Carbopol 1382 in rapidly agitated deionized water. Mix until completely lump-free. Heat to 80C. Add remaining part A ingredients. Add part B to part A. Mix until uniform. In a separate container, heat part C to 80-85C. Mix until all the solids are dissolved. Add part C to part A. Mix for 30 minutes until homogeneous. Cool to 40C. Add part D. Continue mixing and cooling to 30C.

SOURCE: Penreco: Suggested Formulation

Sunscreen Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl methoxycinnamate	7.00
Benzophenone-3	3.00
Petrolatum	25.00
Dimethicone	3.00
Brij 721S	1.20
Brij 72	3.80
B Water, deionized	46.60
Carbomer 934	0.20
C Water, deionized	10.00
Sodium hydroxide (10% W/W aqueous)	0.20

Procedure:

Heat (A) to 60 deg. C and (B) to 65 deg. C. Add (B) to (A) and stir with propeller agitation. Add (C) below 60 deg. C. Stir to 35 deg. C. Add water to replace loss by evaporation and package.

O/W Emollient Sunscreen Lotion

<u>Ingredients:</u>	<u>%W/W</u>
A Octyl dimethyl PABA	7.00
Benzophenone-3	3.00
Arlamol E	7.00
Stearyl alcohol	2.50
Dimethicone	1.00
Arlasolve 200	3.10
Brij 72	3.90
B Water	72.10
Carbomer 934	0.20
C Sodium hydroxide (10% W/W aqueous)	0.20
D *Preservative and fragrance	

*q.s. these ingredients.

Procedure:

Disperse Carbomer in water and heat (B) to 70C. Heat (A) to 72C. and add (B) to (A) with propeller agitation. Slowly add (C) and increase speed of the agitation as needed. Add (D) and replace water lost by evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Sunscreen Lotion (o/w)
SPF 6(DIN 67501)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Demineralized water	25,000
Carbopol 934	0,400
Sodium hydroxide, (10% aq. solution)	2,050
B Tegin M	2,500
Tagat S	1,950
Lanette O	1,800
Paraffin oil (70 mPas)	2,500
Isopropyl myristate	2,000
Myritol 318	3,000
Neo Heliopan, Type AV	2,500
Cetiol MM	2,000
Abil 100	0,500
Phenonip	0,200
C Demineralized water	36,850
Phenonip	0,300
Neo Heliopan, Type Hydro	3,350
used as a 15% aq. solution neutralized with sodium hydroxide corresponding 0,5% active Neo Heliopan, Type Hydro	
1,2-Propylene glycol	2,000
D Demineralized water	10,000
Phosphoric acid, Disodium salt	0,580
Phosphoric acid, Monopotassium salt	0,120
E Perfume Oil	0,400

*Sun Protection Factor

Tested mean SPF 6 according to the German DIN 67501 method.

Manufacturing Process:

Part A:

Disperse the Carbopol in water using high speed agitation. Mix to form a uniform dispersion free from lumps. With stirring add to the dispersion the sodium hydroxide solution to form a high viscid gel.

Part B: Heat to 75C.

Part C:

Heat to 85C. Add part C to part B while stirring rapidly. Mix while cooling to 60C and add the Carbopol gel part A.

Part D:

Dissolve Disodium Phosphate and Potassium Phosphate in water at 60C. Add the buffer solution to the emulsion at 55-60C.

Part E:

Cool while stirring to 35-40C and add the perfume oil. Continue stirring to room temperature.

The pH-value of the finished emulsion should be 7.5 and must be controlled.

SOURCE: Haarman & Reimer: Formulation K 18/1-51093 D/E

Sunscren Lotion (o/w)
SPF 11 (DIN 67501)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Tegin M	3,500
Tagat S	1,500
Lanette O	2,700
Paraffin oil (70mPas)	2,000
Isopropyl myristate	2,000
Myritol 318	3,000
Neo Heliopan, Type E 1000	3,000
Cetiol MM	2,000
Abil 100	0,500
Phenonip	0,200
B Demineralized water	52,500
Carbopol 934	0,400
Sodium hydroxide (10% aq. solution)	2,050
Neo Heliopan, Type Hydro used as a 15% aq. solution neutralized with sodium hydroxide corresponding 2% active Neo Heliopan, Type Hydro	13,350
Phenonip	0,200
C Demineralized water	10,000
Phosphoric acid, Disodium salt	0,580
Phosphoric acid, Monopotassium salt	0,120
D Perfume Oil	0,400

*Sun Protection Factor:

Tested mean SPF 11.8 according to the German DIN 67501 method.

Manufacturing Process:

Part A: Heat to 75C.

Part B:

Disperse the Carbopol well in water using high speed agitation. Mix to form a uniform dispersion free from lumps. Add with stirring to the dispersion Phenonip and the sodium hydroxide solution. Then add the neutralized solution of the 15% Neo Heliopan, Type Hydro and heat to 85C. Add part B slowly with thorough agitation to part A. Then cool with stirring to 60C.

Part C:

Dissolve Dicalcium Phosphate and Potassium Phosphate in water at 60C (buffer system). Add part C to part A/B and cool with stirring to 35-40C.

Part D:

Add the perfume oil and continue stirring to room temperature.

The pH value of the finished emulsion should be 7.5 and must be controlled.

SOURCE: Haarman & Reimer: Formulation K 18/1-51097/E

Sunscreen Lotion (O/W)
SPF 4 (DIN 67501)

<u>Ingredients:</u>		<u>%(w/w)</u>
A	Arlatone 983 S	1,500
	Brij 76	1,000
	Lanette O	1,200
	Paraffin oil (70 mPas)	2,000
	Cegesoft C24	3,000
	Eutanol G	5,000
	Baysilone Fluid M10	1,000
	Neo Heliopan, Type E 1000	3,500
	Solbrol P	0,080
B	Demineralized water	52,370
	1,2 Propylene glycol	2,000
	Solbrol M	0,200
	Germa11 115	0,150
C	Demineralized water	25,000
	Carbopol 934	0,300
	Sodium hydroxide (10% solution in water)	1,300
	Perfume Oil	0,400

Manufacturing Process:

Part A: Heat up to 75C.

Part B: Heat up to 85C. Add part B to part A while stirring.
Cool with stirring to 55C.

Part C: Disperse the Carbopol in the water using high speed agitation. Mix to form a uniform dispersion free from lumps. Add sodium hydroxide solution while stirring to form a high viscid gel. Add part C to part A/B while stirring. At 35C add the fragrance and cool down while stirring to room temperature. The pH value of the finished emulsion should be 7-7.5.

SOURCE: Haarman & Reimer: Formula K 18/1-51 090 /E

Sunscreen Lotion (o/w)
SPF 18 (FDA-OTC)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Neo Heliopan, Type AV	7,500
Neo Heliopan, Type MA	5,000
Isopropyl myristate	3,000
Myrj 52	2,000
Cutina MD	3,000
Promulgen D	2,000
Antaron V-220	4,000
Baysilone Fluid M 10	2,000
 B Demineralized water	 45,830
Carbopol 940; used as a 2% aq. solution	15,000
1,2-Propylene glycol	2,000
Trilon BD	0,100
 C Neo Heliopan, Type Hydro used as a 30% aq. solution neutralized with triethanolamine corresponding 2% active Neo Heliopan Type Hydro	 6,670
 D Triethanolamine	 0,500
 E Germaben II	 1,000
Perfume Oil	0,400

*Sun Protection Factor:

Tested mean SPF value 18.25 on a five subject panel
according to the FDA-OTC proposed method.

Manufacturing Process:

In a suitable vessel weigh phase A and heat to 75C with agitation. In another vessel able to contain the entire batch, weigh phase B and heat to 75C with agitation. Slowly add phase A to phase B, mix for 10 minutes and add phase C. Mix until uniform and start cooling with continuous agitation. Cool to 40C and add phases D and E. Continue cooling with agitation to 28-25C and package.

SOURCE: Haarman & Reimer: Formulation K 18/1-51677/E

Sunscreen Lotion (w/o)
SPF 10 (DIN 67501)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Arlachel 481	3,500
Arlachel 989	1,500
Eutanol G	2,250
Isopropyl isostearate	2,250
Paraffin oil (70 mPas)	3,340
Neo Heliopan, Type E 1000	4,000
Neo Heliopan, Type AV	4,000
Neo Heliopan, Type BB	1,000
Baysilone Fluid M 10	1,000
Vaseline Type Merkur 1546	7,500
Amerchol L 101	1,000
Solbro1 P	0,080
B Demineralized water	65,380
Solbro1 M	0,200
Glycerin 86%	2,000
Magnesium sulfate	0,500
C Perfume Oil	0,500

*Sun Protection Factor:

Tested mean SPF 10.6 according to the German DIN 67501 method.

Manufacturing Process:

Part A: Heat to 75C.

Part B:

Heat to 85-90C. Add part B to part A slowly under thorough stirring. At 70C homogenize the emulsion for a few minutes.

Part C:

Continue cooling under stirring and add the perfume oil at 35C into the emulsion. Then continue stirring to room temperature.

SOURCE: Haarman & Reimer: Formulation K 18/1-51098/E

Sunscreen Lotion (o/w) (cold processing)
SPF 6 (FDA-OTC)*, waterproof**

<u>Ingredients:</u>		<u>%(w/w)</u>
A	Demineralized water	77,500
	1,2-propylene glycol	2,000
	Arosol	0,500
	Solbrol M	0,250
	Solbrol P	0,100
	Trilon B liquid	0,100
B	Neo Heliopan, Type AV	3,000
	Neo Heliopan, Type E 1000	3,000
	Paraffin oil (70 mPas)	6,500
	Cetiol S	5,000
	Lameform TGI	1,000
	Perfume oil	0,300
	Pemulen TR-1	0,250
	Carbopol 954	0,050
C	Triethanolamine	0,450

***Sun Protection Factor(SPF):**

The SPF was determined on a five subject panel test according to the FDA-OTC proposed method.

****Waterproof:**

The procedure for determining "waterproof" effectiveness was 20 minutes moderate activity in water. The SPF before water immersion was 5.7 and after water immersion 6.1.

Manufacturing Process:

Part A:

Dissolve Arosol, Soltrol P and M in propylene glycol. Add the mixture and Trilon B liquid to the water.

Part B:

Mix all ingredients (without Permulen and Carbopol). Disperse Carbopol and Pemulen very carefully with high speed agitation. Then add part B to part A while stirring. Stir for 45 minutes.

Part C:

Add triethanolamine while stirring and stir until homogeneous. The pH-value of the finished emulsion should be approx. 7 and has to be controlled.

SOURCE: Haarman & Reimer: Formulation K 18/1-51 669 C/E

Sunscreen Lotion
SPF 30 (FDA-OTC)*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Neo Heliopan, Type AV	7,500
Neo Heliopan, Type BB	6,000
Neo Heliopan, Type 303	9,000
Ganex WP 660	3,000
Lanette O	0,500
Abil 100	2,000
Protachem SQI	0,200
 B Deionized water	 52,150
Carbopol 940 used as a 2% aq. solution	5,000
Pemulen TR-1 used as a 2% aq. solution	10,000
1,2-Propylene glycol	3,000
 C Triethanolamine	 0,250
 D Germaben II	 1,000
Perfume Oil	0.400

***Sun Protection Factor:**

Tested SPF 31.5 on a five subject panel according to the FDA-OTC proposed method.

Manufacturing Process:

In a suitable vessel weigh phase A, heat up to 80C-85C and mix until uniform. In another vessel able to contain the entire batch, weigh phase B, heat to 80C and mix until uniform. Slowly add phase A to phase B with agitation and mix for ten minutes. Slowly add phase C and start cooling. Cool with continuous agitation to 40C and add phase D. Continue cooling with agitation to 28C-25C. Mill and package.

SOURCE: Haarman & Reimer; Formulation H 101-47-5

Sunscreen Lotion (O/W)
Tested SPF 10

<u>Ingredients:</u>	<u>%(w/w)</u>
A Arlacet 165	3.00
Eumulgin B 2	1.00
Lanette O	1.15
Myritol 318	4.00
Cetiol OE	5.00
Abil 100	1.00
Bentone Gel MIO	3.00
Cutina CBS	1.00
Neo Heliopan, Type AV	3.00
Neo Heliopan, Type E 1000	3.00
Neo Heliopan, Type MBC	1.00
Neo Heliopan, Type BB	0.70
 B Demineralized water	 63.05
Phenonip	0.50
Glycerin 86%	3.00
Veegum ultra	1.00
Natrosol 250 HHR	0.30
Zinc Oxide neutral H&R	5.00
 C Perfume oil	 0.30

Manufacturing Process:

Part A: Heat up to 75C with thorough agitation.

Part B:

Add Phenonip and glycerin to the water. Heat up to 95C. Then add the Veegum ultra and the Natrosol during high speed agitation. Then disperse Zinc Oxide Neutral H&R in the water phase. Add Part B to Part A while stirring. Cool down while stirring to room temperature.

Part C:

At 30C add the perfume oil to Part A/B and homogenize the emulsion.

The pH-value of the finished emulsion should be approx. 7 and has to be checked.

Instruction:

In EEC countries the use of more than 0.5% Benzophenone-3 in sunscreen products is liable to declare: contains Oxybenzone.

SOURCE: Haarman & Reimer: Formula K 18/1-21287/E

Sunscreen Lotion (O/W)
Tested SPF 16

<u>Ingredients:</u>	<u>%(w/w)</u>
A Arlace1 165	3.00
Eumulgin B2	1.00
Lanette O	1.00
Myritol 318	4.00
Cetiol OE	5.00
Abil 100	1.00
Bentone Gel MIO	3.00
Neo Heliopan, Type AV	4.00
Neo Heliopan, Type E 1000	4.00
Cutina CBS	1.00
 B Demineralized water	 49.60
Glycerin 86%	3.00
Phenonip	0.50
Neo Heliopan, Type Hydro; used as a 15% solution	13.30
neutralized with sodium hydroxide (active: 2.00%)	
Veegum ultra	1.00
Natrosol 250 HHR	0.30
Zinc Oxide neutral H&R	5.00
 C Perfume oil	 0.30

Manufacturing Process:

Part A: Heat up to 75C with thorough agitation.

Part B:

Add Phenonip, glycerin and the Neo Heliopan, Type Hydro solution to the water. Heat up to 95C. Add Veegum ultra and Natrosol during high speed agitation. Then add Zinc Oxide neutral H&R and disperse. Add Part B while stirring to Part A. Continue stirring to toom temperature.

Part C:

At 30C add the perfume oil to Part A/B and homogenize the emulsion.

The pH-value of the finished emulsion should be approx. 7.5 and has to be checked.

SOURCE: Haarman & Reimer: Formulation K 18/1-21284/E

Sunscreen Lotion (w/o)
SPF 6 (FDA-OTC), waterproof*

<u>Ingredients:</u>	<u>%(w/w)</u>
A Abil EM 90	2,000
Tegin T 4753	1,000
Cetiol S	17,000
Paraffin oil (34 mPas)	8,500
 B Demineralized water	 58,450
Neo Heliopan, Type Hydro used as a 30% aq solution neutralized with triethanolamine corresponding 3% active Neo Heliopan, Type Hydro	10,000
1,2-Propylene glycol	2,000
Triethanolamine	0,350
Phenonip	0,400
 C Perfume Oil	 0,300

***Sun Protection Factor:**

Tested mean SPF value before swim 6.32 and after swim 5.76
on a five subject panel according to the FDA-OTC proposed
method.

Manufacturing Process:

Part A: Heat to 70C.

Part B:

Dissolve the ingredients in the water. The pH value of the
water phase part B should be 7.5 and must be controlled. Now
add part B while slowly stirring to part A within a time of 3-5
minutes (hot/cold procedure).

Part C:

Continue stirring, at 30C add the fragrance. Then pass the
emulsion through a homogeniser (colloid mill).

SOURCE: Haarman & Reimer: Formulation K 18/1-51566 A/E

Sunscreen Lotion (W/O)
Tested SPF 11

Ingredients:

	<u>% (w/w)</u>
A Dehymuls HRE 7	4.00
Lameform TGI	4.00
Pemulgin 3220	1.50
Isopropyl isostearate	8.00
Cetiol OE	7.50
Baysilone Fluid M 10	1.00
Vitamin E Acetate	0.50
Neo Heliopan, Type AV	4.00
Neo Heliopan, Type E 1000	4.00
Neo Heliopan, Type MBC	1.00
Neo Heliopan, Type BB	1.50
B Demineralized water	54.10
Glycerin 86%	3.00
Phenonip	0.50
Zinc Oxide neutral H&R	5.00
C Perfume oil	0.40

Manufacturing Process:

Part A: Heat up to 75C with thorough agitation.

Part B:

Heat up to 90C (without the Zinc Oxide neutral H&R). Then add and disperse the Zinc Oxide neutral H&R. Add Part B to part A slowly while stirring. Continue stirring to room temperature.

Part C:

At 40C add the perfume oil to part A/B and homogenize the emulsion.

Instruction:

In EEC countries the use of more than 0.5% Benzophenone-3 in sunscreen products is liable to declare: contains Oxybenzone.

SOURCE: Haarman & Reimer: Formulation K 18/1-51835/E

Sunscren Moisturizing Cream

This formula demonstrates the stabilizing properties of Siliconyl Beeswax. Incorporated into this formula is the sunscren Neo Heliopan AV (Octyl methoxycinnamate) giving this formula an appropriate SPF value. The cream has high gloss and excellent skin feel.

Oil Phase:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	6.0%
Elefac I 205 (Bernel)	1.4%
Glycerol Monostearate (Henkel)	1.4%
Isopropyl Palmitate (Unichema)	2.0%
Ceresine 130/135 (Koster Keunen)	1.3%
Propyl Paraben (Sutton)	0.2%
Squalane (Centerchem)	1.8%
Jojoba oil (Jojoba Growers)	1.0%
Liquapar (Sutton)	0.4%
Neo Heliopan AV (H&R)	5.0%
Vitamin E (BASF)	1.0%
Octyl Palmitate (Inolex)	2.5%
Shea Butter (Koster Keunen)	2.5%
Isostearic acid (Unichema)	3.0%
Lipopeg 100-S (Lipo)	1.5%
Siliconyl Beeswax (Koster Keunen)	3.0%
Emulsifying Beeswax (Koster Keunen)	1.7%
Hexanediol Behenyl Beeswax (Koster Keunen)	1.0%
Gamma Orzanol (Koster Keunen)	1.0%

Water Phase:

Water (Distilled)	44.3%
Butylene Glycol (Hoechst)	3.0%
Sodium Borate (Borax)	0.8%
Methyl Paraben (Sutton)	0.3%
Aloe Vera Gel 1:1 (Active Organics)	3.0%
Glycerin 99%	4.0%
Keltrol TF (Kelco)	0.3%

Water Phase II:

TEA 99% (Dow)	1.0%
D.I. Water	5.0%

Active Phase:

Silicone 245 (Dow)	1.0%
Phenonip (Nipa)	0.5%

Procedure:

Heat the water phase to 80C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase to 82C is maintained. At the last minute added the gamma orzanol to the oil phase, allow to disperse then slowly add the oil phase to the water phase while mixing. Allow to cool to 45C and add the silicone and the phenonip. Cool to room temperature.

Adaptation of formula and its influence on the product:

It is easy to alter the sunscren to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen, Inc.: Suggested Formulations

Tanning Accelerator

Part A:	<u>Parts by Weight</u>
Water	500.0
Carbomer 934	2.0
Part B:	
Rosswax 1824	15.0
Rosswax 2540	6.0
GMS-SE	6.0
Ross Jojoba Oil	4.0
Escalol 507	12.0
Coconut Oil #76	25.0
Unipertan P-24	3.0
Part C:	
Germaben II	6.0
Part D:	
Fragrance	q.s.
Part E:	
Triethanolamine	4.5

Procedure:

In a steam jacketed kettle heat the water and add the Carbomer 934 until fully dispersed under agitation. In a separate steam jacketed kettle melt the Oil Phase. When fully melted, add the Oil Phase to the Water Phase under agitation. Then add the Germaben II, then the fragrance and finally add the TEA with high agitation until smooth. Cool to 130F and package.

Sun Screen Stick

Ingredients:	<u>%</u>
Ross White Bleached Beeswax	20.0
Ross Pure Refined Candelilla Wax	16.1
Ross Pure #1 Yellow Carnauba Wax	4.0
Petrolatum	16.1
IPM	10.0
Mineral Oil 60/70	32.6
Ross Jojoba Oil	1.2
Amerscreen P	q.s.

Procedure:

Heat all ingredients in a steam jacketed kettle to 170F under agitation. When fully mixed cool to 145F and package. (Note: Capping may be necessary).

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Titanium Dioxide Based Waterproof Sunscreen
SPF 12(Tested)

Dermacryl 79 provides water resistance, increased moisture protection and rub-off resistance.

<u>Ingredients:</u>	<u>% W/W</u>
Phase A:	
Ceraphyl ICA	7.00
Finsolv TN	2.00
Emersol 132	2.00
Myrj 52S	2.00
Abil B8852	1.00
Cetyl Alcohol	1.00
Cerasynt SD	0.50
Armeen DM 18D	2.00
Dermacryl-79	2.00
Tioveil FIN	10.00
Phase B:	
Deionized Water	59.30
Carbomer 941 (2% Aq. Soln)	10.00
Methylparaben	0.15
Propylparaben	0.10
Triethanolamine (99%)	0.80
Phase C:	
Germall II	0.15
Phase D:	
Fragrance	Q.S.

Procedure:

Combine Phase B and heat to 80C. In a separate vessel combine Phase A except for Dermacryl-79 and Titanium Dioxide and heat to 80C. Slowly sift in Dermacryl-79 with constant stirring until completely dissolved. Add Titanium Dioxide with constant stirring until completely dispersed. Add Phase A to Phase B at 80C and mix for 30 minutes. Cool to 40C and add Phase C and Phase D, homogenize, cool to room temperature and package.

SOURCE: National Starch and Chemical Co.: Formula 7023-24A

Ultra Violet Absorbing Sunscreen

Veegum Ultra, magnesium aluminum silicate, is used to thicken and stabilize this sunscreen emulsion. Two ultra violet absorbers are used to achieve an estimated SPF (Sun Protection Factor) of approximately 15. This smooth, flowable lotion spreads easily and dries quickly, leaving non-tacky after-feel.

<u>Ingredient:</u>	<u>% by Wt.</u>
A Veegum Ultra (Magnesium Aluminum Silicate)	1.50
Deionized Water	70.50
Glycerin	5.50
B PEG-150 Distearate	3.00
Diocetyl Malate*	2.00
Mineral Oil	4.00
Cetyl Alcohol	0.50
Benzophenone-3	3.00
Octyl Dimethyl PABA	7.00
Steareth-2	0.90
Steareth-20	2.10
C Preservative, Fragrance	q.s.

*Ceraphyl 45

Procedure:

Heat the water to 55C. Slowly add Veegum Ultra to the water while stirring with a propeller mixer at 700 rpm. Increase the mixer speed to 1500-1700 rpm and mix for 30 minutes, maintaining temperature at 55C. Add glycerin and mix for 5 minutes. Mix B ingredients and heat to 60C. Add B to A while mixing at 1500-1700 rpm. Continue mixing for 30 minutes. Avoid air entrapment. Slow mixing speed to 1000 rpm and continue mixing while cooling to 35C. Add C and mix until uniform. Package.

Product Characteristics:

Viscosity: 5000-6000 cps
pH: 5.0+-0.2

Comments:

This prototype formula is designed to serve as a guide for the development of new products or the improvement of existing ones.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 448

Un-Buffered Self Tanning Cream

Resulting product is a soft cream that could be dispensed from a flexible tube or a jar. The formulation utilizes 5% Dihydroxyacetone (DHA) as the self tanning ingredient. The formulation contains no amines to react with Dihydroxyacetone. The formulation applies easily and evenly and forms a moderately thick film allowing maximum tan color development. The finished product should be stored away from light and at temperature conditions below 40C to prevent DHA from degrading.

	<u>%w/w</u>
A. Deionized Water	63.10
Methylparaben (Lexgard M)	0.20
2,4-Dichlorobenzyl Alcohol (Myacide SP)	0.20
Propylene Glycol USP	1.00
B. Hydroxyethylcellulose (Cellosize QP-15,000H)	0.40
C. Glyceryl Stearate (Lexemul 515)	6.00
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	3.00
Caprylic/Capric Triglyceride (Lexol GT-865)	4.00
Isobutyl Stearate (Lexol BS)	2.00
Propylparaben (Lexgard P)	0.10
D. Dihydroxyacetone	5.00
Deionized Water	15.00

Procedure:

1. Combine section "A" heating to 75-80C. Use a propeller mixer for agitation.
2. Sprinkle section "B" into section "A". Increase mixing speed to create a vortex during addition, then slow to highest speed which does not produce a vortex.
3. Combine section "C". Heat to 80-85C with continuous slow mixing.
4. When sections "AB" and "C" are homogeneous and at the designated temperatures add section "C" to sections "AB". Increase mixing speed to a high speed. Begin cooling. Slow mixing speed to highest speed possible that will not cause vortexing.
5. Using gloves, combine section "D" and mix until clear.
6. Add section "D" to sections "ABC" at 35-40C. Continue mixing and cooling.
7. At 33-35C adjust for water loss.
8. Mix batch until it reaches 30.

Physical Properties:

Viscosity: 20,000 cPs @ 25C (Brookfield RVT, TA @ 10 rpm)
 24 hour sample
 pH: 5.0 @ 24C

SOURCE: Inolex Chemical Co.: Formulation 398-105-2

Waterproof Sun Protection Lotion
(with 8% Titanium Dioxide)
SPF 15

Ingredients:

	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Octyl Stearate (Tegosoft OS)	12.0
Cyclomethicone (Abil B 8839)	8.0
Cetyl Dimethicone (Abil Wax 9801)	3.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	1.0
Mineral Oil	2.0

Phase B:

Titanium Dioxide	8.0
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Phase C:

Water	60.0
Sodium Chloride	0.5

Phase D:

Fragrance, Preservatives	Q.S.
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1. Combine the ingredients of Phase A. Heat to 80C to melt and disperse the waxes. Cool to 60C.
2. Add the Titanium Dioxide. Disperse and mill the pigment. Cool to 50C.
3. Mix Phase C. Heat to 50C. Add to Phase A/B slowly with low energy stirrer. Maintain a milky appearance at all times.
4. Cool to 35C. Add Phase D. Homogenize.

W/O Sunscreen Lotion
SPF 22

Ingredients:

	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Octyl Palmitate (Tegosoft OP)	1.0
Octyl Stearate (Tegosoft OS)	5.1
Mineral Oil	1.5
Beeswax	1.2
Hydrogenated Castor Oil	0.8

Phase B:

Octyl Methoxycinnamate	5.0
Titanium Dioxide	5.0
Cyclomethicone (Abil B 8839)	4.4

Phase C:

Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.

1. Heat Phase A to 85C to melt and disperse waxes.
2. Cool Phase A to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Roller mill to reduce particle size of Titanium Dioxide.
4. Cool to 50C. 5. Heat Phase C to 50C. Add Phase C while mixing. 6. Cool to 35C and homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formulas BJS-1-45/GRH-2-37

Waterproof Sunscreen Gel (Tested SPF 30)

Dermacryl LT provides water resistance, increased moisture protection and rub-off resistance as well as improved rub-in properties.

<u>Ingredients:</u>	<u>%W/W</u>
Anhydrous Ethanol	65.50
Klucel MF	1.00
Dermacryl-79	1.00
Finsolv TN	10.00
Dow Corning 344 Fluid	3.00
Abil B8852	1.00
Neo Heliopan Type AV	7.50
Neo Heliopan Type OS	5.00
Neo Heliopan Type BB	6.00

Procedure:

Dissolve Hydroxypropyl Cellulose in SD Alcohol 40. When complete, slowly sift in Dermacryl-79. Combine remaining ingredients, then add to alcohol mixture. Stir until uniform. Formula 7761-133

Waterproof Sunscreen Spray Mist
SPF 16 (Tested)

Dermacryl LT provides water resistance, increased moisture protection and rub-off resistance.

<u>Ingredients:</u>	<u>%W/W</u>
<u>Phase A:</u>	
Anhydrous Ethanol	64.20
Deionized Water	5.00
Triethanolamine (99%)	0.30
Dermacryl-79	1.00
<u>Phase B:</u>	
Neo Heliopan AV	7.50
Neo Heliopan BB	3.00
Neo Heliopan MA	3.50
DC 344 Fluid	5.00
Finsolv TN	10.00
Vitamin E Acetate	0.50
<u>Phase C:</u>	
Fragrance	Q.S.

Procedure:

Combine Phase A except Dermacryl-79. Slowly sift in Dermacryl-79. Mix until complete. Add Phase B. Mix until complete. Add Phase C. Mix until complete and package. Formula 7172-44

SOURCE: National Starch and Chemical Co.: Suggested Formulas

Waterproof Sunscreen W/O Emulsion
SPF 22 (Static)
SPF 21 (Waterproof)

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	4.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	0.5
Benzophenone-3	2.0
Octyl Methoxycinnamate	3.0
Sesame Oil	1.0
Isopropyl Palmitate (Tegosoft P)	3.0
Cyclomethicone (Abil B 8839)	4.0
Octyl Stearate (Tegosoft OS)	3.0
Octyl Palmitate (Tegosoft OP)	2.5
Phase B:	
Water	73.4
Sodium Chloride	0.5
Polyquaternium-10	0.3
Germaben II	0.3
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.	

Waterproof Sunscreen W/O Emulsion
SPF 15

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4	
Isostearate (and) Hexyl Laurate (Abil WE-09)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Polyethylene Wax	0.5
Hydrogenated Castor Oil	0.5
Octyl Methoxycinnamate	3.0
Sesame Oil	1.0
Isopropyl Palmitate (Tegosoft P)	2.0
Cyclomethicone (Abil B 8839)	4.0
Octyl Stearate (Tegosoft OS)	3.0
Octyl Palmitate (Tegosoft OP)	2.5
Isopropyl Myristate (Tegosoft M)	1.0
C12-15 Alkyl Benzoate	2.5
Phase B:	
Water	73.9
Sodium Chloride	0.5
Polyquaternium-10	0.3
Germaben II	0.3
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.	
SOURCE: Goldschmidt Chemical Corp.: Formulas BAM-2-1/BAM-2-15	

Waterproof W/O Sunscreen Lotion Base
SPF 3.5

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone (Abil B 8839)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Phase B:	
Water	72.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

Formulation BJS-1-47

Waterproof W/O Sunscreen Lotion Base
SPF 3.7

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Iso-stearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.4
Octyl Stearate (Tegosoft OS)	6.4
Cyclomethicone (Abil B 8839)	4.3
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.3
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Phase B:	
Water	70.8
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.

Formulation BJS-1-15

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Waterproof W/O Sunscreen Lotion
SPF 21

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.3
Octyl Stearate (Tegosoft OS)	4.2
Cyclomethicone (Abil B 8839)	4.2
Isopropyl Myristate (Tegosoft M)	4.2
Almond Oil	2.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.3
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

Waterproof W/O Sunscreen Lotion
SPF 15

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	5.9
Octyl Stearate (Tegosoft OS)	4.7
Cyclomethicone (Abil B 8839)	4.7
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.7
Almond Oil	2.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.; Formulas BJS-1-35/BJS-1-53

Waterproof W/O Sun Protection Lotion
SPF 17

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Caprylic/Capric Triglyceride (Tegosoft CT)	4.0
Octyl Palmitate (Tegosoft OP)	5.5
Hydrogenated Castor Oil	0.4
Synthetic Wax or Beeswax	0.6
Cyclomethicone (Abil B 8839)	7.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Octyl Methoxycinnamate	5.0
Benzophenone-3	1.5
Menthyl Anthranilate	3.0
Phase B:	
Water	73.9
Sodium Chloride	0.6
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

Waterproof Sun Protection Lotion
(with 8% Titanium Dioxide)
SPF 12

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Octyl Stearate (Tegosoft OS)	13.6
Cyclomethicone (Abil B 8839)	9.1
Cetyl Dimethicone (Abil Wax 9801)	3.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	1.0
Mineral Oil	2.3
Phase B:	
Titanium Dioxide	8.0
Phase C:	
Water	60.0
Sodium Chloride	0.5
Phase D:	
Fragrance, Preservatives	Q.S.

Procedure:

1. Combine the ingredients of Phase A. Heat to 80C to melt and disperse the waxes. Cool to 60C.
2. Add the Titanium Dioxide. Disperse and mill the pigment. Cool to 50C.
3. Mix Phase C. Heat to 50C. Add to Phase A/B slowly with low energy stirrer. Maintain a milky appearance at all times.
4. Cool to 35C. Add Phase D. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Formula BJS-1-43/BJS-1-33

Water Resistant Sunscreen

	<u>% By Weight</u>
A Veegum Pro	1.0
Water	83.2
B Glycerin	1.5
Triethanolamine	0.6
C Amerscreen P	4.0
Cetyl alcohol	0.8
Stearic acid XXX	2.0
SS4267 Fluid	4.0
Isopropyl myristate	2.0
Synchrowax AW1 C	0.4
Cerasynt MN	0.5
Preservative	q.s.

Procedure:

Heat the water to 70 to 75C, then slowly add the Veegum PRO while agitating at maximum available shear. Mix until smooth. Add B to A with slow agitation until smooth. Maintain A/B at 70 to 75C; heat C to 70 to 75C. Add C to A/B and mix until cool.

Consistency: Medium viscosity lotion.

Suggested Packaging: Squeeze or pump bottles.

Comments: Veegum PRO effectively stabilizes the emulsion even at elevated temperatures. This lotion, using silicone fluid to provide an emollient water resistant protective barrier, imparts a non-greasy feel. The Amerscreen P at 4% provides an estimated Sun Protection factor of 8.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 418

Water Resistant Sunscreen

Resulting product is a viscous sunscreen lotion which can be dispensed from a flexible tube or soft bottle. The formulation exhibits exceptional water resistance which is contributed by Lexorez 100. The formula applies easily and leaves a non-greasy film on the skin. The sunscreen active ingredient is Octyl Methoxycinnamate. The SPF value of the formulation is unknown.

	<u>%w/w</u>
A. Deionized Water	71.45
Propylene Glycol USP	7.50
Methylparaben (Lexgard M)	0.20
Tetrasodium EDTA (Hamp-ene Na4)	0.05
B. Carbomer (Carbopol ETD 2055)	0.15
C. Sodium Hydroxide (10% w/w)	QS
D. Glyceryl Stearate (Lexemul 515)	4.00
Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	1.00
Cetyl Alcohol NF	0.50
Aluminum Starch Octenylsuccinate (Dry Flo-PC)	1.00
Caprylic/Capric Triglyceride (Lexol GT-865)	3.00
Isopropyl Palmitate (and) Isopropyl Myristate (and) Isopropyl Stearate (Lexol 3975)	1.00
Tocopherol (Copherol F-1300)	0.05
Propylparaben (Lexgard P)	0.10
Octyl Methoxycinnamate (Escalol 557)	8.00
Glycerin/Diethylene Glycol/Adipate Crosspolymer (Lexorez 100)	2.00

Procedure:

1. Combine all ingredients in phase "A" and heat to 75-80C. Agitate at low speed.
2. Slowly add phase "B" to phase "A". Agitate at a higher speed until all Carbomer is fully dispersed.
3. Combine phase "D" in a separate vessel and heat to 80-85C. Add phase "D" to phase "AB". Mix for five minutes and start to cool.
4. At 45C adjust for water loss. Mix until homogeneous. Then adjust for viscosity using 10% NaOH (9,500+-500 cps using spindle #6 @ 50rpm, 25C). The final product has a pH of approximately 6.0.

SOURCE: Inolex Chemical Co.: Formulation 383-208

W/O SPF15 Sunscreen with Ajidew and Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Di-(Cholesteryl, behenyl, octyldodecyl)	
N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.00
Octyldodecyl Neopentanoate/Elfac I-205	10.00
Dimethicone(and)Trimethylsiloxysilicate/Dow Corning 593	0.50
Propylparaben	0.05
Methylparaben	0.15
Phenoxyethanol/Emeressence 1160	0.60
Benzophenone-3/Uvinul M-40	4.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate/Abil WE09	5.00
Part C:	
Deionized Water	61.40
Sodium Chloride	0.80
Sodium PCA/Ajidew N-50	1.00
Partially Deacetylated Chitin (1.0%)/Marine Dew	2.00
Propylene Glycol	5.00

Procedure:

Pre-melt part A at 50 degrees Centigrade. Add part B to part A. Premix part C until homogeneous. Slowly add part C into part A and B mixture with high shear mixing.

Appearance: White, smooth, shiny lotion. pH: 6.0-6.5

Viscosity: 10,000-20,000 (RVT#6 @ 10rpm @ 25 degrees C)

Sunscreen Lip Balm with Eldew

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Carnauba/Carnauba Wax #1 Yellow	4.00
Ozokerite/Ozokerite Wax JH1680	4.00
Synthetic Beeswax/Synthetic Beeswax JH-1508	10.00
Propylparaben	0.15
Cholesteryl/Behenyl/Octyldodecyl Lauroyl Glutamate/ Eldew CL-301	10.00
Part B:	
Castor Oil	26.55
PPG-3 Hydrogenated Castor Oil/Hetester HCP	15.00
Glyceryl Triacetyl Hydroxystearate/Hetester HCA	15.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	5.00
Octyl Salicylate/Uvinul O-18	2.00
Tocopheryl Acetate/Vitamin E Acetate	0.60
Part C:	
Bisabolol (Synthetic)	0.20

Procedure:

Heat Part A ingredients to 80 degrees Centigrade. Mix until all solids are completely dissolved. Add Part B ingredients. Mix until uniform. Cool to 65 degrees Centigrade. Add Part C. Mix well. Fill.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

W/O SPF 15 Sunscreen with Ajidew and Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
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Part A:

Di(Cholesteryl, behenyl, octyldedecyl) N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.00
Octyldodecyl Neopentanoate/EIefac I-205	10.00
Dimethicone(and)Trimethylsiloxysilicate/Dow Corning 593	0.50
Propylparaben	0.05
Methylparaben	0.15
Phenoxyethanol/Emeressence 1 160	0.60
Benzophenone-3/Uvinul M-40	4.00
Octyl Methoxycinnamate/Parsol MCX	7.50

Part B:

Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate/Abil WE09	5.00
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Part C:

Deionized Water	61.40
Sodium Chloride	0.80
Sodium PCA/Ajidew N-50	1.00
Partially Deacetylated Chitin (1.0%)/Marine Dew	2.00
Propylene Glycol	5.00

Procedure:

Pre-melt part A at 50 degrees Centigrade. Add part B to part A. Premix part C until homogeneous. Slowly add part C into part A and B mixture with high shear mixing.

Appearance: White, smooth, shiny lotion pH: 6.0-6.5

Viscosity: 10,000-20,000 (RVT #6 @ 10 rpm @ 25 degrees C)

Procedure:

Heat Part A ingredients to 80 degrees Centigrade. Mix until all solids are completely dissolved. Add Part B ingredients. Mix until uniform. Cool to 65 degrees Centigrade. Add Part C. Mix well. Fill.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

W/O Sunscreen Lotion
SPF-18

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Octyl Palmitate (Tegosoft OP)	4.5
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Cyclomethicone (Abil B 8839)	5.5
Hydrogenated Castor Oil	0.4
Synthetic Wax	0.6
Octyl Methoxycinnamate	5.0
Benzophenone-3	1.5
Menthyl Anthranilate	3.0
Phase B:	
Water	69.7
Sodium Chloride	0.8
Preservatives	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 85C to incorporate the waxes. Cool to 50C.
 2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
 3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.
- Formula GRH-2-31

W/O Sunscreen Lotion
SPF-17

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4-Isostearate (and) Hexyl Laurate (Abil WE-09)	5.0
Cetyl Dimethicone (Abil Wax 9814)	3.0
Octyl Stearate (Tegosoft OS)	12.0
Cyclomethicone (Abil B 8839)	8.0
Mineral Oil	2.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	1.0
Phase B:	
Titanium Dioxide	8.0
Phase C:	
Water	59.7
Sodium Chloride	0.8
Preservatives	Q.S.

Procedure:

1. Heat Phase A to 85C to melt and disperse waxes.
2. Cool Phase A to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Roller mill to reduce particle size of Titanium Dioxide.
4. Cool to 50C.
5. Heat Phase C to 50C. Add Phase C while mixing.
6. Cool to 35C and homogenize.

Formula GRH-2-33

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Section XII

Miscellaneous

Aloe Medicated Gel
With Alcohol (SDA 39C)

<u>Formula:</u>	<u>%</u>	<u>Per 2000g</u>
l-Menthol	6.00	120.00
SDA 39C	8.00	160.00
Tween 60	3.00	60.00
Aloe Moist	83.00	1660.00

Procedure (With alcohol, SDA 39C):

1. Add Aloe Moist to large beaker. Fit with stirrer.
2. In a separate container, mix the menthol, alcohol and Tween and stir until clear.
3. With slow-medium agitation add the mixture to the Aloe Moist.
4. Stir until a milky white and homogeneous.
5. Fill into HDPE jars.

Aloe Medicated Gel
Without Alcohol

<u>Formula:</u>	<u>%</u>	<u>Per 75g</u>
l-Menthol	3.00	2.25g
Tween 60	12.00	9.00g
Aloe Moist	79.70	59.78g
3% Carbopol 940	5.00	3.75g
TEA	0.30	0.225g
FDC Yellow #5, 1%	qs	2 drops
FDC Blue #1, 1%	qs	2 drops

Procedure (Without alcohol):

1. Mix l-menthol and Tween 60 together and heat to about 45C.
2. Heat Aloe Moist to 55-58C - add colors.
3. Add the menthol/Tween mix to the Aloe Moist with stirring.
4. Add the 3% Carbopol 940 and mix well.
5. Add the TEA and mix well.
6. Cool to room temp with slow agitation.

SOURCE: Terry Laboratories, Inc.: Suggested Formulations

Cetylpyridinium Chloride Mouthwash

<u>Ingredients:</u>	<u>%W/W</u>
A Cetylpyridinium chloride, NF	0.10
Citric Acid, USP	0.10
Peppermint oil, USP	0.07
Eucalyptus oil, NF	0.02
Clove oil, USP	0.05
Tween 60	0.30
Alcohol, USP	10.00
B *Color	
Sorbo, Sorbitol solution, USP	20.00
Water, deionized	69.36

*q.s. these ingredients.

Procedure:

Dissolve the cetylpyridinium chloride and citric acid in water. Add the peppermint oil, eucalyptus oil and clove oil to the Tween 20. Add the alcohol slowly with agitation and add the water mixture. Add the Sorbo, water and color to make the desired volume.

Spearmint Mouthwash

<u>Ingredients:</u>	<u>%W/W</u>
A Tween 60, polysorbate 60	0.32
Spearmint flavor oil	0.24
B Arlasolve DMI	10.00
Ethanol (190 proof)	10.00
C Water	69.14
Sodium saccharin USP	0.10
Sodium benzoate	0.20
D Sorbo, 70% sorbitol solution	10.00

Procedure:

Mix (A) well. Mix (B) well. Add (B) to (A), mix well. Mix (C) well. Add (D) to (C), mix well. Add (CD) to (AB) and mix well.
Formula PC 8207

SOURCE: ICI Surfactants: Suggested Formulations

Clear Gel without DEA

This formula contains no diethanolamine, yet is able to produce a microemulsion gel which exhibits clarity and possesses a manageable set point (80C), using potassium hydroxide in place of the DEA. Lower ethoxylates like the Volpos and Crodafoses used here are the emulsifiers of choice for clear gel formulations, since less ethoxylated materials have been shown to cause less irritation. The powerful emulsifying properties of these esters yield an extremely efficient system in which a 1:1 ratio of emulsifier:oil concentration is achieved - a balance that minimizes irritation potential and optimizes gel formation.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Deionized Water	52.6
Propylene Glycol	12.0
Part B:	
Volpo 3 (Oleth-3)	7.0
Volpo 5 (Oleth-5)	4.0
Crodafos N3A (Oleth-3 Phosphate)	2.0
Crodafos N10A (Oleth-10 Phosphate)	4.0
Mineral Oil (70ssu)	17.0
Part C:	
KOH (25% Aq. Soln.)	1.4

Procedure:

Combine ingredients of Part A with mixing and heat to 90-95C. Combine ingredients of Part B with mixing and heat to 90-95C. Add Part C to Part A with mixing. Add Part A/C to Part B with mixing using a propeller blade mixer. Avoid aeration as much as possible. Cool to desired fill temperature, cooling at a 2C/min rate. Set point approximately 80C.

Emulsifier:Oil Ratio: 1:1

Set Point: 80C

Formula CG-25

Silicone Emulsion

This product uses Incroquat Behenyl TMS to form a stable emulsion (1 month @ 50C), specifically with Fluid 200 (200 cs) but also suitable for other silicone fluids, for Volatile Silicone and dimethicone.

<u>Ingredients:</u>	<u>%</u>
Part A:	
Deionized Water	72.0
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	7.0
Silicone Fluid (200cps)	20.0
Part B:	
Germaben II	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 80-85C. Cool to 40C with mixing and add Part B. Cool with mixing to desired fill temperature.

Formula SC-231

SOURCE: Croda Inc.: Suggested Formulations

Clear Ringing Gel

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil, Carnation brand	11.00
Brij 93	6.00
Arlasolve 200L	27.80
B Propylene glycol	5.00
Sorbo	7.00
Water, deionized	43.20

Procedure:

Heat (A) to 90C and (B) to 95C. Add (B) to (A) with moderate stirring. Remove from heat and continue to stir as the mixture cools. When the mixture turns clear (about 65C) pour into tubes or jars.

Clear Ringing Gel

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	5.00
Mineral oil, Carnation brand	6.00
Brij 93	6.00
Arlasolve 200L	27.80
B Propylene glycol	5.00
Sorbo	7.00
Water, deionized	43.20

Procedure:

Heat (A) to 90C and (B) to 95C. Add (B) to (A) with moderate stirring. Remove from heat and continue to stir as the mixture cools. When the mixture turns clear (about 65C) pour into tubes or jars.

Formula PC 8180

Clear Gel Base

<u>Ingredients:</u>	<u>%W/W</u>
Arlasolve DMI	96.00
Hydroxypropyl cellulose	4.00

Procedure:

Slowly sprinkle the hydroxypropyl cellulose in the Arlasolve DMI as you rapidly agitate. Stir until clear. A gel will form upon standing. Gel strength varies with thickener concentration. Active ingredients should be dissolved in Arlasolve DMI prior to addition of hydroxypropyl cellulose.

SOURCE: ICI Surfactants: Suggested Formulations

Cream Sachet

<u>Ingredients:</u>	<u>%W/W</u>
A Arlace1 165	16.00
Spermaceti	5.00
Cetyl alcohol	5.00
Isopropyl myristate	3.00
B Atlas G-2162	2.00
Water, deionized	59.00
*Preservative	
C Fragrance	10.00

q.s. these ingredients

Procedure:

Heat (A) to 75C. Heat (B) to 77C. Add (B) to (A) slowly with moderate but thorough agitation. Add (C) at 45C. Stir until room temperature and package.

Liquid Cologne

<u>Ingredients:</u>	<u>%W/W</u>
Perfume oil	5.00
Tween 20	21.50
Water	73.50
*Preservative	

*q.s. these ingredients.

Procedure:

Mix the perfume oil and Tween 20. Slowly add this mixture to the water and add preservative. Stir until a clear product results.

Solid Cologne

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic acid, triple pressed	5.00
Sorbo	2.00
Alcohol, SD-40	83.00
B Sodium hydroxide to saponify the 5% stearic acid	
Water, deionized	5.00
C Perfume oil	5.00

Procedure:

Heat (A) to 65C and (B) to 70C. Add (B) to (A) with agitation. Add (C) at 55-60C. Pour into heated molds. Cool slowly to prevent formation of air pockets and to achieve the greatest translucency. Unmold, wrap in foil and package in air tight containers.

SOURCE: ICI Surfactants: Suggested Formulations

High-Luster Toothpaste

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
(1) Sorbitol (70% solution)	30.00
(2) Deionized Water	17.52
Part B:	
(3) Kaopolite SF	24.25
(4) Dicalcium Phosphate Dihydrate	24.25
(5) Sodium Lauryl Sulfate	2.00
(6) Carboxymethyl Cellulose (medium viscosity)	0.80
(7) Trimagnesium Phosphate	0.50
(8) Korthix H	0.25
(9) Sodium Saccharin	0.20
(10) Methyl Paraben	0.18
(11) Propyl Paraben	0.05
Part C:	
(12) Flavoring Oil	q.s.

Procedure:

Mix (1) and (2). In a separate container, thoroughly dry-blend ingredients (3) through (11). Add Part B slowly to Part A. Mix thoroughly. Add Part C, mill twice and deaerate.

Follow recommended handling practices of the supplier of each product used.

Denture Cleaner

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	30.8
(2) Korthix H	1.5
(3) Carboxymethyl Cellulose (medium viscosity)	0.5
(4) Sorbitol (70% solution)	10.0
(5) Glycerin	10.0
(6) Sodium Saccharin	0.2
(7) Kaopolite 1147	45.0
(8) Sodium Lauryl Sulfate	2.0
(9) Flavor, Preservative & Colorant	q.s.

Procedure:

Mix (2) into (1) with high shear. Add (3) and continue mixing at high shear until well dispersed. Reduce speed and add (4), (5), and (6). Slowly add (7) and continue to mix until well dispersed. Then add (8). Add (9) and mill twice and deaerate.

Follow recommended handling practices of the supplier of each product used.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Hydrophilic O/W Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	25.00
Petrolatum	25.00
B Propylene glycol	12.00
Myrj 52	5.00
Methyl paraben & propyl paraben	0.40
Water, deionized	32.60

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

Emollient Anhydrous Ointment

<u>Ingredients:</u>	<u>%W/W</u>
G-1726	10.00
Arlamol E	40.00
Arlacel 186	50.00

Procedure:

Heat all ingredients until liquid and stir until room temperature.

W/O Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
Petrolatum	54.00
Arlacel 83, sorbitan sesquioleate	6.00

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate, but thorough agitation. Stir until room temperature.

Washable Anhydrous Base

<u>Ingredients:</u>	<u>%W/W</u>
Petrolatum	95.00
Tween 61 or Tween 81 or Myrj 52	5.00

Procedure:

Heat all ingredients until liquid and stir until room temperature.

Washable Anhydrous Base

<u>Ingredients:</u>	<u>%W/W</u>
Hydrophilic Petrolatum, U.S.P.	50.00
Tween 60	50.00

Procedure:

Heat all ingredients until liquid and stir until room temperature.

SOURCE: ICI Surfactants: Suggested Formulations

Jojoba Massage Oil

	%
Mineral Oil	61.5
Isopropyl Palmitate	24.0
Coconut Oil #76	5.0
Jojoba Oil	2.0
Almond Oil Sweet	2.0
Acetulan	2.0
Glucam P-20	1.0
Dow Corning Silicone 344	2.0
Vitamin E	0.5
Fragrance	q.s.

Procedure:

Load all ingredients into a stainless steel kettle. Warm slightly until clear with agitation, add Fragrance and package.

Massage Oil

	%
Solulan P B 5	3.0
Dow Corning Silicone #344	16.0
Emerest 2314	13.0
Drakeol #9	31.0
Coconut Oil	31.0
Escalol 507	3.0
Ross Jojoba Oil	3.0
Perfume Nova Rome DE 51	q.s.

Procedure:

Load all ingredients into a vessel. Warm slightly until clear under agitation and package.

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Micro-Emulsions with Aloe Vera and d-Limonene

The following formulas are clear, microemulsions of d-Limonene and Aloe Vera. They represent the range of d-Limonene and Aloe Vera concentrations commonly used as degreasing solvent cleaners. These formulas are generally used by diluting in water (1->16 oz./gallon depending on the use requirements). The formulas are clear and exhibit a bloom effect upon dilution.

	<u>%w/w</u>
d-Limonene	10.0
Monamulse DL-1273 ^V	18.0
Isopropanol	10.0
Water	42.0
Aloe Vera Gel (Terry AG002)	20.0

	<u>%w/w</u>
d-Limonene	35.0
Monamulse DL-1273	28.0
Isopropanol	5.0
Water	12.0
Aloe Vera Gel (Terry AG002)	20.0

	<u>%w/w</u>
d-Limonene	65.0
Monamulse DL-1273	23.0
Aloe Vera Gel (Terry AG002)	12.0

Procedure:

In all cases, mix Monamulse DL-1273 with d-Limonene until completely dissolved and of uniform consistency. Add the Isopropanol, mixing until homogeneous. Pre-mix Aloe Vera Gel with water. Slowly add to batch with stirring until uniform.

SOURCE: Terry Laboratories, Inc.: Suggested Formulations

Modified Petrolatum

<u>Ingredients:</u>	<u>%W/W</u>
White petrolatum USP	75.00
Arlamol ISML, Isosorbide monolaurate	20.00
G-695, glycerol monooleate	5.00

Procedure:

Add phase (A) together and stir with slight heat. Add phase (B) and heat to 80C and stir in phase (C). Cool while stirring and add phase (D).

Formula CP 1051

Modified Petrolatum

<u>Ingredients:</u>	<u>%W/W</u>
Petrolatum, White Protopet	60.00
Span 40, sorbitan monopalmitate	24.00
Arlatone G, PEG 25 hydrogenated castor oil	16.00

Procedure:

Melt and mix.

Formula CP 1095

Modified Petrolatum

<u>Ingredients:</u>	<u>%W/W</u>
Petrolatum, White Protopet	50.00
Span 40, sorbitan monopalmitate	30.00
Arlatone G, PEG 25 hydrogenated castor oil	20.00

Procedure:

Melt and mix

Formula CP 1096

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	71.40
Atlas G73500	14.30
B Brij 30	9.50
C Dow Corning 344 cyclomethicone	4.80

Procedure:

Mix (B) well. Add (B) to (A) and mix well. Add (C) to (AB) and mix well.

Formula CP 1117

SOURCE: ICI Surfactants: Suggested Formulations

Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	7.00
Arlacel 165	5.00
B Sorbo	5.00
Water, deionized	73.00
C Arlasolve DMI	10.00
D *Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 72C and (B) to 75C. Add (B) to (A) slowly with good agitation and add (C) at 35C and mix thoroughly. Add (D). Replace water lost due to evaporation. Package.

Anhydrous Ointment

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol ISML, isosorbide monolaurate	25.00
Arlacel 186, glycerol monooleate	7.00
Petrolatum, Perfecta USP	68.00
*Perfume or actives	

*q.s. these ingredients.

Procedure:

Add phase (A) together and stir with slight heat. Add phase (B) and heat to 80C and stir in phase (C). Cool while stirring and add phase (D).

Zinc Oxide Ointment-Anhydrous

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol ISML, isosorbide monolaurate	20.00
Arlacel 186, glycerol monooleate	5.60
Petrolatum, Perfecta USP	54.40
Zinc oxide, USP	20.00
*Perfume or actives	

Procedure:

Add phase (A) together and stir with slight heat. Add phase (B) and heat to 80C and stir in phase (C). Cool while stirring and add phase (D).
Formula CP 1035

SOURCE: ICI Surfactants; Suggested Formulations

O/W Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Petrolatum	15.00
Mineral oil	15.00
Spermaceti	5.00
Arlacel 40, sorbitan monopalmitate	5.00
Tween 40, polyoxyethylene sorbitan monopalmitate	5.00
B Water, deionized	55.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

O/W Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl alcohol	20.00
Mineral oil	20.00
Arlacel 80, sorbitan monooleate	0.50
Tween 80, polyoxyethylene sorbitan monooleate	4.50
B Water, deionized	55.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

O/W Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl alcohol	15.00
Beeswax	5.00
Mineral oil	15.00
Arlacel 80, sorbitan monooleate	1.25
Tween 80, polyoxyethylene sorbitan monooleate	3.75
B Water, deionized	60.00
*Preservative	
*q.s. these ingredients.	

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate stirring. Stir to 35C and add water lost due to evaporation.

SOURCE: ICI Surfactants: Suggested Formulations

Oil-In-Water-In-Silicone EmulsionOil-in-water Emulsion Phase:

Water	61.54%
Pantethine (80% aq. sol.)	0.10
Methylparaben	0.20
Carbomer 940	0.10
Glycerine	2.50
Sodium alkyl polyether sulfonate	1.25
Blandol Mineral Oil	1.75
Cholesterol	1.00
Cetyl palmitate	0.20
PEG-22 dodecylglycol copolymer	0.20
Ethylparaben	0.10
Propylparaben	0.15

Silicone Phase:

Cyclomethicone/dimethicone (90:10)	9.50
Cyclomethicone/dimethiconol (13:87)	5.00
Cyclomethicone	3.00
Phenyldimethicone	1.00
Pareth 15-3	2.00
Octylmethoxycinnamate	7.00
Benzophenone	0.50
C12-15 alcohols benzoate	2.85
Color	0.03
Fragrance	0.03

Protein-Lecithin Complex Emulsion

Carnation Mineral Oil	45.00%
Protopet 1S Petrolatum	10.00
Cetyl alcohol	1.50
Glyceryl monostearate	3.00
Casein-lecithin complex	3.00
Propylene glycol	5.00
Fragrance	0.50
Preservative	qs
Water	qs to 100.0

Skin Growth Accelerator

5-Methoxy-6,7-methylenedioxy-Isosflavone-4-O-B-D-glucoside	5.00%
Stearyl alcohol	18.00
Lanolin	20.00
Polyoxyethylene monooleate	0.25
Glyceryl monostearate	0.25
Protopet 1S Petrolatum	40.00
Water	16.50

SOURCE: Witco Corp.; Petroleum Specialties Group; Suggested Formulations

Pharmaceutical Cream Base

<u>Ingredients:</u>	<u>%W/W</u>
A Stearyl Alcohol	6.00
Arlacel 165	6.00
B Sorbo, Sorbitol Solution USP	5.00
Water	83.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

Pharmaceutical Cream Base

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic Acid	10.00
Stearyl Alcohol	5.00
Tween 60	3.00
Span 60	1.00
B Water	81.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

Pharmaceutical Cream Base

<u>Ingredients:</u>	<u>%W/W</u>
A Stearic Acid	10.00
Stearyl Alcohol	5.00
Corn Oil	3.00
Isopropyl Myristate	2.00
Myrj 52	3.00
Span 60	2.00
B Sorbo, Sorbitol Solution USP	5.00
Water	70.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

Pharmaceutical Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Cetyl Alcohol	20.00
Corn Oil	20.00
Tween 80	4.50
Span 80	0.50
B Water	55.00

Procedure:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with agitation. Stir until set.

SOURCE: ICI Surfactants: Suggested Formulations

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol S3	80.00
Brij 30	10.00
Arlatone T	10.00

Procedure:

Mix well at room temperature.
Formula CP 1111

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol E	50.00
Atlas G73500	50.00

Procedure:

Mix well at room temperature.
Formula CP 1112

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol S3	60.00
Isopropyl palmitate	30.00
Brij 93	5.00
Brij 30	4.60
Water	0.40

Procedure:

Mix well at room temperature.
Formula CP 1115

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	50.00
Atlas G73500	25.00
B Brij 30	20.00
C Dow Corning 344 cyclomethicone	5.00

Procedure:

Mix (B) well. Add (B) to (A) and mix well. Add (C) to (AB) and mix well.
Formula CP 1116

SOURCE: ICI Surfactants: Suggested Formulations

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	79.50
B Brij 30	20.00
Water	0.50

Procedure:

Mix (B) well. Add (B) to (A) and mix well.
Formula CP 1109

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	70.00
B Arlancel 186	10.00
Arlatone T	20.00

Procedure:

Mix (B) well, using heat to clarify the Arlancel 186. Mix (A&B) together at room temperature and stir well.
Formula CP 1110

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol E	65.00
Arlancel 186	15.00
Brij 93	20.00

Procedure:

Mix well at room temperature.
Formula CP 1113

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol E	60.00
Isopropyl palmitate	30.00
Brij 93	10.00

Procedure:

Mix well at room temperature.
Formula CP 1114

SOURCE: ICI Surfactants: Suggested Formulations

Wound Healing Accelerator

Polyoxyethyleneglycol monostearate	2.00%
Glyceryl monostearate	5.00
Stearic acid	5.00
Behenyl alcohol	1.00
Blandol Mineral Oil	1.00
Glyceryl trioctanoate	5.00
Kojic acid dipalmitate	2.00
Preservative and fragrance	qs
1,3 Butylene glycol	5.00
Allantoin	0.10
Water	qs to 100.00

Massage Gel

2-Hexadecyl phosphate arginine salt	1.20%
Water	3.60
Glycerin	14.00
Dipropylene glycol	8.70
Isostearyl diglyceride	36.00
Carnation Mineral Oil	35.50
Cetyl alcohol	0.40
Stearyl alcohol	0.60
Fragrance	q.s.
Preservative	q.s.

Petrolatum Stick

This high petrolatum stick offers the well known benefits of petrolatum in an easy to use form.

Protopet 1S Petrolatum	85.0%
Syncrowax HGLC	12.0
Syncrowax ERCL	3.0

Procedure:

Combine the petrolatum and the syncrowaxes. Mix while heating to 80C. Cool to 65-70C and pour. Chill the molds or the cases to 40C prior to pouring.

SOURCE: Witco Corp.; Petrolatum Specialties Group; Suggested Formulations

W/O Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Mineral oil	50.00
Beeswax	10.00
Lanolin	3.10
Arlacel 83, sorbitan sesquioleate	1.00
B Borax	0.70
Water, deionized	35.20
*Preservative	

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate, but thorough agitation. Stir until room temperature.

W/O Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Petrolatum	40.00
Mineral oil	15.00
Beeswax	4.00
Arlacel 83, sorbitan sesquioleate	6.00
B Water, deionized	35.00
*Preservative	

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate, but thorough agitation. Stir until room temperature.

W/O Ointment Base

<u>Ingredients:</u>	<u>%W/W</u>
A Petrolatum	54.00
Arlacel 83, sorbitan sesquioleate	6.00
B Water, distilled	40.00
*Preservative	

*q.s. these ingredients.

Procedure:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate, but thorough agitation. Stir until room temperature.

SOURCE: ICI Surfactants: Suggested Formulations

Section XIII

Trade-Named Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV20	Phenyl trimethicone	Goldschmidt
Abil B8839	Cyclomethicone	Goldschmidt
Abil B8851	Dimethicone copolyol	Goldschmidt
Abil B8852	Dimethicone copolyol	Goldschmidt
Abil B9950	Dimethicone propyl PG betaine	Goldschmidt
Abil B88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil WE09	Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate	Goldschmidt
Abil OSW12	Cyclomethicone (and) Dimeth- iconol (and) Dimethicone	Goldschmidt
Abil Quat 3270	Quaternium-80	Goldschmidt
Abil Quat 3272	Quaternium-80	Goldschmidt
Abil Quat 3474	Quaternium-80	Goldschmidt
Abil S201	Dimethicone/Sodium PG Propyl Dimethicone Thiosulfate Copolymer	Goldschmidt
Abil Wax 2434	Stearoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801	Cetyl dimethicone	Goldschmidt
Abil Wax 9809	Stearyl methicone	Goldschmidt
Abil Wax 9814	Cetyl dimethicone	Goldschmidt
Abil WE-09	Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostear- ate (and) Hexyl Laurate	Goldschmidt
Abil 100	Dimethicone	Goldschmidt
Abil 350	Dimethicone	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil 500	Dimethicone	Goldschmidt
Abil 1000	Dimethicone	Goldschmidt
A-C Copolymer 400	Ethylene-vinyl acetate copolymer	Allied Sig-
A-C Copolymer 540	Copolymer	Allied Sig-
A-C Copolymer 580	Copolymer	Allied Sig-
A-C Polyethylene 9A	Polyethylene	Allied Sig-
A-C Polyethylene 617	Polyethylene	Allied Sig-
A-C Polyethylene 617A	Polyethylene	Allied Sig-
A-C Polyethylene 617G	Polyethylene	Allied Sig-
Acetol	Acetylated lanolin alcohol	Henkel
Acetol 1706	Acetylated lanolin alcohol	Henkel
Acetulan	Acetylated lanolin alcohol	Amerchol
Acritamer 940	Carbomer 940	RITA
Acritamer 941	Carbomer 941	RITA
Acrysol ICS-1	Acrylate/Steareth-20/Methacrylate Copolymer	Rohm&Haas
Active #4		Blew
Acuscrub 44	Scrub agent	Allied Sig-
Acuscrub 50	Scrub agent	Allied Sig-
Acylglutamate HS-11	Surfactant	Ajinomoto
Adogen MA-108	Dimethyl stearamine	Witco
Adol 52	Cetyl alcohol	Witco
Adol 52 NF	Cetyl alcohol	Witco
Adriano O/235970	Fragrance	
Aerosil R972	Fumed silica	Degussa

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
AGI Talc	Talc	Whittaker
Ajidew N-50	Sodium PCA	Ajinomoto
Ajidew T-50	Pyrrolidonecarboxylic acid	Ajinomoto
Alcolec BS	Single bleached lecithin	Amer Lech
Alconate SBR-3	Sodium petroleum sulfonate	Witco
Aldo HMS	Glyceryl monostearate	Lonza
Aldo MCT	Caprylic capric triglyceride	Lonza
Alfol 18	Stearyl alcohol	Vista
Alkamide DL 203/S	Alkanolamide	Rhone-
Alkamide DC 212/S	Alkanolamide	Rhone-
Alkamide DIN 295/S	Alkanolamide	Rhone-
Alkamide LE	Alkanolamide	Rhone-
Alkamul EGMS		
Allantoin		ICI
Aloe Extract	Aloe	Terry
Aloe Moist	Aloe	Terry
Aloe Vera 200X	Aloe	Dr. Madis
Aloe Verage1 200	Aloe	Dr. Madis
Aloe Vera Gel Decolorized 1X		Terry
Aloe Vera Liquid	Aloe	Dr. Madis
Aloe Verage1 Lipoid	Aloe	Dr. Madis
Aloe Verage1 Liquid 1:1		Dr. Madis
Aloe Verage1 Liquid Concentrate 1:40		Dr. Madis
Alpine Floralistic	Fragrance	Alpine

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Alpine 165-049	Fragrance	Alpine
Alugel DF30	Aluminum hydroxide	Guilini
Amerchol CAB	Sterol emulsifier/stabilizer	Amerchol
Amerchol H-9	Sterol emulsifier/stabilizer	Amerchol
Amerchol L-101	Mineral oil and lanolin alcohol	Amerchol
Amerchol 400	Sterol emulsifier/stabilizer	Amerchol
Amerlate	Isopropyl lanolate	Amerchol
Amerlate P	Lanolin fatty acid/ester	Amerchol
Amerscreen P	Ethyl dihydroxypropyl PABA	Amerchol
Amihope LL	Lauroyl lysine	Ajinomoto
Amisoft CA	Cocoyl glutamate	Ajinomoto
Amisoft CS-11	Sodium cocoyl glutamate	Ajinomoto
Amisoft CT-12	TEA-Cocoyl glutamate	Ajinomoto
Amiter LG-OD	Di-octyldodecyl lauroyl glutamate	Ajinomoto
Amiter LGOD-2		Ajinomoto
Amiter LGS-2	Disteareth-2 lauroyl glutamate	Ajinomoto
Ammonyx KP	Olealkonium chloride	Stepan
AMP	2-amino-2-methyl-1-propanol	Angus
AMP-95	2-amino-2-methyl-1-propanol	Angus
Amphisol	DEA-Cetyl phosphate	Givaudan
Amphisol A		Givaudan
Amphisol K	Potassium cetyl phosphate	Givaudan
Ampholyt JA140	Sodium lauroamphoacetate	Huls
Ampholyt JB130	Cocamidopropyl betaine	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amphomer LV-71		
Amphotensid B4		Zschimmer
Amphotensid GB 2009		Zschimmer
Amphotensid 9M		Zschimmer
Antaron V-220		ISP
Antil 141 Liquid	Propylene glycol (and) PEG-55 propylene glycol oleate	Goldschmidt
Antil 141B	PEG-55 propylene glycol oleate	Goldschmidt
Antil 141S	PEG-55 propylene glycol oleate	Goldschmidt
Antil HS60	Cocamidopropyl Betaine (and) Glyceryl Laurate	Goldschmidt
Antil 171	PEG-18 Glyceryl glycol cocoate/oleate	Goldschmidt
APT		Centerchem
Aquasol 104	Aloe vera gel	CLE
Arlace1-C	Emulsifying agent	ICI
Arlace1 20	Emulsifying agent	ICI
Arlace1 40	Sorbitan monopalmitate	ICI
Arlace1 60	Sorbitan monostearate	ICI
Arlace1 80	Sorbitan monooleate	ICI
Arlace1 83	Sorbitan sesquioleate	ICI
Arlace1 85	Emulsifying agent	ICI
Arlace1 165	Glyceryl Stearate (and) PEG 100 Stearate	ICI
Arlace1 186	Glycerol monooleate	ICI
Arlace1 481	Emulsifying agent	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arlace1 582	Emulsifying agent	ICI
Arlace1 780	Emulsifying agent	ICI
Arlace1 989	Emulsifying agent	ICI
Arlace1 1689	Emulsifying agent	ICI
Arlace1 DOA	Emulsifying agent	ICI
Arlamo1 E	PPG-15 stearyl ether	ICI
Arlatone G	PEG 25 hydrogenated castor oil	ICI
Arlamo1 HD	Emulsifying agent	ICI
Arlamo1 ISML	Isosorbide monolaurate	ICI
Arlamo1 M812	Emulsifying agent	ICI
Arlamo1 S3	Emulsifying agent	ICI
Arlamo1 S7	Emulsifying agent	ICI
Arlasolve DMI	Emulsifying agent	ICI
Arlasolve 200 Liquid	Isoceteth-20	ICI
Arlatone G	PEG 25 hydrogenated castor oil	ICI
Arlatone PQ220	Polyquaternium-19	ICI
Arlatone T	Sunscreen agent	ICI
Arlatone 985	Sunscreen agent	ICI
Arlatone 2121	Sunscreen agent	ICI
Armeen DM18D	Aliphatic amines	Akzo
A-SM	Stearamine oxide	Nippon Oil
AT Series	Iron oxides	
Atlas G-1726	Beeswax derivative	ICI
Atlas G-1795		ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Atlas G-2162		ICI
Atlas G-2330		ICI
Atlas G-3570		ICI
Atlas G 73500		ICI
Atmul 84S		
Aubygel x-125		
Avocado Oil		Lipo
Avocado Special		Dragoco
Baby Powder #165-848	Fragrance	
Baysilone Fluid M10	Silicone	Mobay
Baysilone Fluid PK20	Silicone	Mobay
Beauty O/239870	Perfume oil	
Bee's Milk		Koster
Bentone EW	Hectorite clay	Rheox
Bentone Gel CAO	Rheological additive	Rheox
Bentone Gel IPM	Rheological additive	Rheox
Bentone Gel LOI	Rheological additive	Rheox
Bentone Gel MIO	Rheological additive	Rheox
Bentone Gel SS71	Rheological additive	Rheox
Bentone Gel VS-5	Rheological additive	Rheox
Bentone Gel VS-5 PC	Rheological additive	Rheox
Bentone LT	Rheological additive	Rheox
Bentone MA	Rheological additive	Rheox

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Bermocoll E230		Whittaker
Bermocoll E481		Whittaker
Beta Glucam 15% Coarse		Koster
Biodynes TRF	Tissue respiratory factors	Brooks
Biolac	Lactic acid, 88%	
Bio-sulphur CLR		CLR
Bioterge AS-40	Sodium C14-C16 olefin sulfonate	Stepan
Birch (water) Special		Dragoco
Blando1	Mineral oil	Witco
Bouquet Eau de Mer PC	916.315 Perfume	
Brij	Oleth-10	ICI
Brij 20	Emulsifying agent	ICI
Brij 30	Emulsifying agent	ICI
Brij 35	Emulsifying agent	ICI
Brij 35SP	Emulsifying agent	ICI
Brij 52	Ceteth-2	ICI
Brij 56	Emulsifying agent	ICI
Brij 58	Emulsifying agent	ICI
Brij 72	Steareth-2	ICI
Brij 76	Steareth-10	ICI
Brij 78	Steareth-20	ICI
Brij 93	Emulsifying agent	ICI
Brij 97	Emulsifying agent	ICI
Brij 700	Emulsifying agent	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Brij 721	Steareth-21	ICI
Brij 721S	Emulsifying agent	ICI
Bronopol	Bactericide	Inolex
Busan 1504	Microbiocide	Buckman
C19-011	D&C Red No. 7	Sun
C19-012	D&C Red No. 6	Sun
C65-4429	F&D Yellow No. 5	Sun
Cab-O-Sil M-5	Silica	Cabot
Cab-O-Sil TS-530	Silica	Cabot
CAE	DCA ethyl cocoyl arginate	Ajinomoto
Camomile Special		Dragoco
Caprylic/Capric Triglyceride		Bernel
Carbopol EDT	Carbomer	Goodrich
Carbopol ETD 2055	Carbomer	Goodrich
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich
Carbopol 954	Carbomer 954	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1382	Carbomer 1382	Goodrich
Carnation Mineral Oil		Witco
Castorwax	Hydrogenated castor oil	CasChem

RAW MATERIALS	CHEMICALS DESCRIPTION	SOURCE
Cegosoft C24		
Cellosize QP 100MH	Hydroxyethylcellulose	Union Car
Cellosize QP-4400-H	Hydroxyethylcellulose	Union Car
Cellosize QP-15,000-H	Hydroxyethylcellulose	Union Car
Celquat H-100	Polyquaternium-4	NatStarch
Celquat SC-240	Polyquaternium-10	NatStarch
Cera Albalate 103	Behenyl beeswaxates	Koster
Cera Bellina	Pg-3 Beeswax	Koster
Ceralan		Amerchol
Ceraphyl 41	C12-15 alcohols lactate	VanDyk
Ceraphyl 45	Dioctyl malate	VanDyk
Ceraphyl 50	Emulsifier	VanDyk
Ceraphyl 50S	Emulsifier	VanDyk
Ceraphyl 60	Quaternium-22	VanDyk
Ceraphyl 65	Quaternium-26	VanDyk
Ceraphyl 368	Octyl palmitate	VanDyk
Ceraphyl 375	Isostearyl neopentanoate	VanDyk
Ceraphyl 424	Emulsifier	VanDyk
Ceraphyl 494	Emulsifier	VanDyk
Ceraphyl 847	Octyldodecyl stearoyl stearate	VanDyk
Ceraphyl ICA	Emulsifier	VanDyk
Cerasynt MN	Glycol stearate SE	VanDyk
Cerasynt PA	Propylene glycol stearate	VanDyk
Cerasynt Q	Glyceryl stearate SE	VanDyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cerasynt 840	PEG-20 stearate	Van Dyk
Ceresine Wax 130/135		Koster
Ceresine Wax 140/150		Koster
Cetal	Cetyl alcohol	Amerchol
Cetiol MM	Emollient esters	Henkel
Cetiol OE	Emollient esters	Henkel
Cetiol S	Emollient esters	Henkel
Cetiol SN	Emollient esters	Henkel
Chamomile LS	Safflower oil (and) chamomile extract	
Chiara O/238927	Fragrance	
Chlorhydrol, 50%	Aluminum chlorhydrate, 50%	Reheis
Cholesterol NF		Rita
Chroma-lite Black	Pearlescent pigment	VanDyk
Chroma-lite Dark Blue	Pearlescent pigment	VanDyk
Citroflex-2	Plasticizer	Morflex
Clearlan	Lanolin	Henkel
CMC 7MF	Cellulose gum	Aqualon
Coconut Oil #76		Welch
Collagen CLR		CLR
Collasol	Collagen	Croda
Color No. 3170 Pur Oxy Yellow B.C.		
Color No. 3315 Pur Oxy Umber B.C.		
Color No. 2511 Lo-Micron Pink B.C.		
Color No. 3121-D & C Red No. 21		
Color No. 7055 Pur Oxy Yellow B.C.		
Color No. 7153 Lo-Micron Pink B.C.		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Copherol F-1300	Tocopherol	Henkel
Corona Pure New Lanolin		
Cosmetic Tan C33-130	Iron oxide	Sun
Cosmowax J	Cetearyl alcohol (and) cetear- eth-20	Croda
Courage O/243101	Fragrance	
CP 1052	Shampoo base	ICI
Creragen Aloe Vera	Propylene glycol (and) ethoxy- diglycol (and) aloe extract	Haarman
Cremporphor A6	Surfactant	BASF
Cremporphor A25	Surfactant	BASF
Cremporphor EL	Surfactant	BASF
Cremporphor HP14	Surfactant	BASF
Cremporphor RH410	Surfactant	BASF
Crodacel QM	Cocodimonium hydroxypropoxy cellulose	
Crodacid B	Behenic acid	Croda
Crodacol C-70	Cetyl alcohol	Croda
Crodacol C-95	Cetyl alcohol	Croda
Crodacol CS-50	Cetearyl alcohol	Croda
Crodacol S-95	Stearyl alcohol	Croda
Crodacol S-95NF	Stearyl alcohol	Croda
Crodafos CES	Cetearyl alcohol (and) cetearyl phosphate	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crodafos N3 Neutral	DEA Oleth-3 phosphate	Croda
Crodafos N3A	Oleth-3 phosphate	Croda
Crodafos N10A	Oleth-10 phosphate	Croda
Crodalan LA	Cetyl acetate (and) acetylated lanolin alcohol	Croda
Crodamol CAP	Fatty acid ester	Croda
Crodamol DA	Fatty acid ester	Croda
Crodamol ML	Fatty acid ester	Croda
Crodamol MM	Myristyl myristate	Croda
Crodamol PMP	PPG-2 myristyl ether propionate	Croda
Crodamol PTC	Pentaerthryryl tetracaprylate/caprate	Croda
Crodamol PTIS	Pentaerythryl tetrastearate	Croda
Crodamol SS	Cetyl esters	Croda
Crodamol W	Stearyl heptanoate	Croda
Crodapearl Liquid	Sodium laureth sulfate (and) hydroxyethyl stearamide-MIPA	Croda
Crodasinic LS-30	Sodium lauroyl sarcosinate	Croda
Cromoist CS	Chondroitin sulfate (and) hydrolyzed protein	Croda
Crodesta F10	Sugar ester	Croda
Crodesta F110	Sugar ester	Croda
Cropeptide W	Hydrolyzed wheat protein (and) wheat oligosaccharides	Croda
Croquat HH	Cocodimonium hydroxypropyl hydrolyzed hair keratin	Croda
Croquat L	Lauryldimonium hydroxypropyl collagen	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crosultaine C-50	Cocamidopropyl hydroxysultaine	Croda
Crotein AD	Hydrolyzed animal protein	Croda
Crotein SPA	Hydrolyzed animal protein	Croda
Crothix	PEG-150 pentaerythrityl tetrastearate	Croda
Crovol A-70	PEG-60 almond glycerides	Croda
Crovol PK-70	PEG-45 palm kernel glycerides	Croda
Crystal O	Castor oil	CasChem
Cutina CBS	Cream base	Henkel
Cutina CP	Cream base	Henkel
Cutina GMS	Cream base	Henkel
Cutina LM	Cream base	Henkel
Cutina MD	Cream base	Henkel
Cyclomide DC 212/S	Cocamide DEA	Cyclo
Cycloryl WAT		Cyclo
Cycloteric BET C-30	Cocamidopropyl betaine	Cyclo
DC-556 Silicone		Dow Corning
DC-593 Silicone		Dow Corning
D&C Red #7 Ca Lake (3107)		Thomasset
D&C Red #9 (31-3009)		Thomasset
Deosafe 75128 N/I	Perfume	Haarman
Dermacryl LT	Skin care polymer	Nat. Starch
Dermacryl-79	Skin care polymer	Nat. Starch

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dermol 185	Isostearyl neopentanoate	
Diaformer Z-A	Methacryloyl ethyl betaine/ methacrylates copolymer	Sandoz
Diaformer Z-301	Methacryloyl ethyl betaine/ methacrylates copolymer	Sandoz
Diaformer Z-400	Methacryloyl ethyl betaine/ methacrylates copolymer	Sandoz
Diahold A-503	AMP-Acrylates Copolymer	Sandoz
Dionil OC/K	PEG-4 Oleamide	Huls
D-Limonene	Dipentene	Florida
Dow Corning 2-7224	Silicone	Dow Corning
Dow Corning Q2-5000	Dimethicone copolyol	Dow Corning
Dow Corning 190	Dimethicone copolyol	Dow Corning
Dow Corning 193	Dimethicone copolyol	Dow Corning
Dow Corning 200	Dimethicone	Dow Corning
DC 200 Fluid; 50 vis	Dimethicone	Dow Corning
Dow Corning 200; 100	Dimethicone	Dow Corning
Dow Corning 200; 200	Dimethicone	Dow Corning
Dow Corning 344 Fluid	Cyclomethicone	Dow Corning
Dow Corning 345 Fluid	Cyclomethicone	Dow Corning
Dow Corning 556	Phenyl trimethicone	Dow Corning
Dow Corning 593	Dimethicone (and) trimethyl- siloxysilicate	Dow Corning
Dow Corning 929	Amodimethicone (and) nonoxy- nol-10 (and) tallow-trimonium chloride	Dow Corning
Dow Corning 1401 Fluid		Dow Corning

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dowicil 200	Preservative	Dow
Dragocid		Dragoco
Drakeol 9	Mineral oil	Penreco
Drakeol 10B	Mineral oil, naphthenic	Penreco
Drakeol 35	Mineral oil	Penreco
Dry Flo PC	Aluminum starch octenylsuccinate	Nat Starch
Duveen Toilet Soap Base		Duveen
Dynacerin 660	Oleyl erucate	Huls
Dynasan 110	Tricaprin	Huls
Dynasan 114	Trimyristin	Huls
Eastman AQ 38S	Polymer	Eastman
Eastman AQ 55S	Polymer	Eastman
Eastman Vitamin E TPGS (20%)		Eastman
Eastman Vitamin E Acetate 6-81		Eastman
Elastosol Animal Collagen & Elastin		Croda
Eldew CL-301	Di-(cholesteryl, behenyl, octyldodecyl) N-Lauroyl-L-glutamic acid ester	Ajinomoto
Elefac I-205	Octyldodecyl neopentanoate	Bernel
Elfacos C26	Polymer for cosmetics	Akzo
Elfacos E200	Polymer for cosmetics	Akzo
Elfacos ST9	Polymer for cosmetics	Akzo
Emalex CC-168	Cetyl octanoate	Nihon
Emalex GM-5	POE (5) glyceryl monostearate	Nihon

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emalex GMS-7CAE	Glyceryl monostearate, self emulsifying	Nihon Emul
Emalex GMS-45RT	Glyceryl monostearate, self emulsifying (HLB5)	Nihon Emul
Emalex HC-5	POE (5) hydrogenated castor oil	Nihon Emul
Emalex S.T.G.-R	Hydrogenated oil	Nihon Emul
Emeressence 1160	Phenoxyethanol	Henkel
Emerest 2000	Glyceryl stearate	Henkel
Emerest 2314	Ester	Henkel
Emerest 2316	Ester	Henkel
Emerest 2350	Glycol stearate	Henkel
Emerest 2388	Propylene glycol dipelargonate	Henkel
Emerest 2400	Glyceryl stearate	Henkel
Emerest 2407	Glyceryl stearate SE	Henkel
Emerest 2452	Polyglyceryl di-isostearate	Henkel
Emersol 132	Stearic acid	Henkel
Emersol 213		Henkel
Emerson-1323		Henkel
Emery IPP		Henkel
Emery 622	Coconut acid	Henkel
Emery 916	Glycerin pure	Henkel
Emery 1723		Henkel
Escalol 507	Octyl dimethyl PABA	Van Dyk
Escalol 557	Octyl methoxycinnamate	Van Dyk
Escalol 567	Benzophenone-3	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Estalan 430	Cosmetic emollient ester	Lanaetex
Estol EHP 1543	Cosmetic ester	Unichema
Estol 1550	Cosmetic ester	Unichema
Ethomeen C-25	Ethoxylated aliphatic amines	Akzo
Ethoxylated Carnauba		Koster
Ethoxyl 24	Ethoxylated oleyl alcohol	Lanaetex
Eumulgin B1	Cosmetic emulsifier O/W	Henkel
Eumulgin B2	Cosmetic emulsifier O/W	Henkel
Euperlan PK-771	Pearlshine concentrate	Henkel
Eusolex 232	Sunscreen	EM Indust
Eusolex 6300	Sunscreen	EM Indust
Eutanol G	Octyldodecanol	Henkel
Ewalan ODE 50		HE Wagner
Extract 52		Zschimmer
Extrapon Hamamelis Special		Dragoco
Extrapon 3-Special		Dragoco
Fancoi ALA	Acetylated lanolin alcohol	Fanning
Finquat CT	Quaternium-75	Finetex
Finsolv TN	C12-15 alcohols benzoate	Finetex
Flamenco Super Blue	Cosmetics pigment	Mearl
Flamenco Superpearl	Cosmetics pigment	Mearl
Flamenco Velvet-100	Cosmetics pigment	Mearl
Flexricin 9	Fatty acid ester	Caschem

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Floral Spice NP49	Fragrance	
Florasynt AB5697	Powder type	
Fluilan	Liquid lanolin	Croda
Fomblin HC/R		Brooks
Forestall		ICI
Forlan L	R.I.T.A. blend	Rita
Fougere Lavender	Fragrance	Fritzsche
Fragrance DE-47		
Fragrance DO-60		Novarome
Fragrance-Finesse Type		
Fragrance-Floral #169-120		
Fragrance GG44		Novarome
Fragrance GK-17		Novarome
Fragrance GK-19		Novarome
Fragrance GK-21		Novarome
Fragrance GP-58		Novarome
Fragrance H-45756		Robertet
Fragrance 2991H		IFF
Fragrance #X3110		Roure
Fragrance #1-67		
Fragrance #189-7124		
Fragrance #163-478		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
G-9600 1053	Shampoo base	ICI
Gaffix VC-213	Vinylcaprolactam/PVP/Dimethyl-aminoethyl methacrylate copolymer	ISP
Gafquat 755	Polyquaternium-11	ISP
Gamma Orzano1		Koster
Ganex V-220	PVP/Eicosene copolymer	ISP
Ganex WP660	Alkylated vinyl pyrrolidone copolymer	ISP
Geahlene 750	Mineral oil (and) hydrogenated butylene/ethylene/styrene copolymer (and) hydrogenated ethylene/propylene/styrene copolymer	
Gemtone Mauve Quartz	Cosmetic pearl powder	Mearl
Germaben II	Cosmetic preservative	Sutton
Germaben II-E	Cosmetic preservative	Sutton
Germall II	Diazolidinyl urea	Sutton
Germall 115	Imidazolidinyl urea	Sutton
Geropon SBFA-30		Rhone
Ginkgo Biloba		Vernin
Givaudan #PSC 10,435/6	Fragrance	Givaudan
Glucam E-10	Ethoxylated methyl glucosides	Amerchol
Glucam P-20	Propoxylated methyl glucosides	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	Ethoxylated methyl glucosides	Amerchol
Glucamate SSG-20	Alkylated methyl glucoside ester	Amerchol
Glucate DO	Methyl glucoside ester	Amerchol
Glucate SS	Methyl glucoside ester	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Glucopon 425 CS		Amerchol
Glucopon 600 CSUP		Amerchol
Glucopon 625 CSUP		Amerchol
Glucquat 100		Amerchol
Glydant	DMDM hydantoin	Lonza
Glydant Plus		Lonza
Glypure 70%	Glycolic acid	
GMS SE	Glycerol Monostearate SE	Stepan
Grillocam E-20	Methyl gluceth-20	Rita
Grilloten LSE-65K	Sucrose cocoate	Rita
Grilloten LSE-87K	Sucrose cocoate	Rita
Grilloten PSE 141G	Sucrose stearate	Rita
Hair Complex Aquosum		CLR
Hamamelis Special		Dragoco
Hamp-ene Na4	Tetrasodium EDTA	Hampshire
Hamp-ene 220	Tetrasodium EDTA	Hampshire
Herbal Fragrance SL 79-1224		PFW
Hetester HCA	Glyceryl triacetyl hydroxy-stearate	Bernel
Hetester HCP	PPG-3 hydrogenated castor oil	Bernel
Hi-Sil T-600		PPG
Horse-chestnut Special		Dragoco
Hostacerin PN73		Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hostaphat KL340N		Hoechst
Hydrogenated Polyisobutene		Amoco
Hydrolyzed Silk Protein		Ikeda
Hydrotriticum WAA	Wheat amino acids	Croda
Hydrotriticum 2000	Wheat protein hydrolyzates	Croda
Hydroxyol		Malmstrom
Hygroplex HHG		CLR
Hystar CG	Hydrogenated starch hydrolysate	Lonza
Hystrene 5016	Fatty acid	Humko
Igepon AC78	Anionic surfactant	ISP
Imwitor 780K	Isostearyl diglyceryl succinate	Huls
Imwitor 900	Glyceryl stearate	Huls
Imwitor 960 Flakes	Glyceryl stearate SE	Huls
Incrocas 40	PEG-40 castor oil	Croda
Incrodet TD-7C	Trideceth-7 carboxylic acid	Croda
Incromate OLL	Olivamidopropyl dimethylamine lactate	Croda
Incromate SEL	Sesamidopropyl dimethylamine lactate	Croda
Incromectant AMEA-70	Acetamide MEA	Croda
Incromectant AMEA-100	Acetamide MEA	Croda
Incromectant LAMEA	Acetamide MEA (and) lactamide MEA	Croda
Incromide ALD	Almondamide DEA	Croda
Incromide BAD	Babassuamide DEA	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Incromide CA	Cocamide DEA	Croda
Incromide CAC	Cocamide DEA cocoyl sarcosine	Croda
Incromide LR	Lauramide DEA	Croda
Incromide WGD	Wheat germamide DEA	Croda
Incromine BB	Behenamidopropyl dimethylamine	Croda
Incromine Oxide WG	Wheat germamidopropyl oxide	Croda
Incronam AL-30	Almondamidopropyl betaine	Croda
Incronam WG-30	Wheat germamidopropyl betaine	Croda
Incronam 30	Cocamidopropyl betaine	Croda
Incropol CS-20	Ceteareth-20	Croda
Incropol SC-20	Ethoxylated alcohol	Croda
Incroquat BA-85	Babassuamidopropalkonium chloride	Croda
Incroquat Behenyl TMS	Behentrimonium methosulfate (and) cetearyl alcohol	Croda
Incroquat CR Conc.	Cetearyl alcohol (and) PEG-40 castor oil (and) stearalkonium chloride	Croda
Incroquat O-50	Olealkonium chloride	Croda
Incroquat S-85	Stearalkonium chloride	Croda
Indopol H-100	Viscous polybutene	Amoco
Irgasan DP300	Bacteriostat	Ciba-Geigy
Iron Oxide Brown 7058		Warner-Jenk
Iron Oxide Yellow 7055		Warner-Jenk
Isopar H	Isoparaffin solvent	Exxon

500 *Cosmetic and Toiletry Formulations*

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Isopropylan 50	Isopropyl ester of lanolin	Amerchol
Ivarlan 3230	Lanolin oil	Brooks
Ivy Special		Dragoco
J-13-AT	Talc	
Jergens Type R-30318	Fragrance	
Kaopolite SF	Polishing powder	Kaopolite
Kaopolite TLC	Polishing powder	Kaopolite
Kaopolite 1147	Polishing powder	Kaopolite
Karion F		E. Merck
Kathon CG	Methylchlorisothiazolinone (and) Methylisothiazolinone	Rohm&
Keltrol	Xanthan gum	Kelco
Keltrol F	Xanthan gum	Kelco
Keltrol RD	Xanthan gum	Kelco
Keltrol T	Xanthan gum	Kelco
Keltrol TF	Xanthan gum	Kelco
Kelzan	Xanthan gum	Kelco
Kelzan AR	Xanthan gum	Kelco
Kessco Ethylene Glycol Distearate		Stepan
Kessco Glyceryl Monostearate		Stepan
Kessco-653	Fatty ester	Stepan
Kester Wax K-48	Spermaceti	Koster
Kester Wax 62		Koster

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Kester Wax 100		Koster
Kester Wax 85		Koster
Klucel GF	Hydroxypropylcellulose	Aqualon
Klucel MF	Hydroxypropylcellulose	Aqualon
Korthix H	Thickening agent	Kaopolite
Kytamer KC	Polyquaternium-29	Amerchol
Lamepon S	Protein surfactant	Henkel
Laneto 50	PEG-75 lanolin	Rita
Laneto 100	PEG-75 lanolin	Rita
Lanette O	Cetearyl alcohol	Henkel
Lanette N	Cream base o/w	Henkel
Lanette 16	Cetyl alcohol	Henkel
Lanogene	Lanolin alcohol & mineral oil	Amerchol
Lanolin USP		Rita
Lanolin-X-tra Deodorized		Rita
Lanthanol LAL	Foaming agent	Stepan
Lantrol	Liquid lanolin	Henkel
Lexaine C	Cocoamidopropyl betaine	Inolex
Lexamine S-13	Stearamidopropyl dimethylamine	Inolex
Lexate IL	Concentrate/blend	Inolex
Lexate PX	Petrolatum (and) lanolin alcohol	Inolex
Lexein QX-3000	Quaternium-76 hydrolyzed collagen	Inolex
Lexemul AR	Glyceryl stearate (and) stearamidoethyl diethylamine	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lexemul CS-20	Cetearyl alcohol (and) cet- earth-20	Inolex
Lexemul EGMS	Glycol stearate	Inolex
Lexemul GDL	Glyceryl dilaurate	Inolex
Lexemul P	Emulsifier	Inolex
Lexemul T	Glyceryl stearate SE	Inolex
Lexemul 55G	Glyceryl stearate	Inolex
Lexemul 515	Glyceryl stearate	Inolex
Lexemul 561	Glyceryl stearate (and) PEG-100 stearate	Inolex
Lexgard B	Butyl paraben	Inolex
Lexgard Bronopol	2-bromo-2-nitropropane-1,3-diol	Inolex
Lexgard M	Methyl paraben	Inolex
Lexgard P	Propyl paraben	Inolex
Lexol BS	Isobutyl stearate	Inolex
Lexol EHS	Octyl stearate	Inolex
Lexol GT-865	Caprylic/capric triglyceride	Inolex
Lexol PG 8/10	Emollient	Inolex
Lexol PG-865	Propylene glycol dicaprylate/ dicaprinate	Inolex
Lexol 3975	Isopropyl palmitate (and) iso- propyl myristate (and) iso- propyl stearate	Inolex
Lexorez 100	Glycerine/diethylene glycol/ adipate crosspolymer	Inolex
Lexquat AMG-BEO	Behenamidopropyl PG dimonium chloride	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lexquat AMG-IS	Isostearamidopropyl-PG-dimonium chloride	Inolex
Lime Blossom Special		Dragoco
Lipacide PCO	Palmitoyl hydrolyzed animal protein	Lipo
Lipofruit Cucumber		Lipo
Liponate SS	Stearyl stearate	Lipo
Lipovol A	Natural vegetable oil	Lipo
Lipovol ALM	Almond oil	Lipo
Lipovol P	Natural vegetable oil	Lipo
Lipopeg 100-S	Polyoxyethylene fatty acid ester	Lipo
Lipoxol 600 MED	PEG-12	Huls
Liquapar	Preservative	Sutton
Liquid Coconut Soap, 40%		Laurel
Locron L		Henkel
Lo Micron Black	Iron oxides (and) talc	Whittaker
Lo Micron Pink	Iron oxides (and) talc	Whittaker
Lo Micron Yellow	Iron oxides (and) talc	Whittaker
Lonzest 143/S	Myristyl propionate	Lonza
Luviskol VA64	Polyvinylpyrrolidone	BASF
Luviskoll VA73W	PVP/VA copolymer	BASF
Luvitol EHO	Synthetic oil	BASF
Lytron 295	Opacifier	Morton

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackadet BSC	Baby shampoo concentrate	McIntyre
Mackadet CBC	Conditioner concentrate	McIntyre
Mackadet LCB	Conditioner concentrate	McIntyre
Mackadet SBC-8	Mild blend	McIntyre
Mackadet WGS		McIntyre
Mackadet 40K		McIntyre
Mackalene NLC	Lactates	McIntyre
Mackalene 116	Cocamidopropyl dimethylamine lactate	McIntyre
Mackalene 316	Stearamidopropyl dimethylamine lactate	McIntyre
Mackalene 326	Stearamidopropyl morpholine lactate	McIntyre
Mackalene 426	Isostearamidopropyl morpholine lactate	McIntyre
Mackalene 716	Wheat germamidopropyl dimethylamine lactate	McIntyre
Mackam CET	Cetyl betaine	McIntyre
Mackam WGB	Wheat germamidopropyl betaine	McIntyre
Mackam 2C	Cocoamphodiacetate	McIntyre
Mackam 35	Cocoamidopropyl betaine	McIntyre
Mackam 35HP	Cocoamidopropyl betaine	McIntyre
Mackamide AME-100	Acetamide MEA	McIntyre
Mackamide C	Cocamide DEA	McIntyre
Mackamide CMA	Cocamide MEA	McIntyre
Mackamide CS	Cocamide DEA	McIntyre
Mackamide LLM	Lauramide DEA	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackanate OM	Disodium oleamido MEA sulfo-succinate	McIntyre
Mackanate OP	Disodium oleamido MIPA sulfosuccinate	McIntyre
Mackamide PK	Palmkernalamide DEA	McIntyre
Mackamide PKM	Palmkernalamide MEA	McIntyre
Mackamide S	Soyamide DEA	McIntyre
Mackamine CAO	Cocamidopropylamine oxide	McIntyre
Mackamine WGO	Wheat germamidopropylamine oxide	McIntyre
Mackanate CP	Disodium cocamido MIPA sulfo-succinate	McIntyre
Mackanate DC-30	Disodium dimethicone copolyol sulfosuccinate	McIntyre
Mackanate EL	Disodium laureth sulfosuccinate	McIntyre
Mackanate LA	Diammonium lauryl sulfosuccinate	McIntyre
Mackanate LO-Special	Disodium lauryl sulfosuccinate	McIntyre
Mackanate WGD	Disodium wheatgermamido PEG-2 sulfosuccinate	McIntyre
Mackernium SDC-25	Stearalkonium chloride	McIntyre
Mackernium SDC-85	Stearalkonium chloride	McIntyre
Mackernium 007	Polyquaternium 7	McIntyre
Mackester EGDS	Glycol distearate	McIntyre
Mackester SP	Glycol stearate modified	McIntyre
Mackine 301	Stearamidopropyl Dimethylamine	McIntyre
Mackol 70NS	Sodium laureth sulfate	McIntyre
Mackol 16	Cetyl alcohol	McIntyre
Mackol 1618	Cetearyl alcohol	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackpearl LV	Pearl agent	McIntyre
Mackpro NLP	Natural lipid protein	McIntyre
Mackpro NSP	Oleyl/palmityl/palmitolamido-propyl/silk hydroxypropyl dimonium chloride	McIntyre
Mackstat DM	DMDM hydantoin	McIntyre
Macol CPS	Polyoxyethylene fatty ether	PPG
Macrospherical 95	Aluminum chlorohydrate	Reheis
Magnabrite	Stabilizing, suspending agent	Am Colloid
Magnabrite S	Magnesium aluminum silicate	Whittaker
Maprofix TLS-500	Triethanolamine lauryl sulfate	Onyx
Marcol 70	Mineral oil	Exxon
Marcol 130	Mineral oil	Exxon
Marine-Dew	Partially deacetylated chitin	Ajinomoto
Marlamide DF1218	Cocamide DEA	Huls
Marlamid M1218	Cocamide DEA	Huls
Marlamid PG20	Cocamide MEA glycol ditallowate	Huls
Marlazin KC 30/50	Cocotrimonium chloride	Huls
Marlinat CM 105	Sodium laureth-11 carboxylate	Huls
Marlinat DFK 30	Sodium lauryl sulfate	Huls
Marlinat DFN 30	Ammonium lauryl sulfate	Huls
Marlinat SL 3/40	Disodium laureth sulfosuccinate	Huls
Marlinat 242/28	Sodium laureth sulfate	Huls
Marlinat 242/70	Sodium laureth sulfate	Huls
Marlon PS65	Sodium C13-C17 alkane sulfonate	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Marlophor MO3-acid	Laureth-3 phosphate	Huls
Marlophor T10Na-salt	Sodium disteareth-10 phosphate	Huls
Marlowet LMA2	Laureth-2	Huls
Marlowet R11/K	PEG-11 castor oil	Huls
Marlowet R40/K	PEG-40 castor oil	Huls
Marlowet TA6	Ceteareth-6	Huls
Marlowet TA25	Ceteareth-25	Huls
Masil SF-V Fluid	Cyclomethicone	PPG
Masil 280	Dimethicone copolyol	PPG
Masil 656	Silicone	PPG
Maypon 4C	Potassium cocoyl-hydrolyzed collagen	Inolex
Mazox CAPA	Cocamidopropyl amine oxide	PPG
Mearlin-AC	Powdered pearl pigment	Mearl
Merkur 1546	Vaseline type	
Merquat 100	Polyquaternium-6	Calgon
Merquat 550	Polyquaternium-7	Calgon
Methocel E4M	Hydroxypropyl methylcellulose	Dow
Methocel F4M	Hydroxypropyl methylcellulose	Dow
Methocel 40-100	Hydroxypropyl methylcellulose	Dow
Micro-dry	Aluminum chlorohydrate powder	Reheis
Microencapsulated Vitamin E HC487		
Micronized TiO2 LA-20	Titanium dioxide	
Miglyol Gel B	Caprylic/capric triglyceride (and) stearylalkonium (and) propylene carbonate hectorite	Huls

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Miglyol 812	Caprylic/capric triglyceride	Huls
Miglyol 829	Caprylic/capric/diglyceryl succinate	Huls
Miglyol 840	Propylene glycol dicaprylate	Huls
Mineral Colloid BP	Montmorillonite	ECC
Mineral Oil #7		Penreco
Mineral Oil #9		Penreco
Miranol C2M Conc. NP	Cocoamphocarboxyglycinate	Rhone
Miranol Ester PO-LM4	Polyentaerythrityl tetra-laurate	Rhone
Miranol MHT	Lauroamphoglycinate (and) trideceth sulfate	Rhone
Miranol 2MHT Modified	Imidazoline amphoteric	Rhone
Mirasheen 202		Rhone
Mirataine BET C-30	Cocamidopropyl betaine	Rhone
Mirataine BET O-30	Oleamidopropyl betaine	Rhone
Mirataine CB	Surface active agent	Rhone
Modulan	Acetylated lanolin	Amerchol
Monafax 160	Phosphate ester	Mona
Monafax 785	Phosphate ester	Mona
Monamate LNT-40	Diammonium lauryl sulfosuccinate	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 150ADD	Cocamide DEA	Mona
Monamid 705	Cocamide DEA	Mona
Monamid 716	Lauramide DEA	Mona
Monamid 1089	Alkanolamide	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monamine 1255	Alkanolamide	Mona
Monamulse DL-1273		Mona
Monaquat TG	Dihydroxyethyl dihydroxypropyl stearammonium chloride	Mona
Monaterge 1164	Sodium lauryl sulfate (and) disodium lauryl sulfosuccinate	Mona
Monateric CAB	Cocamidopropyl betaine	Mona
Monateric CLV		Mona
Monateric COAB		Mona
Mowiol 10-98	Polyvinyl alcohol resin	Hoechst
Mulsifan CPA		Zschimmer
Mulsifan RT 203/80		Zschimmer
Mulsifan RT275		Zschimmer
Multiwax W-835	Microcrystalline wax	Witco
Myacide SP	2,4-dichlorobenzyl alcohol	Inolex
Myritol PG	Propylene glycol dicaprylate	
Myrj 52	Polyoxethylene stearate	ICI
Myrj 52S	PEG-50 stearate	ICI
Myvatex 60	Emulsifier	
Myvatex Texture Lite	Emulsifier	
Myverol 18-06	Hydrogenated soy glyceride	Eastman
Natrosol 250 HHR	Hydroxyethyl cellulose	Aqualon
Natrosol 250 HR	Hydroxyethyl cellulose	Aqualon
Naturechem GMHS	Castor oil derivative	Caschem

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RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nature Harvest 165-050	Fragrance	
Neobee M-5	Caprylic/capric triglyceride	Stepan
Neo Heliopan, AV	Octyl methoxy cinnamate	Haarman
Neo Heliopan, BB	Benzophenone-3	Haarman
Neo Heliopan, Type E1000		Haarman
Neo Heliopan, Hydro	Phenylbenzimidazole sulfonic acid	Haarman
Neo Heliopan, MA	Menthyl anthranilate	Haarman
Neo Heliopan, MBC		Haarman
Neo Heliopan, OS		Haarman
Neo Heliopan, 303	Octocryline	Haarman
Nikkol Lecinol S-10-M		Nikkol
Nikkol MYS-55	PEG-55 stearate	Nikko
Nikkol WCB		Nikko
Nimlesterol D		Malmstrom
Ninol AA-62 Extra	Foam stabilizer	Stepan
Ninol 49-CE	Cocamide DEA	Stepan
Nipastat	Parabens	Nipa
Novarome DE-47	Fragrance	Novarome
Novarome DE51	Perfume	Novarome
Novarome Fragrance CD-69		Novarome
Noville #84504	Fragrance	Noville

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Octipirox	Piroctone alamine	Hoechst
Orgasol 2002D Natural	Extra Cos Nylon-12	Atochem
Oxaban A	Preservative	Angus
Oxetal VD20		Zschimmer
Oxynex K Liquid	Antioxidant	Zschimmer
Oxynex 2004	Antioxidant	Zschimmer
Oxypon 288		Zschimmer
Oxypon 328		Zschimmer
Oxypon 2145		Zschimmer
Oyster Nut Oil		Koster
Ozokerite Waxes		Int Wax
Ozokerite Waxes		Koster
Ozokerite Waxes		Ross
Padimate O	Octyl dimethyl PABA	
Panalane	Hydrogenated polyisobutene	Amoco
Panthenol	Dl-Panthenol Cosmetic Grade	Roche
Paragon	DMDM hydantoin (and) methyl paraben	McIntyre
Parcel MCX		Givaudan
Paricin 9	Fatty acid ester	CasChem
Parsol HS	UV-B sunscreen	Givaudan
Parsol MCX	Octyl methoxycinnamate	Givaudan
Parsol 1789	UV-A sunscreen	Givaudan
Parsol 5000	UV-B sunscreen	Givaudan

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RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pationic ISL	Sodium isostearyl lactylate	Rita
Pationic ISL/85	Sodium isostearyl lactylate@85%	Rita
Pationic SSL	Sodium stearyl lactylate	Rita
Patlac IL	Isostearyl lactate	Rita
Patlac LA (44%)	Lactic acid	Rita
PC 9043	Silicone emulsion	ICI
PC 9044	Silicone emulsion	ICI
PC 9045	Silicone emulsion	ICI
PC 9046	Silicone emulsion	ICI
PC 9047	Silicone emulsion	ICI
PC 9048	Silicone emulsion	ICI
PCV 1454	Fragrance	
PEG-120 Methyl Glucose Dioleate		Rita
Pemulen TR-1	Polymeric emulsifier	Goodrich
Pemulen TR-2	Polymeric emulsifier	Goodrich
Permulgin 3220	Custom blended wax	Koster
Penreco Mineral Oil #9		Penreco
Peptein 2000x1	Hydrolyzed collagen	Hormel
Perfecta USP	Petrolatum	Witco
Perfume Dinalaya 129.051		
Perfume #44575		Fritsche
Perlglanzmittel GM 4055		Zschimmer
Perlglanzmittel GM 4175		Zschimmer
Permethyl 104A	Aliphatic hydrocarbon	Permethyl

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pert Type #189-724	Fragrance	
Petrolatum Alba		Witco
Perlglanzmittel GM4175		Zschimmer
Phenonip		Nipa
Phosfetal 201K		Zschimmer
Phospholipid EFA	Biomimetic phospholipid	Mona
Phospholipid PTC	Biomimetic phospholipid	Mona
Phospholipid SV	Biomimetic phospholipid	Mona
Phosphoteric PTC		Mona
Phosphoteric QL-38	Trisodium lauroampho PG acetate phosphate chloride	Mona
Pigment paste white: Nr. 93975		
Pigment paste yellow: Nr. 75577		
Pigment paste red: Nr. 68775		
Pigment paste black: Nr. 78375		
Pluronic F-127	Polyoxyalkylene glycol block polymer	BASF
PNC 400	Sodium carbomer	3V
Polawax	Emulsifying wax NF	Croda
Polawax A-31	Emulsifying wax NF	Croda
Polyaldo 10-1-S	Polyglyceryl-10 stearate	Lonza
Polyaldo 10-6-0	Polyglyceryl-10 hexaoleate	Lonza
Polymer JR 400		Union Carb
Polyox WSR	Water soluble resin	Union Carb
Polyquta-400	Polyquaternium-10	Rita
Polyquta 3000	Polyquaternium-10	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polysorbate 60	Polyoxyethylene (20) sorbitan monostearate	ICI
Polysynlane	Hydrogenated polyisobutene	Polyester
Prisorine 3505	Glycerine	Unichema
Prisorine 3515	Glycerine	Unichema
Prisorine 9083	Glycerine	Unichema
Procetyl AWS	PPG-5 Ceteth 20	Croda
Prodew 100	Sorbitol & Sodium Lactate & Proline & Sodium PCA & Hydrolyzed Collagen	Ajinomoto
Promois W-32	Hydrolyzed collagen	Rita
Promois WK	Hydrolyzed keratin	Rita
Promois WK-HQ	Hydroxypropyl trimonium hydrolyzed keratin	Rita
Promulgen D	Cetearyl Alcohol (and) Ceteareth-20	Amerchol
Promyristyl PM3	PPG-3 myristyl ether	Croda
Pronalan Anticellulite		Centerchem
Propellant A-46	Hydrocarbon propellant	
Propolis Wax		Koster
Protopet 1S	Petrolatum	Witco
Protopet 2A	Petrolatum	Witco
Prottox T-25	Ethoxylated amine	Protomeen
Purasal S/SP 60%	Sodium lactate	Purac Amer
Pur. Navy Blue #7110		Whittaker
Pur Oxy Yellow BC & Pur Oxy Black BC Pigment		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Purton CFD		Zschimmer
Purton SFD		Zschimmer
PVP-K-30	PVP	ISP
Pyroter CPI-40		Ajinomoto
Pyroter GPI-25		Ajinomoto
Raluben TL		Raschig
Resyn 26-1314	Hair spray polymer	Nat Starch
Resyn 28-2913	Hair spray polymer	Nat Starch
Resyn 28-2930	Hair spray polymer	Nat Starch
Rewomid S-280		Rewo
Rezal 36G	Al Zr tetrachlorohydrex, gly.	Reheis
Rezal 36GP	Al Zr tetrachlorohydrex, gly. Super ultrafine.	Reheis
Rheolate 5000	Acrylate/Va copolymer	Reheis
Rhodacal A-246/L		Rhone
Rhodapex MA-360	Ether sulfate	Rhone
Rhodapon L-22	Alkyl sulfate	Rhone
Rhodapon LSB	Alkyl sulfate	Rhone
Rhodapon LT-6	Alkyl sulfate	Rhone
Rhodapon SB 8208/S	Alkyl sulfate	Rhone
Rhodapon 21LS	Alkyl sulfate	Rhone
Rhodigel	Xanthan gum	Vanderbilt
Rhodorsil Oils 70041 VO.65		Rhone
Rhodorsil 700 45V2	Cyclomethicone	Rhone

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rice Bran Oil Filtered		Koster
Ritabate 20	Polysorbate 20	Rita
Rita-BTAC	Behentrimonium chloride	Rita
Rita CA	Cetyl alcohol	Rita
Ritacet-20	Ceteareth-20	Rita
Rita-Cetearyl 70/30	Cetearyl alcohol	Rita
Ritaceti	Cetyl esters	Rita
Ritacetyl	Acetylated lanolin	Rita
Ritachol	Mineral oil and lanolin alcohol	Rita
Ritachol 1000	Cetearyl alcohol (and) polysorbate 60 (and) PEG-150 stearate (and) steareth-20	Rita
Ritachol 2000	R.I.T.A. blend	Rita
Ritachol 5000	R.I.T.A. blend	Rita
Rita-CTAC	Cetrimonium chloride	Rita
Ritaderm	Petrolatum (and) lanolin (and) sodium PCA (and) polysorbate 85	Rita
Rita EGDS	Glycol distearate	Rita
Rita EGMS	Glycol stearate	Rita
Rita GC	Guanidine carbonate	Rita
Rita GMS	Glyceryl stearate	Rita
Ritahydrox	Hydroxylated lanolin	Rita
Ritalan	Lanolin oil	Rita
Ritalan AWS	PPG-12-PEG-65 lanolin oil	Rita
Ritalan C	R.I.T.A. blend	Rita
Ritalastin EL30	Hydrolyzed elastin	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ritaloe 40X	Aloe vera gel	Rita
Ritaloe 200M	Aloe vera gel	Rita
Ritamide C	Cocamide DEA	Rita
Ritapan D	d-Panthenol	Rita
Ritapan DL	dl-Panthenol	Rita
Ritapeg 150DS	PEG-150 distearate	Rita
Ritaphenone 3	Benzophenone-3	Rita
Ritapro 165	R.I.T.A. blend	Rita
Ritapro 200	R.I.T.A. blend	Rita
Rita SA	Stearyl alcohol	Rita
Rita-SBC	Stearalkonium chloride	Rita
Rita-STAC	Steartrimonium chloride	Rita
Ritasynt IP	Glycol stearate and others	Rita
Ritavena-5	Hydrolyzed oat flour	Rita
Ritawax	Lanolin alcohol	Rita
Ritawax ALA	R.I.T.A. blend	Rita
Ritoleth 5	Oleth-5	Rita
Ritoleth-10	Oleth-10	Rita
Ritox 35	Laureth-23	Rita
Robane	Squalane	Robeco
Rosemary Special		Dragoco
Rosswaxes	Waxes	Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Salon #169-122	Fragrance	
Sandopan DTC Acid	Trideceth-7-carboxylic acid	Sandoz
Sandobet SC	Cocamidopropyl hydroxysultaine	Sandoz
Sandoxylate SX-424	PPG-2-isodeceth-12	Sandoz
Setacin 103 Special		Zschimm-
SF 18 (350) silicone	Dimethicone	Dow Corn
Shea Butter		Koster
Shebu	Shea butter	Rita
Shebu WS	PEG-50 shea butter	Rita
Shellsol T	Petroleum distillates	Shell
Shellsol 71	Petroleum distillates	Shell
Sicomet Black 80 C.I. 77499		BASF
Sicomet Brown 70 C.I. 77491		BASF
Sicomet Brown 75 C.I. 77491		BASF
Sicomet Patentblau 80E 131 Patent Blue		BASF
Silicone 200/100		Dow Corn
Silicone Fluid DC-200 (200 cps)		Dow Corn
Silicone Fluid 225		Dow Corn
Silicone Fluid 344 and 345 (Volatile)		Dow Corn
Silkience Type #169-120 Fragrance		
Siliconyl Beeswax		Koster
Siltex -50 +100 Mesh	Fused silica	Kaopol
Simchin Refined	Jojoba oil	Rita
Sipon ES	Sodium lauryl ether sulfate	Rhone

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sipon ES-2	Sodium laureth sulfate	Rhone
Sipon ESY		Rhone
Siponate DDB-40	Alkyl aryl sulfonate	Rhone
Sipon LCP	Sodium lauryl sulfate	Rhone
SL 79-1224	Herbal fragrance	PFW
Softigen 701	Glyceryl ricinoleate	Huls
Softigen 767	PEG-6 caprylic/capric glycerides	Huls
Softisan 100	Hydrogenated coco-glycerides	Huls
Softisan 154	Hydrogenated palm oil	Huls
Softisan 378	Caprylic/capric/stearic triglyceride	Huls
Softisan 601	Glyceryl cocoate (and) hydrogenated cocoanut oil (and) cetareth-25	Huls
Softisan 645 & 649	Bis-diglyceryl caprylate/caprate/isostearate/hydroxystearate adipate	Huls
Solar Chem O		Caschem
Soltrol 100	C9-11 isoparaffin	Phillips
Solulan PB5	Alkoxyated lanolin derivative	Amerchol
Solulan 16	Laneth-16 & ceteth 16 & oleth-16 & steareth-16	Amerchol
Solulan 25	Laneth-25 & ceteth-25 & oleth-25 & steareth-25	Amerchol
Solulan 98	Polysorbate 80, acetylated lanolin alcohol, cetyl acetate	Amerchol
Soluvit CLR		CLR

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sorbo	Sorbitol solution, USP	ICI
Span 60	Emulsifying agent	ICI
Span 65	Emulsifying agent	ICI
Span 80	Emulsifying agent	ICI
Spermwax	Synthetic spermaceti	Robeco
Spicy Lime #4851-AN	Fragrance	IFF
S&P White NF 422P	Beeswax	
S&P #1 Yellow 73	Carnauba wax	
S&P 18	Microcrystalline wax	
S&P 75	Candelilla wax	
Span 40	Sorbitan monopalmitate	ICI
Squeeky Clean #165-047	Fragrance	
Standapol EA-2	Ammonium laureth sulfate	Henkel
Standapol ES-1	Sodium laureth sulfate	Henkel
Standapol ES-2	Sodium laureth-2 sulfate	Henkel
Standapol ES-3	Sodium laureth-3 sulfate	Henkel
Standapol WAQ-LC	Sodium lauryl sulfate	Henkel
Stepanol AM	Ammonium lauryl sulfate	Stepan
Stinging Nettle Special		Dragoco
Super Corona	Luxury USP lanolin	Croda
Supersat AWS-4	PEG-20 hydrogenated lanolin	Rita
Syncrowax ERCL	C18-36 acid glycol ester	Croda
Syncrowax HGLC	C18-36 acid triglyceride	Croda
Silicon Oil AK500		SWS

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sipon ES2	Sodium laureth sulfate	Rhone
Sedermasome	Soy lecithin	
SMDI Polyolprepolymer-2 PPG-12		
Softisan 378	Caprylic/capric/stearic triglyceride	Huls
Solulan-75	PEG 75 lanolin	Amerchol
Spectrapearl BLG	Pearlescent pigment	ISP
Spectraveil TG	Ultra-fine ZnO	Tioxide
Spectraveil 90/MOTG	Ultra-fine ZnO(40% solids Disp)	Tioxide
SS4267	Dimethicone and trimethyl-siloxysilicate	GE Silicone
Standamid KD	Cocamide DEA	Henkel
Standamide T	Teals	Henkel
Standapol ES-1&ES-2	Sodium laureth sulfate	Henkel
Standapol ES-3	Sodium laureth sulfate 28%	Henkel
Standapol T	TEA-lauryl sulfate	Henkel
Standapol WAQ&WAQ-SP	Sodium lauryl sulfate	Henkel
Sulfetal KT400		Zschimmer
Sulfetal TC50		Zschimmer
Sunarome OMC		Felton
Super Amide L-9	Coconut fatty acid diethanol-amide	Onyx
Super Hartolan	Lanolin alcohol	Croda
Super Refined Babassu Oil		
Super Refined Wheat Germ Oil		
Super Sterol Ester	C10-30 Cholesterol/Lanesterol Esters	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Super White	Petrolatum USP	
Suttocide A	Sodium hydroxymethylglycinate	Sutton
Syncrowax AW1-C	Synthetic wax	Croda
Syncrowax HGL-C	C18-36 acid triglyceride	Croda
Synthetic Beeswax JH-1508		Ross
TABS-D		Union Camp
Tagat S	Solubilizer	Goldschmidt
Takasago	Fragrance	
Talc Supra A	Premium talc, coarse ground	Cyprus
Tamol N	Dispersant	Rohm&Haas
Tapioca Flour		Nat Starch
Tegin M	Glyceryl stearate	Goldschmidt
Tegin T4753	Organic emulsifier	Goldschmidt
Tegobetaine L-7	Cocamidopropyl betaine	Goldschmidt
Teg. "P"		Goldschmidt
Tenox & Tenox 4	Antioxidant	Eastman
Tenox BHA	BHA	Eastman
Tensagex EOC-670		ICI
Tergitol NP-10	Surfactant	Union Carb
Terry AG002	Aloe vera gel	Terry
Ticaxan	Xanthan gum	Tic Gums
Timbuktu O/186901	Fragrance	
Timiron MP-10	Interference pigment	Rona Pearl

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Timiron Pearl Sheen MP-30	Interference Pigment	Rona
Timiron Super Red	Interference Pigment	Rona
Tioveil AQ/FIN/MOTG	Ultra-fine titanium dioxide	Tioxide
TL-10	PEG-20 sorbitan monolaurate	
Tocopherol		Rita
Tomah AO-728 Special		Tomah
Tritisol	Soluble wheat protein	Croda
Trivent NP-13 & SS-20	Tridecyl neopentanoate	Trivent
Trycol 5963	Ester	Henkel
Tween 20	Polysorbate 20	ICI
Tween 40	Polysorbate 40	ICI
Tween 60	Polysorbate 60	ICI
Tween 61	Polyoxyethylene sorbitan monostearate	ICI
Tween 80	Polysorbate 80	ICI
Tween 81	Polyoxyethylene sorbitan monooleate	ICI
Tween 85	Emulsifying agent	ICI
Unipertan P-24		Lipo
Usnat AO	Anti-dandruff	
Uvinul M-40	Benzophenone-3	BASF
Uvinul MS-40	Benzophenone-4	BASF
Uvinul O-18	Octyl salicylate	BASF

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
VancIay	Kaolin	Vanderbilt
Van Gel B		Vanderbilt
Vanox PCX	BHT	Vanderbilt
Vanseal CS	Sarcosinate surfactant	Vanderbilt
Vanseal NACS-30	Sodium cocoyl sarcosinate	Vanderbilt
Vansael NALS-30	Sarcosinate surfactant	Vanderbilt
Veegum/F/HV/Pro/ Regular/Ultra	Magnesium aluminum silicate	Vanderbilt
Velsan P8-3	Isopropyl C12-15 Pareth-9- Carboxylate	Sandoz
Veragel Liquid	Aloe vera gel	Dr. Madis
Veragel Liquid 1:1	Aloe vera gel	Dr. Madis
Veragel 200 Powder	Aloe vera	Dr. Madis
Versatyl-42	Hair spray polymer	Nat Starch
Versene NA	Disodium EDTA	Dow
Versene-220	Chelating agent	Dow
Vitamin A Palmitate Type PIMO/BH		
Vitamin E	Tocopherol	
Vitamin E Acetate	Tocopherol acetate	
Volatile Silicone 7207 Cyclomethicone		
Volpo 3	Oleth-3	Croda
Volpo 5	Oleth-5	Croda
Volpo S-2	Steareth-2	Croda
Volpo S-10	Steareth-10	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Wachsemulsion 1864		Zschimmer
Wheat Germ Oil		Rita
White Jojoba Oil		Ross
White Protopet	Petrolatum	Petrolite
White Protopet 1S	Petrolatum	Petrolite
Wickenol 163	Diethyl adipate (and) octyl stearate (and) octyl palmitate	Caschem
Wickenol 386	Aluminum zirconium tetra- chlorohydrate Gly	Caschem
Witconate AOS	Sodium C14-16 olefin sulfonate	Witco
Yellow BC Iron Oxides		Warner
Z-Cote		Sun Smart
Zetesol MS		Zschimmer
Zetesol NL		Zschimmer
Zetesol 856T		Zschimmer
Zetesol 2056		Zschimmer
Zusolat 1005/85		Zschimmer

Section XIV
Suppliers' Addresses

Ajinomoto USA, Inc.
 Glenpoint Ctr. W
 500 Frank W. Burr Blvd.
 Teaneck, NJ 07645
 (201)-907-3244

Akzo Chemicals, Inc.
 300 S. Riverside Plaza
 Chicago, IL 60606
 (312)-906-7500

Allied Signal, Inc.
 P.O. Box 2332R
 Morristown, NJ 07962
 (201)-455-2000

Alpine Aromatics Int'l Inc.
 51 Ethel Rd. W
 Piscataway, NJ 08854
 (908)-572-5600

Amerchol Corp.
 P.O. Box 4051
 136 Talmadge Rd.
 Edison, NJ 08818
 (908)-248-6000

American Colloid Co.
 Hwy 212W
 Belle Fourche, SD 57717
 (605)-892-2591

American Lecithin Co.
 33 Turner Rd.
 P.O. Box 1908
 Danbury, CT 06813
 (203)-790-2700

Amoco Chemical Co.
 200 E. Randolph Dr.
 Chicago, IL 60601
 (312)-856-3200/(800)-621-4567

Angus Chemical Co.
 1500 E. Lake Cook Rd.
 Buffalo Grove, IL 60089
 (708)-215-8600/(800)-323-6209

Aqualon
 1313 N. Market St.
 Wilmington, DE 19899
 (302)-594-5000/(800)-345-8104

Atotech North America
 900 Milk St.
 Cartaret, NJ 07008
 (908)-541-4414

BASF Corp.
 100 Cherry Hill Rd.
 Parsippany, NJ 07054
 (201)-316-3000/(800)-526-1072

Bernel Chemical Co., Inc.
 174 Grand Ave.
 Englewood, NJ 07631
 (201)-569-8934

Brooks Industries, Inc.
 70 Tyler Place
 South Plainfield, NJ 07080
 (908)-561-5200

Buckman Laboratories Int'l Inc.
 1256 N. McLean Blvd.
 Memphis, TN 38108
 (901)-278-0330/(800)-727-2772

Cabot Corp.
 Cab-O-Sil Div.
 Rte. 36W
 Tuscola, IL 61953
 (217)-253-3370/(800)-222-6745

Calgon Corp.
 P.O. Box 1346
 Pittsburgh, PA 15230
 (412)-777-8000

CasChem, Inc.
 40 Avenue A
 Bayonne, NJ 07002
 (201)-858-7900/(800)-CAS-CHEM

Centerchem, Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

CLE Inc.
11220 Grader St.
Dallas, TX 75238
(214)-341-4949/(800)-638-7947

CLR: Dr. K. Richter GmbH
Chemisches Laboratorium
Bennigonstrabe 25,
D-1000 Berlin

Croda, Inc.
7 Century Dr.
Parsippany, NJ 07054
(201)-644-4900

Cyclo Products Inc.
1922 E. 64 St.
Los Angeles, CA 90001
(213)-582-6411

Cyprus Industrial Minerals
P.O. Box 3419
Englewood, CO 80155
(800)-325-0299

Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660
(201)-641-6100

Dow Chemical USA
2020 Dow Center
Midland, MI 48674
(800)-258-CHEM

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000

Dragoco, Inc.
10 Gorden Drive
Totowa, NJ 07512
(201)-256-3850

Eastman Chemical Co.
P.O. Box 431
Kingsport, TN 37662
(615)-229-4006/(800)-EASTMAN

ECC America
5775 Peachtree-Dunwoody Rd.
Atlanta, GA 30342
(800)-843-3222

Exxon Chemical Americas
13501 Katy Frwy
Houston, TX 77079
(713)-870-6000/(800)-231-6633

Fanning Corp.
2450 W. Hubbard St.
Chicago, IL 60612
(312)-563-1234

Felton Worldwide
599 Johnson Ave.
Brooklyn, NY 11237

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

Florida Food Products Inc.
2231 W. Hwy 44
Eustis, FL 32726
(904)-357-4141

Fritsche Dodge & Olcott Inc.
76 Ninth Ave.
New York, NY 10011
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COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 5

by

Ernest W. Flick



NOYES PUBLICATIONS

Westwood, New Jersey, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN 0-8155-1395-X

Printed in the United States

Published in the United States of America by

Noyes Publications

369 Fairview Avenue

Westwood, New Jersey 07675

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data
(Revised for vol. 5)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55 1989 668'.55 89-39099

ISBN 0-8155-1218-X (v. 1)

ISBN 0-8155-1306-2 (v. 2)

ISBN 0-8155-1367-4 (v. 3)

ISBN 0-8155-1383-6 (v. 4)

ISBN 0-8155-1395-X (v. 5)

*To
Suzanne*

Preface

This book contains 1,444 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 5 of the Second Edition of this work; Volume 1 was published in 1989, Volume 2 in 1992, Volume 3 in early 1995 and Volume 4 in late 1995. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances. The 1996 market for cosmetic raw materials is estimated at \$2 billion.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 13 sections, with the number of formulations indicated in ().

- I. Antiperspirants and Deodorants (31)
- II. Baby Products (37)
- III. Bath and Shower Products (140)
- IV. Beauty Aids (172)
- V. Creams (238)
- VI. Hair Care Products (325)
- VII. Insect Repellents (7)
- VIII. Lotions (96)
- IX. Shampoos (225)
- X. Shaving Products (18)
- XI. Soaps and Hand Cleaners (30)
- XII. Sun Care Products (80)
- XIII. Miscellaneous (45)

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

XIV. Trade-Named Raw Materials. Each raw material is listed with a brief chemical description and the name of the raw material supplier.

XV. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade-Named Raw Materials section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

May 1996

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instruction, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users read and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I
Antiperspirants and
Deodorants

2 *Cosmetic and Toiletry Formulations*

Anti-Perspirant Cream

Soft white cream. Leaves no visible traces of aluminum chlorohydrate on the skin.

Material/CTFA-Index:

A: Cetyl Alcohol	2,50%
Stearyl Alcohol	2,50
Locron P/Aluminum Chlorhydrate	15,00
Eumulgin M8/Oleth-10 (and) Oleth-5	3,00
Eutanol G/Octyldodecano1	6,00
B: Belsil CM 040/Cyclomethicone	9,00
Water	62,00
Pigments, fragrances	q.s.

Mix A and heat to 70C, form a solid phase with warm water, work in Belsil CM 040 and dilute with water.

Temperature stability: at 45C 4 weeks.

Formulation 216 AH

Anti-Perspirant Cream

Soft white cream. Leaves no visible traces of aluminum chlorhydrate on the skin.

Material/CTFA-Index:

A: Cetyl Alcohol	2,50%
Stearyl Alcohol	2,50
Locron P/Aluminum Chlorhydrate	10,00
Eumulgin M8/Oleth-10 (and) Oleth-5	3,00
Eutanol G/Octyldodecano1	6,60
B: Belsil CM 040/Cyclomethicone	9,00
Belsil PDM 20/Phenylmethicone	3,00
Water	63,40
Pigments, fragrances	q.s.

Mix A and heat to 70C, mix in hot water, add B and mix well.

Temperature stability: at 45C over 10 weeks.

Formulation 217AH

Anti-Perspirant Roll-on

Milky white, liquid.

Material/CTFA-Index:

A: Locron P/Aluminum Chlorhydrate	20,00%
Wacker HDK H15/Silica	1,00
B: Lamecreme KS/Glyceryl Stearate se	3,00
Belsil DM 100/Dimethicone	5,00
C: Belsil CM 020/Cyclomethicone	71,00
Pigments, fragrances	q.s.

Mix A and heat to 70-75C, mix B and melt. Mix A and B, add C, cool.

Temperature stability: at 45C 3 weeks.

Formulation 185 AH

SOURCE: Wacker Silicone: Suggested Formulations

Antiperspirant Cream O/W

	<u>%W/W</u>
I Lanette O	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G *	8.0
II Aluminum chlorohydrate	20.0
Water	61.0

Formula No. F12-01

Antiperspirant Cream O/W Transparent, in Gel Form

	<u>%W/W</u>
I Eumulgin B3	12.0
Cetiol HE	20.0
Paraffin oil, high viscous	5.0
II Aluminum chlorohydrate	20.0
Water	43.0

Formula No. F12-02

Perfumed Cream O/W Transparent, in Gel Form

	<u>%W/W</u>
I Eumulgin B1	2.0
Ethyl alcohol 96%	45.0
Carbopol 940	1.5
Perfume	5.0
II Triethanolamine	2.3
Water	44.2

Preparation:

Eumulgin B1 and the perfumed oil are dissolved in the mixture of ethyl alcohol and 40 parts water; the Carbopol 940 is stirred while being swelled in the solution. The dispersion produced is neutralized with the mixture of triethanolamine and the rest of the water.

Formula No. F13-01

Perfumed Cream O/W Transparent, in Gel Form

	<u>%W/W</u>
Cetiol HE	2.0
Ethyl alcohol 96%	20.0
Viscontran HEC 30 000 PR-3% solution	65.0
Perfume, water-soluble	5.0
Water	8.0

Formula No. F13-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Anti-perspirant Roll-on
Slightly cloudy, high viscosity.

Material/CTFA-Index:

A: Belsil DMC 6032/Dimethicone Copolyol Acetate	2,00%
Water	52,00
B: Ethanol/Alcohol (Cosmetic grade)	25,00
C: Locron L/Aluminum Chlorhydrate	20,00
Tylose H 4000 P/Hydroxyethylcellulose	0,5-1,0
Pigments, fragrances	Q.S.

Mix A, stir B into A, mix in C. The desired viscosity can be regulated with Tylose H 4000 P (add Tylose H 4000 P either mixed with water to A or mix at the end in the finished formulation).

Formulation 516 AH

Anti-perspirant Roll-on
Cloudy, low viscosity.

Material/CTFA-Index:

Water	51,20%
Ethanol/Alcohol (Cosmetic grade)	12,00
Belsil DMC 6031/Dimethicone Copolyol	5,00
Wacker HDK H15/Silica	1,50
Tylose H 4000 P/Hydroxyethylcellulose	0,30
Locron L/Aluminum Chlorhydrate	30,00
Pigments, fragrances	q.s.

Mix the water and cosmetic alcohol, dissolve Belsil DMC 6031. Add HDK H15 and Tylose H 4000 P to the solution whilst stirring. Stir in the aluminum chlorhydrate.

Temperature stability: at 45C over 10 weeks.

Formulation 242 AH

Anti-perspirant Stick
White firm stick with little soft rub.

Material/CTFA-Index:

A: Belsil CM 040/Cyclomethicone	52,50%
B: Stearyl Alcohol	24,00
Arlacel 165/Glyceryl Stearate se	1,00
Locron P/Aluminum Chlorhydrate	22,00
Pigments, fragrances	q.s.

Mix B and heat to 65C. Stir in Belsil CM 040.

Temperature stability: at 45C over 10 weeks.

Formulation 302 AH

SOURCE: Wacker Silicone: Suggested Formulations

Clear Antiperspirant Stick

A solid antiperspirant stick which contains a solubilized enhanced efficacy aluminum-zirconium tetrachlorohydrate GPG active in a clear base.

<u>Ingredients:</u>	<u>% by weight</u>
A. Reach AZP-908PG (30% soln.)	50.00
B. Propylene Glycol	20.70
C. PPG-3-Isosteareth-9	8.00
D. Propylene Carbonate	6.00
E. Dipropylene Glycol	4.00
F. Dibenzylidene Sorbitol	3.00
G. Isosteareth-2	3.00
H. Laureth-2 Benzoate	2.00
I. Dimethicone Copolyol	1.50
J. AMP Regular	1.80
K. Fragrance	q.s.

Procedure:

1. Add B,D,E, and I in sequence to beaker with medium agitation and heat to 100C.
2. Add F to beaker and mix with medium agitation until dissolved and the solution is clear. Lower temperature to 95C.
3. Heat A separately to 85C and add J. Mix until clear. Add to main batch.
4. Premix C, G, H, and K and heat to 85C and add to main batch slowly at low to medium speed.
5. Continue mixing and pour into casings at 80-85C.

Formulation PF-0276 suggested by Reheis, Inc.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Antiperspirant Roll-on

Colourless, clear, low-viscosity.

Material/CTFA-Index:

Wacker-Belsil DMC 6038/Dimethicone Copolyol	2,00%
Water	53,00
Ethanol/Alcohol (Cosmetic grade)	25,00
Locron L/Aluminumchlorhydrat	20,00
Fragrances, pigments	q.s.

Mix all ingredients.

SOURCE: Wacker Silicone: Formulation 180 AH

Deodorant Emulsion O/W for Roll-On

	<u>%W/W</u>
I Cutina MD	4.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	5.0
Bactericide	0.5
II Ethyl alcohol 96%	10.0
Carbopol 934	0.3
Triethanolamine	0.5
Henkel Glycerin 86% DAB 9	5.0
Water	71.7

Preparation:

The fatty substances are melted on the water bath at approx. 70C and the bactericide is dissolved. 50 parts of the water are mixed with the glycerine, heated to approx. 75 C and, stirring slowly, added to the fat phase. The Carbopol 934 is stirred while being dispersed in 15 parts of the water. After the emulsion has cooled to approx. 35C, the ethyl alcohol and the Carbopol dispersion are added, perfumed, preserved and neutralized with the triethanolamine which has been dissolved earlier in the remaining 6.1 parts of the water.

Formula NO. F21-01

Antiperspirant Emulsion O/W, Liquid (Roll-On)

	<u>%W/W</u>
I Lanette 16	2.0
Cutina MD	5.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	4.0
II Aluminum chlorohydrate	10.0
Water	76.0

Formula No. F22-01

Antiperspirant Emulsion O/W (Roll-On)

	<u>%W/W</u>
Eutanol G	3.0
Viscontran MC 400-6% solution	30.0
Aluminum chlorohydrate	20.0
Ethyl alcohol 96%	17.0
Water	30.0

Preparation:

The aluminum chlorohydrate is dissolved in 30 parts water and this solution is added to the Viscontran solution. The mixture of Eutanol G and ethyl alcohol is stirred in and then homogenized.

Formula No. F22-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Deodorant Lotion Clear (Roll-On)

	<u>%W/W</u>
Hydagen DEO	2.0
Cetiol HE	3.0
Ethyl alcohol 96%	25.0
Viscontran HEC 30,000 PR 1% solution	40.0
Eumulgin RO 40	1.2
Perfume	0.4
Water	28.4
Formula No. F51-01	

Deodorant Antiperspirant Lotion, Clear (Roll-On)

	<u>%W/W</u>
Hydagen DEO	1.5
Locron P	30.0
Cetiol HE	2.0
Ethyl alcohol 96%	30.0
Viscontran HEC 30,000 PR 1% solution	20.0
Perfume	0.2
Eumulgin RO 40	1.2
Water	15.1
Formula No. F51-02	

Antiperspirant Lotion

	<u>%W/W</u>
Cetiol HE	6.0
Ethyl alcohol 96%	20.0
Aluminum chlorohydrate-50% solution	30.0
Henkel Glycerin 86% DAB 9	3.0
Water	41.0

Note: Such a lotion can be used, for example, with a pump atomizer. The spray behavior depends on the type of atomizer. The formulation must then be changed by increasing the alcohol proportion.

Formula No. F52-01

Antiperspirant Lotion (Without Alcohol)

	<u>%W/W</u>
Cetiol HE	5.0
Eumulgin 286	2.0
Aluminum chlorohydrate	20.0
Henkel Glycerin 86% DAB 9	2.0
Water	71.0
Formula No. F52-02	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Deodorant Spray Aerosol-Packed

	<u>%W/W</u>
Eutanol G	10.0
Bactericide	0.1
Perfume	1.0
Ethyl or Isopropyl Alcohol	88.9

Filling: 50 parts active ingredient concentrate
 50 parts propellant 12/114 (40:60)
 Formula No. F71-01

Deodorant Spray Aerosol-Packed

	<u>%W/W</u>
I Hydagen DEO	1.5
Ethyl alcohol 96%	28.2
Perfume	0.3

II Propellant gas Frigen 11/12 (40:60) 70.0
 Formula No. 71-02

Antiperspirant Spray Aerosol-Packed

	<u>%W/W</u>
Eutanol G	50.0
Locron P	35.0
Aerosil 200	5.0
Perfume	10.0

Filling: 10 parts solution
 90 parts propellant 11/12 (65:35)
 Formula No. 72-01

Deodorant, Antiperspirant Spray, Aerosol-Packed

	<u>%W/W</u>
Hydagen DEO	2.0
Myritol 318	2.0
Locron P	3.0
Aerosil 200	0.1
Perfume	0.3

Filling: 8% (weight percentage) active ingredient solution
 92% (weight percentage) propellant Frigen 11/12 (35/65)

Note: The product must be shaken before use.
 Formula No. F72-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Deodorant Stick

	<u>%W/W</u>
Lanette O	3.0
Eutanol G	27.0
Comperlan 100	3.0
Siegert Stearin L4	8.0
Perfume	2.0
Bactericide	0.2
Ethyl alcohol 96%	51.8
1,2-propylene glycol	2.0
Sodium hydroxide solution 38%	3.0

Preparation:

Lanette O, Eutanol G, Comperlan 100, Siegert Stearin L4 and the bactericide are melted together on the water bath at approx. 70C with most of the ethyl alcohol. Propylene glycol and the remaining part of the alcohol are mixed together with the sodium hydroxide solution, also heated to 70C and stirred into the alcoholic fat melt. The compound is then perfumed and cast in moulds. It solidifies in a few minutes and can be taken out of the mould before it cools down completely. It is advisable to work with a certain excess of alcohol. In small batches, this is about 10%, whilst in larger ones, correspondingly less. Because of the risk of evaporation, the finished stick must be packed in a sufficiently tight container.

Note: Max. pH 11

Formula No. F41-01

Deodorant Stick Without Alcohol

	<u>%W/W</u>
Siegert Stearin L2SM	8.0
Comperlan 100	3.0
Lanette 22	8.0
Irgasan DP 300	0.5
1,2-propylene glycol	65.3
Sodium hydroxide sol. 10%	15.2

Formula No. F41-04

Deodorant Stick Without Alcohol

	<u>%W/W</u>
Siegert Stearin L2SM	10.0
Comperlan 100	4.0
Lanette 22	10.0
Irgasan DP 300	0.5
1,2-Propylene glycol	56.5
Sodium hydroxide sol. 10%	19.0

Formula No. F41-05

Preparation for Formulas F41-04 and F41-05:

Siegert Stearin L2SM, Comperlan 100, Lanette 22, Irgasan DP 300 are dissolved in 40 parts propylene glycol at 70C. The sodium hydroxide solution is also heated to 70C with the rest of the propylene glycol and stirred into the melt. It is poured into moulds at 65C.

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Deodorant Stick

Translucent stick with soft rub.

Material/CTFA-Index:

Sodium Stearate	6,00%
Ethanol 96 %ig/Alcohol (cosmetic grade)	65,00
Propylene Glycol	24,80
Belsil CM 040/Cyclomethicone	3,00
Pigments, preservatives, fragrances	q.s.

Mix all components and heat to 60-70C, until all the sodium stearate has melted. Fill at 60C.

Temperature stability: at 45C over 10 weeks.

Formulation 186 AH

Deodorant Stick

Firm, slightly yellow stick with soft rub.

Material/CTFA-Index:

Lanolin Acid	50,00%
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyl-disiloxane	36,00
Isopropyl Myristate	5,00
Belsil DM 350/Dimethicone	4,00
Belsil CM 040/Cyclomethicone	5,00
Preservatives, pigments, fragrances	q.s.

Melt all components together. Fill while hot.

Temperature stability: at 45C over 10 weeks.

Formulation 279 AH

Deodorant Stick

Firm, slightly yellow stick with little rub.

Material/CTFA Index

A: Lanolin Acid	60,00%
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyl-disiloxane	30,00
Belsil DM 35/Dimethicone	5,00
B: Belsil CM 040/Cyclomethicone	5,00

Melt A, mix in B, fill while hot.

Temperature stability: at 45C over 10 weeks.

Formulation 357 AH

SOURCE: Wacker Silicone: Suggested Formulations

Deodorant Stick Formulation

<u>Ingredient:</u>	<u>Weight%</u>
Propylene Glycol	67.2
Water	19.2
Phenoxyde STA-100 (Steareth-100)	4.4
Sodium Stearate	4.1
Silwax WS-L	4.0
Phenoxyde STA-2 (Steareth-2)	0.6
Triethanolamine	0.5

Procedure:

1. Add water, propylene glycol and heat to 75C.
2. Add other ingredients in order shown under agitation.
3. Cool to 60C.
4. Add fragrance and color as desired.

Silwax WS-L is a patented silicone compound which lowers the tack of the stick and provides a silicone feel. It does not affect the clarity.

Formula L-2418A

Deodorant Stick Formulation

<u>Ingredient:</u>	<u>Weight%</u>
Propylene Glycol	67.2
Water	19.2
Phenoxyde STA-100 (Steareth-100)	4.4
Sodium Stearate	4.1
Silwax WD-F	4.0
Phenoxyde STA-2 (Steareth-2)	0.6
Triethanolamine	0.5

Procedure:

1. Add water, propylene glycol and heat to 75C.
2. Add other ingredients in order shown under agitation.
3. Cool to 60C.
4. Add fragrance and color as desired.

Silwax WD-F is a patented fluorine containing silicone compound which lowers the tack of the stick and provides a unique non-sticky feel. The formulation using Silwax WD-F is not clear.

Formula L-2375B

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Section II

Baby Products

Baby Cream
Soft

Recipe:

A	Hostacerin WO	8.00%
	Polyglyceryl-2 Sesquiisostearate (and) Beeswax (and)	
	Microcrystalline Wax (and) Mineral Oil (and)	
	Magnesium Stearate (and) Aluminum Stearate	
	Permulgin 4200	2.00%
	Microcrystalline Wax	
	Amerlate W	2.00%
	Isopropyl Lanolate	
	Vaseline	10.00%
	Mineral oil, high viscosity	15.00%
	Isopropyl palmitate	5.00%
	Calendula oil	2.00%
	Antioxidant	q.s.
B	Zinc oxide	10.00%
	Talc	5.00%
C	Allantoin	0.20%
	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	D-Panthenol	0.60%
	Water	39.65%
	Preservative	q.s.
D	Perfume	0.20%

Procedure:

- I Melt A at 80C, then add B. II Heat C to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add D to IV.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
 Formula A VI/5804

Baby Cream

White, soft cream. Slightly greasy, but well absorbed.
Water-proof.

Material/CTFA-Index:

A: Hostacerin WO/Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	10.00%
Lunacera M/Microwax	1.00
Mineral Oil (high viscosity)	10.00
Isopropyl Myristate	7.00
B: Glycerine	3.00
Water	61.60
C: Belsil CM 1000/Cyclomethicone (and) Dimethiconol	5.00
Preservatives, perfume, pigments	q.s.

W/O Cream

Melt A at approx. 80C, heat B to 80C. Stir A into B with
good agitation. Add C at approx. 45C.

Temperature stability: at 45C more than 10 weeks.

Formulation 809 AH

Baby Lotion

High-viscosity lotion, easily spread.

Material/CTFA-Index:

A: Wacker-Belsil DM 350/Dimethicone	35.00
Crodawachs GP 200/Stearylalcohol (a.) PEG Stearate	4.00
B: Water	55.00
C: Zinc Oxide	6.00
Preservative, fragrances, pigments	q.s.

Heat both A and B to 60-65C, stir B into A, and then add C.

Formulation 939 AH

SOURCE: Wacker Silicone: Formulation 939 AH

Baby Shampoo

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	49.40
Sodium Lauramphoacetate & Sodium Trideceth Sulfate	25.00
Sodium Laureth-3 Sulfate	10.00
Hetaine CLA (Canolamidopropyl Betaine)	4.00
Hetsorb L-80-72% (PEG-80 Sorbitan Laurate)	10.00
PEG-150 Distearate	0.90
Phase B:	
Quaternium-15	0.20
Phase C:	
Citric acid	0.50
Specifications:	
pH: 6.90	
Viscosity #3/12: 2000 cps	

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer, combine Phase A. Heat to 70C while mixing until uniform.
 - 2) Cool to 45C while mixing; add Phase B.
 - 3) Adjust to desired pH with Phase C.
- Formula HS 92-61-3

Baby Bath

<u>Ingredients:</u>	<u>%</u>
H2O, Deionized	58.8
PEG-80 Glyceryl Cocoate	14.0
Sodium Lauryl Sulfate	12.0
PEG-30 Glyceryl Cocoate	8.0
Hetaine CLA (Canolamidopropyl Betaine)	6.0
Aloe Vera Gel	0.5
Methyl Paraben	0.25
Propyl Paraben	0.15
Imidazolidinyl Urea	0.30
Specifications:	
pH: 6.80	
Viscosity #3/12: 2300	

Procedure:

In a stainless steel kettle, combine all ingredients, except imidazolidinyl urea, and heat to 70C while mixing until uniform. Cool to 30C and add remaining ingredient. Mix well.

Formula HB 93-92

SOURCE: Heterene, Inc.: Suggested Formulations

Bubble Bath for Babies and Children, Clear, Liquid

	<u>%W/W</u>
Texapon SBN	60.0
Cremogen camomile spec.	2.0
Sodium chloride	2.0
Water	36.0

Note: WAS 18%, medium viscous
Formula No. R62-01

Bubble Bath for Babies and Children, Clear, Liquid

	<u>%W/W</u>
Texapon ASV	50.0
Cetiol HE	5.0
Cremogen, camomile spec.	3.0
Sodium chloride	3.0
Perfume, water-soluble	1.0
Water	38.0

Note: WAS 15%, medium viscous
Formula No. R62-03

Bubble Bath for Babies and Children, Liquid

	<u>%W/W</u>
Dehyton AB30	40.0
Lamepon S	20.0
Nutrilan L	2.0
Comperlan KM	3.0
Perfume, water-soluble	1.0
Water	34.0

Note: WAS 19%, low viscous
Formula No. R62-05

Care Bath for Babies and Children

	<u>%W/W</u>
Texapon K14S special	22.0
Comperlan LS	3.0
Sodium chloride	0.7
Cremogen camomile special	3.0
Cetiol HE	2.0
Citric acid, 10% sol.	0.3
Water	69.0

Note: WAS 9%
Formula No. R62-07

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath for Babies and Children, Pearly

	<u>%W/W</u>
Texapon SBN	60.0
Cutina AGS	3.0
Creragen camomile spec.	2.5
Sodium chloride	2.5
Water	32.0

Note: WAS 18%, medium viscous
Formula No. R63-01

Care Bath for Babies and Children, Pearly

	<u>%W/W</u>
Texapon K14S special	26.0
Euperlan PK 771	10.0
Comperlan KD	3.0
Sodium chloride	1.0
Cetiol HE	3.0
Creragen camomile, spec. new	3.0
Citric acid 10% sol.	0.4
Water	53.6

Note: WAS 14%
Formula No. R63-03

Care Bath for Babies and Children, Pearly

	<u>%W/W</u>
Texapon ASV	40.0
Dehyton AB 30	20.0
Euperlan PK 810	3.0
Water	37.0

Note: WAS 19%
Formula No. R63-05

Care Bath for Babies and Children, Pearly

	<u>%W/W</u>
Texapon ASV	40.0
Dehyton K	20.0
Euperlan PK 810	3.0
Comperlan LS	2.0
Citric acid 10% sol.	4.0
Water	31.0

Note: WAS 21%
Formula No. R63-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream for Babies and Children O/W

	<u>%W/W</u>
I Cutina MD	15.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol LC	10.0
Myritol 318	10.0
Calendula oil CLR	4.0
II Aluminum hydroxyallantoinate	0.2
Water	54.8
III Cremogen witch hazel extract	3.0
Formula No. R11-01	

Cream for Babies and Children O/W

	<u>%W/W</u>
I Dehymuls E	7.0
Cetiol V	10.0
Vaseline, white	15.0
Wool fat, anhydrous	5.0
Talc	15.0
Zinc oxide	10.0
II Water	38.0
Formula No. R11-03	

Cream for Babies and Children, Anhydrous

	<u>%W/W</u>
Dehymuls K	30.0
Cetiol SN	10.0
Myritol 318	10.0
Vaseline, white	20.0
Ozokerite	3.0
Vitamin F glycerine ester CLR	2.0
Rice starch	10.0
Kaolin	10.0
Zinc oxide	5.0
Formula No. R11-05	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream for Babies and Children W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol V	8.0
Myritol 318	5.0
Vaseline, white	15.0
Calendula oil CLR	3.0
II Allantoin	0.2
Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.5
Perfume	0.3
Water	55.0
Formula No. R11-07	

Vulnerary Cream for Children W/O

	<u>W/W</u>
I Dehymuls F	10.0
Novata AB	5.0
Cetiol V	5.0
Paraffin oil, low viscous	5.0
Vaseline, white	23.0
Microwax HP 67	3.0
II Aluminum stearate	0.5
Titanium dioxide	15.0
Kaolin	9.0
Bismuth subgallate	1.0
Allantoin	0.2
Wheat starch	10.0
III Water	13.3
Formula No. R11-08	

Baby Cream O/W

	<u>%W/W</u>
I Cutina E24	5.0
Cutina MD	10.0
Lanette O	2.0
Eutanol G	6.0
Myritol 318	6.0
Cetiol 868	10.0
Calendula oil CLR	3.0
Cetiol SN	5.0
II Allantoin	0.3
Henkel Glycerin 86% DAB 9	5.0
Water	47.7
Formula No. R11-09	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Emulsion for Babies and Children O/W

	<u>%W/W</u>
I Cutina MD	7.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	10.0
Calendula oil	3.0
Paraffin oil, high viscous	6.0
Vitamin F glycerine ester CLR	3.0
Cetiol SN	5.0
II 1,2-propylene glycol	5.0
Water	58.0
Formula No. R21-01	

Oil for Babies and Children

	<u>%W/W</u>
Eutanol G	30.0
Isopropyl palmitate	10.0
Myritol 318	10.0
Calendula oil CLR	3.0
Carrot oil CLR	1.0
Paraffin oil, high viscous	46.0
Formula No. R31-01	

Oil for Babies and Children

	<u>%W/W</u>
Cetiol SN	40.0
Myritol 318	56.0
Calendula oil CLR	4.0
Formula No. R31-02	

Vulnerary Stick for Babies and Children

	<u>Parts</u>
Cutina LM	60.0
Myritol 318	15.0
Zinc oxide	7.5
Talc	7.5
Bismuth subgallate	5.0
Formula No. R41-02	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo for Babies and Children

Texapon ASV	%W/W
Water	50.0
Note: WAS 15%, low viscous	
Formula No. R61-01	50.0

Shampoo for Babies and Children

Texapon SBN	%W/W
Sodium chloride	50.0
Water	3.0
Note: WAS 16%, medium viscous	
Formula No. R61-03	47.0

Shampoo for Babies and Children

Texapon N25/N40	%W/W
Dehyton K	30.0
Sodium chloride	10.0
Water	1.5
Note: WAS 11%, viscous	
Formula No. R61-05	58.5

Shampoo for Children, with Ampholyte, Pearly

Texapon ASV	%W/W
Dehyton K	60.0
Euperlan PK 771	5.0
Sodium chloride	5.0
Water	2.5
Note: WAS 21%, high viscous	
Formula No. R61-07	27.5

Shampoo for Babies and Children, Pearly

Texapon ASV	%W/W
Euperlan PK 810	40.0
Comperlan F	4.0
Sodium chloride	2.0
Water	2.0
Note: WAS 15%	
Formula No. R61-09	52.0

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo for Babies and Children, Clear

	%W/W
Texapon ASV 70 special	10.0
Texapon N70	10.0
Comperlan OD	1.0
Sodium chloride	4.0
Lecithin, water disp.	0.5
Water	74.5
Note: Low viscous, WAS 15%	
Formula No. R61-19	

Shampoo for Babies and Children, with Vitamin

	%W/W
Comperlan OD	2.0
Vitamin E/Covitol 1100	0.5
Perfume	0.2
Texapon ASV	30.0
Dehyton G-SF	5.5
Sodium chloride	3.0
Water	58.8
Note: WAS 13%	
Preparation: Contents are mixed in the order shown above without heating.	
Formula No. R61-21	

Shampoo for Babies and Children, with Vitamin E

	%W/W
Comperlan KD	1.5
Vitamin E/Covitol 1100	0.5
Perfume	0.2
Texapon K14 S special	30.0
Dehyton G	10.0
Sodium chloride	2.0
Water	55.8
Note: WAS 13%	
Preparation: Contents are mixed in the order shown above without heating.	
Formula No. R61-23	

Baby Shampoo, Pearly

	%W/W
Texapon SBN	39.3
Lamepon S	18.8
Nutrilan L	5.0
Monomuls 90-L 12	1.0
Lamesoft 156	5.0
Hexaplant Richter	1.0
Perfume	0.3
Sodium chloride	1.2
Water	28.4
Note: Medium viscous, WAS 17%	
Preparation: Ingredients are mixed in the order shown above.	
Monomuls 90-L 12 is easier to work in when heated.	
Formula No. R61-25	
SOURCE: Henkel KGaA: Cosmetic Model Formulae	

Shampoo for Babies and Children, Pearly

	<u>%W/W</u>
Texapon ASV	40.0
Euperlan PK 810	2.0
Comperlan F	2.0
Sodium chloride	3.0
Water	53.0
Note: WAS 14%	
Formula No. R61-10	

Shampoo for Babies and Children, with Ampholyte, Pearly

	<u>%W/W</u>
Texapon ASV	35.0
Dehyton G	10.0
Comperlan KD	1.0
Euperlan PK 771	2.0
Sodium chloride	1.5
Water	50.0
Note: WAS 15%	
Formula No. R61-12	

Shampoo for Babies and Children, Clear

	<u>%W/W</u>
Texapon K14S special	25.0
Comperlan KD	2.0
Dehyton G	10.0
Sodium chloride	2.5
Water	60.5
Note: WAS 12%	
Formula No. R61-14	

Shampoo for Babies and Children

	<u>%W/W</u>
Texapon ASV	50.0
Comperlan OD	2.0
Sodium chloride	3.0
Water	45.0
Note: WAS 17%	
Formula No. R61-16	

Shampoo for Babies and Children, Clear

	<u>%W/W</u>
Texapon ASV 70 special	10.0
Dehyton K	10.0
Comperlan OD	2.0
Sodium chloride	2.5
Water	75.5
Note: Viscous, WAS 12%	
Formula No. R61-18	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Section III
Bath and Shower Products

Bath Oil Emulsion

	<u>%W/W</u>
I Eumulgin O5	1.5
Eumulgin O10	1.5
Rilanit GMO	1.0
Eutanol G	50.0
Paraffin oil	15.0
Perfume	2.0
II Aerosil 200	1.5
Water	27.5

Formula No. L68-01

Bath Milk Emulsion

	<u>%W/W</u>
I Cutina MD	6.0
Siegert Stearin L2SM	4.0
Eumulgin B1	3.0
Eumulgin B2	3.0
Isopropyl Myristate	8.0
Eutanol G	4.0
Vitamin oil Biocorno	4.0
Paraffin oil	8.0
II Milk powder	1.0
Triethanolamine	0.4
Water	58.6

Formula No. L68-02

Bath Oil

	<u>%W/W</u>
Eumulgin 286 DEO	20.0
Turkish red oil	10.0
Ethyl alcohol 96%	20.0
Perfume	30.0
Water	20.0

Note: This formula belongs to the bath oil category although no refatting additives are used here. Such a formula, which is primarily intended for perfuming the body, should be designated rather as a scent bath or perfumed bath.

This bath oil dissolves completely in water.
Formula L67-12

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bath Oil, Liquid

	<u>%W/W</u>
Eumulgin O5	10.0
Cetiol A	40.0
Comperlan KD	10.0
Myritol 318	10.0
Paraffin oil	25.0
Perfume	5.0

Formula No. K67-01

Bath Oil, Liquid

	<u>%W/W</u>
Dehydol LS2 DEO	10.0
Aethoxal B	40.0
Cetiol A	30.0
Myritol 318	15.0
Perfume	5.0

Formula No. L67-03

Bath Oil, Liquid

	<u>%W/W</u>
Dehydol LS2 DEO	10.0
Cetiol HE	85.0
Perfume	5.0

Formula No. L67-05

Bath Oil, Liquid

	<u>%W/W</u>
Aethoxal B	90.0
Perfume	10.0

Formula No. L67-08

Bath Oil, Spreading

	<u>%W/W</u>
Dehydol LS2 DEO	5.0
Myritol 318	40.0
Paraffin oil, high viscous	50.0
Perfume	5.0

Formula No. L67-10

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble-Bath

With pearl lustre effect, 18.2% active ingredient

Recipe:

A	Hostapon CT paste	8.00%
	Sodium Methyl Cocoyl Taurate	
B	Water	20.00%
C	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
	Genapol AMG	10.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol PGM liquid	4.00%
	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	
	Gelita Sol C	3.00%
	Hydrolyzed Collagen	
	Perfume	0.50%
	Water	10.70%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genapol L-3	2.00%
	Laureth-3	
D	Sodium chloride	1.80%

Procedure:

- I Dissolve A in warmed B.
- II One after another the components of C are added to I.
- III If necessary adjust the pH.
- IV Finally adjust the viscosity with D.

Formulation A I/2009

Bubble-Bath

Low price quality, clear, 10.0% active ingredient

Recipe:

A	Genapol LRO liquid	25.00%
	Sodium Laureth Sulfate	
B	Hostapur SAS 60	5.00%
	Sodium C14-17 Sec. Alkyl Sulfonate	
	Perfume	0.50%
	Water	67.50%
	Dyestuff solution	q.s.
	Preservative	q.s.
C	Sodium chloride	2.00%

Procedure:

- I One after another the components of B are added to A.
- II If necessary adjust the pH.
- III Finally adjust the viscosity with C.

Formulation A I/2010

SOURCE: Hoechst; Guide Formulations for Cosmetics & Toiletries

Bubble-Bath

With pearl lustre effect, 22.0% active ingredient

Recipe:

A	Genapol LRO liquid	60.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Perfume	1.50%
	Cetiol HE	5.00%
	PEG-7 Glyceryl Cocoate	
	Genapol PGL	5.00%
	Glycol Distearate (and) Cocamide MEA (and)	
	PPG-4 Deceth-4	
	Water	11.50%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Genapol L-3	1.00%
	Laureth-3	
C	Sodium chloride	2.00%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formulation A I/3025

Special Bath

Clear, low foaming

Recipe:

A	Genagen CA-050	30.00%
	PEG-5 Cocamide	
B	Rosmarin bath	5.00%
	Isopropyl palmitate	5.00%
	Water	50.00%
	Genapol LRO liquid	10.00%
	Sodium Laureth Sulfate	

Procedure:

One after another the components of B are added to A.

Formulation A I/7017

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Bubble Bath, Clear

	<u>%W/W</u>
Texapon N25	30.0
Cetiol HE	2.0
Comperlan KD	2.0
Sodium chloride	3.0
Perfume, water soluble	1.0
Water	62.0
Note: High viscous, WAS 10%	
Formula No. L61-01	

Bubble Bath, Clear, Liquid with Protein

	<u>%W/W</u>
Texapon N40	30.0
Lamepon S	20.0
Comperlan KD	1.0
Nutrilan L	3.0
Sodium chloride	2.0
Perfume, water-soluble	2.0
Water	42.0
Note: High viscous, WAS 15%	
Formula No. L61-03	

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N40	30.0
Lamepon S	20.0
Sodium chloride	1.5
Perfume, water-soluble	2.0
Water	46.5
Note: High viscous, WAS 16%	
Formula No. L61-04	

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon MLS	60.0
Dehyton AB 30	10.0
Comperlan KD	4.0
Perfume, water-soluble	3.0
Water	23.0
Note: The addition of Dehyton AB 30 gives this formula a slight deodorizing effect.	
Medium viscous, WAS 27%	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	79.0
Comperlan LS	3.0
Cetiol HE	5.0
Perfume	2.0
Citric acid 10% solution	0.3
Water	10.7
Note: WAS 25%	
Formula L61-31	

Bubble Bath, Clear, with Ethereal Oil

	<u>%W/W</u>
Texapon N40	50.0
Eumulgin SML 20	5.0
Eucalyptus oil	2.0
Pine needle oil	2.0
Water	41.0
Note: WAS 19%	
The quantity of emulsifier must be varied in accordance with the type of ethereal oil used.	
Formula L61-33	

Bubble Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	36.0
Comperlan LS	3.0
Sodium chloride	0.7
Aethoxal B	2.0
Perfume	1.0
Citric acid 10% solution	0.4
Water	56.9
Note: 13% WAS	
Formula No. L61-35	

Bubble Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	57.0
Comperlan LS	3.0
Sodium chloride	0.4
Aethoxal B	2.0
Perfume	1.0
Citric acid 10% solution	0.4
Water	36.2
Note: WAS 19%	
Formula No. L61-37	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon IES	50.0
Comperlan LS	4.0
Perfume, water-soluble	3.0
Water	43.0

Note: High viscous, WAS 34%
Formula No. L61-08

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Sulfopon 101 Spec.	60.0
Comperlan KD	3.0
Perfume, water-soluble	3.0
Water	34.0

Note: Low viscous, WAS 22%
Formula No. L61-11

Vitamin Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N25	90.0
Comperlan KM	3.0
Soluvit Richter	4.0
Perfume	3.0

Note: High viscous, WAS 26%
Formula No. L61-14

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N40	60.0
Aethoxal B	20.0
Isopropyl Myristate	10.0
Perfume	2.0
Water	8.0

Note: Medium viscous, WAS 17%
Formula No. L61-15

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon MLS	60.0
Comperlan LS	3.0
Cetiol HE	10.0
Perfume	3.0
Sodium chloride	2.0
Water	22.0

Note: Medium viscous, WAS 23%
Formula No. L61-17

Algae Bubble Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N40	70.0
Cetiol HE	10.0
Comperlan KD	3.0
Extrapon algae super	3.0
Perfume Brise bleu	3.0
Water	11.0

Note: Medium viscous, WAS 23%
Formula No. L61-19

Bubble Bath

	<u>%W/W</u>
Texapon N25	15.0
Cetiol HE	2.0
Viscontran HEC 30 000 PR-2% solution	60.0
Perfume, water-soluble	1.0
Water	22.0

Note: High viscous bubble bath with an extremely low WAS content
of approx. 4%
Formula No. L61-21

Bubble Bath

	<u>%W/W</u>
Texapon N25	20.0
Cetiol HE	2.0
Viscontran HEC 30 000 PR-2% solution	77.0
Perfume, water-soluble	1.0

Note: High viscous bubble bath having a low WAS content of
approx. 6%
Formula No. L61-22

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath, Clear, in Gel Form

	<u>%W/W</u>
Texapon WW 99	10.0
Texapon N40	40.0
Perfume, water-soluble	2.0
Water	48.0
Note: WAS 21%	
Formula No. L61-24	

Bubble Bath, Clear, in Gel Form

	<u>%W/W</u>
Texapon N40	50.0
Dehyton AB30	20.0
Pine perfume	4.0
Water	26.0

Note: The perfume specified is suitable for this bubble bath in gel form. Other perfumes to be used must be checked in particular with regard to their influence on the viscosity of the gel preparation. WAS20%
Vigorous stirring should be avoided to prevent air pockets forming

Bubble Bath, Opaque, in Gel Form

	<u>%W/W</u>
Texapon N70	50.0
Texapon TH	30.0
Comperlan LS	3.0
Cetiol HE	5.0
Sodium chloride	3.0
Coniflor perfume	2.0
Water	7.0

Note: The perfume specified is suitable for this bubble bath in gel form. Other perfumes to be used must be checked in particular with regard to their influence on the viscosity of the gel preparation. WAS 53%
Formula No. L61-27

Bubble Bath, Cloudy, Liquid

	<u>%W/W</u>
Texapon N 40	50.0
Comperlan KD	3.0
Antara 430	1.0
Water	46.0
Note: Medium viscous, WAS 17%	
Formula No. L61-29	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath Oil for Babies and Children

	<u>%W/W</u>
Texapon WW 99	75.0
Eutanol G	23.0
Perfume	2.0
Note: WAS 75%	
Formula No. R64-01	

Bubble Bath Oil for Babies and Children

	<u>%W/W</u>
Texapon WW 99	60.0
Cetiol HE	38.0
Perfume	2.0
Note: WAS 60%	
Formula No. R64-02	

Bath Oil for Babies and Children

	<u>%W/W</u>
Dehydol LS2 DEO	10.0
Aethoxal B	40.0
Cetiol A	30.0
Myritol 318	15.0
Perfume	5.0
Formula No. R65-01	

Bath Oil for Babies and Children

	<u>%W/W</u>
Dehydol LS2 DEO	10.0
Eutanol G	20.0
Isopropyl myristate or palmitate	25.0
Myritol 318	40.0
Perfume	5.0
Note: It is advisable to use perfume oils which have a good compatibility with the mucous membranes.	
Formula No. R65-02	

Powder for Babies and Children

	<u>%W/W</u>
Lanette O	2.0
Eutanol G	2.0
Zinc stearate	5.0
Rice starch	51.0
Kaolin	20.0
Talc	20.0
Note: Mix all ingredients, then grind and sift them mechanically to obtain fine particles.	
Formula No. R81-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath, Pearly Liquid

	<u>%W/W</u>
Texapon N70	30.0
Euperlan PK771	15.0
Sodium chloride	4.0
Perfume	1.0
Water	50.0

Note: High viscous, WAS 25%

Preparation: Sodium chloride must be dissolved in the smallest quantity of water possible to produce a saturated saline solution. The solution is then stirred into the undiluted Texapon N70 and stirred until the mixture has a low viscosity. The rest of the water, Euperlan PK771 and the perfume are then added.

Formula No. L64-01

Bubble Bath, Pearly Liquid

	<u>%W/W</u>
Texapon N40	50.0
Euperlan PK 771	20.0
Perfume	2.0
Water	28.0

Note: High viscous, WAS 19%

Formula L64-04

Bubble Bath, Pearly Liquid

	<u>%W/W</u>
Texapon N40	30.0
Texapon SG	20.0
Cetiol HE	6.0
Comperlan KD	3.0
Perfume	1.0
Water	40.0

Note: High viscous, WAS 16%

Formula No. L64-06

Bubble Bath with Whey Additive, Pearly

	<u>%W/W</u>
Texapon N25	47.1
Lamepon S-TR	22.0
Sweet whey powder	10.0
Lamesoft 156	5.0
Perfume	0.3
Sodium chloride	0.6
Water	15.0

Note: Viscous, WAS 22%

Preparation: The sweet whey powder is suspended in water and then added to the Texapon N25, Lamepon S-TR, perfume mixture. Finally, Lamesoft 156 and sodium chloride are added.

Formula No. L64-10

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bubble Bath in Powder Form

	<u>%W/W</u>
Texapon Z Highly Conc. Powder or Texapon K 12	50.0
Comperlan 100	2.0
Fillings:	
Sodium chloride	38.0
Tartaric acid or citric acid	10.0

Note: WAS 47%
Formula No. L81-01

Bubble Bath in Tablet Form with Formation of Carbonic Acid

	<u>%W/W</u>
Texapon Z Highly Conc. Powder	25.0
Tartaric acid	32.0
Sodium bicarbonate	32.0
Uranin	0.1
Magnesium stearate	0.9
Dry perfume	10.0

Note: WAS 22%
Formula No. L82-01

Bubble Bath in Tablet Form with Formation of Carbonic Acid

	<u>%W/W</u>
Texapon Z Highly Conc. Powder	10.0
Tartaric acid	20.5
Sodium bicarbonate	32.0
Sodium sulfate	27.0
Uranin	0.1
Magnesium stearate	0.4
Dry perfume	10.0

Note: WAS 9%

Preparation: Tartaric acid, sodium bicarbonate and sodium sulfate, part of which is mixed with the dry perfume, are passed through a 1 mm mesh sieve and mixed with Texapon Highly Conc. Powder. The uranin is mixed thoroughly with the magnesium stearate in the mortar and finally added to the above powder mixture. The powder can then be compressed.
Formula No. L82-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Alpha Hydroxy Acid Lotion

Rich emulsion containing alpha hydroxy acid to gently exfoliate and rejuvenate the skin.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grillocose PS (Methyl Glucose Sesquistearate)	3.00	Emulsifier
2. Behenyl Alcohol (Lanette 22)	3.00	Thickener
3. Mineral Oil 9NF	7.50	Emollient
4. Octyl Octanoate (Tegosoft EE)	7.50	Emollient
5. Sodium Cetearyl Sulfate (Lanette E)	0.10	Emulsifier, Cleaning
6. Glycerine	3.00	Humectant
7. Xanthan Gum (Keltrol CG-T)	0.40	Thickener
8. Distilled/Deionized Water	64.00	----
9. Patlac LA (Lactic Acid-88%)	5.60	Hydroxy Acid
10. Sodium Hydroxide (20% Soln.)	5.00	pH Adjuster
11. Glydant	q.s.	Preservative
12. Fragrance-Nature's Herbal #165-050	0.20	Odor

Compounding Procedure:

Add Patlac LA to 10% water and adjust pH with Sodium Hydroxide solution to 3.8. In remaining water, dissolve item 7. Add items 5 and 6 and heat to 80C. Separately heat items 1-4 to 80C. Add items 1-4 to items 5-8 and mix. While mixing, cool to 45C and add items 11 and 12. At 40C add prepared Lactic Acid solution (pH 3.8) and homogenize.

Ref. No. 119-7

Facial Moisturizing Lotion

Elegant mineral oil and lanolin based emulsion.

<u>Ingredients:</u>	<u>W/W</u>	<u>Function</u>
1. Ritapro 165 (R.I.T.A. Blend)	4.00	Emulsifier
2. Mineral Oil	5.00	Emollient
3. Lanolin X-tra DEO (R.I.T.A. Lanolin)	0.50	Emollient
4. Ritapro 100 (R.I.T.A. Blend)	1.50	Emulsifier, Viscosity
5. Dimethicone (Dow 225 Fluid)	0.40	After Feel
6. Distilled/Deionized Water	81.70	----
7. Propylene Glycol	6.00	Moisturization
8. Polyquta 3000 (Polyquaternium-10)	0.50	After Feel
9. Glydant	0.20	Preservative
10. Fragrance - Light Musk 169-119	0.20	Odor

Compounding Procedure:

Dissolve Polyquta 3000 in water. Add item 7 and heat to 70C. Separately heat items 1-5 to 70C. Add this mixture to water mixture. Mix to uniform and cool to 40C. Add preservative and perfume.

Ref. No. 119-35

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Bubble Bath Oil, Clear, Liquid

	<u>%W/W</u>
Texapon N40	50.0
Cetiol HE	20.0
Isopropyl myristate or palmitate	10.0
Perfume	3.0
Water	17.0
Note: WAS 14%	
Formula No. L63-01	

Bubble Bath Oil, Anhydrous, Clear, Liquid

	<u>%W/W</u>
Texapon WW 99	70.0
Cetiol HE	15.0
Eutanol G	10.0
Perfume	5.0
Note: WAS 70%	
Formula No. L63-05	

Bubble Bath Oil, Anhydrous, Clear

	<u>%W/W</u>
Cetiol R	30.0
Cetiol HE	10.0
Texapon WW 99	58.0
Perfume oil	2.0
Note: WAS 57%	
Formula No. L63-08	

Rosemary Oil Bubble Bath

	<u>%W/W</u>
Texapon TH	27.0
Lamepon ST40	11.3
Comperlan KD	1.3
Lamesoft LMG	5.2
Lamacit GML 20	13.0
Oil of rosemary	8.7
Water	33.5

Note: Low viscous, WAS 28%

Preparation:

Lamacit GML 20 and Oil of rosemary are mixed and added to Texapon TH, Lamepon ST40, Comperlan KD and Lamesoft LMG. The water is then stirred in.

Formula No. L63-14

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Care-Shower-Bath
Clear, 13.5% active ingredient

Recipe:

A	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
B	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Perfume	0.50%
	Cetiol HE	2.00%
	PEG-7 Glyceryl Cocoate	
C	Allantoin	0.40%
D	Water	52.60%
E	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.00%
	Laureth-3	
	Dyestuff solution	q.s.
	Preservative	q.s.
F	Sodium chloride	1.50%

Procedure:

- I One after another the components of B are added to A.
- II Dissolve C in warmed D.
- III Stir II into I.
- IV One after another the components of E are added to III.
- V If necessary adjust the pH.
- VI Finally adjust the viscosity with F.

Care-Shower-Bath

With silky lustre effect, 15.0% active ingredient

Recipe:

A	Allantoin	0.40%
	Polymer JR 400	0.50%
	Polyquaternium-10	
B	Water	48.30%
C	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
D	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Perfume	0.50%
	Cetiol HE	2.00%
	PEG-7 Glyceryl Cocoate	
	Genapol TSM	4.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.00%
	Laureth-3	
D	Sodium chloride	1.30%

Procedure:

- I Dissolve the components of A in warmed B.
- II One after another the components of C are added to I.
- III If necessary adjust the pH.
- IV Finally adjust viscosity with D.

SOURCE: Hoechst: Formulations A I/8063 & A I/8062

Clear Foam Bath with Gluadin AGP

<u>Component:</u>	<u>%</u>
Texapon NSO	30.0
Dehyton K	10.0
Plantaren 1200	10.0
Lamesoft LMG	4.0
Gluadin AGP	0.5
Perfume	q.s.
Water, preservative	up to 100
pH-value: 6,5	
WAS: 17%	
Anionic/Amphoteric surfactant content proportion: 11,5%	
Viscosity mPas: 6500	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 89/366/14	

Stimulating, Clear Foam Bath with Balm Mint Extract

<u>Component:</u>	<u>%</u>
Texapon NSO	20.0
Dehyton K	10.0
Plantaren 1200	20.0
Cremogen Melisse	1.0
Cetiol HE	5.0
Perfume	q.s.
Water, preservative	up to 100
pH-value: 6,5	
WAS: 19%	
Anionic/Amphoteric surfactant content: 8,6%	
Viscosity mPas: 4000	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 89/366/1	

Bubble Bath with Plantaren 2000 and Essential Oil

<u>Component:</u>	<u>%</u>
Balm mint oil	5.0
Eumulgin L	15.0
Plantaren 2000	30.0
Dehyton K	10.0
Antil 141 liquid	3.8
Arlypon F	1.5
Perfume	q.s.
Water, preservative	up to 100
pH-value: 6,5	
WAS: 18%	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/056/24	
SOURCE: Henkel KGaA: Model Formulae	

Cream Bubble Bath

	<u>%W/W</u>
Texapon N25	86.0
Comperlan KD	3.0
Cetiol A	3.0
Cutina AGS	6.0
Perfume	2.0
Note: Medium viscous, WAS 27%	
Formula No. L62-01	

Cream Bubble Bath

	<u>%W/W</u>
Texapon N40	50.0
Cetiol HE	10.0
Euperlan PK 771	5.0
Perfume	2.0
Water	33.0
Note: Medium viscous, WAS 15%	
Formula No. L62-03	

Cream Bubble Bath For Tube Filling

	<u>%W/W</u>
Texapon N40	20.0
Texapon MLS	20.0
Cetiol HE	5.0
Isopropyl myristate or palmitate	3.0
Euperlan PK771	20.0
Comperlan KD	4.0
Sodium chloride	3.0
Perfume	1.0
Water	24.0
Note: WAS 21%	
Formula No. L62-04	

Cream Bubble Bath for Tube Filling

	<u>%W/W</u>
Texapon N70	40.0
Comperlan OD	4.0
Cutina AGS	4.0
Isopropyl Myristate or Palmitate	10.0
Sodium chloride	5.0
Perfume	1.0
Water	36.0
Note: WAS 32%	

Preparation: The substances are mixed and heated on the water bath until a homogeneous melt is obtained. After it has cooled to approx. 30C, the perfume is added and the water that has evaporated is replaced.

Formula No. L62-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Floating Bath Oil

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil #7	78.00	Emollient
2. Ritachol (Mineral Oil (and) Lanolin Alcohol)	5.00	Silky Feel
3. Pationic ISL (Sodium Isostearoyl Lactylate)	4.00	Substantive
4. Ritawax ALA (R.I.T.A. Blend)	5.00	Skin Feel
5. Patlac IL (Isostearyl Lactate)	7.00	Anti-Grease
6. Fragrance	1.00	Odor

Compounding Procedure:

Combine items in order until clear.

Ref. No. 118-193

Blooming Bath Oil with Shebu

A non-greasy blooming bath oil. Added unique moisturization.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. White Mineral Oil #7	68.00	Feel
2. PEG-400 Monolaurate	14.00	Conditioning
3. Shebu, Refined (Shea Butter)	2.00	Smoothness
4. Pationic ISL (Sodium Isostearoyl Lactylate)	6.50	Moisture
5. Patlac IL (Isostearyl Lactate)	4.00	Moisture
6. Ritoleth-5 (Oleth-5)	2.50	Bloom
7. Arlace1-C	1.00	Bloom
8. Fragrance - Alpine 165-049	2.00	Odor

Compounding Procedure:

Combine items 1-7 and heat to 50C. Mix until clear and cool to 40C. Add fragrance, cool and package.

Ref. No. 118-192

Shebu Floating Bath Oil

An elegant bath oil with talc-like feel.

<u>Ingredients</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil - 70 wt.	75.00	Emollient
2. Shebu Refined (Shea Butter)	3.00	Emollient
3. Ritachol (Mineral Oil (and) Lanolin Alcohol)	5.00	Skin Feel
4. Pationic ISL (Sodium Isostearoyl Lactylate)	4.00	Moisturization
5. Ritawax ALA (R.I.T.A. Blend)	5.00	Emollient
6. Patlac IL (Isostearyl Lactate)	7.00	Mildness
7. Fragrance	1.00	Odor

Compounding Procedure:

Blend all ingredients and mix until clear.

Ref. No. 117-55

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Gel After Bath Freshener

A clear gel bath freshener which liquifies rapidly upon application. Formulated to help soften, smooth and condition skin.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	69.27	----
2. Acritamer 941 (Carbomer 941)	0.15	Gel
3. Glydant	0.20	Preservative
4. Propylene Glycol	5.00	Moisture
5. SD Alcohol-40	23.00	Refreshing
6. Laneto-50 (PEG-75 Lanolin)	1.00	Smoothness
7. Fragrance	1.00	Odor
8. Triethanolamine @ 50%	0.30	Neutralization
9. Versene-EDTA	0.08	Clarity

Compounding Procedure:

Add item 2 to water with high sheer agitation. After complete hydration add items 3 - 9. Agitate until resultant gel is clear and smooth.

Ref. No. 118-187

After Bath Splash

A highly emollient, non-drying after bath splash which refreshes while it moisturizes. Excellent after-feel and perfume solubilization.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ethanol-95	70.00	Refreshment
2. Patlac NAL (Sodium Lactate)	5.00	Moisture
3. Patlac IL (Isostearyl Lactate)	4.00	Emollient
4. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00	Conditioning
5. Perfume	2.70	Odor
6. Distilled/Deionized Water	16.30	----

Compounding Procedure:

Combine items 1-5 and mix until clear. Slowly add water with good agitation. Filter if desired.

Ref. No. 118-188

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Hand and Bath Gel

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Sodium Isethionate	3.00
Sodium Lauryl Sulfate (30%)	15.00
Disodium Laureth-3 Sulfosuccinate	10.00
Water	25.00
Phase B:	
Acrylates/Steareth Stearate-50 Acrylate Copolymer (and) Laureth-3 (and) Propylene Glycol (Antil 208)	1.00
Cocamidopropyl Betaine (Tego Betaine F50)	11.75
Cocamidopropyl Betaine (and) Glycol Distearate (and) Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48)	2.50
Dimethicone Copolyol (Abil B8851)	0.75
Glycerin	3.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	0.75
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	1.00
Polyglyceryl-4 Isostearate (Isolan GI 34)	1.00
Water	25.25
Preservatives	Q.S.

Procedure:

1. Add ingredients of Phase A in order, mixing between additions.
2. Add the Antil 208, heat to 40C. Mix well. High viscosity may result. Avoid air entrapment.
3. Add remaining ingredients - mixing well during additions.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Dispersible Bath Oil

A luxury residual skin feel derives from this highly frag-
ranced classic "blooming" bath oil. Emulan Oil of Mink
replacing mineral oil will enrich it further.

	<u>Wt. %</u>	<u>CTFA</u>
A. Emulan, Light Fraction	7.5	Mink Oil
PEG-8 Dioleate	7.5	
Isopropyl Myristate	20.0	
Perfume	10.0	
B. Penetek 38/40	55.0	Mineral Oil

Procedure:

Pre-mix Phase A at RT, then slowly add mineral oil with
continued stirring.

SOURCE: Emulan, Inc.: Suggested Formulation

Liquid Bubble Bath

A high lather non-drying bubble bath.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	47.30	---
2. Bioterge AS-40 (Sodium C14-16 Olefin Sulfonate)	40.00	Lather
3. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00	Moisture
4. Ritamide C (Cocamide DEA)	5.00	Lather Density
5. Laneto-50 (PEG-75 Lanolin)	4.00	Silky Feel
6. Fragrance	0.50	Odor
7. Preservative	0.20	Preservative

Compounding Procedure:

Combine fragrance with item #4. Add item #3 to the pre-mix. Combine water and item #2. Add pre-mix and agitate until uniform. Add item #5. Adjust pH to 6.8 if necessary.
Ref. No. 118-189

Shebu Bubble Bath Powder

A high-foaming bath product with a luxurious after-feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Lauryl Sulfate (Dry)	18.00	Foam, Cleaning
2. Sodium Bicarbonate	20.00	pH
3. Sodium Sesquicarbonate	38.00	Chelating
4. Sodium Lauryl Sulfoacetate	10.00	Mildness
5. Pationic SSL (Sodium Stearoyl Lactylate)	5.00	Moisture, Mild
6. Laneto AWS (PPG-12, PEG-50 Lanolin)	3.00	Skin Feel
7. Shebu WS (PEG-50 Shea Butter)	5.00	Emolliency
8. Fragrance	1.00	Odor
9. Preservative	q.s.	Preservative

Compounding Procedure:

Combine ingredients 1-5 in a ribbon blender. Pre-mix other ingredients and add to blender while mixing.
Ref. No. 117-60

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Pearlescent Shower Gel

Has excellent foaming qualities and a beautiful pearl finish.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water, Deionized	78.10
B. Carbopol 1342	0.30
C. Steol CS-230	15.00
Monateric CAB	5.00
D. AMP-95	0.10
Flonac MS	0.50
Suttocide A	1.00

Procedure:

Add A to main kettle. Slowly add B; mix 1 hour. Next add C; mix well. Change to sweep-type mixer. Slowly add D. Mix until smooth gel develops.

Formulation PF-0319 suggested by Presperse

Aloe Vera Herbal Shower Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized water	32.43
Aloe vera gel concentrate 10:1	4.00
Sodium laureth sulfate, 27.5%	50.00
Cocamide betaine	10.00
Citric acid to pH 5-6	q.s.
Part B:	
BHT	0.05
Cocamide DEA	2.00
Part C:	
Fragrance	1.00
Part D:	
Bronopol	0.02
Herbal extract	0.50

Procedure:

Combine A; heat to 40C with stirring. Dissolve B with heat if necessary. Cool to 40C; add C. Add BC to A with stirring. Cool to 30C; add D with stirring. Thicken to 5,000 to 10,000 cps with sodium chloride. Package at room temperature.

Formulation PF-0234 suggested by Aloecorp.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Pearlescent Shower Gel

<u>Component:</u>	%
Texapon NSO	25.0
Texapon SB 3	10.0
Plantaren 2000	6.0
Dehyton K	10.0
Cosmedia Guar C 261 N	0.5
Cetiol HE	1.0
Euperlan PK 3000-AM	5.0
Lamesoft LMG	4.0
Arlypon F	1.0
Antil 141 L	1.5
Colour, perfume	q.s.
Water, preservative	up to 100
pH-value: 6,5	
WAS: 17%	
Viscosity: 90,000	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/087/92	

Pearlescent Shower Bath with Refattener

<u>Component:</u>	%
Plantaren PS 10	15.0
Dehyton K	10.0
Lamesoft LMG	4.0
Euperlan PK 900	3.0
Perfume oil	q.s.
Water, preservative	up to 100
pH value: 5,5	
WAS: 12	
Viscosity mPas: 12000	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/184/41	

Mild, Pearlescent Cleansing Lotion

<u>Component:</u>	%
Plantaren PS 10	16.0
Lamequat L	2.0
Euperlan PK 900	3.0
Perfume oil	q.s.
NaCl	1.5
Water, preservative	up to 100
pH value: 5,5	
WAS: 10	
Viscosity mPas: 3400	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/184/43	

SOURCE: Henkel KGaA: Model Formulae

Pearlescent Shower Gel

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	46.38
Standapol ES-2	40.00
Hetaine CLA (Canolamidopropyl Betaine)	7.00
Cetiol HE	6.00
Hetoxol L-2 (Laureth-2)	0.50
Hest E.G.D.S. (E.G.D.S.)	0.35
Hetoxol L-4 (Laureth-4)	0.30
Citric Acid	0.04
Phase B:	
Cropeptide W	0.30
Kathon CG	0.07
F.D.&C. Blue #1 (1% Sol.)	0.06

Specifications:

pH: 5.0-6.0

Viscosity: #3/12: 7500 cps

Procedure:

- 1) In a stainless steel kettle, combine Phase A. Heat to 75C while mixing.
- 2) Cool to 45C, add Phase B. Mix well.

Formula HSG 92-80

Bubble Bath

<u>Ingredients:</u>	<u>%</u>
H2O, Deionized	51.83
Sodium Laureth-3 Sulfate	21.00
Decyl Polyglucose	12.00
Hetaine CLA (Canolamidopropyl Betaine)	10.00
Hetamide RC (Cocamide DEA)	4.00
Hest GC-7 (PEG-7 Glyceryl Cocoate)	1.00
Kathon CG	0.07
Citric Acid	0.10

Specifications:

pH: 7.00

Viscosity #3/12: 2000 cps

Procedure:

In a stainless steel tank equipped with a Lightnin' type mixer, add ingredients one at a time in order listed. Mix until uniform after each addition.

Formula HB 93-108-2

SOURCE: Heterene, Inc.: Suggested Formulations

Protein and Honey Skin Bath

	<u>%W/W</u>
A. Quat-Pro S (Stearyltrimonium Hydroxy Ethyl Hydrolyzed Collagen)	1.00
Methylparaben	0.20
Deionized Water	32.60
B. May-Tein CT (TEA-Cocoyl Hydrolyzed Collagen)	30.00
Sodium Laureth Sulfate	25.00
Collagen Hydrolyzate Cosmetic N-55 (Hydrolyzed Collagen)	5.00
Honey	1.00
C. Fragrance, color	q.s.
Dowicil 200 (Quaternium-15)	0.20
D. Lemon juice concentrate	5.00
Citric Acid to pH 5.5	q.s.

Procedure:

1. Mix and heat phase A to 65C. Mix until dissolved and homogeneous.
2. Add Phase B to Phase A. Mix to incorporate.
3. Add Phase C and D. Mix to incorporate.

Properties:

Very mild, natural-type skin cleanser and beauty bath. Anti-drying, anti-irritant effects are provided by the foaming protein (May-Tein CT). Skin substantivity is high because of cationic effects of quaternized collagen and collagen hydrolyzate. For hand, face and general body cleansing. Makes a delightful, refreshing bath foam.

SOURCE: Maybrook Inc.: Formula #SW-3006

Emollient Bath Gelee

	<u>Weight, %</u>
Mackol 70NS	17.0
Mackamide LLM	20.0
Mackanate EL	20.0
Mackanate WGD	10.0
Paragon Preservative	q.s
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackamide LLM to Mackol 70NS.
2. Add the remaining components and heat to 60C.
3. Blend until homogeneous. Avoid aeration.
4. Adjust pH to 6.5-7.0 with citric acid.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Shebu After Bath Splash

An emollient after bath splash. Refreshment without skin dryness. Extra moisturization.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Fragrance	2.00	Odor
2. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00	Moisturization
3. Shebu WS (PEG-50 Shea Butter)	2.00	Emollient
4. Alcohol-95	69.00	Refreshment
5. Patlac NAL (Sodium Lactate)	5.00	Moisturizing
6. Patlac IL (Isostearyl Lactate)	5.00	Skin Feel, Mild
7. Distilled/Deionized Water	15.00	----

Compounding Procedure:

Pre-mix items 1-3. Pre-mix items 4-6. Mix together with agitation. Add in water until clear.

Ref. No. 117-46

Shebu After Bath Lotion

A low alcohol moisturizing lotion which has cooling, soothing properties. Substantive after-feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Acritamer 941 @ 5% (Carbomer 941)	37.50	Viscosity, Feel
2. Distilled/Deionized Water	43.86	----
3. Patlac IL (Isostearyl Lactate)	1.00	Moisturization
4. Shebu WS (PEG-50 Shea Butter)	1.00	Emollient
5. Ritapro 300 (R.I.T.A. Blend)	0.50	Emulsification
6. Pationic ISL (Sodium Isostearoyl Lactylate)	1.00	Substantivity
7. Rita CA (Cetyl Alcohol)	0.50	Feel
8. Myristyl Lactate	1.00	Smoothness
9. TEA @ 50%	0.64	pH
10. Alcohol-95	12.00	Cooling
11. Fragrance	1.00	Odor

Compounding Procedure:

Combine items 1 and 2 and heat to 165F. Pre-mix items 3-8 and heat to 165F. Add to water. Pre-mix items 9-11 and add, then cool to 110F. Adjust pH to 5.5.

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Shower-Bath

With silky lustre effect, 19.0% active ingredient

Recipe:

A	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	13.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol TSM	4.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Perfume	0.50%
	Water	32.30%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
D	Sodium chloride	22.00%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula A I/8038

Shower-Bath

Clear, 13.9% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Genapol SBE	8.00%
	Disodium Laureth Sulfosuccinate	
	Perfume	0.50%
	Water	52.00%
	Genapol L-3	3.00%
	Laureth-3	
	Dyestuff solution	q.s.
	Preservative	q.s.
C	Sodium chloride	1.50%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula A I/8609

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Shower-Bath

With pearl lustre effect, 17.2% active ingredient

Recipe:

A	Hostapon CT paste	6.00%
	Sodium Methyl Cocoyl Taurate	
B	Water	24.00%
C	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
	Genapol AMG	6.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol PGM flussig	6.00%
	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	
	Perfume	0.70%
	Water	13.50%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genapol L-3	3.00%
	Laureth-3	
D	Sodium chloride	0.80%

Procedure:

I Dissolve A in warmed B.

II One after another the components of C are added to I.

III If necessary adjust the pH.

IV Finally adjust the viscosity with D.

Formula A I/8057

Shower-Bath

With silky lustre effect, 15.5% active ingredient

Recipe:

A	Hostapon SCI	5.00%
	Sodium Cocoyl Isethionate	
B	Water	20.00%
C	Genapol ZRO liquid	30.00%
	Sodium Laureth Sulfate	
	Genapol TSM	4.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Perfume	0.50%
	Water	32.40%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
D	Sodium chloride	2.10%

Procedure:

I Dissolve A in warmed B.

II One after another the components of C are added to I.

III If necessary adjust the pH.

IV Finally adjust the viscosity with D.

Formula A I/8070

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Shower-Bath
Clear, 16.4% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	10.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Perfume	0.50%
C	Allantoin	0.40%
D	Water	38.10%
E	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genapol L-3	1.50%
	Laureth-3	
F	Sodium chloride	1.50%

Procedure:

- I One after another the components of B are added to A.
 II Dissolve C in warmed B.
 III Stir II into I.
 IV One after another the components of E are added to III.
 V If necessary adjust the pH.
 VI Finally adjust the viscosity with F.
 Formula A I/8048

Shower-Bath
Clear, 17.3% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Hostapon SCHC	5.00%
	Sodium Cocoyl Hydrolyzed Collagen	
	Perfume	0.50%
	Water	42.00%
	Hostapon LEC	4.00%
	Laureth-3 Carboxylic Acid	
C	NaOH (10% in water)	2.70%
D	Genagen CAB	10.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q.s.
	Preservative	q.s.
E	Sodium chloride	0.80%

Procedure:

- I One after another the components of B are added to A.
 II Adjust the pH with C.
 III The components of D are added to II.
 IV Finally adjust the viscosity with E.
 Formula A I/8058

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Shower-Bath

With silky lustre effect, 24.0% active ingredient

Recipe:

A	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	10.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol TSM	4.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Cetiol HE	4.00%
	PEG-7 Glyceryl Cocoate	
	Perfume	0.50%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
C	Polymer JR 400	0.50%
	Polyquaternium-10	
D	Water	30.00%
E	Genapol L-3	2.00%
	Laureth-3	
F	Sodium chloride	1.00%

Procedure:

I One after another the components of B are added to A.

II Dissolve C in warmed D.

III Stir II into I, then add E.

IV If necessary adjust the pH.

V Finally adjust the viscosity with F.

Formula A I/8066

Fitness-Shower-Bath

Clear, 14.2% active ingredient

Recipe:

A	Genapol LRO liquid	45.00%
	Sodium Laureth Sulfate	
	Genapol AMG	15.00%
	Magnesium-PEG-3 Cocamide Sulfate	
B	Menthol	0.20%
	Camphor	0.10%
	Rosmarin bath	0.30%
C	1,2-Propylen glycol	2.00%
D	Water	32.90%
	Horse chestnut extract	0.50%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genapol L-3	2.00%
	Laureth-3	
E	Sodium chloride	2.00%

Procedure:

I Dissolve B in C. II. Add the solution of I to A.

III One after another the components of D are added to II.

IV If necessary adjust the pH. V Finally adjust the viscosity with E.

Formula A I/8046

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Shower-Bath 2 in 1
18.3% active ingredient

Recipe:

A	Allantoin	0.40%
	Polymer JR 400	0.50%
	Polyquaternium-10	
	Hostapon SCID	4.00%
	Sodium Cocoyl Isethionate	
B	Water	46.20%
C	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Perfume	0.50%
	Cetiol HE	2.00%
	PEG-7 Glyceryl Cocoate	
	Genapol TSM	4.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	5.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.00%
	Laureth-3	
D	Sodium chloride	0.70%

Procedure:

- I Dissolve the components of A by warming stirring in B (60C).
- II Cool down and add components of C at 35C under stirring.
- III If necessary adjust the pH.
- IV Finally adjust the viscosity with D.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formulation A I/8061

Shower Bath, Clear

	<u>%W/W</u>
Texapon N40	50.0
Cetiol HE	3.0
Comperlan KD	2.0
Sodium chloride	3.0
Perfume, water-soluble	1.0
Water	41.0

Note: High viscous, WAS 16%
Formula No. L65-01

Shower Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N25	20.0
Texapon TH	20.0
Comperlan KM	3.0
Comperlan KD	5.0
Perfume	1.0
Water	51.0

Note: Medium viscous, WAS 21%
Formula No. L65-03

Shower Bath, Clear, Liquid

	<u>%W/W</u>
Texapon N40	40.0
Aethoxal B	10.0
Sodium chloride	3.0
Perfume	3.0
Water	44.0

Note: Low viscous, WAS 11%
Formula No. L65-05

Shower Bath, Clear, Liquid

	<u>%W/W</u>
Texapon MLS	40.0
Texapon TH	20.0
Comperlan LS	3.0
Cetiol HE	5.0
Sodium chloride	1.5
Perfume	1.0
Water	29.5

Note: Medium viscous, WAS 26%
Formula No. L65-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath, Clear

	<u>%W/W</u>
Texapon N40	40.0
Aethoxal B	5.0
Dehyton AB30	10.0
Comperlan KD	3.0
Perfume	1.0
Water	41.0
Note: Medium viscous, WAS 17%	
Formula No. L65-09	

Shower Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	46.0
Comperlan LS	3.0
Sodium chloride	1.0
Perfume	1.0
Citric acid 10% solution	0.4
Water	48.6
Note: WAS 16%	
Formula No. L65-11	

Shower Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S 70 special	18.5
Comperlan LS	3.0
Sodium chloride	2.0
Cetiol HE	5.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	69.9
Note: WAS 16%	
Formula No. L65-14	

Shower Bath, Clear, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S 70 special	27.0
Comperlan LS	3.0
Sodium chloride	2.3
Perfume	1.0
Citric acid 10% solution	0.6
Water	66.1
Note: WAS 23%	
Formula No. L65-16	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath, Clear Refatting

	%W/W
Texapon K14S 70 special	27.0
Comperlan LS	2.0
Sodium chloride	2.0
Cetiol HE	5.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	62.4
Note: WAS 22%	
Formula No. L65-17	

Sport Shower Bath Especially Skin Compatible

	%W/W
Texapon K14S special	40.0
Comperlan COD	2.0
Sodium chloride	1.0
Dehyton K	10.0
Cetiol HE	2.0
Perfume	1.0
Water	44.0
Note: WAS 16%	
Formula No. L65-19	

Protein Shower Bath

	%W/W
Texapon N25	53.6
Lamepon S	16.7
Comperlan KD	2.0
Lamesoft LMG	2.0
Nutrilan L	5.7
Perfume	0.4
Sodium chloride	0.5
Water	19.1
Note: High viscous, WAS 23%	
Preparation: Mix the ingredients in the order shown above.	
Comperlan KD and Lamesoft LMG should be worked in while a little heat is applied.	
Formula No. L65-22	

Shower Bath in Aerosol Form

	%W/W
Texapon ASV	50.0
Dehyton K	10.0
Comperlan KD	4.0
Cetiol HE	10.0
Perfume	1.0
Water	25.0
Note: WAS 22%	
Filling: 92 parts shower bath	
8 parts Frigen 12	
Formula No. L65-26	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath Gel

Shower gel based on natural sucrose esters. Mildness while leaving a smooth skin feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grilloten LSE-87K Soft (Sucrose Cocoate)	4.00	Mildness
2. Distilled/Deionized Water	38.95	----
3. Sodium Laureth-2 Sulfate (Standapol ES-2)	44.00	Lather
4. Disodium Cocamphodiacetate (Mackam 2C)	8.00	Lather
5. PEG-55 Propylene Glycol Oleate (Antil 141B)	1.50	Viscosity
6. Ritasynt IP (R.I.T.A. Blend)	3.00	Opacity
7. Citric Acid (25% Soln)	0.20	pH Control
8. Fragrance	0.25	Odor
9. Preservative	0.10	Preservative

Compounding Procedure:

Combine item 1 with 30% of the water. Heat to 175F with mixing. Combine items 3-6 with remaining water and heat to 175F. Add to other pre-mix. Cool to 120F. Add preservative and perfume. Adjust pH to 5.5-6.0 if necessary.

Ref. No. 118-186

Shower/Bath Gel

Low eye irritation formulation.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grilloten LSE 65K (Sucrose Cocoate)	2.00	Mildness
2. Pationic 138C (Sodium Lauroyl Lactylate)	1.80	Eye Mildness
3. Distilled/Deionized Water	40.90	-----
4. Sodium Laureth-2-Sulfate (Standapol ES-2)	45.00	Lather
5. Cocamidopropyl Betaine (Mackam J)	8.00	Lather
6. Sodium Chloride (25% Soln.)	2.00	Viscosity Control
7. Fragrance	0.20	Odor
8. Preservative	0.10	Preservative

Compounding Procedure:

Combine items 1 and 2 with 25% of the water. Mix until uniform. Combine items 4 and 5 and mix until uniform. Add first pre-mix to second with agitation. Add items 7 and 8 and adjust viscosity as desired with item 6.

Ref. No. 118-185

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Shower/Bath Gel

Non-drying formulation designed to clean and leave skin moisturized.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grilloten LSE-87K (Sucrose Cocoate)	3.00	Mildness
2. Rita EGDS (Glycol Distearate)	0.50	Opacity
3. Pationic 138C (Sodium Lauroyl Lactylate)	2.50	Mildness
4. PEG-55 Propylene Glycol Oleate (Antil 141B)	1.00	Feel
5. Distilled/Deionized Water	40.60	----
6. Sodium Laureth-2-Sulfate (Standapol ES-2)	51.00	Lather
7. Promois ECP (Collagen)	1.00	Conditioning
8. Citric Acid @ 50%	0.10	pH Control
9. Fragrance	0.20	Odor
10. Preservative	0.10	Preservative

Compounding Procedure:

Combine items 1,3,5 and 6 and heat to 160F with agitation. Combine items 2 and 4 and mix at 160F. Add to batch with mixing. Cool to 120F and add items 9 and 10. Cool to 110F and add item 7. Adjust pH to 6.0-6.5 with item 8.
Ref. No. 118-183

Silky Feel Shower Gel

High lather shower gel base with added moisturization. Silky skin feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-3-Sulfate (Standapol ES-3)	53.00	Cleaning
2. Ritamide C (Cocamide DEA)	4.00	Lather
3. Ritawax-15 (Laneth-15)	3.00	Moisture
4. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Moisture
5. Ritapeg 150 DS (PEG-150 Distearate)	0.50	Viscosity
6. Methylparaben	0.15	Preservative
7. Rita PEO-2 (PEG-9M)	0.25	Silky Feel
8. Distilled/Deionized Water	35.65	----
9. Fragrance	0.40	Odor
10. Kathon CG	0.05	Preservative

Compounding Procedure:

Heat items 1-6 to 165F. Slowly add item 7 to water, mix until dissolved. Heat to 165F. Add to items 1-6 and mix until uniform. Add fragrance and preservative after cooling to 120F.
Ref. No. 116-143

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	35.0
Dehyton K	15.0
Cutina EGMS	2.0
Perfume	1.0
Water	47.0

Note: WAS 15%
Formula No. L66-23

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	25.0
Texapon MLS	25.0
Comperlan COD	3.0
Cetiol HE	2.0
Euperlan MPK850	8.0
Sodium chloride	2.0
Water	35.0

Note: WAS 20%
Formula No. L66-25

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	20.0
Texapon TH	20.0
Comperlan OD	4.0
Cetiol HE	2.0
Euperlan MPK 850	8.0
Water	46.0

Note: WAS 22%
Formula No. L66-27

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	20.0
Texapon MG	15.0
Comperlan OD	3.0
Aethoxal B	2.0
Euperlan MPK 850	8.0
Water	52.0

Note: ~~Viscous~~, WAS 15%
Formula No. L66-28

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath, Pearly

	<u>%W/W</u>
Texapon N25	20.0
Texapon EVR	30.0
Comperlan KD	2.0
Perfume	1.0
Water	47.0
Note: High viscous, WAS 19%	
Formula No. L66-01	

Shower Bath, Pearly

	<u>%W/W</u>
Texapon N40	20.0
Texapon EVR	30.0
Comperlan KD	2.0
Cetiol HE	5.0
Perfume	1.0
Water	42.0
Note: High viscous, WAS 19%	
Formula No. L66-03	

Shower Bath, Pearly for Tube Filling

	<u>%W/W</u>
Texapon N40	50.0
Cutina AGS	7.0
Comperlan OD	5.0
Comperlan KD	4.0
Cetiol A	5.0
Perfume	2.0
Water	27.0
Note: WAS 23%	
Formula No. L66-05	

Shower Bath, Pearly

	<u>%W/W</u>
Texapon K14S special	30.0
Euperlan PK810	10.0
Comperlan KD	3.0
Sodium chloride	0.5
Perfume	1.0
Citric acid 10% solution	0.5
Water	55.0
Note: WAS 15%	
Formula No. 66-07	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath, Pearly, Refatting

	<u>%W/W</u>
Texapon K14S special	40.0
Euperlan PK 810	10.0
Comperlan KD	3.0
Cetiol HE	3.0
Perfume	1.0
Citric acid 10% solution	0.4
Water	42.6
Note: WAS 18%	
Formula No. L66-09	

Shower Bath, Pearly

	<u>%W/W</u>
Texapon K14S 70 special	12.0
Sodium chloride	2.0
Euperlan PK810	10.0
Comperlan KD	3.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	71.4
Note: WAS 15%	
Formula No. L66-11	

Shower Bath, Pearly, Refatting

	<u>%W/W</u>
Texapon K14S 70 special	12.0
Sodium chloride	2.0
Euperlan PK 810	10.0
Comperlan KD	3.0
Cetiol HE	3.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	68.4
Note: WAS 15%	
Formula No. L66-12	

Shower Bath, Pearly, Refatting

	<u>%W/W</u>
Texapon K14S 70 special	19.0
Sodium chloride	2.0
Euperlan PK810	10.0
Comperlan KD	2.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	65.4
Note: WAS 14%	
Formula No. L66-14	

SOURCE: Henkel KGaA: Suggested Formulations

Shower Bath, Pearly, Refatting

	<u>%W/W</u>
Texapon K14S 70 special	19.0
Sodium chloride	2.0
Euperlan PK 810	10.0
Comperlan KD	2.0
Cetiol HE	5.0
Perfume	1.0
Citric acid 10% solution	0.6
Water	60.4
Note: WAS 20%	
Formula No. L66-15	

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	40.0
Dehyton G	10.0
Euperlan PK 771	3.0
Comperlan COD	2.0
Sodium chloride	0.5
Cetiol HE	2.0
Perfume	1.0
Citric acid 10% solution	2.0
Water	39.5
Note: WAS 18%	
Formula No. L66-17	

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	40.0
Dehyton K	10.0
Euperlan PK771	3.0
Comperlan COD	2.0
Sodium chloride	0.5
Cetiol HE	2.0
Perfume	1.0
Water	41.5
Note: WAS 18%	
Formula No. L66-19	

Shower Bath, Pearly, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	38.0
Dehyton AB30	19.0
Euperlan PK810	5.0
Perfume	0.5
Water	37.5
Note: WAS 20%	
Formula No. L66-20	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shower Bath & Emulsion "Two in One"

<u>Component:</u>	<u>%</u>
I Emulgin B 2	1.0
Eutanol G	3.0
Lamecreme DGE 18	4.0
II Lytron 631	2.0
Water, preservative	up to 100
III Plantaren PS 10	40.0
IV Perfume	0.5

Viscosity mPas: 20000

WAS: 24,5

pH-value: 5,5

Procedure:

Melt components under I at 70-80C and mix homogeneously. Heat phase II to 75C, add to I and stir at temperature for 5 minutes. Continue stirring and cool down to 60C. Add phase III at room temperature to the premixed emulsion. Stir homogeneously. At temperature below 40C add perfume. Adjust pH to and control viscosity. If necessary finally adjust with NaCl and de-aerate.
Formulation No.: 92/135/49

Pearly Sheen Shower Bath Two-in-One

<u>Component:</u>	<u>%</u>
Texapon ASV 70 spez.	12.4
Plantaren 1200	4.0
Euperlan PK 3000 OK	4.0
Lamequat L	4.0
Panthenol USP	1.0
Water, preservative	up to 100

pH-value: 6,5

Formulation No.: 91/352/8

Pearlescent Foam Bath with Refattener

<u>Component:</u>	<u>%</u>
Plantaren PS 10	22.0
Dehyton K	15.0
Cosmedia Guar C 261	0.5
Cetiol HE	2.0
Euperlan PK 3000-OK	5.0
Perfume oil	q.s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 18

Viscosity mPas: approx.: 45,000

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 92/184/12

SOURCE: Henkel KGaA: Model Formulae

Shower Bath 2-in-1, Shower & Cream

<u>Component:</u>	<u>%</u>
Texapon NSO	20.0
Dehyton K	20.0
Plantaren 2000	5.0
Nutrilan I-50	1.0
Cosmedia Guar C261 Quellung/Swelling	20.0
Euperlan PK 3000 AM	5.0
Lytron 631	2.0
Arlypon F	0.6
Water, preservative	up to 100
Viscosity/approx. (20C Brookfield): 13000	
pH-value/approx: 5,5	
WAS/approx.: 14	
Formulation No.: 93/157/6	

Shower Bath 2-in-1, Shower & Cream

<u>Component:</u>	<u>%</u>
Texapon NSO	20.0
Dehyton K	20.0
Plantaren 2000	5.0
Euperlan PK 3000 AM	3.0
Cosmedia Guar C261 Quellung/Swelling	20.2
Cetiol HE	0.2
Lytron 631	1.0
Arlypon F	0.6
Glycerin 86%	5.0
Water, preservative	up to 100
Viscosity, approx. (20C Brookfield): 15000	
Formulation No.: 93/157/9	

Shower Bath & Emulsion Two-in-One

<u>Component:</u>	<u>%</u>
I Cutina KD 16	10.0
Monomuls 90-L 12	3.0
Cetiol 868	3.0
II Texapon N 28	40.0
Water	up to 100
III Plantaren 1200	20.0
Perfume	0.5
Cetiol HE	2.0
IV Dehyton K	2.0
Lytron 621	2.0
Preservatives	
Citric acid to adjust pH	
pH: 5-6	
Viscosity 25C mPas: 12500	
WAS: 44	
Formulation No.: 22/B	

SOURCE: Henkel KGaA: Model Formulae

Shower Gel

Clear, high-viscosity gel with regreasing effect.

Material/CTFA-Index:

Genapol LRO/Sodium Laureth Sulfate	35.00%
Dehyton AB 30/Coco-Betaine	10.00
Aethoxal B/PPG-5 Laureth-5	5.00
Wacker-Belsil DMC 6038/Dimethicone Copolyol	5.00
Comperlan KD/Cocamide DEA	3.00
Water	42.00

Preservatives, fragrances, pigments q.s.

Mix all ingredients well.

Formulation 895 AH

Shower Gel

Clear, thin gel.

Material/CTFA-Index:

Hoe S 3267/Cocamidopropyl Betaine	22.50%
Wasser dest./Water	53.50
Texapon NA/Ammonium Laureth Sulfate	22.50
Belsil DMC 6032/Dimethicone Copolyol Acetate	1.00
Ammonium Chloride	0.50
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 thoroughly in water. Add Texapon NA and Belsil DMC 6032. Homogenise the mixture. Regulate the viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

Formulation 155 AH

SOURCE: Wacker Silicone: Suggested Formulations

Shower Gel & Body Lotion

<u>Component:</u>	%
Texapon NSO	40.0
Dehyton PK	8.0
Euperlan PO	2.0
Comperlan COD	1.0
Cetiol HE	2.0
Cosmedia Guar C261	0.2
Water, preservative	up to 100
NaCl	2.0

pH-value: 5,5-6,0

Viscosity mPas Brookfield, RVT, 20C: 12800

Formulation No.: C-FB-308/01a

Pearlescent Foam Bath

	%
Plantaren PS 10	22.0
Dehyton K	15.0
Cosmedia Guar C 261	0.5
Cetiol HE	2.0
Euperlan PK 3000-OK	5.0
Perfume oil	q. s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 18

Viscosity mPas: approx: 45,000

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 92/184/12

Foam Bath Concentrate

<u>Component:</u>	%
Texapon K 14 S 70 spez.	25.0
Plantaren 2000	20.0
Dehyton K	20.0
Cetiol HE	5.0
Nutrilan I-50	2.0
Eumulgin HRE 60	5.0
Citric acid (sol.50%)	0.5
Perfume	q. s.
Water, preservative	up to 100

pH-value: 6.5

Viscosity mPas: 5600

Note: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 92-174-17

SOURCE: Henkel KGaA: Model Formulae

Skin Conditioning Shower Gelee

Smooth, moisturizing shower gelee. Substantive moisturizing effect. Skin conditioner.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth-2-Sulfate	53.00	Lather
2. Distilled/Deionized Water	33.65	----
3. Ritamide C (Cocamide DEA)	4.00	Lather
4. Ritawax 15 (Laneth-15)	3.00	Conditioning
5. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00	Moisture
6. Ritapeg 150 DS (PEG-150 Distearate)	0.50	Viscosity
7. Methylparaben	0.15	Preservative
8. Fragrance	1.00	Odor
9. Sodium Chloride (25% Soln.)	1.00	Viscosity
10. Patlac LA @ 44% (Lactic Acid)	0.70	pH Adjustment

Compounding Procedure:

Heat items 1-7 to 165F with agitation. Cool to 120F and add fragrance. Adjust pH and viscosity as desired.

Ref. No. 118-190

Shebu Shower Gelee

A bath gelee with a smooth unique feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Sodium Laureth Sulfate (ES-3)	53.00	Clean/Lather
2. Ritamide C (Cocamide DEA)	4.00	Lather Booster
3. Shebu WS (PEG-50 Shea Butter)	3.00	Moisturizing
4. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00	Moisture/ Mild
5. Preservative	0.30	Preservative
6. Distilled/Deionized Water	35.85	----
7. Fragrance	0.25	Odor
8. Rita PEO-1 (PEG-5M)	0.10	Slip/Thickener
9. Ritapeg 150 DS (PEG-150 DS)	0.50	Thickener

Compounding Procedure:

Heat ingredients 1-6 to 65C with agitation. Cool to 43C and add perfume. Adjust viscosity with Sodium Chloride and pH with lactic acid.

Ref. No. 117-53B

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Vitamin Bath Oil

	<u>%W/W</u>
Aethoxal B	90.0
Vitamin oil Biocorno	5.0
Perfume	5.0

Formula No. L67-13

Herbal Bath Oil

	<u>%W/W</u>
Aethoxal B	52.0
Dehydol LS2 DEO	10.0
Cetiol A	15.0
Myritol 318	20.0
Oil of rosemary	3.0

Formula No. L67-15

Bath Oil

	<u>%W/W</u>
Dehydol LS2 DEO	10.0
Cetiol R	30.0
Cetiol A	15.0
Cetiol 868	40.0
Perfume oil	5.0

Formula No. L67-18

Lavender Bath Oil

	<u>%W/W</u>
Lavender oil	37.0
Lamacit GML20	46.0
Water	17.0

Preparation: Mix lavender oil and Lamacit GML-20. Add water slowly.

Formula No. L67-21

Lemon Balm Bath Oil

	<u>%W/W</u>
Lemon balm oil	24.4
Lamacit GML 20	56.9
Water	18.7

Formula No. L67-22

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Section IV

Beauty Aids

**Ajinomoto Moisturizing Foundation with Ajidew, Eldew,
Marine-Dew and Amihope**

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	61.15
Magnesium Aluminum Silicate	0.70
Cellulose Gum	0.15
Trisodium EDTA	0.10
Sodium PCA/Ajidew N-50	1.00
Triethanolamine 85%	0.60
Part B:	
Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben	0.30
Stearic Acid	2.50
Propylene Glycol Stearate SE	2.00
Polysorbate 60	1.70
Cetearyl Octanoate	6.00
Cetyl Alcohol	2.00
Sorbitan Stearate	0.60
Dimethicone/Dow Corning 200 (350cs)	0.50
Di (cholsteryl, behenyl, octyldodecyl) N-lauroyl-L-glutamic acid ester/Eldew CL-301	5.00
Phenoxyethanol	0.60
Part C:	
Propylene Glycol	6.00
Iron Oxides and Talc	2.00
Titanium Dioxide	5.00
Lauroyl Lysine/Amihope-LL	0.10
Part D:	
Partially Deacetylated Chitin (1% Solution)/Marine-Dew	2.00

Procedure:

Disperse Magnesium Aluminum Silicate and Cellulose Gum in deionized water. Heat to 80 degrees C. Add remaining Part A ingredients. Mix well. Heat Part B to 80 degrees C. Add Part B to Part A. Mix at 80 degrees C for 15 minutes. Homogenize Part C. Add to the batch. Mix until uniform. Cool to 40 degrees C. Add Part D. Continue mixing and cooling to 35 degrees C.

Appearance: Beige cream

pH: 7.40 to 8.00

Viscosity: 20,000-25,000 cps (RVT #6 @ 10 rpm @ 25C)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Alcohol-Free Cologne

This sprayable product is light, elegant and will not dry or sting the skin.

<u>Ingredient (CTFA)</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	92.88	Diluent
DMDM Hydantoin (1)	0.30	Preservative
Methylparaben	0.10	Preservative
Propylparaben	0.05	Preservative
Part B:		
Cyclomethicone (2)	4.00	Lubricant
Pemulen TR-2	0.15	Emulsifier/ Stabilizer
Part C:		
Fragrance, Noville #31563	2.00	
Oleth-10 (3)	0.30	P.S. Reduction
Part D:		
Triethanolamine (99%)	0.12	Neutralizing Agent
Part E:		
Disodium EDTA	0.10	Chelating Agent and Viscosity Adjustment

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix until parabens have dissolved.
2. Slurry Pemulen in cyclomethicone. Disrupt any soft agglomerates of Pemulen. With moderate agitation, add Part B to Part A.
3. Blend Part C ingredients and add to Parts A/B. Continue mixing for 10-20 minutes to allow resin to swell. Add Part D and mix vigorously to produce a smooth emulsion.
4. Mix Part E into emulsion incrementally to adjust viscosity down to 600-800 cps.

SOURCE: BF Goodrich Co.: Formula P0007

Alcohol-Free Cologne

This sprayable product is light, elegant and will not sting the skin.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	92.38	Diluent
DMDM Hydantoin (1)	0.30	Preservative
Methylparaben (2)	0.10	Preservative
Propylparaben (2)	0.05	Preservative
Part B:		
Cyclomethicone (3)	4.00	Lubricant
Fragrance, Noville #31337	2.00	
Isostearyl Benzoate (4)	0.50	Fragrance Fixer
Oleth-10 (5)	0.30	Particle Size Reduction
Pemulen TR-2 (6)	0.15	Emulsifier/ Stabilizer
Part C:		
Triethanolamine (99%)	0.12	Neutralizing Agent
Part D:		
Disodium EDTA	0.10	Chelating Agent

(1) Glydant (Lonza)

(2) (Protameen Chemicals)

(3) 245 Fluid (Dow Corning)

(4) Finsolv SB (Finetex)

(5) Procol OA-10 (Protameen Chemicals), Brij 96 (ICI)

(6) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix until parabens have dissolved.
2. Blend Part B ingredients in a separate vessel. Pemulen should be slurried in this phase. Disrupt any soft agglomerates of the resin.
3. With moderate agitation, add Part B to Part A. Mix for 10-20 minutes to allow resin to swell. Add Part C and mix vigorously to produce a smooth emulsion.
4. Mix Part D into emulsion incrementally to adjust viscosity downward to 600-900 cps.

SOURCE: BF Goodrich Co.: Formula P0013

All-Over AHA Moisturizer
#29-0805-A

An all-over face and body lotion using natural alpha hydroxy acids from fruits to gently exfoliate and retexturize the skin for smoother, younger-looking skin. To help counteract the dryness that may result from skin stimulation, Ajidew N-50 is added to normalize the skin's outer layer and provide optimum moisturization.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	66.45
Magnesium Aluminum Silicate/Veegum Ultra	1.00
Xanthan Gum/Keltrol	0.30
Disodium EDTA/Hamp-Ene Na2	0.05
Methylparaben	0.20
Propylene Glycol	3.00
Glycerin	2.00
Sodium Lactate (and) Sodium PCA (and) Sorbitol (and) Proline/Prodew 300	3.00
Part B:	
Stearic Acid/Emersol 132	1.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	1.00
Glyceryl Stearate/Lexemul 55G	3.00
Diocetyl Maleate/Bernel Ester COM	5.00
C12-15 Alkyl Benzoate/Finsolv TN	4.00
Dimethicone/Dow Corning 200, 350 cs.	0.20
Cetyl Alcohol/Lanette 16	2.00
Propylparaben	0.10
Part C:	
Triethanolamine 99%	0.40
Part D:	
Diazolidinyl Urea/Germall II	0.30
Lemon Passion Fruit Complex Provital	5.00

Procedure:

Disperse Veegum Ultra and Keltrol in deionized water. Heat to 75C. Add remaining Part A ingredients. Mix until uniform. Heat Part B to 75C. Add Part B to Part A while mixing with good agitation. Add Part C. Mix for 30 minutes until completely homogeneous. Cool to 40C. Add Part D. Continue mixing and cooling to 35C.

Appearance: Opaque, white lotion

pH: 3.40-3.80

Viscosity: 4,000-9,000 (RVT #5 @ 10 rpm @ 25C)

NOTE: May infringe on an existing patent. Please consult your legal advisor.

SOURCE: Ajinomoto USA Inc: Suggested Formulation #29-0805-A

All-Over AHA Moisturizer

An all-over face and body lotion using natural alpha hydroxy acids from fruits to gently exfoliate and retexturize the skin for smoother, younger-looking skin. To help counteract the dryness that may result from skin stimulation, Ajidew N-50 is added to normalize the skin's outer layer and provide optimum moisturization.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	66.55
Magnesium Aluminum Silicate/Veegum Ultra	1.00
Xanthan Gum/Keltrol	0.30
Disodium EDTA/Hamp-Ene Na2	0.05
Methylparaben	0.20
Propylene Glycol	3.00
Glycerin	2.00
Sodium PCA/Ajidew N-50	5.00
Part B:	
Stearic Acid/Emersol 132	1.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	4.00
Diocetyl Maleate/Bernel Ester COM	5.00
C12-15 Alkyl Benzoate/Finsolv TN	4.00
Dimethicone/Dow Corning 200, 350 cs.	0.20
Cetyl Alcohol/Lanette 16	2.00
Propylparaben	0.10
Part C:	
Triethanolamine 99%	0.30
Part D:	
Diazolidinyl Urea/Germall II	0.30
Lemon Passion Fruit Complex Provital	5.00

Procedure:

Disperse Veegum Ultra and Keltrol in deionized water. Heat to 75C. Add remaining Part A ingredients. Mix until uniform. Heat Part B to 75C. Add Part B to Part A while mixing with good agitation. Add Part C. Mix for 30 minutes until completely homogeneous. Cool to 40C. Add Part D. Continue mixing and cooling to 35C.

Appearance: Opaque, white lotion

pH: 3.60-4.20

Viscosity: 12,000-15,000 cps (RVT #5 @ 10 rpm @ 25C)

NOTE: May infringe on an existing patent. Please consult your legal advisor.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation #29-0707-B

Cheek Rouge

	<u>Wt%</u>
A. Amihope LL	15.0
Nylon Powder	15.0
Titanium Dioxide	10.0
Aluminum Oxide	2.0
Pigment	q. s.
Talc	the rest
B. Dimethylpolysiloxane	2.0

Procedure:

1. Mix (A) with a speed mixer.
2. Add (B) to (A), and mix.
3. Sieve them, and press.

Note:

This cheek rouge has smooth touch and proper adhesion.

Eye Shadow

	<u>Wt%</u>
A. Sericite	15.0
Mica	10.0
Nylon Powder	15.0
Amihope LL	10.0
Titanium Dioxide	7.0
Pearl Pigment	q. s.
Pigments	q. s.
Talc	the rest
B. Isostearic Acid	2.0

Procedure:

1. Mix (A) with a speed mixer.
2. Add (B) to (A), and mix.
3. Sieve them, and press.

Note:

This eye shadow has smooth touch and proper adhesion.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Cleansing Emulsion O/W Liquid

	<u>%W/W</u>
I Cutina MD	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	10.0
Paraffin oil, high viscous	20.0
II Water	59.0
Formula No. B21-01	

Cleansing Emulsion O/W Liquid

	<u>%W/W</u>
I Cutina MD	4.0
Lanette O	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Rilanit GMO	1.0
Cetiol SN	10.0
Paraffin oil, high viscous	25.0
II Water	55.0
Formula No. B21-02	

Cleansing Emulsion O/W Liquid

	<u>%W/W</u>
I Lanette 16	2.0
Siegert Stearin L2SM	3.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	5.0
Cetiol S	15.0
II Triethanolamine	0.2
Water	71.8
Formula No. B21-03	

Cleansing Emulsion

	<u>%W/W</u>
I Lamecreme LPM	10.0
Paraffin oil	2.0
Cegesoft C24	3.0
Eutanol G	3.0
Lanette 16	1.0
Wool fat	1.0
II Lamepon S-TR	3.0
1,2-propylene glycol	5.0
Water	71.7
III Perfume	0.3

Preparation:

Phase I is brought to 70C and the aqueous phase, also at 70C, is added slowly, stirring thoroughly. May be perfumed after stir cooling to 40C.

Formula No. B21-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Compact PowderMaterial/CTFA-Index:

A: Talc	74.00%
Magnesium Stearate	6.00
Carbopol 1342/Carbomer 1342	3.00
B: Wacker-Belsil CM 040/Cyclomethicone	12.00
Nutrilan L/Hydrolyzed Animal Protein	2.00
C: Methyl paraben	0.20
Talc	1.90
Pigments	0.70
Preservative, Fragrances, Pigments	q.s.

Mix A, add B slowly, add C and then mix D into ABC homogeneously.
Formulation 635 AH

Compact PowderMaterial/CTFA-Index:

A. Talc	25.00%
Kaolin	25.00
Titanium Dioxide	5.00
Calcium Carbonate	10.00
Magnesium Stearate	5.00
Belsil BNP/Boron Nitride	10.00
Zinc Stearate	12.50
B: Isopropyl Myristate	3.50
Oleyl Oleate	4.00
Fragrances, pigments	q.s.

Mix A well, heat B and add it in portions, homogenize thoroughly.
Formulation 1057 AH

Nail Varnish Remover

A gentle nail varnish remover with added nourishing ingredients.

Material/CTFA-Index:

Acetone	50.00%
Water	11.00
Wacker-Belsil DMC 6035/Methicone Copolyol Acetate	3.00
Ethyl Acetate	35.00
Diisopropyl Adipate	0.50

Mix all the ingredients together.
Formulation 987 AH

SOURCE: Wacker Silicone: Suggested Formulations

Conditioning Skin Moisturizer

This lotion moisturizes and softens the skin without leaving a greasy, heavy feel.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	71.00	Diluent
Pemulen TR-1 (1)	0.40	Emulsifier/ Stabilizer
Glycerin	2.00	Humectant
Methyl Paraben	0.10	Preservative
Propyl Paraben	0.10	Preservative
Part B:		
White Petrolatum	1.00	Moisture Barrier
Isopropyl Palmitate	2.50	Emollient
Dimethicone	2.50	Lubricant
Triethanolamine (99%)	0.30	Neutralizing Agent
Part C:		
Distearyldimonium chloride (2)	0.10	Conditioner
Deionized Water	20.00	Diluent
Part D:		
Fragrance	q.s.	
Color	q.s.	

- (1) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
 (2) Arosurf TA-100 (Sherex Chemical)

Preparation:

1. Combine deionized water, glycerin, and parabens in a vessel which will contain the entire formulation. Note: Parabens may be predispersed in glycerin to facilitate dissolution.
2. Disperse the Pemulen into the water mixture with rapid agitation. Allow the solution to mix for approximately 30 minutes. Heat to 70C.
3. Combine Part B ingredients and heat to 70C with mixing.
4. With moderate agitation, add Part B to Part A. Mix for 15-20 minutes.
5. Combine Part C ingredients and add to the emulsion with continued mixing until cool.

SOURCE: BFGoodrich Co.: Formula P0023

Cover CreamMaterial/CTFA-Index:

A: Candelilla Wax	5.50%
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	6.70
Stearic Acid	3.00
B: Water	45.80
Propylene Glycol	3.40
Triethanolamine	1.30
C: Belsil BNP/Boron Nitride	10.00
Titanium Dioxide	4.00
Pigments	2.00
D: Belsil CM 040/Cyclomethicone	18.30
Preservatives, fragrances	q.s.

Heat A and B each to 70C. Add B to A. Mix C to AB homogeneously. Cool to approx. 30C and add D.

Temperature stability: at 45C over 10 weeks.

Formulation 781 AH

Foundation CreamMaterial/CTFA-Index:

A: Lamecreme KSM/Glyceryl Stearate se	20.00%
Olive Oil	4.00
Belsil BNP/Boron Nitride	3.00
B: Glycerine	4.00
Water	67.50
Belsil PDM 20/Phenylmethicone	1.00
Belsil CM 020/Cyclomethicone	0.50
Preservatives, fragrances, pigments	q.s.

Heat A to 70C, mix B and heat to 65C. Add B into A with high agitation.

Temperature stability: at 45C over 10 weeks.

Formulation 780 AH

SOURCE: Wacker Silicone: Suggested Formulations

Cream Eye Shadow

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Talc	18.00
Vanclay, Kaolin	2.00
Iron Oxides	4.50
Titanium Dioxide	5.50
B: Stearic Acid	0.80
Glyceryl Stearate	2.00
Lanolin	4.00
Sesame Oil	2.00
Olive Oil	1.00
Isopropyl Myristate	3.00
C: Cellulose Gum (CMC 7LF)	0.10
Distilled Water	9.90
D: Veegum, Magnesium Aluminum Silicate	1.75
Distilled Water	33.75
E: Propylene Glycol	5.00
Triethanolamine, 99%	0.40
Darvan No. 1, Sodium Polynaphthalene Sulfonate	0.30
Distilled Water	6.00
F: Preservative, Fragrance	q.s.

Procedure:

Micropulverize ingredients in Part A. Heat Part B to 70C. Prepare cellulose gum solution using the Part C ingredients. Prepare a Veegum dispersion using the Part D ingredients. Combine Parts C and D. Add the combined Part E ingredients and add to Parts C+D. Add Part A pigments to water phase and homogenize. Heat to 60C and maintain temperature for 10 minutes. Add oil phase to water phase and mix until temperature cools to 45C. Add F when cool.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum in Color Cosmetics; Formula from Aqualon Co.

Cream Foundation

A	Deionized Water	52.00%
	Pecosil WDS-100 (Dimethicone Copolyol Phosphate)	3.00
	Propylene Glycol	5.00
	Magnesium Aluminum Silicate	0.75
	Xanthan Gum	0.25
B	Titanium Dioxide	7.16
	Talc	1.05
	Iron Oxide (yellow)	1.21
	(red)	0.42
	(black)	0.16
C	Pelamol GS (Glyceryl Stearate)	8.00
	Meadowfoam Seed Oil	5.00
	Pelamol OPG (Octyl Pelargonate)	5.00
	Macademia Nut Oil	2.00
	Cetearyl Alcohol	2.00
	Pelamol OP (Octyl Palmitate)	5.00
	Dimethicone (5000 cs)	0.50
D	Triethanolamine (99%)	0.50
E	Propylene Glycol (and) Diazolidinyl Urea (and)	1.00
	Methylparaben (and) Propylparaben	

Procedure:

1. Prewet Magnesium Aluminum Silicate and Xanthan Gum with the Propylene Glycol. 2. Homogenize this slurry into phase A water, and when uniform, homogenize phase B into phase A. 3. When AB is uniform, switch to sweep agitation and add Pecosil WDS-100. 4. With continued sweep agitation, heat AB to 70-75C. 5. Heat phase C to 70-75C with sweep agitation. 6. Homogenize phase C to AB. 7. When ABC is uniform, switch to sweep agitation and add phase D to ABC. 8. Cool to 45C under sweep agitation and then add phase E. 9. Continue sweep agitation while cooling to 35C.

SOURCE: Phoenix Chemical, Inc.: Formula 14-108-B

Cream Lotion O/W with Ginseng Root Extract

	<u>%W/W</u>
I Cutina CBS	8.0
Cutina E24	1.5
Eumulgin B2	1.5
Cetiol SN	8.0
Eutanol G	4.0
Cremogen Ginseng root	1.0
II Henkel Glycerin 86% DAB 9	5.0
Water	71.0

Formula A22-06

Skin Emulsion O/W Low Viscous with Avocado Oil

	<u>%W/W</u>
I Cutina CBS	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	5.0
Avocado oil	3.0
II Water	81.0

Formula No. A22-07

Moisturizing Emulsion O/W

	<u>%W/W</u>
I Cutina MD	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	10.0
Myritol 318	5.0
Paraffin oil, high viscous	4.0
II Hygroplex HHG	5.0
1,2-propylene glycol	7.0
Water	58.0

Formula No. A23-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Creamy Eye Shadow

<u>A</u>	Deionized Water	51.94%
	Pecosil PS-100 (Dimethicone Copolyol Phosphate)	3.00
	Propylene Glycol	5.00
	Magnesium Aluminum Silicate	0.75
	Xanthan Gum	0.25
<u>B</u>	Titanium Dioxide	7.15
	Talc	1.05
	Iron Oxides	1.86
<u>C</u>	Pelemol GS (Glyceryl Stearate)	8.00
	Meadowfoam Seed Oil	5.00
	Pelemol OPG (Octyl Pelargonate)	5.00
	Macademia Nut Oil	2.00
	Cetearyl Alcohol	2.00
	Pelemol OP (Octyl Palmitate)	5.00
	Siltech F-500 (Dimethicone, 500 cs)	0.50
<u>D</u>	Triethanolamine (99%)	0.50
<u>E</u>	Propylene Glycol (and) Diazolidinyl Urea (and)	1.00
	Methylparaben (and) Propylparaben	

Procedure:

1. Prewet Magnesium Aluminum Silicate and Xanthan Gum with the Propylene Glycol. 2. Homogenize this slurry into phase A water, and when uniform, homogenize phase B into phase A. 3. When AB is uniform, switch to sweep agitation and add Pecosil WDS-100. 4. With continued sweep agitation, heat AB to 70-75C. 5. Heat phase C to 70-75C with sweep agitation. 6. Homogenize phase C to AB. 7. When ABC is uniform, switch to sweep agitation and add phase D to ABC. 8. Cool to 45C under sweep agitation and then add phase E. 9. Continue sweep agitation while cooling to 35C.

SOURCE: Phoenix Chemical, Inc.: Formula 14-108-D

Creamy Lotion Moisturizer

A creamy, non-greasy lotion with a quick drying cooling sensation. Leaves skin feeling soft, smooth and moisturized.

	<u>Wt%</u>
A. Methyl Paraben	0.25
Carbomer 941 (Goodrich, Carbopol 941)	0.50
Water	65.40
B. Isopropyl Lanolate (Amerchol, Amerlate P)	2.50
Stearyl Alcohol (and) Cetareth-20 (Amerchol, Promulgen G)	3.50
Mink Oil (Emulan, Light Fraction)	5.50
Myristyl Myristate (Van Dyk, Ceraphyl 424)	1.50
Propyl Paraben	0.15
C. Triethanolamine (99%)	0.50
Ethanol (SD 40 Alcohol, 95%)	20.00
Perfume	0.20

Procedure:

1. Disperse Carbopol in water, add methyl paraben, then heat Phase A to 75C.
2. Add 75C Phase B to 75C Phase A via propellor agitation.
3. Cool to 45C and add Phase C.

Moisture Balm

An analgesic, non-irritating, soothing, moisturizing skin balm. Unique formula combining Lipoprotein, Yeast Extract and Mink Oil with Homomenthyl Salicylate for superior skin benefits.

	<u>Wt.%</u>
A. Isopropyl Palmitate (Amerchol, Propal)	5.0
Mink Oil (Emulan, Light Fraction)	5.0
Homomenthyl Salicylate	5.0
PEG-6 Stearate (and) Glyceryl Stearate (and) Ceteth-20 (Gattefosse, Tefose 2561)	7.5
Cyclomethicone (and) Dimethicone Copolymer (Dow Corning, Q2-3225C)	4.0
B. Water	63.6
C. Hydrolyzed Animal Protein	1.0
Propylene Glycol (and) Yeast Extract (Gattefosse, Vegetol LP)	2.7
PEG-8 (UCC, Carbowax 400)	5.0
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (Sutton, Germaben II)	1.0
Fragrance	0.2

Procedure:

Add 70C Phase B to 65C Phase A via high shear propellor agitation. Stir cool to 35C. Add room temperature Phase C.

SOURCE: Emulan, Inc.: Suggested Formulations

Creamy Mascara

Creamy soft.

Material/CTFA-Index:

A: Belsil DM 350/Dimethicone	2.00%
Belsil CM 025/Cyclomethicone	3.00
Cetyl Alcohol	2.00
Stearic Acid	9.90
Vaseline/Petrolatum	5.50
Mineral Oil	4.10
B: Triethanolamine	3.10
Wasser dest./Water	61.30
Pigmente/(Colour)	9.10
Preservatives, perfume	q.s.

Mix A and heat to 60C, stir in B. Add the pigments and work in until a homogeneous mixture is formed.

Temperature stability: at 45C over 10 weeks.

Formulation 195 AH

Mascara

Firm cream.

Material/CTFA-Index:

A: Belsil DM 350/Dimethicone	2.00%
Belsil PDM 200/Phenyldimethicone	4.00
Cetyl Alcohol	5.00
Stearic Acid	19.80
Vaseline/Petrolatum	5.50
Mineral Oil, high viscosity	4.10
B: Triethanolamine	6.20
Water	43.40
C: Pigmente/(Colour)	10.00
Preservatives, perfume	q.s.

Heat A to 60C, add B whilst stirring quickly. Work in C homogeneously.

Temperature stability: at 45C 8 weeks.

Formulation 211 AH

SOURCE: Wacker Silicone: Suggested Formulations

Depilatory Cream O/W

	<u>%W/W</u>
I Lanette N/SX	6.0
II Urea	4.0
Water	74.5
III Gelwhite USP	5.0
Thioglycolic acid 80%	6.0
Lithium hydroxide	4.5

Note: In accordance with the German cosmetics legislation, depilatory creams may contain a maximum of 5% thioglycolic acid and the pH must be <12.65. The pH of this cream is approx. 12.

Preparation: Thioglycolic acid and lithium hydroxide are dissolved or suspended in 20 parts water. Gelwhite is swelled in 20 parts cold water. With the rest of the water, in which the urea has been dissolved, a cream is produced with Lanette N/SX. After the cream has completely cooled down, the active ingredient mixture and the gelwhite solution are added.

Formula No. G11-01

Depilatory Emulsion O/W, High Viscous

	<u>%W/W</u>
I Lanette N	4.0
Eumulgin B3	2.0
II Thioglycolic acid 80%	6.0
Lithium hydroxide	4.5
Urea	4.0
Melamine	2.0
Water	77.5

Preparation: Thioglycolic acid, lithium hydroxide and melamine are dissolved or suspended in half the water. With the rest of the water, in which the urea has been dissolved earlier, a cream or emulsion is produced with the fatty substances. After the cream has cooled down completely, the active ingredient mixture is added to the cream and then perfumed.

Note: In accordance with the German cosmetics legislation, depilatory creams may contain a maximum of 5% thioglycolic acid and the pH must be <12.65. The pH of this emulsion is approx. 12.
Formula No. G21-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Eyeliners

	<u>%W/W</u>
I Cutina MD	3.0
Eumulgin B1	1.0
Eutanol G	3.0
Myritol 318	3.0
Pigment colors	10.0
II Luviskol K30	8.0
Ethyl alcohol 96%	5.0
Henkel Glycerin 86% DAB 9	3.0
Veegum solution 6%	20.0
Water	44.0

Preparation: An o/w-type emulsion is produced in the usual way with the fatty substances and half the water. Luviskol K30 is dissolved in the mixture of alcohol and the rest of the water and the pigments are added to this solution. Having cooled down, the emulsion is added gradually to the Luviskol pigment mixture and then the Veegum solution is stirred in. The finished emulsion should be homogenized mechanically.
Formula No. P24-01

Make-up Stick

	<u>Parts</u>
Cutina LM	84.0
Eutanol G	16.0
Pigment colors	15.0
Formula No. P41-01	

Powder Stick

	<u>Parts</u>
Cutina LM	50.0
Eutanol G	10.0
Pigment colors	40.0
Formula No. 41-02	

Cover-up Stick

	<u>Parts</u>
Cutina LM	70.0
Pigment colors	30.0
Formula No. 41-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Eye Make-up Remover, Liquid

	<u>%W/W</u>
Cetiol SN	60.0
Eutanol G	30.0
Paraffin oil, high viscous	10.0
Formula No. B32-01	

Eye Make-up Remover in Gel Form

	<u>%W/W</u>
Cetiol SN	63.0
Paraffin oil, high viscous	30.0
Aerosil 200	7.0
Formula No. B32-02	

Make-up Remover, Surfactant Based

	<u>%W/W</u>
Dehyton G	20.0
Cetiol HE	25.0
Citric acid	0.3
Water	54.7
Formula No. B32-03	

Make-up Remover, Anhydrous

	<u>%W/W</u>
Lanette 16	10.0
Cutina BW	15.0
Vaseline, white	35.0
Wool fat, anhydrous	10.0
Hard paraffin	5.0
Cetiol V	25.0
Formula No. B32-04	

Eye Make-up Removing Stick

	<u>%W/W</u>
Cutina LM	80.0
Paraffin oil, high viscous	10.0
Vaseline, white	10.0
Formula No. B41-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Eye Shadow Stick

	<u>Parts</u>
Cutina LM	72.0
Eutanol G	20.0
Pigment colors	3.0
Timiron Starluster MP 115	15.0
Cosmetic titanium dioxide 300 309	0.5
Formula No. P44-01	

Eyeliner Pencil

	<u>Parts</u>
Cutina LM	85.0
Ozokerite 70-72C	5.0
Pigment color	10.0
Formula No. P44-02	

Eyebrow Pencil

	<u>Parts</u>
Cutina LM	78.0
Ozokerite 70-72C	12.0
Pigment color	10.0
Formula No. P44-03	

Make-Up Cream with Pearly Gloss, O/W

	<u>%W/W</u>
I Cutina MD	2.0
Siebert Stearin L2 SM	1.0
Cetiol V	5.0
Paraffin oil, high viscous	10.0
Wool fat, anhydrous	2.0
Pigment colors	8.0
II 1,2-propylene glycol	5.0
Triethanolamine	0.5
Veegum solution 4%	30.0
Water	26.5
III Timiron Starluster MP 115	10.0
Formula P11-04	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Eye Shadow

A. Sericite	15.0%
Mica	10.0
Nylon Powder	15.0
Amihope LL	10.0
Titanium Dioxide	7.0
Pearl Pigment	q.s.
Pigments	q.s.
Talc	the rest
B. Isostearic Acid	2.0

Procedure:

1. Mix (A) with a speed mixer.
2. Add (B) to (A), and mix.
3. Sieve them, and press.

Note:

This eye shadow has smooth touch and proper adhesion.

Face Powder with Amihope LL

A. Talc	q.s. to 100%
Lauroyl Lysine*	5%-30%
Magnesium Stearate	2.5%
Propylparaben	0.05%
Butylparaben	0.05%
Pigments (Titanium Dioxide, Iron Oxides, Ultramarines, etc.)	q.s.
B. Captex 300**	1.0%
Fragrance	q.s.

Charge all phase A ingredients into appropriate blender and mix. Combine phase B liquids and spray or add to blending phase A. After mixing is complete, pulverize well. Very smooth feel with good skin adhesion.

*Amihope LL(Ajinomoto USA, Inc.)

**Capric/Caprylic Triglycerides(Capital City Products)

Powder Foundation

	Wt%
A. Talc	36.9
Sericite	30.0
Mica	10.0
Magnesium Stearate	1.0
Titanium Dioxide	5.0
Amihope LL	5.0
Pigments	2.1
B. 2-Octyldodecanol	4.0
Dimethylpolysiloxane	6.0

Procedure:

1. Add (A) with speed mixer.
2. Add (B) to (A).
3. Sieve them, and press.

Note:

This powder foundation has light touch.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Eye Shadow Cream O/W

	<u>%W/W</u>
I Siegert Stearin L2 SM	4.0
Cutina MD-A	4.0
Eumulgin B1	1.0
Lanette 16	2.0
Eutanol G	2.0
Isopropyl myristate	4.0
Colorants:	
Pigment colors	1.4
Cosmetic titanium dioxide 300 309	3.6
II Triethanolamine	1.0
1,2-propylene glycol	5.0
Water	67.0
III Timiron Starluster MP 115	5.0
Formula No. P14-01	

Eye Shadow Cream O/W

	<u>%W/W</u>
I Lanette 16	1.0
Siegert Stearin L2 SM	1.0
Eumulgin B1	0.5
Lanette E	0.2
Isopropyl palmitate	5.0
Pigment colors	0.7
Cosmetic titanium dioxide 300 309	1.8
Talc	6.0
Titanium dioxide	1.8
Kaolin	0.6
II Luviskol K30	3.0
Veegum solution 4%	40.0
Water	29.7
III Timiron Starluster MP 115	10.0

Preparation: Phase I is melted, the pigment colors and powders are added and the mass is processed through a colloid or roller mill. The pigment/fat mass is then heated to approx. 80C and the water, in which the Luviskol K30 has been dissolved, stirred in at the same temperature. The emulsion is stir cooled and the Veegum solution is added at 40C. Phase III is added under 30C.
Formula No. P14-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Face Cleanser, Clear, Liquid

Texapon ASV	<u>%W/W</u>
Water	30.0
	70.0

Note: WAS 9%
Formula No. L69-01

Face Cleanser, Clear, Liquid

Texapon ASV	<u>%W/W</u>
Dehyton AB 30	30.0
Sodium chloride	10.0
Water	3.0
	57.0

Note: WAS 12%
Formula No. L69-02

Face Cleanser

Texapon ASV	<u>%W/W</u>
Cetiol HE	20.0
Viscontran HEC 30 000 PR-2% solution	2.0
Perfume, water-soluble	50.0
Water	1.0
	27.0

Note: WAS approx. 6%, medium viscous
Formula No. L69-03

Cleansing Lotion, Contains Surfactant

Lamepon S	<u>%W/W</u>
Nutrilan I	9.4
Monomuls 90-L 12	0.5
Water	0.2
	89.9

Note: Low viscous, WAS 3%
Preparation: Monomuls 90-L 12 is dissolved in Lamepon S while heat is applied. The remaining ingredients are then added in the order given above. The pH is set to 6.5 with citric acid.
Formula No. L69-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Face Mask

Clear yellow, high viscosity. Produces a film on the skin which can be pulled or rubbed off after approx. 10 minutes.

Material/CTFA-Index:

A: Polyviol W 25/140/Polyvinyl Alcohol	10,00%
Ethanol 96%ig/Alcohol(Cosmetic grade)	25,00
B: Water	45,00
Belsil DMC 6035/Methicone Copolyol Acetate	2,00
C: Triethanolamine	3,00
Ethanol 96%ig/Alcohol (Cosmetic grade)	15,00
Preservatives, fragrances, pigments	q.s.

Mix Polyviol W 25/140 and the cosmetic alcohol and stir into B. Heat to approx. 85C in water bath (whilst stirring), until a clear lump-free solution is produced. Cool to at least 40C and add to C whilst stirring.

Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 313 AH

Gel Exfoliator

Product is a mild scrub due to the inclusion of DC 193 which provides a smooth feel on the skin, while Polytrap 6038 does the scrubbing action by releasing mineral oil (in form of beads) and absorbing at the same time excessive oil from the skin.

Ingredients:

	<u>% by Weight</u>
Water (distilled)	37.56
EDTA Disodium	0.10
Extrapone Witch Hazel	3.00
AMP-95	0.44
Dow Corning 193	3.00
Carbopol 1342 (2% Soln)	50.00
Polytrap 6038	3.00
Suttocide A	0.70
Perf. Rain Forest	0.20

Note: pH should be 5.50-6.50 (correct with AMP, if necessary)

Procedure:

1. Start mixing water and add EDTA, and Witch Hazel and DC 193 and mix to dissolve.
2. Then add slowly Carbopol solution with low speed (to avoid formation of air bubbles).
3. When all Carbopol is in, add AMP-95 to neutralize it and then add slowly Polytrap 6038 to get uniform distribution.
4. In a homogeneous mixture add Suttocide and mix.
5. At the end add the fragrance and slowly mix in.
6. Take a sample for QC and, when approved, pack off product.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Formulation PF-0311 suggested by Dow Corning

Face Mask O/W

	<u>%W/W</u>
I Siegert Stearin L2SM	6.0
II Triethanolamine	0.3
Gelwhite USP	5.0
Water	71.7
III Kaolin	15.0
Titanium dioxide	2.0

Preparation:

Gelwhite is stirred while swelling in 30 parts cold water. Siegert Stearin L2SM is melted at 75C and the rest of the water and triethanolamine are stirred in at a temperature of 80C. At 35C, the gelwhite solution as well as kaolin and titanium dioxide are added to the cream.

Formula No. B13-01

Vitamin Face Mask O/W

	<u>%W/W</u>
I Emulgade F	5.0
Carrot oil CLR	3.0
Vitamin F glycerine ester CLR	3.0
II Viscontran MHPC 400	0.2
Water	54.7
III Zinc oxide	10.0
Kaolin	10.0
Almond meal	5.0
Cremogen witch hazel extract	8.0
IV Camphor	0.1
Ethyl alcohol 96%	1.0

Preparation:

Viscontran MHPC is swelled in 30 parts cold water. The fatty substances (I) are heated to 75C and the rest of the water is stirred in at a temperature of 80C. At approx. 35C, the Viscontran solution (II), the powder substances, the Cremogen witch hazel extract and the camphor/alcohol solution are added to the cream.

Formula No. B13-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Facial Cleanser

This cleansing formulation is light, non-greasy and water-rinsable. It provides thorough cleansing without drying the skin.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	89.55	Diluent
Cocoamphodiacetate (1)	1.00	Rinsability
Quaternium-15 (2)	0.10	Preservative
Methylparaben	0.10	Preservative
Propylparaben	0.05	Preservative
Part B:		
Isostearyl Benzoate (3)	4.00	Solvent
Dioctyl Maleate (4)	2.00	Solvent
Caprylic/Capric Triglyceride	1.00	Solvent
Octyl Hydroxystearate (5)	1.00	Emollient
Pemulen TR-2 (6)	0.20	Emulsifier
Carbopol 980 (7)	0.60	Thickener
Part C:		
Aminomethyl Propanol (95%) (8)	0.40	Neutralizing Agent

- (1) Miranol C2M Conc. NP (Miranol)
- (2) Dowicil 200 (Dow Chemical)
- (3) Finsolv SB (Finetex)
- (4) Bernel Ester DOM (Bernel Chemical)
- (5) Wickeno1 171 (CasChem)
- (6) Acrylates/C10-30 Alkyl Acrylate Copolymer (BFGoodrich)
- (7) Carbomer (BFGoodrich)
- (8) AMP-95 (Angus Chemical)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix to dissolve parabens.
2. Combine Part B ingredients in a separate vessel. Mix to dissolve any soft lumps of Pemulen and Carbopol.
3. With moderate agitation, add the Part B slurry to Part A. Mix for 10-20 minutes to allow resins to swell.
4. Add Part C and mix vigorously to produce a smooth, white cream.

SOURCE: BFGoodrich Co.: Formula P0009

Facial Gel Cleanser
 "The Paste! Collection"
 "Crystal"

A gentle foaming gel cleanser designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	50.150
Polyquaternium-10	0.200
Citric Acid	0.100
Tetrasodium EDTA	0.100
Methylparaben	0.150
Sodium PCA/Ajidev N-50	0.500
Part B:	
Sodium Laureth Sulfate	30.000
TEA-Cocoyl Glutamate/Amisoft CT-12	10.000
Cocamidopropyl Betaine	5.000
PEG-150 Distearate	0.700
Lauramide DEA	2.000
Part C:	
Fragrance/#IY-67	0.250
Methylchloroisothiazolinone and Methylisothiazolinone	0.050
Part D:	
Sodium Chloride	0.800

Procedure:

Disperse Polymer JR-125 in deionized water. Heat to 70C. Add remaining part A ingredients. Mix until uniform. Add part B ingredients in order. Mix at 70C until completely homogeneous. Cool to 40C. Add part C. Mix well. Add Part D as needed to increase viscosity. Continue mixing and cooling to 35C.

Appearance: Clear liquid

pH: 5.20-5.70

Viscosity: 4,000-6,000 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Facial Gel Cleanser
 "The Pastel Collection"
 "Lavender"

A gentle foaming gel cleanser designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	50.176
Polyquaternium-10	0.200
Citric Acid	0.100
Tetrasodium EDTA	0.100
Methylparaben	0.150
Sodium PCA/Ajidew N-50	0.500
Part B:	
Sodium Laureth Sulfate	30.000
TEA-Cocoyl Glutamate/Amisoft CT-12	10.000
Cocamidopropyl Betaine	5.000
PEG-150 Distearate	0.700
Lauramide DEA	2.000
Part C:	
Lavender Oil/Lavender Fleurs 40/42	0.200
Ext D&C Violet (1% Solution)	0.020
D&C Red No. 33 (1% Solution)	0.004
Methylchloroisothiazolinone and Methylisothiazolinone	0.050
Part D:	
Sodium Chloride	0.800

Procedure:

Disperse Polymer JR-125 in deionized water. Heat to 70C. Add remaining part A ingredients. Mix until uniform. Add part B ingredients in order. Mix at 70C until completely homogeneous. Cool to 40C. Add part C. Mix well. Add part D as needed to increase viscosity. Continue mixing and cooling to 35C.

Appearance: Clear lavender liquid

pH: 5.20-5.70

Viscosity: 4,000-6,000 cps (RVT #4 @ 10 rpm @ 25C)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Facial Gel Cleanser
 "The Pastel Collection"
 "Marine"

A gentle foaming gel cleanser designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	50.187
Polyquaternium-10	0.200
Citric Acid	0.100
Tetrasodium EDTA	0.100
Methylparaben	0.150
Sodium PCA/Ajidew N-50	0.500
Part B:	
Sodium Laureth Sulfate	30.000
TEA-Cocoyl Glutamate/Amisoft CT-12	10.000
Cocamidopropyl Betaine	5.000
PEG-150 Distearate	0.700
Lauramide DEA	2.000
Part C:	
Fragrance/#LK-40	0.200
FD&C Blue No. 1 (1% Solution)	0.004
FD&C Yellow No. 5 (1% Solution)	0.009
Methylchloroisothiazolinone and Methylisothiazolinone	0.050
Part D:	
Sodium Chloride	0.800

Procedure:

Disperse Polymer JR-125 in deionized water. Heat to 70C. Add remaining part A ingredients. Mix until uniform. Add Part B ingredients in order. Mix at 70C until completely homogeneous. Cool to 40C. Add part C. Mix well. Add part D as needed to increase viscosity. Continue mixing and cooling to 35C.

Appearance: Clear light green liquid

pH: 5.20-5.70

Viscosity: 4,000-6,000 cps (RVT #4 @ 10 rpm @ 25C)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Facial Gel Cleanser
 "The Pastel Collection"
 "Rose"

A gentle foaming gel cleanser designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	50.193
Polyquaternium-10	0.200
Citric Acid	0.100
Tetrasodium EDTA	0.100
Methylparaben	0.150
Sodium PCA/Ajidew N-50	0.500
Part B:	
Sodium Laureth Sulfate	30.000
TEA-Cocoyl Glutamate/Amisoft CT-12	10.000
Cocamidopropyl Betaine	5.000
PEG-150 Distearate	0.700
Lauramide DEA	2.000
Part C:	
Fragrance/#U-9257	0.200
D&C Red No. 33 (1.0% Solution)	0.007
Methylchloroisothiazolinone and Methylisothiazolinone	0.050
Part D:	
Sodium Chloride	0.800

Procedure:

Disperse Polymer JR-125 in deionized water. Heat to 70C. Add remaining part A ingredients. Mix until uniform. Add part B ingredients in order. Mix at 70C until completely homogeneous. Cool to 40C. Add part C. Mix well. Add part D as needed to increase viscosity. Continue mixing and cooling to 35C.

Appearance: Clear pink liquid

pH: 5.20-5.70

Viscosity: 4,000-6,000 cps (RVT #4 @ 10 rpm @ 25C)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Gelled Nail Lacquer Remover

<u>Ingredients:</u>	<u>Weight%</u>	<u>Function</u>
Acetone	72.0	Solvent
Deionized Water	9.5	Diluent
Propylene Glycol	9.5	Lubricant
Carbopol 941 (1)	2.0	Gelling Agent
PEG-15 Cocamine (2)	2.0	Neutralizer
Glycerin	5.0	Lubricant
Color	q.s.	
Fragrance	q.s.	

Procedure:

1. Combine acetone, deionized water, and propylene glycol. Mix thoroughly.
2. Disperse Carbopol 941 into the acetone mixture with moderate agitation. Mix for 30-45 minutes.
3. Reduce agitation and neutralize with PEG-15 Cocamine.
4. Add glycerin, color, and fragrance and mix until well combined

Suppliers:

- (1) BFGoodrich Co.
 (2) Akzo (Ethomeen C-25)

Formula C0030

Icey Blue Camphorated Skin Gel (Clear)

<u>Ingredients:</u>	<u>Weight%</u>	<u>Function</u>
<u>Part A:</u>		
Water (Deionized)	85.6	Diluent
Carbopol 940	0.9	Gelling Agent
<u>Part B:</u>		
Isopropyl Alcohol	10.0	Solvent for Active
Camphor (Crystals)	0.2	Active
Polysorbate 20	1.0	Surfactant
Triethanolamine (99%)	2.0	Neutralizer
Methyl Parabens	0.2	Preservative
FDYC Blue	0.002	Soluble Dye
Disodium EDTA	0.1	Chelating Agent

Procedure:

1. Slowly sift Carbopol 940 into the vortex of rapidly agitating water when resin is dispersed, reduce agitation, mix until homogenous dispersion is obtained.
2. Separately combine Part B. Add to Part A with moderate sweeping agitation until a clear gel results.

Formula C0031

SOURCE: BF Goodrich Co.: Suggested Formulations

Gentle Body Polisher
(Formula 91-0507)

This elegant body polisher is prepared with mild surfactants and a fine abrasive that results in a mild yet effective body polisher. Its non-alkaline pH and combination of ingredients are designed to cleanse the skin and leave it feeling clean and smooth. The polisher is thick and rich in the package and on your hand but readily thins when sheared, therefore, it dispenses easily.

	<u>% By Weight</u>
Deionized Water	Q.S.
Veegum Ultra (R.T. Vanderbilt)	1.00
Methocel E4M (Dow Chemical)	0.80
Miracare XL	8.50
Hamosyl C (W.R. Grace)	1.00
Sodium Hydroxide (50%)	0.50
Alkamide DL 207/S	2.00
Stearic Acid (Triple Pressed)	1.00
Alkamuls EGMS	1.00
Geropon AC-78/NP	13.00
Acuscrub 50 (Allied Signal)	20.00
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure: With vigorous agitation disperse Veegum Ultra in Deionized Water and begin heating. When batch has reached 75C, add Methocel E4M, agitate vigorously until dispersed. Decrease agitation to avoid air entrapment. Maintain temperature at 75C and add Miracare XL, Hemosyl C, Sodium Hydroxide (50%), Alkamide DL 207/S, Stearic Acid, Alkamuls EGMS, and Geropon AC-78/NP. After the Geropon AC-78/NP has dissolved begin cooling. Add Acuscrub 50 at 60C. Add Fragrance, Dye(s) and Preservative at 40C.

Note: Fragrance selection may affect pH and viscosity. Viscosity can be adjusted by varying the Methocel E4M level, pH can be adjusted by varying the Sodium Hydroxide level.

Typical Formulation Properties

Appearance:	Opaque, Abrasive Cream	
Viscosity:	Brookfield LV4 @ 25C (12 hours after preparation)	
	@ 0.3 RPM	650,000-750,000 cps
	@ 0.6 RPM	450,000-550,000 cps
	@ 1.5 RPM	250,000-350,000 cps
pH:	6.5-7.5	

CTFA Identification: Water, Oxidized Polyethylene, Sodium Cocoyl Isethionate, DEA-Lauryl Sulfate, Lauramide DEA, Sodium Stearate, Sodium Cocoyl Sarcosinate, Glycol Stearate, Magnesium Aluminum Silicate, DEA-Lauraminopropionate, Sodium Lauramimopropionate, Propylene Glycol, Hydroxypropyl Methylcellulose, Fragrance, Preservative, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 91-0507

Gentle Facial Cleanser & Moisturizer
(Formula 91-0901)

This elegant, high solids facial cleanser is formulated with mild cleansing agents and moisturizing agents to leave the face clean and moisturized. Its non-alkaline pH has been chosen to match the skin's natural pH. Its rich creamy, pearled appearance conveys its luxurious feel and performance.

	<u>% By Weight</u>
Deionized Water	Q.S.
Hamposyl L-30 (W.R.Grace)	40.00
Rhodafac RS 610	3.00
Sorbitol (70%)	2.10
Glycerin	1.50
Diglycerin (Solvay)	1.50
Alkamuls EGMS	4.00
Cetearyl Alcohol	1.50
Alkamide DIN 295/S	1.00
Mineral Oil	1.00
Beeswax	0.20
Ceresin	0.20
Sodium Borate	0.05
Cheelox 100	0.05
Geroxon AC-78/NP	20.00
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure: In a side scraped kettle, or other kettle suitable for preparing heavy creams, heat all components except Geroxon AC-78/NP to 75C with gentle agitation to avoid foaming and aeration. Add Geroxon AC-78/NP and maintain at 75C until dissolved. Avoid aeration and foaming. Cool. Add Fragrance, Dye(s) and Preservative at 35C.

While cooling, the product will pass through a very thick phase. However, upon further cooling and mixing, the product will thin.

Note: Viscosity can be adjusted as desired by varying the Alkamuls EGMS level.

Typical Formulation Properties

Appearance:	Pearled, Flowable Cream
pH:	5.7-6.1
Solids:	50%
Viscosity*:	Brookfield LV4 @ 25C
	@ 0.3 RPM 50,000-150,000
	@ 1.5 RPM 25,000-100,000

* Viscosity reading is function of aeration.

CTFA Identification: Water, Sodium Cocoyl Isethionate, Sodium Lauryl Sarcosinate, Glycol Stearate, Trideceth-6 Phosphate, Cetearyl Alcohol, Sorbitol, Glycerin, Diglycerol, Linoleamide DEA, Mineral Oil, Beeswax, Ceresin, Sodium Borate, Disodium EDTA.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula

Hair and Skin Moisturizing Spray

A refreshing spray containing special humectants to replenish much needed moisture to hair and skin. Contains Sodium PCA to help restore normal moisture balance and keep the skin young and fresh. Also contains Aloe Vera Gel to soothe dryness, and emollients to condition and protect the skin and hair from drying out. Recommended for use under dry climatic conditions, dry heat or during sun exposure.

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	88.95
Sodium PCA/Ajidew N-50	3.00
Aloe Vera Gel Decolorized 1X	5.00
Dimethicone Copolyol/Dow Corning 193 Surfactant	0.30
Diazolidinyl Urea/Germall II	0.10
Part B:	
Propylene Glycol	2.00
Methylparaben	0.15
Part C:	
TEA-Cocoyl Glutamate/Amisoft CT-12	0.50

Procedure:

Mix Part A ingredients until everything is completely dissolved. Heat Part B to 50 degrees Centigrade and mix until clear. Add Part C. Mix well.

Appearance: Clear colorless, water-thin liquid
pH: 5.30-5.60

Cheek Rouge

	<u>Wt%</u>
A. Amihope LL	15.0
Nylon Powder	15.0
Titanium Dioxide	10.0
Aluminum Oxide	2.0
Pigment	q.s.
Talc	the rest
B. Dimethylpolysiloxane	2.0

Procedure:

1. Mix (A) with a speed mixer.
2. Add (B) to (A), and mix.
3. Sieve them, and press.

Note:

This cheek rouge has smooth touch and proper adhesion.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Highly Protective Foundation

<u>Ingredient:</u>	<u>%W/W</u>
1 Monomuls 90-0 18	2.0
2 Lameform TGI	4.0
3 Cetiol A	10.0
4 Sipol 1618 C50	1.0
5 Beeswax	3.0
6 Zinc stearate	2.0
7 Tioveil TG	10.0
8 Magnesium sulphate	1.0
9 Glycerine	3.0
10 Pigments	q.s.
11 Preservative	q.s.
12 Water	to 100.0

This formulation gives a rich W/O Tinted Foundation Cream with good emollience and high UV protection (SPF approx. 12).

The first seven components are melted together at about 85C. Components 8 & 9 are dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C. The pigments should be incorporated well, and the product homogenised by Triple Roll Mill.

Formula TS 476

Water Thin Milk

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.0
2 Cutina E24	2.0
3 Cetiol 1414E	7.0
4 Cutina MD	1.0
5 Sipol 1618 C50	1.0
6 Urea	3.0
7 Glycerine	3.0
8 Preservative	q.s.
9 Water	to 100.0

This formulation gives a water thin O/W skin milk. It would also be suitable for use in a pump dispenser or as an aerosol body mousse.

The first five components are melted together at about 85C. Components 6 & 7 are dissolved in the water and heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 453

SOURCE: Henkel KGaA: Skin Care Project Formulations

Lasting Strength Nail Toughener
(Keratin Protein Nail Strengthener and Conditioner)

Nails are made of Keratin protein. Keratin Nail Toughener is applied directly to the nail becoming a part of the nail itself and forming a protective moisture retentive film which enhances the nail's flexibility and durability.

When used regularly, Lasting Strength Nail Toughener will counteract the damaging effects of detergents and other environmental abuse.

Kera-Tein 1000 and Gel-Co are film formers, coating and penetrating into the "pores" of the nail. Kera-tein 1000 AS, a cationic, alcohol soluble Keratin ester will help plasticize the nail and prevent embrittlement due to excessive drying. Lasting Strength Nail Toughener adds a very attractive, natural-looking, healthy sheen to the nails.

<u>Ingredients:</u>	<u>%W/W</u>
Water	59.5
Isopropyl Alcohol	20.0
Kera-Tein 1000 (Hydrolyzed Keratein)	9.2
Kera-Tein 1000 AS (Ethyl Ester of Hydrolyzed Keratin)	10.0
Gel-Co (Gelatin)	1.0
Celquat L 200 (Polyquaternium-4)	0.2
Fragrance	0.1

Procedure:

Mix water, gelatin and Celquat and warm to 50C until all in solution. Cool to 40C. Add the rest of the ingredients. Age overnight. Filters clear.

Directions:

Remove nail polish. Apply "Dab-O-Matic" over clean, dry nails and under tips. Use twice daily and always after washing.

Applicator and Cap by: Dab-O-Matic, Mt. Vernon, NY

Vial by: Brockway Glass, Parkersburg, WV

SOURCE: Maubrook Inc.: Formula #SK-2401

Light Coverage Foundation

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	59.55
Veegum, Magnesium Aluminum Silicate	1.20
Cellulose Gum (CMC 7MF)	0.60
B: Butylene Glycol	6.00
Triethanolamine, 99%	2.00
Methylparaben	0.30
Diazolidinyl Urea (Germall II)	0.20
C: Glyceryl Stearate	1.00
Isostearic Acid	2.00
Stearic Acid XXX	2.00
Isopropyl Lanolate	5.00
Propylene Glycol Diester	5.00
Propylparaben	0.15
D: Titanium Dioxide	5.62
Iron Oxides	1.38
Talc	8.00

Procedure:

Dry blend the Veegum and Cellulose Gum and add them to the water while mixing with a homogenizer for 20 min. at 5000 rpm. Add the Part B ingredients in the order shown, mixing each for 3 minutes. Add the Part D ingredients and mix for 10 minutes. Begin heating to 75C. Heat the Part C ingredients to 75C. Add Part C to Parts A+B+D and mix 10 minutes. Continue mixing slowly while cooling to room temperature.
Formula from Sun Chemical Corp.

Eyeliner

Veegum provides thickening and pigment suspension in this formula while insuring smooth application properties. This product can be applied to the eyelid with a brush.

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	2.5
Deionized Water	75.5
B: PVP (PVP K-30)	2.0
Deionized Water	10.0
C: Iron Oxides	10.0
D: Preservative	q.s.

Procedure:

Slowly add Veegum to the water, while agitating at maximum available shear. Continue mixing until smooth. Dissolve the PVP in water using a little heat. Add B to A and mix until uniform. Add C and mix until smooth and uniform. Add Part D and mix until uniform.
Formula No. 107

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum in Color Cosmetics:
Suggested Formulations

Lip Care Stick, Colorless

	<u>Parts</u>
Cutina LM	80.0
Myritol 318	5.0
Cetiol SN	5.0
Formula No. A42-01	

Lip Care Stick, Slightly Tinted, with Pearly Gloss

	<u>Parts</u>
Cutina LM	80.0
Myritol 318	10.0
Colorants:	0.3
Timiron Starluster MP 115	5.0
Formula No. A42-02	

Lip Care Stick with Azulene

	<u>Parts</u>
Cutina LM	85.00
Cetiol SN	15.00
Azulene, purely cryst. 100%	0.02
Formula No. A42-03	

Lip Salve

	<u>Parts</u>
Cutina LM	80.0
Eutanol G	20.0
Formula No. A42-04	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Lipstick

	<u>Parts</u>
Cutina LM	85.0
Eutanol G	15.0
Pigment colors	4.0
Cosmetic titanium dioxide 300 309	2.0
Formula No. P43-01	

Lipstick, Creamy

	<u>Parts</u>
Cutina LM	72.0
Myritol 318	18.0
Pigment colors	3.0
Cosmetic titanium dioxide 300 309	4.0
Formula No. P43-02	

Lipstick with Pearly Gloss

	<u>Parts</u>
Cutina LM	75.0
Eutanol G	15.0
Pigment colors	3.0
Cosmetic Titanium dioxide 300 309	1.0
Timiron Starluster MP 115	10.0
Formula No. P43-03	

Lipstick, Creamy, With Pearly Gloss

	<u>Parts</u>
Cutina LM	70.0
Myritol 318	20.0
Pigment colors	3.0
Cosmetic Titanium dioxide 300 309	1.0
Timiron Starluster MP 115	10.0
Formula No. P43-04	

Lip Make-up in Cream Form with Pearly Gloss

	<u>Parts</u>
Cutina LM	60.0
Myritol 318	40.0
Pigment colors	1.0
Timiron Starluster MP 115	5.0
Note: Lip gloss: Due to the high oil content, a fatty cream of this type produces increased lip gloss.	
Formula No. P15-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

LipstickMaterial/CTFA-Index:

Carnauba	6.00%
Candelilla Wax	5.50
Ozokerite	6.50
Microcrystalline Wax	1.50
Mineral Oil, high viscosity	5.50
Vaseline/Petrolatum	3.00
Wacker-Belsil SM 6018/Stearyl Methicone	5.00
Fluilan/Lanolin Oil	15.00
Castor Oil	31.20
Tegosoft 189/Isooctadecyl Isononanoate	5.00
Wacker-Belsil PDM 1000/Phenyl Dimethicone	3.00
Pigments	12.80
Fragrances, preservatives, flavours	q.s.

Mix all ingredients and melt.

Formulation 1212 AH

Lip StickMaterial/CTFA-Index:

Carnauba	6.00%
Candelilla Wax	6.00
Ozokerite	6.00
Microcrystalline Wax	1.50
Mineral Oil, high viscosity	5.50
Vaseline/Petrolatum	3.00
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	3.00
Fluilan/Lanolin Oil	15.00
Castor Oil	35.00
Tegosoft 189/Isooctadecyl Isononanoate	5.70
Belsil DM 350/Dimethicone	0.50
Belsil BNP/Boron Nitride	10.00
Pigments	2.80
Preservatives, fragrances	q.s.

Mix all ingredients and melt.

Temperature stability: 8 weeks at 45C.

Formulation 778 AH

SOURCE: Wacker Silicones: Suggested Formulations

Liquid Foundation
LQF-102

<u>Ingredients:</u>	<u>Wt%</u>
A: Stearic Acid	3.0
Isopropyl Myristate	9.0
Liquid Petrolatum	1.5
Cetanol	1.0
Butyl Parahydroxybenzoate	0.1
Color Pigments	8.0
Amihope LL	2.0
 B: Triethanolamine	 1.5
Water	25.0
 C: Propylene Glycol	 5.0
Methyl Parahydroxybenzoate	0.1
Water	28.8
 D: Bentonite (1%)	 15.0

Preparation:

- 1) (A), (B), and (C) are mixed at 80C.
- 2) Add (B), (C), to (A).
- 3) Then add (D) to the former mixture.
- 4) Cool slowly to 40C.
- 5) Stir with homomixer for 5 minutes.
- 6) Cool down to 25C.

Powder Foundation

	<u>Wt%</u>
A. Talc	31.0
Sericite	30.0
Mica	10.0
Magnesium Stearate	1.0
Titanium Dioxide	8.0
Amihope LL	10.0
Pigments	q. s.
 B. Isostearic Acid	 4.0
Dimethylpolysiloxane	6.0

Procedure:

1. Mix (A) with a speed mixer.
2. Add (B) to (A), and mix.
3. Sieve them, and press.

Note:

This powder foundation has smooth touch and proper adhesion.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Long Wearing Creamy Lipstick

The long wearing characteristics of this lipstick are enhanced by the use of Cetyl Dimethicone in the pigment grind. The Behenoxy Dimethicone contributes both to gloss and to the creamy texture. The C24-28 Alkyl Isostearate Isononanoate provides slip and emolliency.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Castor Oil	50.05
Octyl Stearate (Tegosoft OS)	3.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Mineral Oil	9.00
Candelilla Wax	4.35
Carnauba Wax	3.00
Ozokerite	3.00
C24-28 Alkyl Methicone (Abil Wax 9810)	3.15
Behenoxy Dimethicone (Abil Wax 2440)	2.00
Lanolin Alcohol	3.00
BHA	0.05
Phase B:	
Pigments	3.00
Cetyl Dimethicone (Abil Wax 9801)	0.40
Castor Oil	4.00
Phase C:	
Titanium Dioxide (and) Mica	11.00
Phase D:	
Fragrance	Q.S.

Procedure:

Melt part A together at 80C. Mix. Grind the pigments of Phase B into the oils and waxes of Phase B using a triple roll mill. Add to Phase A. Mix at 80C. Add Phase C. Cool to 55C. Add fragrance. Mold.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Lip Gloss

	<u>Wt. %</u>
A-C 400 (1)	20.0
Octyl Stearate (2)	52.0
Castor Oil	15.0
Lanolin Alcohol (3)	5.0
Oleyl Alcohol (4)	8.0

Procedure:

Combine all ingredients and heat to 85-90C with agitation until the polyethylene has completely dissolved. Pour into molds and allow to cool.

- (1) Allied-Signal Inc.
- (2) Henkel/Emery Corp.
- (3) Amerchol Corp.
- (4) Croda Inc.

A-C 400 is the gelling agent which provides stability and gloss. In addition, it increases the permanence of the lip gloss film.

SOURCE: Allied-Signal Inc.: Suggested Formulation

Macroemulsion Cleansing Gel

<u>Ingredient:</u>	<u>Weight%</u>
Part A:	
Deionized Water	39.05
Pemulen TR-2 (1) (1.0% solution)	9.00
Hydroxypropyl Methylcellulose (2) (1% solution)	10.00
Triethanolamine (99%)	0.90
Disodium EDTA	0.03
Benzophenone-4	0.02
Part B:	
Mineral Oil (3)	3.00
Isostearyl Benzoate (4)	3.00
Part C:	
Carbopol 980 (5) (2.0% Solution)	30.00
Glycerin	2.20
Hydrogenated Starch Hydrolysate (70%) (6)	2.00
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	0.80
(1) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)	
(2) Benece1 MP943PR (Aqualon)	
(3) Drakeol 7 (Penreco)	
(4) Finsolv SB (Finetex)	
(5) Carbomer (BFGoodrich)	
(6) Hystar CG (Lonza)	
(7) Germaben II (Sutton)	

SOURCE: BF Goodrich Co.: Formula P0015

Macroemulsion Fragrance Pearl

<u>Ingredient(CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	41.15	Diluent
Pemulen TR-2 (1.0% Solution)	7.50	Emulsifier
Hydroxypropyl Methylcellulose (2) (1.0% Solution)	10.00	Aqueous Film-Former
Tetrasodium EDTA	0.03	Chelant
Benzophenone-4	0.02	U.V. Absorber
Triethanolamine (99%)	0.20	Neutralizing Agent
Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (3)	0.80	Preservative
Part B**:		
Castor Oil	1.80	Fragrance Carrier
Octyl Hydroxystearate (4)	1.80	Emollient
Glyceryl Tribehenate (5)	0.40	Oil Phase Thickener
Pearlescent Pigment (Titanium Dioxide/Mica-based)	0.10-0.20	Visual Appeal
Fragrance Oil	2.00	
Part C:		
Deionized Water	15.00	Diluent
Carbopol 981 (2.0% Solution)	15.00	Thickener/ Stabilizer
Propylene Glycol	2.20	Humectant
Hydrogenated Starch Hydrolysate (70% Solution)	2.00	Humectant

- (1) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
 (2) Benecel MP943PR (Aqualon)
 (3) Germaben II (Sutton)
 (4) Nature Chem OHS (CasChem)
 (5) Syncrowax HR-C (Croda)
 (6) Carbomer (BFGoodrich)

**Combine Castor Oil, Hydroxystearate, and Tribehenate esters. Heat to 90C. Slowly cool to ambient temperature with agitation, then add pigment and fragrance.

SOURCE: BFGoodrich Co.: Formula P0016

Make-Up Emulsion O/W Matting, Liquid

	<u>%W/W</u>
I Cutina KD 16	10.0
Eumulgin B1	1.0
Eutanol G	4.0
Isopropyl myristate	4.0
Paraffin oil, high viscous	3.0
Pigment color	6.0
II Aerosil 200	2.0
Water	70.0
Set to pH 7	
Formula No. P21-01	

Skin Emulsion, Tinted, With Pearly Gloss O/W

	<u>%W/W</u>
I Cutina MD	3.5
Lanette O	1.2
Siegert Stearin L2 SM	2.0
Cholesterin	0.5
Paraffin oil, high viscous	3.0
Pigment colors	2.5
II Luviskol K30	1.5
Allantoin	0.3
1,2-propylene glycol	2.0
Triethanolamine	1.0
Water	77.5
III Timiron Starluster MP 115	5.0
Formula No. P22-01	

Rouge Emulsion, Liquid O/W

	<u>%W/W</u>
I Cutina MD	5.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	5.0
Paraffin oil, high viscous	25.0
Vaseline, white	3.0
Pigment colors	1.0
Cosmetic Titanium dioxide 300 309	2.0
II Veegum solution 5%	25.0
Water	31.0
Preparation: The pigments are mixed with part of the finished emulsion, homogenized and stirred into the rest of the emulsion.	
Formula No. P23-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Mascara

Firm cream.

Material/CTFA-Index:

A: Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	5.00%
B: Belsil PDM 200/Phenyl Dimethicone	4.00
Cetyl Alcohol	5.00
Stearic Acid	19.00
Vaseline/Petrolatum	5.50
Mineral oil, high viscosity	4.10
C: Triethanolamine	6.00
Water	41.40
Pigmente/(Colour)	10.00
Preservatives, perfume	q.s.

Melt A at 60C, mix in B whilst stirring quickly. Work in C homogeneously.

Temperature stability: at 45C over 10 weeks.

Formulation 212 AH

Mascara

Creamy.

A: Wacker-Belsil SM 6018/Stearyl Methicone	5.00%
Wacker-Belsil PDM 200/Phenyl Dimethicone	4.00
Cetyl Alcohol	5.00
Stearic Acid	7.00
Vaseline/Petrolatum	3.50
Mineral Oil (high viscosity)	4.50
B: Tris Amino/Tromethamine	0.90
Water	60.10
C. Pigments	10.00
Preservatives, Perfume	q.s.

Melt A at 60C, add B with good agitation. Stir pigments into AB homogeneously.

Formulation 1214 AH

SOURCE: Wacker Silicone: Suggested Formulations

Mascara

Soft, creamy, spreads easily.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Belsil SM 6018	5.00
Belsil PDM 200	4.00
Cetyl Alcohol	5.00
Stearic Acid	7.00
Vaseline	3.50
Paraffin oil, viscous	4.50
Part B:	
Tris Amino	0.90
Water	60.10
Part C:	
Pigment	10.00
Preservative, Perfume	q.s.

Formulation PF-0241E suggested by Rezepturen der Wacker-Chemie GmbH, Munchen

Eye Gel

<u>Ingredients:</u>	<u>Parts by Weight</u>
Part A:	
Cornflower extract	30.00
Matricaria extract	30.00
Amigel	20.00
Part B:	
Deionized water	SQF 1000
Chamomile water	50.00
Cornflower water	80.00
Part C:	
Bronopol	0.50
Methyl paraben (POBM)	1.00

Procedure:

Blend A. Add B and stir. Add C and stir.

Formulation PF-0274E suggested in Soap, Perfumery, Cosmetics; October, 1993 issue

SOURCE: Angus Chemical Co.: Angus Product Formulary

Mild Facial Cleanser

<u>Ingredients:</u>	<u>%w/w</u>
Propylene Glycol	2.00
Butylene Glycol	1.50
Glycerin	0.75
Cocamidopropyl Betaine (Tego Betaine F)	1.50
Dimethicone Propyl PG-Betaine (Abil B 9950)	2.50
Menthol	0.10
Fragrance*	Q.S.
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.20
Preservatives	Q.S.
Water	91.40

Procedure:

1. Mix all ingredients in order.
2. If necessary, solubilize the preservatives in the Propylene Glycol and part of the water.

*If a non-water soluble fragrance is used - it can be solubilized with the addition of PEG-18 Glyceryl Oleate/Cocoate (Antil 171) or PEG-20 Glyceryl Laurate (Tagat L2)

Hot Oil Treatment

<u>Ingredients:</u>	<u>%w/w</u>
Almond Oil	15.0
Rose Hip Oil	5.0
Mineral Oil	56.7
Cetyl Dimethicone (Abil Wax 9801)	1.0
Cetyl Dimethicone (Abil Wax 9814)	0.5
Stearyl Dimethicone (Abil Wax 9800)	0.8
Dimethicone Copolyol (Abil B 8852)	0.5
Phenyl Trimethicone (Abil AV-20)	2.5
Squalene	15.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Preservatives	Q.S.
Fragrance	Q.S.

Procedure:

Mix ingredients in order.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Moisturizing Fluid

Pemulen TR-1 allows the ambient temperature emulsification of this light-feeling, glossy lotion. Suitable as a light hand lotion or facial moisturizer, this product exudes a moist, nourishing feel upon application followed by a dry, light after feel. pH is about 5.6.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	83.70	Diluent
Hydroxypropyl Methylcellulose (1)	0.10	Aqueous Smoothing Aid
Glycerin	4.00	Humectant
Polysorbate 80 (2)	0.40	Particle Size Reduction
Disodium EDTA	0.10	Chelating Agent
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (3)	0.80	Preservative
Part B:		
Polyglyceryl-10 Decaoleate (4)	4.00	Moisture Barrier
Octyl Hydroxystearate (5)	3.00	Emollient
Isostearyl Benzoate (6)	2.50	Emollient
Dimethicone (1000 c.s.)	0.50	Lubricant
Pemulen TR-1 (7)	0.20	Emulsifier
Carbopol 981 (8)	0.30	Thickener
Part C:		
Triethanolamine (99%)	0.40	Neutralizing Agent

- (1) Methocel E4M Premium (Dow Chemical)
 (2) Tween 80 (ICI Americas)
 (3) Germaben IIE (Sutton Labs)
 (4) Capmul 10G-10-0 (Capital City Products)
 (5) Wickemol 171 (CasChem)
 (6) Finsolv SB (Finetex)
 (7) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
 (8) Carbomer (BFGoodrich)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Methocel is added slowly with rapid agitation.
2. Combine Part B ingredients in a separate vessel. Soft lumps of Pemulen and Carbopol should be disrupted with mixing.
3. With moderate agitation, add Part B to Part A. Mix for 15-30 minutes to allow polymers to swell. Add Part C and mix vigorously to produce a smooth, glossy lotion.

SOURCE: BFGoodrich Co.: Formula P0008

Natural Cleanser

	<u>Wt%</u>
Distilled Water	75.50
Patlac NAL	0.50
Pationic 138C	8.00
Pationic 122A	2.00
Mineral Oil	8.00
Ritapeg 150 DS	0.50
Rita EGDS	3.00
Methylparaben	0.20
Propylparaben	0.10
Supersat AWS-4	2.00
Sodium Chloride (25%)	0.20

pH: 6.1

Viscosity: 12,500 cps

Stabilities:

4F: no change after 3 cycles

40F: no change after 6 weeks

110F: separation after 2 weeks

Description of System: mineral oil
no Ritavena 5

Formula 114-6

Natural Cleanser

	<u>Wt%</u>
Distilled Water	80.50
Patlac NAL	0.50
Pationic 138C	8.00
Pationic 122A	2.00
Ritavena 5	3.00
Ritapeg 150 DS	0.50
Rita EGDS	3.00
Methylparaben	0.20
Propylparaben	0.10
Supersat AWS-4	2.00
Kathon CG	0.20

pH: 6.4

Viscosity: 30,500 cps

Stabilities:

4F: no change after 3 cycles

40F: no change after 6 weeks

110F: separation after 3 weeks

Description of System: no oil
3% Ritavena 5

Formula 114-9

SOURCE: R.I.T.A. Corp.: Ritavena 5 Suggested Formulations

Natural Cleanser

	<u>Wt%</u>
Distilled Water	73.50
Patlac NAL	0.50
Pationic 138C	8.00
Pationic 122A	2.00
Corn Oil	8.00
Ritavena 5	2.00
Ritapeg 150 DS	0.50
Rita EGDS	3.00
Methylparaben	0.20
Propylparaben	0.10
Supersat AWS-4	2.00
Perfume	0.20

pH: 6.3

Viscosity: 12,500 cps

Stabilities:

Freeze/Thaw: no change after 3 cycles

40F: no change after 6 weeks

110F: no change after 6 weeks

Description of System: corn oil/2% Ritavena 5

Foam Testing: Foam H2O

0.0 Minute: 120 95

1.0 Minute: 105 95

3.0 Minutes: 105 95

Formula 111-207

Natural Cleanser

	<u>Wt%</u>
Distilled Water	80.50
Patlac NAL	0.50
Pationic 138C	8.00
Pationic 122A	2.00
Ritavena 5	3.00
Ritapag 150 DS	0.50
Rita EGDS	3.00
Methylparaben	0.20
Propylparaben	0.10
Supersat AWS-4	2.00
Kathon CG	0.20

pH: 6.4

Viscosity: 30,500 cps

Stabilities:

Freeze/Thaw: no change after 3 cycles

40F: no change after 6 weeks

110F: separation after 3 weeks

Description of System: no oil/3% Ritavena 5

Foam Testing: Foam H2O

0.0 Minute: 200 90

1.0 Minute: 200 100

3.0 Minutes: 200 100

Formula 114-9

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

Natural Cleanser with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	63.50
2. Patlac NAL	0.50
3. Pationic 138C	8.00
4. Pationic 122A	2.00
5. Corn Oil	8.00
6. Ritapeg 150 DS	0.50
7. Rita EGDS	3.00
8. Methylparaben	0.20
9. Propylparaben	0.10
10. Supersat AWS4	2.00
Part B:	
11. Distilled Water (100C)	10.00
12. Ritavena 5	2.00
Part C:	
13. Perfume	QS
14. Patlac LA (44% Solution)	QS
15. Sodium Chloride (25% Solution)	QS
16. Glydant	0.20

Compounding Procedure:

Heat Part A to 165F with mixing. Mix Part B in a blender for 2 minutes. Add to mixture. Mix until uniform. Begin cooling with a pan of cold water. Cool to 120F. Add perfume. Mix until uniform, avoid aeration. Cool to 90F. Adjust pH with Patlac 44% solution. Adjust viscosity with Sodium Chloride 25% solution. Formula 111-207

Natural Cleanser with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	60.50
2. Patlac NAL	0.50
3. Pationic 138C	8.00
4. Pationic 122A	2.00
5. Ritapeg 150 DS	0.50
6. Rita EGDS	3.00
7. Methylparaben	0.20
8. Propylparaben	0.10
9. Supersat AWS4	2.00
Part B:	
10. Distilled Water (100C)	20.00
11. Ritavena 5	3.00
Part C:	
12. Perfume	QS
13. Patlac LA (44% Solution)	QS
14. Sodium Chloride (25% Solution)	QS
15. Kathon CG	0.20

Compounding Procedure:

Heat Part A to 165F with mixing. Premix Part B in a blender for 2 minutes. Add Part B to Part A. Mix until uniform. Cool to 120F. Add Part C. Adjust pH with Patlac LA (44% Solution). Adjust viscosity with Sodium Chloride (25% Solution). Formula 114-9

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

O/W-Cleansing-MilkRecipe:

A	Hostacerin DGL	0.50%
	Polyglyceryl-2 PEG-10 Laurate	
	Hostacerin DGS	3.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Cetyl alcohol	1.00%
	Mineral oil, high viscosity	15.00%
	Cetiol SN	8.00%
	Cetearyl Isononanoate	
	Solulan 98	2.00%
	Polysorbate 80 (and) Cetyl Acetate (and) Acetylated Lanolin Alcohol	
B	Carbopol 980	0.20%
	Carbomer	
C	NaOH (10% in water)	0.80%
	Water	69.20%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

- | | | | |
|-----|----------------------------|----|--------------------------|
| I | Melt A at 70C, then add B. | II | Heat C to 70C. |
| III | Stir II into I. | IV | Stir until cool. |
| V | At 35C add D to IV | VI | Homogenize if necessary. |
- Formula A VI/4200

Massage-MilkRecipe:

A	Hostaphat KL 340 N	3.00%
	Trilaureth-4 Phosphate	
	Hostacerin DGS	5.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	35.00%
	Isopropyl palmitate	12.00%
	Belsil 350	1.00%
	Dimethicone	
B	Carbopol 980	0.20%
	Carbomer	
C	Glycerine	3.00%
	NaOH (10% in water)	0.80%
	Water	39.70%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

- | | | | |
|-----|----------------------------|----|--------------------------|
| I | Melt A at 70C, then add B. | II | Heat C to 70C. |
| III | Stir II into I. | IV | Stir until cool. |
| V | At 35C add D to IV. | VI | Homogenize if necessary. |
- Formula A VI/1112

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-Moisturizing-MilkRecipe:

A	Hostaphat KL 340 N	1.00%
	Trilaureth-4 Phosphate	
	Hostacerin DGS	4.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, low viscosity	3.00%
	Cetiol V	4.00%
	Decyl Oleate	
	Walnut oil	4.00%
	Isopropyl isostearate	4.00%
	Antioxidant	q.s.
B	Carbopol 980	0.30%
	Carbomer	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	3.00%
	NaOH (10% in water)	1.20%
	Water	69.85%
	Preservative	q.s.
D	Collagen KD	5.00%
	Perfume	0.30%

Procedure:

- I Melt A at 70C, then add B. II Heat C to 70C.
 III Stir II into I. IV Stir until cool.
 V At 35C add the components of D to IV.
 VI Homogenize if necessary.
 Formula A VI/3015

O/W-Skin Milk
 Free of ethylenoxide

Recipe:

A	Hostacerin DGMS	2.00%
	Polyglyceryl-2 Stearate	
	Mineral oil, low viscosity	8.50%
	Isopropyl palmitate	5.00%
	Soya oil	3.50%
	Antioxidant	q.s.
B	Carbopol 980	0.20%
	Carbomer	
C	Hostacerin LSE	2.50%
	Sucrose Laurate	
	NaOH (10% in water)	0.80%
	Water	77.20%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

- I Melt A at 80C, then add B. II Heat C to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add D to IV. VI Homogenize if necessary.
 Formula A VI/1250

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-Skin MilkRecipe:

A	Hostaphat KL 340 N	1.00%
	Trilaureth-4 Phosphate	
	Hostacerin DGS	4.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	8.00%
	Isopropyl palmitate	4.00%
	Cetiol V	3.00%
	Decyl Oleate	
B	Carbopol 980	0.25%
	Carbomer	
C	NaOH (10% in water)	1.00%
	Water	78.45%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	V	Homogenize if necessary.

Formula A VI/1107

O/W-Skin MilkRecipe:

A	Hostacerin DGL	1.00%
	Polyglyceryl-2 PEG-10 Laurate	
	Hostacerin DGS	4.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, low viscosity	5.00%
	Isopropyl palmitate	5.00%
	Almond oil	7.00%
	Avocado oil	4.00%
	Wheat germ oil	2.00%
	Antioxydant	q.s.
B	Carbopol 980	0.20%
	Carbomer	
C	Aquamollin BC pdr. h.c.	0.10%
	Ethylenediamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	0.80%
	Glycerine	4.00%
	Water	66.35%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	VI	Homogenize if necessary.

Formula A VI/1460

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-Skin MilkRecipe:

A	Hostacerin DGL		2.00%
	Polyglyceryl-2 PEG-10 Laurate		
	Hostacerin DGS		4.00%
	Polyglyceryl-2 PEG-4 Stearate		
	Almond oil		20.00%
	Avocado oil		6.00%
	Wheat germ oil		4.00%
	Sesame oil		5.00%
	D-Panthenol		1.00%
	Antioxydant		q. s.
B	Carbopol 980		0.20%
	Carbomer		
C	NaOH (10% in water)		0.80%
	Aquamollin BC pdr. h.c.		0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt		
	Citric acid (10% in water)		0.25%
	Allantoin		0.20%
	Glycerine		4.00%
	Water		52.15%
	Preservative		q. s.
D	Perfume		0.30%
I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	VI	Homogenize if necessary.

O/W-Skin MilkRecipe:

A	Hostaphat KW 340 N		1.00%
	Triceteareth-4 Phosphate		
	Hostacerin DGS		3.50%
	Polyglyceryl-2 PEG-4 Stearate		
	Shea Butter		1.00%
	Cetiol SN		6.00%
	Cetearyl Isononanoate		
	Walnut oil		5.00%
	Almond oil		4.00%
	Jojoba oil		3.00%
	Antioxidant		q. s.
B	Carbopol 980		0.15%
	Carbomer		
C	Allantoin		0.30%
	Aquamollin BC pdr.h.c.		0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt		
	Citric acid (10% in water)		0.25%
	Glycerine		4.00%
	NaOH (10% in water)		0.60%
	Water		70.80%
	Preservative		q. s.
D	Perfume		0.30%
I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	VI	Homogenize if necessary.

SOURCE: Hoechst: Formula A VI/1453 & Formula A VI/1302

O/W-Skin Milk
Manufacturing at room temperature

Recipe:

A	Hostaphat KL 340 N	3.00%
	Trilaureth-4 Phosphate	
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	5.00%
B	Carbopol 980	0.45%
	Carbomer	
C	Glycerine	3.00%
	NaOH (10% in water)	1.80%
	Water	76.45%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

- I Mix A and B.
 - II Stir C into I.
 - III Add D to II.
 - IV Homogenize if necessary.
- Formula A VI/1101

O/W-Skin Milk
Manufacturing at room temperature

Recipe:

A	Hostacerin DGL	2.00%
	Polyglyceryl-2 PEG-4 Laurate	
	Isopropyl palmitate	4.00%
	Almond oil	5.00%
	Wheat germ oil	1.00%
	Cetiol SN	8.00%
	Cetearyl Isononanoate	
	Antioxydant	q.s.
B	PNC 400	0.40%
	Polyacrylic Acid-Sodium Salt	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Water	78.95%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

- I Mix A and B.
 - II Stir C into I.
 - III Add D to II.
 - IV Homogenize if necessary.
- Formula A VI/1461

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Powder Cleanser
(PW-102)

	<u>Weight%</u>
Amisoft LS-11	11.5
Amisoft CS-11	3.5
Talc	15.0
Sorbitol	20.0
Starch	49.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.0 for a 1wt% solution

Powder Cleanser
(PW-302)

	<u>Weight%</u>
Amisoft LS-11	23.0
Amisoft CS-11	7.0
Talc	10.0
Sorbitol	20.0
Starch	39.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.0 for a 1wt% solution

Powder Cleanser
(PW-502)

	<u>Weight%</u>
Amisoft LS-11	38.0
Amisoft CS-11	12.0
Talc	10.0
Sorbitol	20.0
Starch	19.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.2 for a 1wt% solution

SOURCE: Ajinomoto USA Inc.: Suggested Formulations

Powder Cleanser with Amisoft (PW-102)

	<u>Wt%</u>
Amisoft LS-11	11.5
Amisoft CS-11	3.5
Talc	15.0
Sorbitol	20.0
Starch	49.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.0 for a 1 wt% solution

Powder Cleanser with Amisoft (PW-302)

	<u>Wt%</u>
Amisoft LS-11	23.0
Amisoft CS-11	7.0
Talc	10.0
Sorbitol	20.0
Starch	39.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.0 for a 1 wt% solution

Powder Cleanser with Amisoft (PW-502)

	<u>Wt%</u>
Amisoft LS-11	38.0
Amisoft CS-11	12.0
Talc	10.0
Sorbitol	20.0
Starch	19.7
Allantoin	0.2
Paraben	0.1

Procedure:

Mix each ingredient.

pH 5.2 for a 1 wt% solution

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Pressed Powder

	Wt%
A. Talc	45.0
Nylon Powder	15.0
Sericite	15.0
Mica	5.0
Magnesium Stearate	1.0
Titanium Dioxide	3.0
Pigments	q. s.
B. Isostearic Acid	3.0
Dimethylpolysiloxane	3.0
C. Amihope LL	10.0

Procedure:

1. Mix (A) for 10 min. with a speed mixer.
2. Add (B) to (A), and mix for 10 min.
3. Add (C) to #2, and mix for one min.
4. Sieve them, and press.

Note:

The pressed powder has smooth and light touch.

Face Powder with Amihope LL

	Wt%
A. Talc	q. s to 100
Lauroyl Lysine*	5-30
Magnesium Stearate	2.5
Propylparaben	0.05
Butylparaben	0.05
Pigments (Titanium Dioxide, Iron Oxides, Ultramarines, etc.)	q. s.
B. Captex 300**	1.0
Fragrance	q. s.

Charge all phase A ingredients into appropriate blender and mix. Combine phase B liquids and spray or add to blending phase A. After mixing is complete, pulverize well. Very smooth feel with good skin adhesion.

* Amihope LL (Ajinomoto USA, Inc.)

** Capric/Caprylic Triglycerides (Capitol City Products)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Pressed Powder

	<u>Wt%</u>
A. Talc	45.0
Nylon Powder	15.0
Sericite	15.0
Mica	5.0
Magnesium Stearate	1.0
Titanium Dioxide	3.0
Pigments	q.s.
B. Isostearic Acid	3.0
Dimethylpolysiloxane	3.0
C. Amihope LL	10.0

Procedure:

1. Mix (A) for 10 min. with a speed mixer.
2. Add (B) to (A), and mix for 10 min.
3. Add (C) to #2, and mix for one min.
4. Sieve them, and press.

Note:

This pressed powder has smooth and light touch.

Liquid FoundationIngredients:

	<u>Wt%</u>
(A) Stearic acid	3.0
Isopropyl Myristate	9.0
Liquid Petrolatum	1.5
Cetanol	1.0
Butyl Parahydroxybenzoate	0.1
Color Pigments	8.0
Amihope LL	2.0
(B) Triethanolamine	1.5
Water	25.0
(C) Propylene Glycol	5.0
Methyl Parahydroxybenzoate	0.1
Water	28.8
(D) Bentonite (1%)	15.0

Preparation:

- 1) (A), (B), and (C) are mixed at 80C.
- 2) Add (B), (C), to (A).
- 3) Then add (D) to the former mixture.
- 4) Cool slowly to 40C.
- 5) Stir with homomixer for 5 minutes.
- 6) Cool down to 25C.

Formula LQF-102

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Pressed Powder with Amihope-LL
T-01-11-1

	<u>Weight%</u>
Phase A:	
Talc	Q.S. to 100
Lauroyl Lysine*	30.00
Mica	5.00
Magnesium Stearate	3.00
Propylparaben	0.05
Butylparaben	0.05
Pigments	Q.S.
Phase B:	
Capric/Caprylic Triglycerides	3.00
Perfume	Q.S.

Pressed Powder with Amihope-LL
T-01-11-1

	<u>Weight%</u>
Phase A:	
Talc	Q.S. to 100
Lauroyl Lysine*	10.00
Mica	5.00
Magnesium Stearate	3.00
Propylparaben	0.05
Butylparaben	0.05
Pigments	Q.S.
Phase B:	
Capric/Caprylic Triglycerides	3.00
Perfume	Q.S.

Manufacturing Procedure:

Charge Phase A ingredients into appropriate blender (tumble blender, ribbon blender, etc.) and mix.

Combine Phase B liquids and spray (with spray nozzle or add to the mix, depending on equipment being used). After complete mixing, pulverize well. Press into pans.

This formula is very smooth and has good skin adhesion.

*Amihope-LL by Ajinomoto

SOURCE: Ajinomoto USA, Inc.: Formula T-01-11-1

Pressed Powder Blusher with Amihope LL

	<u>Weight%</u>
A. Talc	q.s. to 100
Mica (Coated)*	20.00
Lauroyl Lysine**	10.00
Propylparaben	0.05
Butylparaben	0.05
Pigments (FD&C, D&C, Iron Oxides, Ultramarines, Titanium Dioxide)	q.s.
Magnesium Stearate	2.00
B. Dimethicone	2.50
Captex 300***	1.50
Perfume	q.s.

Pressed Powder Blusher with Amihope LL

	<u>Weight%</u>
A. Talc	q.s. to 100
Mica (Coated)*	20.00
Lauroyl Lysine**	40.00
Propylparaben	0.05
Butylparaben	0.05
Pigments (FD&C, D&C, Iron Oxides, Ultramarines, Titanium Dioxide)	q.s.
B. Dimethicone	2.50
Captex 300***	1.50
Perfume	q.s.

Charge phase A ingredients into appropriate blender and mix. Combine phase B and spray or add to blending phase A. After mixing is complete, pulverize well. Press into pans. Very smooth touch and good skin adhesion. Good pressing characteristics. Durable cake.

* Mica (Coated) may be sensitive to grinding. If so, do not pulverize Mica (Coated) through fine screen.

** Amihope LL (Ajinomoto Co., Inc.)

*** Capric/Caprylic Triglycerides (Capital City Products, Inc.)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Pressed Powder Eye Shadow
(Pearlescent Type)

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Bentonite (NF grade)	5.0
(2) Mearlin-AC	35.0
(3) Kaopolite TLC	29.0
(4) Zinc Stearate (fine ground)	8.0
(5) Magnesium Carbonate	1.0
(6) Acetol	3.0
(7) Polysorbate 20	9.0
(8) Deionized Water	10.0
Preservative	q.s.

Procedure:

Dry mix (1), (2), (3), (4), and (5). In separate tank, thoroughly mix (6), (7), and (8). Then slowly add this mixture to the dry mix. Screen through a No. 16 sieve and press.

Follow recommended handling practices of the supplier of each product used.

Face Mask

<u>Ingredients:</u>	<u>% by Weight</u>
(1) Deionized Water	36.7
(2) Bentonite (NF grade)	8.0
(3) Kaolin USP	40.0
(4) Isopropyl Alcohol	10.0
(5) Lanolin (PEG 50)	0.5
(6) Glyceryl Stearate (Emerest 2000)	1.5
(7) Dimethicone (Dow Corning 200)	1.5
(8) Phenoxyethanol (Emmenessence)	1.5
(9) Methyl Paraben	0.2
(10) Propyl Paraben	0.1

Procedure:

Add (2) to (1) and heat to 90C, add (9) and (10) until dissolved. Add (5), (6), (7), and (8). Cool and add (4) with good mixing until dispersed. Add (3) and continue high speed mixing until completely uniform.

Follow recommended handling practices of the supplier of each product used.

Good industrial practices should be used when handling flammable ingredients.

SOURCE: Kaopolite, Inc.: Suggested Formulations

Re-Vital Facial Toner

	<u>%W/W</u>
Solulan 98 (Polysorbate 80 (and) Cetyl Alcohol (and) Acetylated Lanolin Alcohol)	3.00
Fragrance	0.20
SD Alcohol 40	30.00
Deionized Water	61.10
Allantoin	0.20
Aqua-Tein C (Collagen Amino Acids (and) Acetamide MEA)	5.00
Pro-Tein ES-20 (Ethyl Ester of Hydrolyzed Collagen)	0.50

The above formula may be modified in the following ways:

1. Increase SD Alcohol for deeper cleansing, more drying effect.
2. By addition of herbal extracts such as Rose Water, chamomile (soothing) (4), soap bark extract (astringent) (3).
3. By addition of essential oils such as menthol & eucalyptus (3) for odor and cooling effect, ginger & lemon (3) for odor and facial feel.

Pre-mix Solulan 98 & Fragrance. Add SD Alcohol 40 to the mixture. Add the rest of the ingredients in order. Mix until each is dissolved.

Mild facial toner which cleans and tightens, but leaves the skin with a healthy, soft after-feel. Aqua-Tein C, a superb humectant, adds skin softening and soothing properties, while reducing the harshness of the alcohol. Pro-Tein ES-20, a cationic ester, leaves a protective, smooth film and serves as an anti-irritant.

Formula #ST-3251

Sun-Rise Fresh Cleansing Gel

	<u>%W/W</u>
A. Deionized Water	27.50
Sodium C14-16 Olefin Sulfonate	40.00
Monamid 150-LW (Lauramide DEA)	3.50
Cocoamphocarboxyglycinate	6.00
Supro-Tein V (TEA-Cocoyl Hydrolyzed Collagen (and) Sorbitol)	10.00
Amino Silk SF (Silk Amino Acids)	3.00
European Elastin-30 (Hydrolyzed Elastin)	3.00
B. Ammonium Chloride	2.00
Deionized Water	5.00
Fragrance, Preservatives, Color	q.s.
Citric Acid	q.s. to pH=6.5

1. Warm Phase A to 50C. Mix until melted & homogeneous.
2. Adjust pH while warm to pH=6.5.
3. Predissolve NH4Cl in water. Add carefully to avoid air entrapment.

A mild cleansing gel, non-drying to the skin. Smooths and softens skin while removing excess skin oil and desquamating skin cells. To use-moisten hands, pour into palm and work up into a creamy luxurious lather. Massage skin in a circular motion with the moisture-laden foam, then rinse thoroughly and dry. The after-feel of the skin is all softness and sheer delight.

Formula #SW-3007

SOURCE: Maybrook Inc.: Suggested Formulations

Rouge Compact Powder

	<u>Parts</u>
Lanette O	6.75
Eutanol G	3.75
Ethyl alcohol 96%	4.50
Magnesium stearate	2.50
Kaolin	17.00
Rice starch	5.00
Magnesium carbonate	2.00
Talc	57.00
Titanium dioxide	5.00
Pigment colors	11.50

Note: This fat/pigment mixture is compressed to form so-called cakes.

The rouge is applied by means of a pencil or a little brush. By varying the colorants according to the cake make-up, this rouge formula can be modified for use as eye shadow, face powder, etc.

Formula No. P81-01

Rouge Stick

	<u>Parts</u>
Cutina LM	85.0
Eutanol G	15.0
Pigment colors	3.0
Cosmetic Titanium colors 300 309	2.0
Formula No. P42-01	

Rouge Stick with Pearly Gloss

	<u>Parts</u>
Cutina LM	72.0
Eutanol G	18.0
Pigment colors	4.0
Timiron Starluster MP 115	6.0
Formula No. P42-02	

Rouge Stick with Pearly Gloss

	<u>Parts</u>
Cutina LM	73.0
Eutanol G	18.0
Pigment colors	3.0
Timiron Starluster MP 115	15.0
Formula No. P42-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Sand Beige Oil-Free Makeup

<u>Phase A:</u>	<u>%W/W</u>
Distilled water	30.00
Propylene glycol	8.00
PEG 200 stearate	1.00
Triethanolamine 99%	0.90
Trisodium EDTA	0.20
Veegum magnesium aluminum silicate	1.00
Sodium carboxy methyl cellulose gum	0.25

<u>Phase B:</u>	
Distilled water	30.85
Eastman AQ treated pigment-red	0.40
Eastman AQ treated pigment-yellow	0.80
Eastman AQ treated pigment-black	0.16
Eastman AQ treated pigment-white	6.64

<u>Phase C:</u>	
Talc	5.00
DC3225C cyclomethicone and dimethicone copolyol	9.00
Stearic acid	1.80
Polawax emulsifying wax, NF	1.00
Myverol 18-06 distilled monoglyceride	2.00
Tween 80 polysorbate 60	1.00

Preserve as necessary.

Procedure:**Phase A:**

1. Slowly sprinkle Veegum into water while mixing.
2. Continue mixing until uniform.
3. Slowly sprinkle sodium carboxy methyl cellulose into water while mixing.
4. Continue mixing until uniform.
5. Add remaining ingredients of (A) and mix well.

Phase B:

1. Heat water to 85C, add pigments and mix until well dispersed.
2. Add to Part A and heat combined phases to 70C.

Phase C:

1. Combine ingredients and heat with mixing to 70C.
2. At 70C, add to Parts A and B with mixing.
3. Continue mixing and cool to room temperature.

SOURCE: Eastman Chemical Co.: Formulation X21139-087

Silk and Elastin Facial Firming Gel

	%W/W
A. Deionized Water	51.60
Propylene Glycol	5.00
European Elastin-10 (Hydrolyzed Elastin)	0.50
Carbomer 940 - 2% Aq. Soln.	40.00
Disodium EDTA	0.20
B. Triethanolamine-99%	0.50
C. Silk Pro-Tein (Hydrolyzed Silk)	2.00
Camomile Extract	0.10
Biocare SA (Albumen and Hyaluronic Acid and Dextran Sulfate)	0.10
Preservatives	q.s.
FD&C Yellow #5 (If desired)	q.s.

Properties:

Revives, smoothes and moisturizes tired complexions. Moist, supple skin is more elastic and youthful looking. Oil-free formula rehydrates the skin with vital elastin and silk proteins and Hyaluronic Acid.

Procedure:

Add Phase B to Phase A. Mix until gelled and clear. Mix slowly to avoid air entrapment. Add Phase C. Mix to incorporate.

Formula #SK-2050

Honey & Wheat Hydrating Facial/Body Gel

	%W/W
A. Deionized Water	62.90
Wheat-Tein NL (Hydrolyzed Wheat Protein)	3.00
Honey	1.00
Amphosol CA (Cocamidopropyl Betaine)	5.00
Sipon ESY (Sodium Laureth-1 Sulfate)	20.00
Monamate CPA-40 (Disodium Cocamido MIPA-Sulfosuccinate)	5.00
Monamate 716 (Lauramide DEA)	2.00
Kessco PEG 6000 Distearate (PEG-150 Distearate)	0.50
B. Honey Fragrance	0.30
Quaternium-15	0.30
Amber Color	q.s.

Procedure:

Heat phase A with mixing to 70C. Mix until PEG-150 DS is melted and homogeneous. Mix and cool to 50C. Add B. Mix to incorporate.

Properties:

Honey and wheat protein are incorporated in this formula to moisturize and hydrate the skin. This bath gel is gentle enough to use as a facial and/or body wash. Opacifying/pearling agents can be added for a pearlescent look.

Formula #SW-3008

SOURCE: Maybrook Inc.: Suggested Formulations

Skin Conditioning Treatment
(Formula 90-0502)

	<u>% By Weight</u>
<u>Water Phase:</u>	
Hi-Care 1000	0.50
Glycerine	2.00
Water	87.40
Alkamuls GMS	3.50
<u>Oil Phase:</u>	
Cetyl Alcohol NF	1.60
Light Mineral Oil	1.50
Dermalcare NI	1.00
Alkamuls MM/M	0.50
Stearic Acid TP	2.00
Fragrance, Dye, Preservative	Q.S.

Blending Procedure: Charge water into mixing vessel followed by the Glycerine. With rapid but smooth agitation, slowly blend in Hi-Care 1000. Heat water system to 70-75C. Slowly blend Alkamuls GMS into heated water base. Maintain 70-75C temperature.

In a separate mixing vessel, combine Oil Phase ingredients and heat to 70-75C until completely molten. With rapid but smooth agitation, slowly blend heated Oil Phase into heated Water Phase. Once system is completely uniform, cool to 40-45C with moderate agitation and add compatible Fragrance, Dye(s) and Preservative.

The formulation will reach its final consistency, a soft lotion, after standing 24 to 48 hours.

Skin Conditioning Bath & Shower Gel
(Formula 91-1110)

	<u>% By Weight</u>
Jaguar C-162	0.3
Miracare MPC	40.0
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	0.05-0.60
Water	59.3

Blending Procedure: With rapid but smooth agitation, disperse Jaguar C-162 in room temperature water. Once system is uniform, heat water system to 35-40C and then adjust pH to 5.0-6.0 with Citric Acid as needed. Slowly blend in Miracare MPC and mix until uniform. Again, adjust formulation pH to 5.0-6.0 with Citric Acid as needed. Add compatible Fragrance, Dye(s), and Preservative and then adjust formulation viscosity to 14,000-18,000 cps (No. 5 Spindle @ 10 RPM-25C) with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C:	Clear, Viscous Liquid
Viscosity @ 25C:	14,000-18,000 cps
pH:	5.0-6.0
% Non Volatiles:	15-17

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Skin Emulsion, Matting O/W as Foam Aerosol

	<u>W/W</u>
I Emulgade F	1.00
Emulgade F Spec.	1.00
Cetiol V	1.00
Siebert Stearin L 2SM	3.00
Wool fat, anhydrous	0.50
II Henkel Glycerin 86% DAB 9	1.00
Boric acid	0.25
Triethanolamine	0.25
Water	92.00

Filling: 92 parts emulsion
8 parts propellant 12/114 (40:60)

Note: Due to the boric acid content, the packaging of the finished preparation must bear the inscription "Not to be used for baby care" in accordance with the German cosmetics legislation.

Formula No. A71-01

Nutritive Emulsion, Fat O/W as Foam Aerosol

	<u>W/W</u>
I Emulgade F	4.0
Eutanol G	15.0
Vegetable oil	15.0
II Henkel Glycerin 86% DAB 9	10.0
Water	46.0
III Cremogen witch hazel extract	10.0

Filling: 92 parts emulsion
8 parts propellant 12/114 (40:60)

Preparation: Phase III is added to the resulting emulsion at 40C.

Formula No. A71-02

Foaming Cucumber Juice Emulsion O/W Aerosol-Packed

	<u>%W/W</u>
I Cutina MD	4.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	4.0
Myritol 318	5.0
II Water	81.0
III Extrapon cucumber spec.	3.0

Filling: 92 parts emulsion
8 parts propellant 12/114 (40:60)

Preparation: Phase III is added to the resulting emulsion at approx. 40C.

Formula No. A71-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Emulsion O/W with Placenta Extract

	<u>%W/W</u>
I Cutina MD	6.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	10.0
Myritol 318	5.0
Paraffin oil, high viscous	5.0
Placenta liquid, oil-soluble	2.5
II Water	68.5
Formula No. A22-01	

Skin Emulsion O/W with Vitamin

	<u>%W/W</u>
I Cutina MD	5.0
Lanette 16	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol LC	12.0
Cetiol S	4.0
Vitaplant CLR, oil-soluble	2.0
II Henkel Glycerin 86% DAB 9	5.0
Water	65.0
III Vitaplant CLR, water-soluble	2.0
Formula No. A22-02	

Skin Emulsion O/W

	<u>%W/W</u>
I Cutina CBS	7.00
Forlanit E	0.50
Eumulgin B1	2.00
Cetiol V	5.00
Paraffin oil, high viscous	5.00
II Triethanolamine	0.09
Water	80.41
Formula No. A21-14	

SOURCE: Henkel KGaA; Cosmetic Model Formulae

Skin Emulsion O/W With Collagen

	<u>%W/W</u>
I Cutina MD	9.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	10.0
Myritol 318	5.0
Isopropyl palmitate	5.0
II 1,2-propylene glycol	5.0
Water	58.0
III Collagen	5.0

Note: pH setting 3.7 to 6.5

Preparation:

Phase III is added to the resulting emulsion at approx. 35C.
Formula No. A22-03

Cucumber Juice Emulsion O/W

	<u>%W/W</u>
I Cutina MD	8.0
Eumulgin B1	3.0
Eutanol G	3.0
Myritol 318	5.0
II Water	78.0
III Extrapon cucumber spec.	3.0

Preparation:

Phase III is added to the resulting emulsion at 40C.
Formula No. A22-04

Herbal Emulsion O/W

	<u>%W/W</u>
I Cutina MD	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol LC	8.0
Isopropyl Myristate	4.0
Arnica oil CLR	3.0
Calendula oil CLR	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	66.0
Formula No. A22-05	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Gel

This gel is a light, greaseless moisturizer which exhibits sparkling clarity and quick application.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	83.30	Diluent
Glycerin	2.50	Humectant
Hydrogenated Starch Hydrolysate (70%) (1)	2.50	Humectant
Methylparaben	0.10	Preservative
Carbopol 980 (2)	0.60	Gellant
Part B:		
Deionized Water	10.00	Diluent
Triethanolamine (99%)	0.50	Neutralizing Agent
DMDM Hydantoin (3)	0.30	Preservative
PVP (K30)	0.10	Conditioner
Disodium EDTA	0.05	Gel Protectant
(1) Hystar CG (Lonza)		
(2) Carbomer (BFGoodrich)		
(3) Glydant (Lonza)		

Preparation:

- Using agitation, dissolve methylparaben in a mixture of the first three Part A ingredients. When solution is homogeneous, slowly sift Carbopol 980 into the vortex of the agitated solution. When resin is dispersed, reduce agitation and mix until a homogeneous dispersion is obtained.
- In a separate vessel, blend Part B ingredients. Mix until homogeneous.
- Using paddle-type agitation, add Part B to Part A. Mix to produce a clear gel.

Formula C0019

Skin Gel

This gel is a light, greaseless moisturizer which exhibits sparkling clarity and quick application.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	83.30	Diluent
Glycerin	5.00	Humectant
Methylparaben	0.10	Preservative
Carbopol 980 (1)	0.60	Gellant
Part B:		
Deionized Water	10.00	Diluent
Triethanolamine (99%)	0.50	Neutralizing Agent
DMDM Hydantoin (2)	0.30	Preservative
PVP (K30)	0.10	Conditioner
Disodium EDTA	0.05	Gel Protectant
Benzophenone-4	0.05	Gel Protectant
Color	q.s.	Colorant
(1) Carbomer (BFGoodrich)		
(2) Glydant (Lonza)		

Formula C0032

SOURCE: BF Goodrich: Suggested Formulations

Skin Hydrating Moisture Trap

	%W/W
A. Deionized Water	43.30
Sorbitol-70%	2.00
Glycerin	2.00
Carbopol 934, 2% Aq. Soln. (Carbomer 934)	35.00
Methylparaben	0.30
Propylparaben	0.15
Tetrasodium EDTA	0.05
Collagen Hydrolyzate Cosmetic 55 (Hydrolyzed Collagen)	2.00
B. Acetulan (Cetyl Acetate (and) Acetylated Lanolin Alcohol)	5.00
Sesame Oil	4.00
Maywax P (Emulsifying Wax, N.F.)	2.50
Arlacel 165 (Glyceryl Stearate (and) PEG-100 Stearate)	1.00
Proto-Lan 8*	1.50
Lanolin Alcohol	0.50
C. Triethanolamine-99%	0.70
*(Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol)	

Procedure:

1. Heat Phases A and B separately to 70C.
2. Add Phase A to Phase B at 70C with adequate mixing.
3. Add Phase C immediately. Mix to incorporate.
4. Mix and cool to 35C.

Properties:

A light, creamy, nice looking and stable emulsion. Highly emollient, but not greasy. A good all-around hand and face lotion. Proto-Lan 8 is an excellent non-greasy, protective emollient, based on naturally occurring essential fatty acids and lipo-proteins. Maywax P is an efficient, non-ionic self-emulsifying wax. Collagen Hydrolyzate Cosmetic 55 is a non-occlusive film former which moisturizes and protects the skin.

SOURCE: Maybrook Inc.: Formula #SK-2023

Skin Oil

	<u>%W/W</u>
Cetiol or Eutanol G318	30.0
Myritol 318	30.0
Paraffin oil, high viscous	40.0
Formula No. A31-01	

Skin Oil

	<u>%W/W</u>
Cetiol LC	25.0
Myritol 318	30.0
Isopropyl Palmitate	25.0
Paraffin oil, high viscous	20.0
Formula No. A31-02	

Skin Oil

	<u>%W/W</u>
Cetiol LC	20.0
Myritol 318	45.0
Isopropyl Palmitate	30.0
Oil of St. John's wort CLR	3.0
Carrot oil CLR	2.0
Formula No. A31-03	

Skin Care Oil

	<u>%W/W</u>
Eutanol G	40.0
Myritol 318	35.0
Vitamin oil Biocorno	20.0
Oil of St. John's wort CLR	4.0
Carrot oil CLR	1.0
Formula No. A31-04	

Functional Skin Oil

	<u>%W/W</u>
Eutanol G	40.0
Isopropyl Myristate	30.0
Myritol 318	27.0
Epidermin in oil	0.5
Wheat germ oil spec.	2.5
Formula No. A31-05	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Sparkling Skin Moisturizing Fluid With Microcapsules

This is a fluid containing attractive moisturizing beads in a light, greaseless aqueous base which exhibits sparkling clarity and smooth feel.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	83.35	Diluent
Glycerin	2.50	Humectant
Hydrogenated Starch Hydrolysate (70%) (1)	2.50	Humectant
Methylparaben	0.10	Preservative
Carbopol 981 (2)	0.25	Gellant
Part B:		
Deionized Water	10.00	Diluent
Sodium Hydroxymethyl Glycinate (3)	0.30	Neutralizing Agent/Preservative
PVP (K30)	0.10	Conditioner
Disodium EDTA	0.05	Gel Protectant
Benzophenone-4	0.05	Gel Protectant
Part C:		
Mineral Oil in Gelatin Microcapsules (4)	0.80	Moisturizing Agent

(1) Hystar CG (Lonza)

(2) Carbomer (BFGoodrich)

(3) Suttocide A (Sutton Labs)

(4) Red and Blue Nuggets (Ronald T. Dodge Co.)

Preparation:

- Using agitation, dissolve methylparaben in a mixture of the first three Part A ingredients. When solution is homogeneous, slowly sift Carbopol 981 into the vortex of the agitated solution. When resin is dispersed, reduce agitation and mix until a homogeneous dispersion is obtained.
- In a separate vessel, blend Part B ingredients. Mix until homogeneous.
- Using paddle-type agitation, add Part B to Part A. Mix to produce a clear fluid.
- Using paddle-type agitation, add Part C to neutralized fluid until microcapsules are well dispersed.

SOURCE: BF Goodrich Co.: Formula C0035

Sports Gel

Colourless gel with a slightly greasy effect.

Material/CTFA-Index:

A: Mineral Oil, high viscosity	50.00%
Wacker-Belsil SM 6018/Stearyl Methicone	3.00
B: Camphor	5.00
Methyl Salicylate	5.00
C: Wacker HDK H15/Silica	7.00
D: Wacker-Belsil DM 0.65/Dimethicone	30.00
Colours	q.s.

Heat A to approx. 60C, mix B into A. Add C, work D into ABC.

Formulation 1291/2 AH

Body PowderMaterial/CTFA-Index:

A: Belsil BNP/Boron Nitride	5.00%
HDK N 20/Silica	2.50
HDK H 20/Silica	2.50
Talc	4.00
Starch	30.20
Kaolin	10.00
Magnesium Stearate	1.00
Bentone 38/Quaternium-18 Hectorite	1.00
B: Isopropyl Myristate	6.00
Perfume	1.80
Pigments	q.s.

Mix A well, add B in portions, homogenize thoroughly.

Formulation 1056 AH

SOURCE: Wacker Silicone: Suggested Formulations

Sprayable Moisturizer

This novel moisturizer is a pumpable product which provides a fine spray for quick and easy application. It is an ideal after bath alternative to greasy baby oil.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	79.83	Diluent
Glycerin	6.00	Humectant
DMDM Hydantoin (1)	0.30	Preservative
Methylparaben	0.10	Preservative
Propylparaben	0.05	Preservative
Part B:		
Mineral Oil (2)	10.00	Moisture Barrier
Octyldodecyl Stearoylstearate (3)	3.00	Emollient
Oleth-10 (4)	0.40	Particle Size Reduction
Pemulen TR-2 (5)	0.12	Emulsifier/ Stabilizer
Part C:		
Triethanolamine (99%)	0.10	Neutralizing Agent
Part D:		
Disodium EDTA	0.10	Chelating Agent and Viscosity Adjustment

- (1) Glydant (Lonza)
- (2) Drakeol 7 (Penreco)
- (3) Ceraphyl 847 (Van Dyk)
- (4) Brij 96 (ICI Americas)
- (5) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BF Goodrich)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Parabens may be predispersed in glycerin to accelerate dissolution. Mix until parabens have dissolved.
2. Combine Part B ingredients in a separate vessel. Mix to disrupt any soft agglomerates of Pemulen.
3. With moderate agitation, add Part B to Part A. Mix for 10-15 minutes to allow resin to swell. Add Part C and use vigorous mixing to produce a smooth, white emulsion. Add Part D incrementally until a viscosity of 600-900 cps is obtained.

SOURCE: BF Goodrich Co.: Formula P0010

Sprayable Moisturizing Milk

This light, milky white, low viscosity emulsion delivers a fine mist from a pump sprayer and provides a silky feeling to the skin.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	70.45	Diluent
NaOH (18%)	0.15	Neutralizing Agent
Part B:		
Propylene Glycol Isoceteth-3		
Acetate (1)	10.00	Humectant
Pemulen TR-2 (2)	0.15	Emulsifier
Glycerol Triisostearate (3)	4.00	Emollient
Isostearyl Isostearate (4)	4.00	Emollient
Cyclomethicone (5)	10.00	Lubricant
Fragrance (6)	0.20	
Part C:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	1.00	Preservative
Part D:		
Disodium EDTA	0.05	Chelating Agent

- (1) Hetester PHA; Bernel Chemical Co., Inc.
- (2) Acrylates/C10-30 Alkyl Acrylate Crosspolymer; BFGoodrich
- (3) Prisorine GTIS; Unichema International
- (4) Prisorine ISIS; Unichema International
- (5) Dow Corning 344 Fluid; Dow Corning Corp.
- (6) Noville #27986; Noville, Inc.
- (7) Germaben II-E; Sutton Laboratories, Inc.

Procedure:

1. Combine Part B ingredients at room temperature in a vessel which will contain the final product, breaking up any agglomerated particles.
2. Add Part A to Part B and mix using rapid agitation for 15 minutes.
3. Add Part C to the emulsion.
4. Use Part D to adjust viscosity downward to a range of 600 cps to 1000 cps.

Properties:

Appearance: Milky White
 Viscosity: 910 cps*
 pH: 6.0
 Stability: No separation-10C to 25C Five cycles
 35 Days (50C) viscosity 840 cps*
 *Brookfield RVT 20 rpm spindle #2

SOURCE: BF Goodrich Co.; Formula P0041

Stick for Skin Impurities

	<u>%W/W</u>
Lanette 16	5.0
Cutina BW	30.0
Cutina CP	20.0
Eutanol G	25.0
Paraffin oil, high viscous	9.2
Powder colorant	3.0
Menthol	0.3
Sulfur, precipitated	2.0
Bactericide	0.5
Zinc oxide	5.0

Preparation:

The fatty substances are melted on the water bath and menthol is dissolved in the fat melt. Zinc oxide, sulfur and powder colorant are then added. At a temperature of approx. 40C, the compound is rolled several times, melted again and cast in moulds. It is advantageous to cool the moulds slightly.
Formula No. C41-01

Stick for Skin Impurities

	<u>%W/W</u>
Cutina LM	70.2
Cetiol LC	8.0
Eutanol G	8.0
Menthol	0.3
Bactericide	0.5
Sulfur, precipitated	2.0
Zinc oxide	5.0
Powder colorant	6.0

Formula No. C41-02

Emulsion, Liquid, for Skin Impurities O/W

	<u>%W/W</u>
I Lanette N/SX	3.0
Menthol	0.3
Bactericide	0.5
Salicylic acid	0.4
Titanium dioxide	2.0
Pigment color	1.0
II Bioschwefel-Fluid	2.0
Water	90.8

Preparation:

Pigment color, titanium dioxide and sulfur are mixed with 15 parts water and twice rolled. The rest of the water is added and heated to approx. 70C. Lanette N is melted on the water bath at 70C and menthol as well as salicylic acid are dissolved in the fat melt. The aqueous phase is then added and after brief stirring the emulsion produced is homogenized several times by recirculation.

Formula No. C21-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Vitamin E and Wheat Active Daily Facial Moisturizer

	<u>%W/W</u>
A. Deionized Water	45.40
Carbopol 940-2% Aq. Sol'n (Carbomer 940)	35.00
Wheat-Tein NL (Hydrolyzed Wheat Protein)	3.00
Tween 20 (Polysorbate 20)	1.50
B. Arlacial 60 (Sorbitan Stearate)	1.50
Petrolatum	2.00
Wheat Germ Oil	2.00
Sesame Oil	3.00
Cetyl Alcohol	1.00
Arlacial 165 (Glyceryl Stearate (and) PEG-100 Stearate)	1.00
Isopropyl Palmitate	3.00
Shea Butter	1.00
C. Tocopheryl Acetate	0.10
Triethanolamine-99%	1.00
Preservatives, Fragrance	q.s.

Procedure:

Heat Phases A & B separately to 80C. Add Phase B to A at 80C with agitation. Mix until smooth. Add Phase C carefully to avoid aeration.

Properties:

This elegant, vegetable-based moisturizer rubs in completely, leaving a soft after feel. Vegetable oils and Petrolatum normalize the skin lipids. Wheat-Tein NL binds moisture and leaves a non-occlusive protective film. Vitamin E Acetate acts as an antioxidant to reduce free radicals in the skin.
Formula #SK-2010

Gelled Makeup Remover

	<u>%W/W</u>
Mineral Oil, Light	80.9
Paraffin Wax (143/145)	6.5
Ozokerite Wax #871 Beaded	9.5
Petrolatum	2.0
Propyl Paraben	0.1
Camisol (Alpha-Bisabolol)	0.2
Proto-Lan 8	0.5
Vitamin E	0.1
Fragrance	0.2
Color: Red dye in Neobee M-5	q.s. to light pink

Procedure:

Melt all components together except Fragrance and Vitamin E. Mix and cool. Add Fragrance & Vitamin E. Fill off.

Properties:

A mild and soothing oil-based make-up remover in convenient gelled form.

Formula #SW-3240

SOURCE: Maybrook Inc.: Suggested Formulations

Water-in-Oil Luxurious Makeup

This formula is a cold process water-in-oil emulsion stabilized by Veegum which also controls the viscosity and insures uniform color throughout the product. This is a moisturizing makeup for dry skin.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.20
Deionized Water	37.90
Magnesium Sulfate	0.40
B: Talc	5.50
Vanclay, Kaolin	1.50
Titanium Dioxide	5.00
Iron Oxides	3.00
C: Mineral Oil	15.00
Hydrogenated Polisobutylene (Polysynlane)	8.00
Mineral Oil (and) Lanolin Alcohol (Ritachol)	8.00
Isopropyl Lanolate (and) Lecithin (Lanapene)	7.00
Sorbitol, 70%	5.00
Oleamide DEA (Witcamide 511C)	2.50
D: Preservative	q. s.

Procedure:

Slowly add Veegum to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the magnesium sulfate and mix until smooth. Grind Part B and add to Part A, mixing until uniform. Add Parts A+B to Part C. Mix until uniform and smooth. Add Part D and mix until uniform.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum in Color Cosmetics:
Formula No. 332

Protective Skin Gel

<u>Ingredients:</u>	<u>%W/W</u>
A: Liquid lanolin fraction	12.00
Ethoxylated Lanolin wax	2.50
Mineral oil	50.48
Olive oil, USP	20.00
Arlacel 80	5.00
Butylated hydroxytoluene	0.02
B: Colloidal silicon dioxide	10.00

Procedure:

Heat (A) with stirring until homogeneous. Remove heat and add (B) with high shear agitation. Mill if necessary at room temperature.

SOURCE: ICI Surfactants: Suggested Formula

W/O-Cleansing-MilkRecipe:

A	Hostacerin WO	2.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Arlacel 989	2.00%
	PEG-7 Hydrogenated Castor Oil	
	Amerchol L-101	3.00%
	Mineral Oil (and) Lanolin Alcohol	
	Mineral oil, high viscosity	15.00%
	Eutanol G	10.00%
	Octyldodecanol	
	Tocopherol acetate	0.50%
	B-Carotin	q.s.
B	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	D-Panthenol	0.50%
	Sodium chloride	2.00%
	Water	64.35%
	Preservative	q.s.
C	Perfume	0.30%

Procedure:

- I Melt A at 80C.
 II Stir the solution of B into I at room temperature.
 III Stir until cool.
 IV At 35C add C to III.
 Formula A VI/4300

W/O-Skin MilkRecipe:

A	Hostacerin WO	2.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Arlacel 989	2.00%
	PEG-7 Hydrogenated Castor Oil	
	Mineral oil, low viscosity	15.00%
	Isopropyl palmitate	5.00%
	Eutanol G	5.00%
	Octyldodecanol	
B	Sodium chloride	2.00%
	Water	68.70%
	Preservative	q.s.
C	Perfume	0.30%

Procedure:

- I Melt A at 80C.
 II Stir the solution of B into I at room temperature.
 III Stir until cool.
 IV At 35C add C to III.
 Formula A VI/2202

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Section V

Creams

Alpha Hydroxy Cream with Soluble Collagen

	%W/W
A. Deionized water	68.50
Veegum K (Magnesium Aluminum Silicate)	1.00
B. Methylparaben	0.20
Amino Collagen-25 (Collagen Amino Acids)	2.00
Propylene Glycol	3.00
Glycerin	2.00
C. Arlacial 165 (Glyceryl Stearate and PEG-100 Stearate)	2.00
Petrolatum	1.00
Cetyl Alcohol	2.00
Dow Corning 200 Fluid (Dimethicone)	0.20
Propylparaben	0.10
Maywax P (Emulsifying Wax, NF)	3.00
Polysorbate 80	1.50
Finsolv TN (C12-15 alkyl benzoate)	3.00
D. Lactic Acid, 88%	4.00
E. Triethanolamine 99%	1.50
F. Collagen Native Extra 1% (Soluble Collagen)	5.00

Procedure:

Disperse Veegum in water. Heat to 80C. Add B to A. Heat C to 80C. Add C to A/B at 80C. Mix and cool to 60C. Add D. Add E. Adjust pH as necessary to 3.5 to 4.0 with TEA. Mix and cool to 30C. Add F.

Properties:

This Alpha Hydroxy Cream gently exfoliates, smooths and re-texturizes the skin. Appears to diminish fine facial lines. Helps to rejuvenate the skin for a more youthful appearance. Collagen Native Extra 1% and Amino Collagen-25 act to hydrate the skin and also reduce fine facial lines. Pleasant, non-greasy, fragrance free.

Note: Avoid contact with eyes, eyelids or mucous membranes.

SOURCE: Maybrook Inc.; Formula #SK-2100

Anti-Wrinkle Treatment Cream

An elegant white creamy emulsion delivering Rovisome-AHA (Lactic Acid) to the skin.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita Cetearyl Alcohol (50/50)	2.50	Emulsification
2. Steareth-2	2.50	Emulsification
3. Steareth-21	1.50	Emulsification
4. PPG-15 Stearyl Ether	3.00	Emollient
5. Dioctyl Adipate	3.00	Emollient
6. Dioctylcyclohexane	2.00	After Feel
7. Cyclomethicone (Dow DC 245)	2.00	Spread
8. Dimethicone (Abil 300)	0.50	Feel
9. Hybrid Sunflower Seed Oil	4.00	Emollient
10. Distilled/Deionized Water	68.40	----
11. 1,3 Butylene Glycol	4.00	Coupling
12. Xanthan Gum (Keltrol CG-T)	0.30	Stability
13. Rovisome-AHA (Lactic Acid)	6.00	Liposome
14. Methyl dibromo Glutaronitrile and Phenoxyethanol	0.30	Preservative

Compounding Procedure:

Disperse item 12 in water and butylene glycol mixture. In separate beaker heat items 1-9 to 70C. Heat water phase to 70C and add to oil phase. Then homogenize and cool to 35C. Add Rovisome and preservative.

Ref. No. 119-121

Anti-Ageing Treatment Cream

An emulsifier free formula with Rovisome ACE designed to provide nourishment to skin to help eliminate wrinkles.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita Cetearyl Alcohol (50/50)	1.00	Fatty Emollient
2. Babassu Oil	5.00	Feel
3. Polydecene	10.00	Coating
4. Cetearyl Isononanoate	5.00	Dry Time
5. Distilled/Deionized Water	67.20	----
6. Acrylates/C10-30 Alkyl Acrylate Crosspolymer (Pemulen TR-1)	0.40	Stability
7. Tetrasodium EDTA	0.10	Stability
8. Glycerine	5.00	Humectant
9. Methyl dibromo Glutaronitrile (and) Phenoxyethanol	0.30	Preservative
10. Sodium Hydroxide @ 10%	q.s.	pH Control
11. Rovisome ACE (Vitamin Blend)	6.00	Nourishment

Compounding Procedure:

Disperse item 6 in water. Add item 7 and heat to 60C. In a separate beaker heat items 1-4 to 60C and add to water phase under stirring. Then homogenize. Neutralize to pH 6.2-7.0 with item 10. Cool to 35C. Add premixed 8,9 and 11.

Ref. No. 119-122

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Balanced Emollient Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Cetiol SN	10.0
3 Cetiol SB45	5.1
4 Monomuls 60-35	5.0
5 Sipol 1618 C50	2.2
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives an O/W emollient cream.

The first five components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 477

Replenishing Emollient Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Cegesoft C24	10.0
3 Cetiol SB45	5.1
4 Monomuls 60-35	5.0
5 Sipol 1618 C50	2.2
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives an O/W emollient cream.

The first five components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 478

Hand and Body Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Cetiol A	10.0
3 Cetiol SB45	5.1
4 Monomuls 60-35	5.0
5 Sipol 1618 C50	2.2
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives an O/W emollient cream.

The first five components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 479

SOURCE: Henkel KGaA: Skin Care Project Formulations

Balanced Emollient Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Cetiol LC	10.0
3 Novata AB	5.1
4 Monomuls 60-35	5.0
5 Lorol C16	1.1
6 Lorol C18	1.1
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an exceptionally smooth O/W emollient cream.

The first six components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 480

Light Cleansing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Rilanit PC	10.0
3 Novata AB	5.1
4 Monomuls 60-35	5.0
5 Lorol C16	1.1
6 Lorol C18	1.1
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an O/W emollient cream.

The first six components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 481

Replenishing Moisture Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FB25	4.0
2 Cutina CBS	8.0
3 Eutanol G	11.0
4 Paraffin oil	5.0
5 KOH (20%)	1.5
6 Glycerine	5.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an O/W skin cream.

The first four components are melted together at about 85C. Components 5 & 6 are dissolved in the water, which is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 482

SOURCE: Henkel KGaA: Skin Care Project Formulations

Barrier Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	34.50
Glycerin	25.00
Phase B:	
Petrolatum, White	25.00
Product SE-100 (Glyceryl Stearate & PEG-100 Stearate)	6.00
Hest MS (Myristyl Stearate)	3.00
Hest CS (Cetearyl Alcohol)	2.50
Hest CSO (Cetearyl Octanoate)	2.50
Phase C:	
Germaben II	

Specifications:

pH: 5.75

Appearance: White, heavy non-flowable cream

Procedure:

- 1) In separate stainless steel kettles, add Phase A and Phase B and heat to 75C while mixing.
- 2) At 75C, add Phase B to A and mix until homogeneous.
- 3) Cool to 45C, while mixing and add Phase C. Mix well.

Formula HC93-115-3

Moisture Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	76.00
Hetoxide G-26 (Glycereth-26)	4.00
Phase B:	
Hest MS (Myristyl Stearate)	4.50
Hest IS-2-0 (Isosteareth-2 Octanoate)	9.00
Hetoxol D (Cetearyl Alcohol & Cetareth-20)	5.50
Phase C:	
Germaben II	1.00

Procedure:

- 1) In separate stainless steel kettles, add Phase A and Phase B.
- 2) Heat to 75C while mixing.
- 3) Add Phase B to Phase A. Mix until homogeneous.
- 4) Cool to 40C and add Phase C. Mix until uniform.

Formula HC 93-118-5

SOURCE: Heterene, Inc.: Suggested Formulas

Body CreamMaterial/CTFA-Index:

A: Teginacid/Glyceryl Stearate (and) Ceteareth-20	6.00%
Isopropyl Myristate	1.00
Belsil DM 350/Dimethicone	1.00
Mineral Oil, low viscosity	4.00
Lanette O/Cetearyl Alcohol	1.00
B: Water	73.50
Glycerine	1.50
C: Belsil CM 040/Cyclomethicone	10.00
Belsil BNP/Boron Nitride	2.00
Preservatives, fragrances, perfumes	q.s.
Heat A and B each to 65-70C, stir B into A, stir C into AB.	
Temperature stability: at 45C over 10 weeks.	
Formulation 912 AH	

Emollient Cream

White firm cream, easily spread

Material/CTFA-Index:

A: Arlachel 165/Glyceryl Stearate se	5.00%
Arlamol E/PPG-15 Stearyl Ether	3.00
Cetyl Alcohol	5.00
Wacker-Belsil PDM 1000/Phenyldimethicone	2.50
Wacker-Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethylsiloxane	2.50
B: Sorbitol 70%ige Lsg/Sorbitol	10.20
Water	71.30
Preservative, fragrances, pigments	q.s.
Heat A to 70C, heat B to 72C. Stir B into A.	
Formulation 709 AH	

SOURCE: Wacker Silicone: Suggested Formulations

Hand Cream

(O) Liquid Paraffin (#70)	10.0wt%
Cetyl Alcohol	5.0
Nikkol WCB	5.0
Isopropyl Myristate	5.0
Glyceryl Monostearate (Self Emulsifying Type)	2.9
Polyoxyethylene (20) Cetyl Ether	2.1
(W) Ajidew N-50	3.0
Water	67.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
 2. Add (W) and (O) slowly with stirring.
 3. Cool to 40C with stirring.
- pH: 5.2

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Care Cream O/W

	<u>%W/W</u>
I Cutina MD	16.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	10.0
Myritol 318	10.0
II Henkel Glycerin 86% DAB 9	5.0
Water	56.0

Note: Fattening, medium soft consistency
Formula No. A12-04

Universal Care Cream O/W

	<u>%W/W</u>
I Cutina MD	18.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	20.0
II Henkel Glycerin 86% DAB 9	5.0
Cremogen witch hazel extract	5.0
Triethanolamine	1.0
Water	48.0

Note: Medium-fattening, soft consistency
Formula No. A12-05

Care Cream O/W

	<u>%W/W</u>
I Lanette 16	1.5
Siegert Stearin L2SM	12.0
Eutanol G	12.0
Myritol 318	6.0
Cutina BW	2.0
Wool fat, anhydrous	3.0
Paraffin oil, high viscous	5.0
II Henkel glycerin 86% DAB 9	6.0
Triethanolamine	1.5
Water	51.0

Note: Fattening, medium soft consistency, particularly easy to
 apply
Formula No. A 12-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cleansing Cream

This formulation is a dual purpose makeup remover and skin conditioner.

Phase A:		%W/W
Myverol 18-06 hydrogenated soy glyceride		6.00
Stearic acid, USP/NF		4.00
Petrolatum, USP		10.00
Drakeol 9 mineral oil		10.00
Isopropyl myristate		10.00
SF 18 (350) silicone fluid (dimethicone)		2.00
Phase B:		
Distilled water	q.s. to 100	
Propylene glycol, USP		5.50
Triethanolamine 99%, USP		0.70
Phase C:		
Eastman vitamin E 6-81 (vitamin E acetate)		0.30
Phase D:		
Fragrance		q.s.
Preservative		q.s.

Procedure:

1. Combine ingredients and heat Phase A and Phase B separately to 80C, mixing until each phase is uniform.
2. Add Phase B to Phase A with propeller mixing.
3. Continue mixing and slowly cool to 50C.
4. Add Phase C with mixing and when uniform add Phase D.
5. Continue mixing and cool to room temperature.
6. Adjust agitation speed throughout process as needed. Inversion will occur at 32C, and cream will become smooth and white.

pH: 7.71

SOURCE: Eastman Chemical Co.: Formulation X21139-007

Cleansing Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	21.0
Petrolatum	5.0
Beeswax	10.0
Lanolin Alcohol	1.7
Polyoxyethylene (5) Glyceryl Isostearate	4.0
Polyoxyethylene (5) Stearyl Ether	2.5
Polyethylene Glycol (500) Distearate	1.6
Sorbitan Monolaurate	0.2
Sorbitan Monooleate	0.4
Aluminum Monostearate	2.0
(W) Ajidew N-50	3.0
Propylene Glycol	3.0
Water	45.6
Preservative	q.s.

Procedure:

1. Suspend aluminum monostearate to liquid paraffin.
2. Add other (O) ingredients to the suspension.
3. Heat (O) to 95C to dissolve.
4. Heat (W) to 85C.
5. Add (W) to (O) slowly with stirring.
6. Cool to 40C with stirring.

pH: 5.1

Cleansing Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	35.0
Paraffin Wax (mp 42-44C)	10.0
Squalane	2.0
Isopropyl Palmitate	3.0
Cetyl Alcohol	1.0
Nikkol WCB	10.0
Sorbitan Monostearate	2.4
Polyoxyethylene (15) Cetyl Ether	2.6
(W) Ajidew T-50	3.0
Water	31.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with stirring.
3. Cool to 40C with stirring

pH: 5.7

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Cleansing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	3.0
4 Cetiol MM	5.0
5 Sipol 16 18 C50	3.0
6 Myritol 318	8.0
7 Paraffin oil	11.0
8 White Soft Paraffin	14.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a rich moisturising O/W skin cream.

The first eight components are melted together at about 85C. The water is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C.

The product will only achieve its optimum viscosity, if mixing is continued until the product has cooled down.
Formula TS 491

Cleansing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	3.0
4 Cetiol MM	5.0
5 Sipol 16-18 C50	3.0
6 Myritol 318	8.0
7 Paraffin oil	11.0
8 White Soft Paraffin	14.0
9 Glycerine	5.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a rich moisturising O/W skin cream.

The first eight components are melted together at about 85C. Component 9 is dissolved in the water, and this mixture is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C. The product will only achieve its optimum viscosity, if mixing is continued until the product has cooled down.
Formula TS 492

SOURCE: Henkel KGaA: Skin Care Project Formulations

Cleansing Cream O/W

	<u>%W/W</u>
I Lanette 16	2.0
Cutina MD	14.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol LC	7.0
Paraffin oil, high viscous	15.0
II Water	59.0
Formula No. B11-01	

Cleansing Cream W/O

	<u>%W/W</u>
I Dehymuls K	20.0
Cetiol V	10.0
Myritol 318	10.0
Vaseline, white	20.0
II Water	40.0
Formula No. B11-02	

Cleansing Cream W/O

	<u>%W/W</u>
I Dehymuls F	12.0
Vaseline, white	35.0
Paraffin oil, low viscous	15.0
Microwax HP 67	2.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	30.7
Formula No. B11-03	

Washing Cream O/W

	<u>%W/W</u>
I Lanette N/SX	8.0
Eutanol G	5.0
II Comperlan KM	10.0
Texapon CS Paste	10.0
Citric acid	0.1
Water	66.9
Formula No. B12-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream for Skin Impurities O/W

	<u>%W/W</u>
I Lanette N/SX	15.0
Salicylic acid	0.4
Menthol	0.3
Bactericide	0.5
Rice starch	5.0
Powder colorant	1.0
Titanium dioxide	2.0
Sulfur, precipitated	2.0
II Water	73.8

Preparation:

Rice starch, powder colorant, titanium dioxide and sulfur are mixed with 15 parts water and twice rolled. The remaining water is heated together with above mixture to approx. 70C. Lanette N is melted on the water bath at 70C and menthol and salicylic acid are dissolved in the fat melt. The aqueous phase is then added and after brief stirring the cream produced is homogenized several times by recirculation.

Formula No. C11-01

Cream for Skin Impurities, Transparent, in Gel Form O/W

	<u>%W/W</u>
I Eumulgin B3	14.0
Cetiol HE	20.0
Eutanol G	5.0
Menthol	0.1
Bactericide	0.2
II Allantoin	0.2
Water	60.5

Procedure:

Eumulgin B3 and the fatty substances are melted on the water bath at 95C and menthol is dissolved in the fat melt. The water, in which allantoin has been dissolved earlier, is also added to the fat melt at a temperature of 95C. The gel produced is cooled whilst stirring and the perfume is added at 60C. Stirring is continued while the gel is cooling down, but should be terminated after a short while to avoid air pockets. In order to obtain a gel with the desired transparency, it is essential to observe the temperature specified.

Formula No. C11-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream with Placenta Extract W/O

	<u>%W/W</u>
I Dehymuls K	30.0
Cetiol V	7.0
Beeswax	2.0
Vegetable oil	6.0
Placenta liquid, oil soluble	2.0
II Water	53.0
Formula No. A15-04	

Rejuvenating Cream O/W

	<u>%W/W</u>
I Cutina KD 16	12.0
Eumulgin B1	1.0
Eutanol G	10.0
Isopropyl Myristate	6.0
Vitamin oil	4.0
Placenta liquid, oil-soluble	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	59.0
Set pH to 7	
Note: Soft consistency, easy to apply	
Formula No. A15-05	

Skin Cream O/W with Collagen

	<u>%W/W</u>
I Cutina MD	16.0
Eumulgin B2	3.0
Eutanol G	10.0
II 1,2-Propylene glycol	5.0
Water	61.0
III Collagen	5.0

Note: pH setting 3.7 to 6.5

Preparation: Heat I to 75C, stir II into I at approx. 80C.

Add III to the cream at 35C.

Formula No. A15-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream

Soft cream with good absorption and non-greasing properties.

Material/CTFA-Index:

A: Eumulgin B2/Ceteareth-20	5.00%
Lanette N/Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	4.00
Stearic Acid	12.00
Eutanol G/Octyldodecanol	3.80
Wacker-Belsil DM 350/Dimethicone	4.00
Wacker-Belsil SM 6018/Stearyl Methicone	5.00
B: Glycerine	4.00
Triethanolamine	0.80
Water	61.40

Preservatives, fragrances, pigments q.s.

Heat A and B each to 70C. Stir B into A.

Formulation 1362 AH

Day Cream

Cream with good absorption and non-greasing properties.

Material/CTFA-Index:

A: Eumulgin B2/Ceteareth-20	5.00%
Lanette N/Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	4.00
Stearic Acid	12.00
Eutanol G/Octyldodecanol	3.80
Wacker-Belsil DM 350/Dimethicone	4.00
Wacker-Belsil SM 6018/Stearyl Methicone	5.00
Eusolox 6300/Methylbenzylidene Camphor	2.50
B: Glycerine	4.00
Triethanolamine	0.80
Wacker-Belsil DMC 6038/Dimethicone Copolyol	2.00
Water	56.90

Preservatives, pigments, fragrances q.s.

Heat A and B each to 70C. Stir B into A.

Formulation 1399 AH

SOURCE: Wacker Silicone: Suggested Formulations

Day Cream

Soft white cream with a silky shine. Absorbed quickly.

Material/CTFA-Index:

A: Stearic Acid	14.00%
B: Propylene Glycol	6.00
Triethanolamine	1.50
Water	72.50
C: Ethanol 96%ig/Alcohol (Cosmetic grade)	2.50
Belsil DM 100/Dimethicone	1.50
Belsil CM 040/Cyclomethicone	2.00
Preservatives, fragrances, pigments	q.s.

Melt the stearic acid at approx. 65-70C, mix B and heat to approx. 70C. Work A into B whilst stirring quickly. Slowly add C.

Temperature stability: at 45C over 10 weeks.

Formulation 190 AH

Hand Cream

White, creamy. Easily spread, quickly absorbed.

Material/CTFA-Index:

A: Hostacerin CG/Trilaneth-4-Phosphate (and) Cetearyl Alcohol (and) PEG-6 Oleamide (and) Sodium-C14-C17 Alkyl Sec Sulfonate	15.00%
Paraffinol/Mineral oil	15.00
Belsil DM 350/Dimethicone	1.00
B: Glycerine	3.00
Wasser dest./Water	66.00
Preservatives, perfume	q.s.

Melt A at approx. 70C. heat B to 75C. Add B to A whilst stirring (do not allow a foam to form). Stir cold slowly.

Temperature stability: at 45C over 10 weeks.

Formulation 148 AH

SOURCE: Wacker Silicone: Suggested Formulations

Day Cream O/W

	<u>%W/W</u>
I Siegert Stearin L2SM	8.0
Lanette 16	1.5
Eumulgin B2	2.0
Eutanol G	5.0
Beeswax, white	3.0
Paraffin oil	10.0
II Henkel Glycerin 86% DAB 9	5.0
Aminomethyl propanediol	0.4
Water	65.1

Note:

Medium-fatting, soft-consistency, "Cold cream" type

Day creams are also designated as matt creams, vanishing creams, foundation creams or are called snow creams or pearly gloss creams due to their appearance. They are almost exclusively oil-in-water emulsions, in which mono/diglycerides such as Cutina MD and stearic acid are the main ingredients of the fatty phase.

The triethanolamine (preferably a "non-yellowing" type) normally used as the saponifying agent in the stearate creams can also be replaced by AMPD (aminomethyl propanediol), thus allowing more color-fast finished preparations to be produced.

Formula No. A11-01

Day Cream O/W

	<u>%W/W</u>
I Cutina KD 16	16.0
Eumulgin B1	1.0
Eutanol G	6.0
Isopropyl Myristate	4.0
II Henkel Glycerin 86% DAB 9	6.0
Water	67.0

Set pH to 7

Note: Low-fatting, soft consistency

Formula No. A11-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W

	%W/W
I Cutina MD	6.00
Lanette O	1.50
Cutina E24	2.00
Forlanit E	0.40
Cetiol 868	8.00
II Henkel Glycerin 86% DAB 9	5.00
Triethanolamine	0.08
Water	77.02

Formula A11-32

Day Cream O/W

	%W/W
I Cutina GMS	15.0
Eumulgin B1	3.0
Dehymuls LS	3.0
Eutanol G	12.0
Myritol 318	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	57.0

Formula A11-34

Skin Cream O/W

	%W/W
I Cutina MD	14.0
Eumulgin B1	3.0
Dehymuls LS	5.0
Eutanol G	8.0
Myritol 318	8.0
Paraffin oil, high viscous	6.0
II Water	56.0

Formula A11-35

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W
(Soft Cream)

	%W/W
I Cutina CBS	12.0
Cutina E24	1.5
Eumulgin B2	1.5
Cetiol B	6.0
Cetiol SN	4.0
II Henkel Glycerin 86% DAB 9	5.0
Water	70.0
Formula A11-21	

Universal Day Cream O/W

	%W/W
I Cutina GMS	14.0
Dehymuls SMS	2.0
Eumulgin SMS 20	3.0
Eutanol G	6.0
Cetiol B	6.0
II Henkel Glycerin 86% DAB 9	3.0
Water	66.0
Formula A11-22	

Universal Day Cream O/W

	%W/W
I Cutina MD	14.0
Lanette 16	0.5
Eumulgin SMS 20	3.0
Eutanol G	6.0
Cetiol 868	6.0
II Henkel Glycerin 86% DAB 9	5.0
Water	65.5
Formula A11-23	

Universal Day Cream O/W

	%W/W
I Cutina MD	14.0
Lanette 16	0.5
Dehymuls SMS	1.0
Eumulgin SMS 20	3.0
Eutanol G	3.0
Cetiol 868	6.0
II Henkel Glycerin 86% DAB 9	5.0
Water	67.5
Formula No. A11-24	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W
(Allround Cream)

	<u>%W/W</u>
I Cutina MD	6.0
Siegert Stearin L2SM	10.0
Eumulgin B1	3.0
Myritol 318	3.0
Paraffin oil, viscous	3.0
II.Triethanolamine	0.5
1,2-propylene glycol	5.0
Water	64.5

Note: Slight pearly gloss, medium-fatting, soft consistency
Formula No. A11-03

Day Cream O/W

	<u>%W/W</u>
I Cutina MD	14.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol B	6.0
Eutanol G	6.0
II Henkel Glycerin 86% DAB 9	6.0
Water	65.0

Formula No. A11-04

Day Cream O/W

	<u>%W/W</u>
I Lanette N or W	8.0
Eutanol G	2.5
Siegert Stearin L2SM	6.5
II Triethanolamine	0.4
Henkel Glycerin 86% DAB 9	5.0
Water	77.6

Note: This formula-as well as form. no. 11-14-is an example of
the possible use of Lanette types for day creams.
Formula No. A11-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W

	%W/W
I Cutina MD	15.0
Eumulgin B1	3.0
Cetiol B	10.0
Paraffin oil, high viscous	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	64.0
Formula No. A11-06	

Day Cream O/W

	%W/W
I Emulgade F	10.0
Eutanol G	4.0
Paraffin oil, high viscous	2.0
II Henkel Glycerin 86% DAB 9	5.0
Water	79.0
Formula No. A11-07	

Day Cream O/W

	%W/W
I Cutina MD	4.0
Siegert Stearin L2SM	16.0
Eumulgin B1	3.0
Eutanol G	3.0
Paraffin oil, high viscous	3.0
II Triethanolamine	0.5
Water	70.5
Formula No. A11-08	

Note: Strong pearly gloss, low-fatting matt day cream with a soft consistency. "Vanishing cream" type.

Day Cream O/W

	%W/W
I Cutina MD	6.0
Siegert Stearin L2SM	8.0
Eumulgin B1	1.0
Eumulgin B2	1.0
Cetiol B	10.0
Eutanol G	5.0
II Henkel Glycerin 86% DAB 9	6.0
Triethanolamine	0.5
Water	62.5
Formula No. A11-09	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W

	<u>%W/W</u>
I Cutina MD	15.0
Eumulgin B1	3.0
Cetiol LC	10.0
Paraffin oil, high viscous	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	64.0

Note: Low-fatting
Formula No. A11-10

Day Cream O/W

	<u>%W/W</u>
I Cutina KD 16	15.0
Eutanol G	5.0
Myritol 318	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	70.0

Set pH to 7

Note: Medium-fatting, soft consistency, easy to apply
Formula No. A11-11

Day Cream O/W

	<u>%W/W</u>
I Cutina LE	15.0
Eutanol G	4.0
Paraffin oil, high viscous	2.0
II 1,2-propylene glycol	5.0
Water	74.0

Note: Low-fatting, medium soft consistency
Formula No. A11-12

Day Cream O/W

	<u>%W/W</u>
I Cutina KD 16	6.0
Siegert Stearin L2SM	8.0
Eutanol G	5.0
Myritol 318	3.0
Paraffin oil, high viscous	3.0
II 1,2-propylene glycol	5.0
Triethanolamine	0.4
Water	69.6

Note: Slight pearly gloss, medium fatting, soft consistency
Formula No. A11-13

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Day Cream O/W

	<u>%W/W</u>
I Lanette N	10.0
Eutanol G	8.0
Paraffin oil, high viscous	4.0
II Henkel Glycerin 86% DAB 9	5.0
Water	73.0

Note: Medium-fatting
Formula A11-14

Day Cream O/W

	<u>%W/W</u>
I Emulgade F	10.0
Cetiol LC	12.0
Myritol 318	6.0
II Henkel Glycerin 86% DAB 9	6.0
Water	66.0

Note: Medium-fatting
Formula A11-15

Day Cream O/W

	<u>%W/W</u>
I Siegert Stearin L2SM	14.0
Lanette 16	2.0
Eutanol G	1.0
II Triethanolamine	1.0
Water	82.0

Note: Typical stearate cream or so-called snow cream, very dry
formula.
Formula A11-16

Day Cream O/W

	<u>%W/W</u>
I Cutina MD-A	4.0
Siegert Stearin L2SM	4.0
Eumulgin B1	1.0
Eumulgin B2	1.0
Cetiol SN	3.0
Myritol 318	4.0
II Henkel Glycerin 86% DAB 9	3.0
Water	80.0

Note: Soft consistency, medium-fatting.
Formula A11-17

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Depilatory Cream

Beige-coloured cream.

Material/CTFA-Index:

A: Emulgator E-2155/Stearyl Alcohol (and) Steareth-10	8.00%
Tagat S/PEG-30-Glyceryl Stearate	2.00
Lanolin Oil	5.00
Stearyl Alcohol	2.00
Isopropyl Myristate	5.00
B: Glycerine	3.00
Water	52.00
Belsil DMC 6033/Dimethicone Copolyol Acetate	1.00
C: Calcium Oxide	3.00
Calcium Thioglycolate	5.00
Water	14.00
Preservatives, fragrances, pigments	q.s.

Heat A and B to 75C, stir B into A. Stir in C at 45C.

Temperature stability: 8 weeks at 45C

Formulation 319 AH

Hand CreamMaterial/CTFA-Index:

A: Dehymuls E/Sorbitan Sesquioleate(a.) Beeswax(a.) Aluminium Stearat(a.) Other Ingredients	6.20%
Vaseline/Petrolatum	9.00
Cetiol V/Decyl Oleate	4.50
Mineral Oil (high viscosity)	4.50
B: Water	47.80
C: Zinc Oxide	9.00
Talc	9.00
D: Belsil CM 1000/Cyclomethicone(a.) Dimethiconol	10.00
Preservatives, perfume, pigments	q.s.

Heat A and B to 60-65C. Stir B into A, add C and cool to approx. 30C. Add D.

Formulation 341 AH

SOURCE: Wacker Silicone: Suggested Formulations

Enrichment Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	8.0
2 Cetiol B	9.0
3 Cetiol MM	4.0
4 Cyclomethicone 345	0.5
5 Blanose (C.M.C.)	0.5
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives a medium weight O/W skin cream.

The first three components are melted together at about 85C. Component 5 is dissolved in the water which is heated to the same temperature. The oil phase is then added to the water phase, also at about 85C, and dispersed. Mixing should continue down to about 35C. The Cyclomethicone can then be added.
Formula TS 504

Emollient Body Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	9.0
2 Cetiol LC	8.0
3 Novata AB	4.0
4 Preservative	q.s.
5 Water	to 100.0

This formulation gives a light O/W skin lotion with a medium viscosity.

The first three components are melted together at about 85C. The oil phase is then added to the water phase, also at about 85C, and dispersed. Mixing should continue down to about 35C.
Formula TS 506

Every Day Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	8.0
2 Cetiol B	9.0
3 Cetiol MM	4.0
4 Preservative	q.s.
5 Water	to 100.0

This formulation gives a light O/W skin lotion.

The first three components are melted together at about 85C. The oil phase is then added to the water phase, also at about 85C, and dispersed. Mixing should continue down to about 35C.
Formula TS 507

SOURCE: Henkel KGaA: Skin Care Project Formulations

Facial Cleansing Cream

<u>Ingredients/Trade Name:</u>	<u>Wt%</u>
Part A:	
Sodium Hydrogenated Tallow Glutamate/Amisoft HS-11	4.0
Water	23.8
Methyl Parahydroxybenzoate	0.2
Part B:	
Squalane	70.4
POE (30) Glyceryl Triisostearate/Emalex GIWS330	1.5
Butyl Parahydroxybenzoate	0.1

Procedure:

Heat Part A to 80-85 degrees centigrade with mixing until mix is completely uniform.

Cool Part A quickly to 30 degrees centigrade.

While Part A is being cooled, mix Part B at room temperature.

When Part A is at 30 degrees centigrade, add Part B slowly to Part A while homogenizing.

Cool the mixture to 10 degrees centigrade while mixing.

Formula MRE-04

Facial Cleansing Milk

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
TEA Cocoyl Glutamate/Amisoft CT-12	20.0
Sodium Hydrogenated Tallow Glutamate/Amisoft HS-11	1.5
Water	6.8
Methyl Parahydroxybenzoate	0.2
Part B:	
Isostearic Acid	8.5
Liquid Paraffin	59.9
Eldew CL-301	3.0
Butyl Parahydroxybenzoate	0.1

Procedure:

Heat Part A to 80-85 degrees centigrade while mixing. Heat Part B to 80-85 degrees centigrade while mixing. When both parts are at 80-85 degrees centigrade add Part A to Part B with stirring or homogenizing. Cool to 30 degrees centigrade.

Formula MRE-03

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Foundation Cream

Firm cream. Absorbed well.

Material/CTFA-Index:

A: Lamecreme KSM/Glyceryl Stearate se	20.00%
Olive Oil	5.00
B: Glycerine	4.00
Water	69.50
Belsil PDM 20/Phenyl dimethicone	1.00
Belsil CM 020/Cyclomethicone	0.50
Preservatives, perfume, pigments	q.s.

Melt A, mix B and heat to 65C. Work B into A whilst stirring quickly.

Temperature stability: 8 weeks at 45C.

Formulation 191 AH

Foundation Cream

Thin cream. Absorbed well.

Material/CTFA-Index:

A: Crodawax GP 200/Stearyl Alcohol (and) PEG-Stearate	13.00%
Mineral oil	30.00
Belsil PDM 20/Phenyl Dimethicone	4.00
B: Glycerine	9.00
Wasser dest./Water	44.00
Preservatives, perfume, pigments	q.s.

Mix A and melt, heat B to 65C, work B into A whilst stirring quickly. Stir whilst cooling.

Formulation 192 AH

Hand Cream

Soft, white cream with a good protective effect.

Material/CTFA-Index:

A: Stearic Acid	15.00%
Isopropyl Myristate	2.00
Belsil DM 350/Dimethicone	10.00
B; Sodium Hydroxide	1.00
Glycerine	18.00
Water	54.00
Preservatives, perfume	q.s.

Heat A to 80C, heat B to a little over 80C. Stir B slowly into A, stir cold.

Temperature stability: at 45C over 10 weeks.

Formulation 196 AH

SOURCE: Wacker Silicone: Suggested Formulations

Glycerine Cream O/W Hand Cream

	<u>%W/W</u>
I Cutina KD 16	17.0
Eutanol G	5.0
II Henkel Glycerin 86% DAB 9	20.0
Water	58.0
Set pH to 7	
Formula No. A16-02	

Glycerine Cream O/W Transparent, in Gel Form

	<u>%W/W</u>
I Eumulgin B1	2.0
II Henkel Glycerin 86% DAB 9	35.0
Carbopol 940	0.8
Triethanolamine	1.5
Water	60.7

Preparation: Whilst stirring, Carbopol 940 is swelled in cold water. Eumulgin B1 and glycerine are mixed by heating and added to the Carbopol 940 after they have cooled down to room temperature. Then, neutralize with triethanolamine NG which has been diluted with 5 parts water.
Formula A16-03

Glycerine Cream O/W Transparent, in Gel Form

	<u>%W/W</u>
I Eumulgin B3	13.0
Cetiol HE	20.0
Paraffin oil, high viscous	5.0
II Henkel Glycerin 86% DAB 9	20.0
Water	42.0

Preparation: Eumulgin B3 and the fatty substances are melted on are dissolved in the fat melt. Water and glycerine are also added to the fat melt at a temperature of 95C. The gel produced is stirred and cooled and perfume is added at 60C. The gel is cooled and stirring continued, although the stirring process should be terminated after a short while to eliminate air pockets. In order to achieve the desired transparency, it is essential to observe the temperature specified.
Glycerine creams are only intended for use on the hands!
Formula No. A16-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Hand and Body Cream

Delicately balanced oil based cream with added lipid moisturization.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritapro-165 (R.I.T.A. Blend)	2.00	Emulsifier
2. Ritaderm (R.I.T.A. Blend)	0.50	Moisture
3. Rita Stearic Acid	4.50	Emulsifier
4. Rita CA (Cetyl Alcohol)	1.00	Emulsifier
5. Mineral Oil	2.50	Emollient
6. Propylene Glycol Dipelargonate (Lexol PG 900)	3.50	Emollient
7. Propylparaben	0.05	Preservative
8. Triethanolamine @ 100%	0.80	pH
9. Propylene Glycol	3.50	Humectant
10. Methylparaben	0.15	Preservative
11. Distilled/Deionized Water	81.50	----

Compounding Procedure:

Melt ingredients 1-7 together. Heat water to 70-75C and add ingredients 8-10. Add oil phase to water phase with agitation. Cool with mixing to 40C. Add fragrance/dye if necessary.
Ref. No. 119-103

Hand and Body Cream

Thick emollient cationic cream for extremely dry skin.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritaderm (R.I.T.A. Blend)	2.00	Moisturizer
2. Glyceryl Stearate (and) Stearamido-ethyl Diethylamine (Lexemul AR)	10.00	Cationic Emulsifier
3. Rita IPM (Isopropyl Myristate)	7.00	Emollient
4. Mineral Oil	3.00	Feel
5. Propylparaben	0.05	Preservative
6. Glycerine	2.00	Humectant
7. Methylparaben	0.15	Preservative
8. Distilled/Deionized Water	75.80	----

Compounding Procedure:

Melt ingredients 1-5 together. In a separate beaker heat ingredients 6-8 to 70C. Add oil ingredients to water mixture slowly with good agitation. Mix well until emulsion sets. Fill into desired package.
Ref. No. 119-105A

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Hand Cream

Soft cream, easily spread and well absorbed.

Material/CTFA-Index:

A:	Polyethylenglykol 400/PEG-8	2.00%
	Isopropyl Myristate	3.00
	Cetyl Alcohol	1.00
	Belsil CM 1000/Cyclomethicone (a.) Dimethiconol	20.00
	Stearic Acid	2.00
B:	Triethanolamine	0.50
	Propylene Glycol	4.50
	Glycerine	2.00
	Water	65.00

Preservatives, perfume, pigments q.s.

Heat A and B to 80-85C, stir B into A with good agitation.

Temperature stability: at 45C more than 8 weeks.

Formulation 638 AH

Skin CreamMaterial/CTFA-Index:

A:	Hostacerin W0/Polyglyceryl-2 Sesquisostearate (and)	
	Beeswax (and) Mineral Oil (and) Magnesium Stearate	
	(and) Aluminum Stearate	10.00%
	Belsil CM 1000/Cyclomethicone (and) Dimethiconol	10.00
	Isopropyl Palmitate	10.00
B:	Water	70.00
	Preservatives, perfume, pigments	q.s.

W/O cream

Heat A and B to 75-80C. Stir B into A.

Temperature stability: at 45C 6 weeks.

Formulation 694 AH

Skin-care CreamMaterial/CTFA-Index:

A:	Hostacerin CG/Trilaneeth-4 Phosphate (and) Cetearyl	
	Alcohol (and) PEG-6 Oleamide (and) Sodium C14-17	
	Alkyl sec Sulfonate	5.00%
	Belsil CM 1000/Cyclomethicone (a.)Dimethiconol	6.00
	Isopropyl Palmitate	4.00
B:	Hostacerin PN 73/Acrylamide/Sodium Acrylate Copolymer	0.20
	Water	84.80
	Preservatives, perfume, pigments	q.s.

Mix the ingredients of B, heat A and B to 75-80C. Stir B into A.

Temperature stability: at 45C more than 10 weeks.

Formulation 705 AH

SOURCE: Wacker Silicone: Suggested Formulation

"Light and White" Day Cream

The combination of Dow Corning silicones provides the skin with benefits such as: non-oily, emolliency (DC 556), highly spreadable product (DC 334), substantivity and silky feel (DC 1403); w/o cold processed emulsion, glossy smooth and stable (DC 5200).

<u>Ingredients:</u>	<u>% by Weight</u>
A. Dow Corning 5200	2.00
Dow Corning 344	5.00
Dow Corning 556	1.00
Amerchol L-101	2.00
Camelia Oil	8.00
Copherol 1250	1.00
Coviox T-70P	0.10
B. Propylene Glycol	3.00
EDTA Disodium	0.20
Sodium Chloride	2.00
Coviox T-30	0.10
Pronalen Fruit Acids AHA-20	3.00
AMP-95	0.30
Suttocide A	0.80
Water (Distilled)	63.30
Chinese White Tuckahoe	3.00
C. Dow Corning 1403	5.00
Perf. Jingle	0.20

Note: Check pH of water phase (should be around 5.0) and correct with AMP-95, if necessary.

Procedure:

1. Mix ingredients of phase A and B in separate containers (make sure to correct pH of water phase before proceeding further).
2. With high speed stirring, add small amount of water phase (1%-2%) to oil phase and mix until primary emulsion is formed.
3. Transfer emulsion to propeller stirrer and start adding water phase slowly and constantly while mixing with average speed.
4. When whole of water phase is used add ingredients of Phase C one after another with slow mixing.
5. Continue mixing until desired viscosity is achieved, stop mixing, take sample to QC and when approved pack the product.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Formulation PF-0310 suggested by Dow Corning

Light Body Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS45	3.0
2 Cegesoft C24	7.0
3 Lorol C16	1.0
4 Lorol C18	1.0
5 Cutina MD	1.0
6 Dow Corning Fluid 345	0.25
7 Carbopol 980	0.1
8 KOH (20%)	1.2
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a light weight O/W skin cream with a slightly translucent appearance.

The first five components are melted together at about 85C. Component 7 is dissolved in half of the water, with the Component 8 being dissolved in the other half. Both portions of water are then heated to 85C and mixed. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 498

Moisturising Enrichment Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS45	4.0
2 Cegesoft C24	10.0
3 Lorol C16	1.5
4 Lorol C18	1.5
5 Cutina MD	3.0
6 Hygroplex HHG	4.0
7 KOH (20%)	1.5
8 Preservative	q.s.
9 Water	to 100.0

This formulation gives a heavy weight O/W skin cream.

The first five components are melted together at about 85C. Component 6 is dissolved in half of the water, with the Component 7 being dissolved in the other half. Both portions of water are then heated to 85C and mixed. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 499

SOURCE: Henkel KGaA: Skin Care Project Formulations

Light Emollient Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Stenol 16-65	2.2
2 Monomuls 60-35	5.0
3 Eumulgin B2	3.0
4 Cetiol SB45	5.1
5 Myritol 318	10.0
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives a lightweight O/W Cream with good emollience.

The first five components are heated together to 85C. The water is also heated to this temperature. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 374

Almond Oil Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Monomuls 60-35	3.1
3 Novata AB	4.8
4 Almond Oil	10.2
5 Lorol C16	2.05
6 Lorol C18	2.05
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a stiff O/W Cream, with good spreading and a rich feel.

The first six components are heated together to 85C. The water is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 415

Almond Oil Cream with Protein

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Monomuls 60-35	3.1
3 Cetiol SB45	4.5
4 Almond Oil	10.2
5 Sipol 16-18 C50	4.1
6 Gluadin AGP	1.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a stiff O/W Cream, with good spreading and a rich feel.

The first five components are heated together to 85C. Component six is dissolved in the water and this mixture is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 416

SOURCE: Henkel KGaA: Skin Care Project Formulations

Light Enrichment Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Monomuls 90-0 18	2.0
2 Lameform TGI	4.0
3 Cetiol A	21.0
4 Sipol 1618 C50	1.0
5 Beeswax	3.0
6 Zinc stearate	2.0
7 Magnesium sulphate	1.0
8 Glycerine	3.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a light W/O cream with good emollience.

The first six components are melted together at about 85C. Components 7 & 8 are dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C. The product should then be homogenised fully using a Triple Roll Mill.
Formula TS 464

Daily Nourishing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	8.0
2 Cetiol A	11.0
3 Cetiol SB45	4.0
4 Sipol 1618 C50	0.5
5 Novata AB	2.0
6 White Soft Paraffin	1.0
7 Liquid Paraffin (Light)	8.0
8 Silicone Oil M100	0.5
9 Glycerine	3.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a rich O/W cream with good emollience and a very smooth skin feel.

The first eight components are melted together at about 85C. Component 9 is dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C.
Formula TS 465

SOURCE: Henkel KGaA: Skin Care Project Formulations

Make-up Cream O/W

	<u>%W/W</u>
I Emulgade F	1.00
Lanette 16	2.00
Cetiol V	10.00
Paraffin oil, high viscous	25.00
Wool fat, anhydrous	2.00
Pigment colors	10.00
II 1,2-propylene glycol	5.00
Luviskol K30	1.00
Veegum	1.75
Citric acid	0.50
Water	41.75

Formula No. P11-01

Make-Up Cream O/W

	<u>%W/W</u>
I Lanette 16	2.0
Siegert Stearin L2 SM	4.0
Eumulgin O5	2.0
Isopropyl myristate	12.0
Paraffin oil, high viscous	6.0
Pigment colors	8.0
II Triethanolamine NG	0.4
Veegum solution 4%	30.0
Water	33.6

Preparation: The pigments are mixed with part of the finished emulsion, homogenized and stirred into the rest of the emulsion.
Formula No. P11-02

Make-Up Cream O/W

	<u>%W/W</u>
I Cutina KD 16	8.0
Eumulgin B1	1.0
Eutanol G	4.0
Isopropyl myristate	4.0
Paraffin oil, high viscous	2.0
Pigment colors	8.0
II Veegum solution 4%	35.0
Water	38.0

Set pH to 7

Formula No. P11-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Massage Cream O/W

	<u>%W/W</u>
I Lanette 16	2.0
Cutina MD	12.0
Eumulgin B1	2.0
Eumulgin B2	2.0
Myritol 318	10.0
Paraffin oil, high viscous	25.0

II Water 47.0

Formula No. H11-01

Massage Cream W/O

	<u>%W/W</u>
I Dehymuls K	25.0
Myritol 318	15.0
Paraffin oil, high viscous	15.0

II Water 45.0

Formula No. H11-02

Massage Cream. Anhydrous, Removable by Washing

	<u>%W/W</u>
Amphocerin K	43.0
Eumulgin B2	2.0
Cetiol LC	15.0
Paraffin oil, high viscous	15.0
Vaseline, white	25.0

Note: This cream is an example of an anhydrous massage preparation. Such fatty creams are normally more difficult to wash off the skin; this formulation is, however, removable due to the addition of Eumulgin B2.

Formula No. H11-03

Massage Oil

	<u>%W/W</u>
Cetiol LC	18.0
Myritol 318	37.0
Paraffin oil, high viscous	45.0

Formula No. H31-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Moisture Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	78.50
Carbopol 934	0.20
Propylene Glycol	2.00
Methyl Paraben	0.25
Phase B:	
Hest CSO (Cetearyl Octanoate)	5.00
Glyceryl Stearate	2.00
Hetoxamate 100S (PEG-100 Stearate)	2.00
Hetan SS (Sorbitan Stearate)	2.50
Lanolin	0.50
Hetoxide HC-40 (PEG-40 Hydrogenated Castor Oil)	0.50
Jojoba Oil	1.75
Mineral Oil	2.00
Hetoxol G (Stearyl Alcohol & Cetareth 20)	0.60
Dimethicone 350	0.50
Propyl Paraben	0.15
Phase C:	
TEA 99%	0.25
Phase D:	
H ₂ O, Deionized	1.00
Germa11 115	0.30

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer, add water.
- 2) With mixer on high, slowly sprinkle Carbopol 934 into vortex. Mix until uniform.
- 3) Heat to 75C, add remainder of Phase A.
- 4) In a separate kettle, add Phase B, heat to 75C while mixing until uniform.
- 5) Add Phase B to Phase A. Mix while avoiding aeration.
- 6) Add Phase C, mix well.
- 7) Cool to 45C and switch to planetary mixer.
- 8) Add premix Phase D. Mix to 25-30C.

Specifications:

pH: 6.50

Viscosity, #4/3 RPM: 120,000 cps

SOURCE: Heterene, Inc.: Formula HC91-39

Moisture Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	70.25
Carbopol 934	0.25
Hest L-2-O (Laureth-2-Octanoate)	8.50
Methyl Paraben	0.25
Phase B:	
Cetyl Alcohol	3.50
Hetoxol P (Emulsifying Wax)	6.50
Propyl Paraben	0.15
Phase C:	
TEA 99%	0.30
H2O, Deionized	5.00
Phase D:	
Imidazolidinyl Urea	0.30
H2O, Deionized	5.00

Specifications:

pH: 6.10

Viscosity #4/12: 42,500 cps

Procedure:

- 1) In a stainless steel kettle, add H2O. Premix Hest L-2-O with Carbopol 934 and add to H2O while mixing until dispersed. Add methyl paraben and heat to 75C.
 - 2) In a separate kettle, combine Phase B and heat to 75C while mixing.
 - 3) Add Phase B to Phase A while mixing until uniform.
 - 4) Add Premix Phase C to batch.
 - 5) Cool to 40C and add premix Phase D. Mix well.
- Formula HC 93-96-4

Moisture Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	81.00
Hetoxide G-26 (Glycereth-26)	4.00
Phase B:	
Hest MS (Myristyl Stearate)	4.50
Hest G-7-TO (Glycereth-7 Trioctanoate)	4.00
Hetoxol D (Cetearyl Alcohol & Cetareth-20)	5.50
Phase C:	
Germaben II	1.00

Procedure:

- 1) In separate stainless steel kettles, add Phase A and Phase B.
 - 2) Heat to 75C while mixing.
 - 3) Add Phase B to Phase A. Mix until homogeneous.
 - 4) Cool to 40C and add Phase C. Mix until uniform.
- Formula HC 93-118-1

SOURCE: Heterene, Inc.: Suggested Formulas

Moisture Cream for Dry Skin

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	73.30
Keltrol T	0.20
Propylene Glycol	5.00
Phase B:	
Hest CSO (Cetearyl Octanoate)	12.00
Hetoxamate SA-40 (PEG-40 Stearate)	3.00
Hetol CS (Cetearyl Alcohol)	2.75
PEG 150 Distearate	0.25
Glyceryl Stearate	2.50
Phase C:	
Germaben II	1.00
Specifications:	
pH: 6.40	

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer, add H2O.
 - 2) With mixer on high, sprinkle Keltrol T into vortex until completely dispersed.
 - 3) Add propylene glycol, heat to 75C.
 - 4) In a separate kettle add Phase B, heat to 75C.
 - 5) At 75C add Phase B to Phase A. Mix until homogeneous.
 - 6) Cool to 45C, add Phase C, mix well.
- Phase HC92-38-1

Oil Free Night Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	69.35
Sorbitol	2.50
Methyl Paraben	0.25
TEA 99%	1.00
Phase B:	
Glyceryl Stearate	3.70
Hest MS (Myristyl Stearate)	3.00
Stearic Acid	4.00
Hetol CA (Cetyl Alcohol)	1.75
Panalene	1.00
Hest CSO (Cetearyl Octanoate)	10.00
Propyl Paraben	0.15
Phase C:	
H2O, Deionized	3.00
Germall 115	0.30
Specifications:	
pH: 7.25	

Specifications:

pH: 7.25

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer, combine ingredients in Phase A and heat to 75C.
 - 2) In a separate kettle combine Phase B and heat to 75C.
 - 3) At 75C add Phase B to Phase A.
 - 4) Cool to 45C add premix Phase C. Mix well.
- Formula HC-92-65-3

SOURCE: Heterene, Inc.: Suggested Formulas

Moisturizing Cream

White firm cream. Produces a pleasant soft feeling on the skin

Material/CTFA-Index:

A: Emulgator E2155/Stearyl Alcohol (and) Steareth- (and) Steareth-10	8.00%
Cetiol SN/Cetearyl Alcohol Isononanoate	6.00
Isopropyl Myristate	6.00
Tegosoft 189/Isooctadecyl Isononanoate	6.00
Stearyl Alcohol	2.00
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	5.00
B: Water	62.00
Belsil DMC 6032/Dimethicone Copolyol Acetate	2.00
Glycerine	3.00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 75C. Stir B into A, stir cold.

Temperature stability: at 45C over 10 weeks.

Formulation 418 AH

Emollient Cream

White firm cream. A slightly cooling effect.

Material/CTFA-Index:

A: Arlancel 165/Glyceryl Stearate se	6.00%
Arlamol E/PPG-15 Stearylether	3.00
Cetyl Alcohol	5.00
Vaseline/Petrolatum	3.00
Belsil PDM 20/Phenyl Dimethicone	2.00
B: Sorbitol 70%ig/Sorbitol	10.00
Water	71.00
Preservatives, fragrances, pigments	q.s.

Heat A to 70C, heat B to 72C. Stir B into A, stir cold.

Temperature stability: at 45C over 10 weeks.

Formulation 405 AH

Day Cream

Soft white cream. Absorbed well, slightly cooling effect.

A: Lanette N/Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	15.00%
Eutanol G/Octyldedecanol	5.00
Belsil DM 350/Dimethicone	10.00
Belsil PDM 20/Phenyl Dimethicone	2.00
B: Glycerine	5.00
Water	63.00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 70C. Stir B into A. Stir cold.

Temperature stability: at 45C over 10 weeks.

Formulation 404 AH

SOURCE: Wacker Silicone: Suggested Formulations

Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	3.5
4 Cetiol MM	5.0
5 Lorol C16	1.75
6 Lorol C18	1.75
7 Myritol 318	8.0
8 Paraffin oil	11.0
9 White Soft Paraffin	14.0
10 Silicone Oil M100	0.5
11 Preservative	q.s.
12 Water	to 100.0

This formulation gives a high viscosity, rich moisturising O/W skin cream.

The first ten components are melted together at about 85C. The water is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C. To achieve the optimum viscosity, mixing must be continued until the product has fully cooled down.

Formula TS 496

O.T.C. Type Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	3.5
4 Novata AB	5.0
5 Sipo1 1618 C50	3.5
6 Myritol 318	8.0
7 Paraffin oil	11.0
8 White Soft Paraffin	14.0
9 Silicone Oil M100	1.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a high viscosity, rich moisturising O/W skin cream.

The first ten components are melted together at about 85C. The water is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C. To achieve the optimum viscosity, mixing must be continued until the product has fully cooled down.

Formula TS 497

SOURCE: Henkel KGaA: Skin Care Project Formulations

Moisturizing Protective Day Care Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	7.0
2 Stenol 16-65	2.0
3 Eumulgin B2	3.0
4 Eutanol G	3.0
5 Cetiol SN	7.0
6 Cetiol SB45	5.0
7 Hygroplex HHG CLR	4.0
8 Preservative	q.s.
9 Water	to 100.0

This formulation gives an O/W cream which gives active moisturising.

The first six components are heated together to 85C. Component seven is dissolved in the water and this mixture is also heated to 85C. The oil phase is then mixed into the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 265

Light Everyday Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	5.9
2 Stenol 16-65	2.1
3 Eumulgin B2	3.0
4 Cetiol SB45	4.8
5 Cetiol SN	10.0
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives an O/W Cream with good emollience.

The first five components are heated together to 85C. The water is also heated to this temperature. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 369

Everyday Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	4.1
2 Stenol 16-65	1.1
3 Eumulgin B2	3.0
4 Cetiol SB45	5.0
5 Cetiol SN	9.0
6 Hygroplex HHG	2.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an O/W Cream with effective moisturising.

The first five components are heated together to 85C. Component six is incorporated into the water, and this mixture is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 370

SOURCE: Henkel KGaA: Skin Care Project Formulations

Moisturizing Body Cream

A moisturizing body cream formula to help alleviate skin dryness, roughness and chapping.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 1000 (R.I.T.A. Blend)	3.00	Emulsifier
2. Rita CA (Cetyl Alcohol)	3.00	Emulsifier
3. Rita GMS (Glyceryl Stearate)	1.50	Viscosity
4. Rita Stearic Acid	2.25	Emulsifier
5. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00	Emollient
6. Ritaderm (R.I.T.A. Blend)	10.00	Moisture Base
7. Mineral Oil	4.00	Slip
8. BHT	0.10	Anti-oxidant
9. Propylparaben	0.10	Preservative
10. Acritamer 940 (Carbomer 940)	0.10	Stability
11. Distilled/Deionized water	68.25	----
12. Glycerine	5.00	Humectant
13. Methylparaben	0.10	Preservative
14. Triethanolamine @ 50%	0.20	Neutralizer
15. Glydant	0.20	Preservative
16. Perfume	0.20	Odor

Compounding Procedure:

Weigh items 1-9 into beaker and heat to 70C with stirring. To the water add item #10 and stir until lump free. Add items 12 and 13 and heat until 70C. Add oil phase to water phase with agitation. Add item 14 and stir well. Cool to 40C and add remaining items.

Ref. No. 119-84

Every Day Hand Cream

An everyday medium strength hand cream with emollient system designed to vanish quickly on the skin.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita GMS (Glyceryl Stearate)	2.00	Emulsion Stabilizer
2. Rita CA (Cetyl Alcohol)	3.00	Emulsifier
3. Mineral Oil	2.00	Moisture
4. Rita Stearic Acid	1.50	Emulsifier
5. Propylene Glycol Dioctanoate (Lexol PG 800)	2.00	Feel
6. Propylparaben	0.05	Preservative
7. Glycerine	1.50	Humectant
8. Triethanolamine @ 100%	0.30	Neutralizer
9. Methylparaben	0.15	Preservative
10. Distilled/Deionized Water	87.50	----

Compounding Procedure:

Melt ingredients 1-6. Heat water to 70-75C. Add items 7-9 to the water. Add oil phase to water phase with agitation. Cool with mixing until 40C.

Ref. No. 119-104

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Moisturizing Cream O/W

	<u>%W/W</u>
I Cutina MD	16.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	5.0
Myritol 318	5.0
Paraffin oil, high viscous	2.0
II Hygroplex HHG	5.0
1,2-propylene glycol	5.0
Water	59.0

Formula A14-01

Moisturizing Cream O/W

	<u>%W/W</u>
I Cutina KD 16	16.0
Eumulgin B1	1.0
Eutanol G	12.0
Isopropyl Myristate	8.0
Paraffin oil, high viscous	4.0
II Hygroplex HHG	5.0
Karon F, liquid	8.0
Water	46.0

Note: Soft consistency, easy to apply

Formula No. A 14-02

Moisturizing Cream O/W

	<u>%W/W</u>
I Dehymuls K	20.0
Cetiol V	10.0
Beeswax	3.0
Vegetable oil	10.0
II Hygroplex HHG	5.0
Magnesium sulfate-7-hydrate	0.2
Water	51.8

Formula No. A14-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Moisturizing Cream

This formulation demonstrates a polymeric approach to occlusive moisturization eliminating undesirable feel properties of petrolatum or other traditional occlusive ingredients.

Epolene N-34 Wax is a non-emulsifiable polyethylene which provides a film that is resistant to wash-off. It is incorporated into this emulsion with Eastman AQ 55 water-dispersible polyester which also contributes a protective film. The wash-off resistance is due to the inability of Epolene N-34 to be emulsified by soap or surfactants. The dual film-forming action of this polymer combination has been shown to reduce moisture loss. In vitro occlusivity data is desirable.

Phase A:	%W/W
Distilled water	q.s. to 100
Propylene glycol, USP	4.00

Phase B:	
Polawax emulsifying wax, NF	3.00
Arlacel 165 glyceryl stearate and PEG-100 stearate	3.00
Myverol 18-06 distilled monoglyceride	3.00
Isopropyl myristate	5.00
Robane squalane, NF	5.00
Epolene N-34 polyethylene wax	1.00

Phase C:	
Distilled water	10.00
Propylene glycol	3.00
Eastman AQ 55S polymer	1.00

Phase D:	
Eastman vitamin E TPGS (20%)	1.00

Phase E:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Prepare Phase C by adding propylene glycol to water and heating to 95C and then adding Eastman AQ 55S with mixing. Allow to cool to 70C.
2. Heat Phase A with mixing to 95C.
3. Heat Phase B with mixing to 105-110C.
4. Cool Phase B to 95C and add to Phase A with propeller mixing.
5. Continue mixing and cool to 70C, avoiding air entrapment.
6. At 70C, add Phase C.
7. Continue mixing and cool to 50C; then add Phase D and Phase E.
8. With mixing, force cool to room temperature. Product will thicken and form a cream at 44C.

pH: 5.5

SOURCE: Eastman Chemical Co.: Formulation X20491-069

Moisturizing Skin Cream

This traditional formulation is a rich, stiff cream which is suitable for the treatment of dry skin.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	60.90	Diluent
Carbopol 934 (1)	0.20	Emulsion Stabilizer
Propylene Glycol	4.00	Humectant
Methylparaben	0.15	Preservative
Propylparaben	0.05	Preservative
Part B:		
Mineral Oil	18.00	Moisture Barrier
Isopropyl Palmitate	5.00	Emollient
Glycol Stearate	5.00	Secondary Emulsifier
Stearic Acid	2.00	Primary Emulsifier
Cetyl Alcohol	2.00	Structuring Agent
Polysorbate 20	0.80	Primary Emulsifier
Part C:		
Triethanolamine (99%)	1.80	Neutralizing Agent
Part D:		
Quaternium-15 (2)	0.10	Preservative

(1) Carbomer (BFGoodrich)

(2) Dowicil 200 (Dow Chemical)

Preparation:

1. Charge water to a vessel which will contain the entire formulation. Slowly sift Carbopol into the vortex of rapidly agitated water. When resin has been dispersed, reduce mixing rate. Heat to 60C.
2. Dissolve parabens in the propylene glycol. Add this solution to the Carbopol dispersion.
3. In a separate vessel, combine all Part B ingredients and heat to 60C.
4. When Parts A and B are homogeneous, add B to A with vigorous agitation.
5. Add Part C. Continue mixing and remove heat.
6. Add Part D @ 40-45C. When temperature reaches 35-40C, stop agitation and fill containers.

SOURCE: BF Goodrich Co.; Formula C0020

Nail Care Cream W/O

	<u>%W/W</u>
I Dehymuls E	10.0
Cetiol V	12.0
Cutina BW	3.0
Vaseline, white	15.0
Avocado oil CLR	5.0
Carrot oil CLR	2.0
Oil of St. John's wort CLR	3.0

II Water 50.0

Formulae No. A15-10

Cucumber Juice Cream O/W

	<u>%W/W</u>
I Cutina MD	16.0
Eumulgin B1	3.0
Eutanol G	15.0
Myritol 318	10.0

II 1,2-propylene glycol 5.0
Water 48.0

III Extrapon cucumber spec. 3.0

Preparation: Phase III is added to the emulsion at 40C.
Formula No. A15-11

Alcohol Cream O/W

	<u>%W/W</u>
I Cutina MD	4.0
Eumulgin B1	1.0
Cetiol V	5.0
Carbopol 934	1.0
Ethyl alcohol 96%	45.0

II Triethanolamine 1.5
Water 42.5

Preparation: Whilst stirring, Carbopol 934 is allowed to swell in 40 parts ethyl alcohol and about half of the water. The gel produced is neutralized with triethanolamine which has been mixed earlier with the remaining 5 parts of ethyl alcohol. The solids and the rest of the water are processed to form a cream and stirred together with the gel before being perfumed and homogenized.
Formula No. A15-12

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Night Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	59.85
Carbopol 934	0.35
Propylene Glycol	2.50
Methyl Paraben	0.30
Hetoxide G-26 (Glycereth 26)	2.00
Phase B:	
Lanolin	1.00
Mineral Oil #7	9.00
Hetoxamate SA-100 (PEG-100 Stearate)	1.25
Glyceryl Stearate	1.25
Silicone SF-1173	2.50
Panalene	1.25
Hest CSO (Cetearyl Octanoate)	4.40
Hetoxamate SA-40 (PEG-40 Stearate)	1.90
Cetyl Alcohol	1.80
Hetoxol L-4 (Laureth-4)	1.80
Hest MS (Myristyl Stearate)	3.00
Propyl Paraben	0.15
Phase C:	
TEA 99%	0.55
H ₂ O, Deionized	1.00
Phase D:	
Vitamin E Acetate	0.60
Aloe Vera Extract	1.00
Elastin CLR	1.00
Almond Extract	0.25
Phase E:	
Germall 115	0.30
H ₂ O, Deionized	1.00
Specifications:	
pH: 7.00	

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer, add H₂O.
- 2) With mixer on high, slowly sprinkle Carbopol 934 into vortex. Mix until uniform.
- 3) Begin heating to 75C, add Phase A.
- 4) In a separate kettle, combine oil Phase B and heat to 75C while mixing, until completely melted.
- 5) Slowly add Phase B to Phase A while mixing until homogeneous.
- 6) Add Premix Phase C. Mix well. Avoiding aeration, begin cooling.
- 7) At 45C add remainder of ingredients, mix well.

SOURCE: Heterene, Inc.: Formula HC 92-59-3

Night Cream O/W

	<u>%W/W</u>
I Cutina MD	4.0
Siegert Stearin L2SM	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	15.0
Cutina BW	2.0
Paraffin oil, high viscous	20.0
II Triethanolamine	0.2
Water	47.8

Note: High-fatting night cream with a medium soft consistency.
 "Cold cream" type.
 Formula No. A12-01

Night Cream O/W

	<u>%W/W</u>
I Lanette 16	1.0
Cutina MD	14.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Myritol 318	10.0
Cetiol LC	10.0
II Water	62.0

Note: Fatting
 Formula No. A12-02

Night Cream O/W

	<u>%W/W</u>
I Cutina KD 16	15.0
Eutanol G	12.0
Myritol 318	6.0
Paraffin oil, high viscous	6.0
II 1,2-propylene glycol	5.0
Water	56.0

Note: Fatting
 Formula No. A12-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Night Cream O/W

	<u>%W/W</u>
I Cutina MD	10.0
Lanette O	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Novata AB	5.0
Eutanol G	10.0
Paraffin oil	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	60.0

Note: Soft consistency, fattening
Formula No. A12-07

Care Cream W/O

	<u>%W/W</u>
I Dehymuls K	20.0
Vegetable oil	10.0
II Henkel Glycerin 86% DAB 9	5.0
Water	65.0

Note: Medium-fattening
Formula No. A12-08

Cold Cream W/O

	<u>%W/W</u>
I Amphocerin E	10.0
Vegetable oil	20.0
Vaseline, white	20.0
II Water	50.0

Note: Fattening, medium soft consistency
Formula No. A12-09

Care Cream W/O

	<u>%W/W</u>
I Dehymuls E	8.0
Vegetable oil	20.0
Cetiol V	5.0
Cutina BW	2.0
Vaseline, white	10.0
II Henkel Glycerin 86% DAB 9	3.0
Water	52.0

Note: High-fattening
Formula No. A12-10
SOURCE: Henkel KGaA: Cosmetic Model Formulae

Night and Care Cream W/O

	<u>%W/W</u>
I Dehymuls E	7.0
Cetiol V	4.0
Vegetable oil	20.0
Vaseline, white	19.0
II Henkel Glycerin 86% DAB 9	5.0
Water	45.0

Note: High-fatting, soft consistency
Formula No. A12-12

Care Cream W/O

	<u>%W/W</u>
I Dehymuls F	10.0
Novata AB	6.0
Cetiol V	8.0
Eutanol G	6.0
Vegetable oil	5.0
Paraffin oil, low viscous	4.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	55.7

Note: This skin cream is an example of the possible uses of the Novata solid triglycerides. The addition of Novata AB enhances the overall structure of the cream; it allows the hydrocarbon shares either to be reduced or to be replaced completely. The addition of a maximum of 6% triglyceride improves the melting properties of creams on the skin.
Formula No. A12-14

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol V	8.0
Vegetable oil	5.0
Vaseline, white	10.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	65.7

Note: Medium-fatting
Formula A12-15

SOURCE: Henkel KGaA: Cosmetic Model Formulae

O.T.C. Type Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	4.0
4 Novata AB	5.0
5 Sipol 16 18 C50	3.0
6 Myritol 318	8.0
7 Paraffin oil	11.0
8 White Soft Paraffin	14.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a high viscosity, rich moisturising O/W skin cream.

The first eight components are melted together at about 85C. The water is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C. To achieve the optimum viscosity, mixing must be continued until the product has fully cooled down.

Formula TS 494

O.T.C. Type Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Eumulgin B1	1.5
3 Cutina MD	3.5
4 Novata AB	5.0
5 Sipol 16 18 C50	3.5
6 Myritol 318	8.0
7 Paraffin oil	11.0
8 White Soft Paraffin	14.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a high viscosity, rich moisturising O/W skin cream.

The first eight components are melted together at about 85C. The water is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 30C.

To achieve the optimum viscosity, mixing must be continued until the product has fully cooled down.

Formula TS 495

SOURCE: Henkel KGaA: Skin Care Project Formulations

O/W-Collagen-CreamRecipe:

A	Hostaphat KW 340 N	2.00%
	Triceteareth-4 Phosphate	
	Hostacerin DGS	6.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Shea Butter	2.00%
	Mineral oil, low viscosity	3.00%
	Eutanol G	4.00%
	Octyldodecanol	
	Walnut oil	3.00%
	Jojoba oil	3.00%
	Antioxidant	q.s.
B	Carbopol 980	0.40%
	Carbomer	
C	Allantoin	0.20%
	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	1.60%
	Glycerine	3.00%
	Water	63.05%
	Preservative	q.s.
D	Desamido collagen	8.00%
	Perfume	0.40%

Procedure:

- I Melt A at 70C, then add B. II Heat C to 70C.
 III Stir II into I. IV Stir until cool.
 V At 35C add the components of D to IV.
 VI Homogenize if necessary.
 Formula A VI/3607

Hand CreamRecipe:

A	Genamin DSAC	2.00%
	Distearyldimonium Chloride	
	Hostacerin DGS	6.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	10.00%
B	Water	71.60%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add C to IV.
 Formula A VI/6550

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-CreamRecipe:

A	Hostacerin CG	5.00%
	Cetearyl Alcohol (and) Triceteareth-4 Phosphate (and) PEG-6 Oleamide (and) Sodium C14-17 Sec. Alkyl Sulfonate	
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	5.00%
B	Carbopol 980 Carbomer	0.20%
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	0.80%
	Water	78.25%
	Preservative	q.s.
D	Perfume	0.40%

Procedure:

- I Melt A at 70C, then add B. II Heat C to 70C.
 III Stir II into I. IV Stir until cool.
 V At 35C add D to IV. VI Homogenize if necessary.
 Formula A VI/1601

O/W-CreamRecipe:

A	Hostacerin KW 340 N	5.00%
	Triceteareth-4 Phosphate	
	Stearic acid	9.00%
	Cetyl alcohol	3.00%
	Mineral oil, high viscosity	4.00%
	Isopropyl palmitate	8.00%
B	Sorbitol (70%)	3.00%
	Water	67.60%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add C to IV. VI Homogenize if necessary.
 Formula A VI/1700

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-CreamRecipe:

A	Hostaphat KW 340 N	2.00%
	Triceteareth-4 Phosphate	
	Hostacerin DGS	7.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Shea Butter	2.00%
	Cetiol SN	6.00%
	Cetearyl Isononanoate	
	Walnut oil	5.00%
	Almond oil	4.00%
	Jojoba oil	3.00%
	Antioxidant	q.s.
B	Carbopol 980	0.40%
	Carbomer	
C	Allantoin	0.30%
	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	1.60%
	Glycerine	4.00%
	Water	64.35%
	Preservative	q.s.
D	Perfume	0.40%
I	Melt A at 70C, then add B.	II Heat C to 70C.
III	Stir II into I.	IV Stir until cool.
V	At 35C add D to IV.	VI Homogenize if necessary

Formula A VI/1801

O/W-CreamRecipe:

A	Hostacerin CG	5.00%
	Cetearyl Alcohol (and) Triceteareth-4 Phosphate (and) PEG-6 Oleamide (and) Sodium C14-17 Sec. Alkyl Sulfonate	
	Hostacerin DGS	3.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, low viscosity	8.00%
	Isopropyl palmitate	8.00%
	Cetiol SN	4.00%
	Cetearyl Isononanoate	
	Isopropyl isostearate	4.00%
B	Carbopol 980	0.20%
	Carbomer	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	0.80%
	Water	70.25%
	Preservative	q.s.
D	Perfume	0.40%
I	Melt A at 70C, then add B.	II Heat C to 70C.
III	Stir II into I.	IV Stir until cool.
V	At 35C add D to IV.	VI Homogenize if necessary

Formula A VI/1604

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-CreamRecipe:

A	Hostacerin DGS	5.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Hostacerin DGL	0.50%
	Polyglyceryl-2 PEG-10 Laurate	
	Isopropyl palmitate	8.00%
	Almond oil	4.00%
	Joboba oil	2.00%
	Wheat germ oil	5.00%
	Sunflower oil	4.00%
	Antioxidant	q. s.
B	Carbopol 980	0.30%
	Carbomer	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	1.20%
	Water	69.25%
	Preservative	q. s.
D	Perfume	0.40%

Procedure:

I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D into IV.	VI	Homogenize if necessary.

Formula A VI/1852

O/W-Cream

Free of ethylenoxide

Recipe:

A	Hostacerin DGMS	5.00%
	Polyglyceryl-2 Stearate	
	Mineral oil, high viscosity	12.00%
	Isopropyl palmitate	8.00%
	Soya oil	5.00%
	Antioxidant	q. s.
B	Carbopol 980	0.20%
	Carbomer	
	Keltrol RD	0.20%
	Xanthan Gum	
C	NaOH (10% in water)	0.80%
	Water	68.20%
	Preservative	q. s.
D	Perfume	0.40%

Procedure:

I	Melt A at 80C, then add B.	II	Heat C to 80C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	VI	Homogenize if necessary.

Formula A VI/1750

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

O/W-Cream
With bacteriostatic effect

Recipe:

A	Hostaphat KW 340 N	2.00%
	Triceteareth-4 Phosphate	
	Hostacerin DGS	7.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, low viscosity	5.00%
	Eutanol G	8.00%
	Octyldodecano1	
	Isopropyl isostearate	5.00%
B	Carbopol 980	0.30%
	Carbomer	
C	Octopirox	0.20%
	Piroctone Olamine	
D	1,2-Propylen glycol	10.00%
E	NaOH (10% in water)	0.40%
	Water	61.80%
	Preservative	q.s.
F	Perfume	0.30%

Procedure:

I	Melt A at 60C, then add B.	II	Dissolve C in warmed D.
III	Stir II into I.	IV	Heat E to 60C.
V	Stir IV into III.	VI	Stir until cool.
VII	At 35C add F to VI.	VIII	Homogenize if necessary.

Formula A VI/8608

O/W-Cream
Soft

Recipe:

A	Hostacerin DGL	1.00%
	Polyglyceryl-2 PEG-10 Laurate	
	Hostacerin DGS	2.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	4.00%
	Isopropyl palmitate	8.00%
	Soya oil	4.00%
	Antioxidant	q.s.
B	Carbopol 980	0.40%
	Carbomer	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	NaOH (10% in water)	1.60%
	Glycerine	3.00%
	Water	75.25%
	Preservative	q.s.
D	Perfume	0.40%

Procedure:

I	Melt A at 70C, then add B.	II	Heat C to 70C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add D to IV.	VI	Homogenize if necessary.

Formula A VI/1950

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Protective Moisture Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS45	4.0
2 Cutina CBS	8.0
3 Cetiol LC	11.0
4 Paraffin oil	5.0
5 Parsol MCX	2.0
6 Parsol 1789	1.0
7 KOH (20%)	1.5
8 Glycerine	5.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a medium weight O/W skin cream with UV protection.

The first six components are melted together at about 85C. Components 7 & 8 are dissolved in the water, which is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C. Formula TS 484

Very Light Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Dehydag Wax E	0.5
2 Eutanol G	4.5
3 Cutina MD	3.5
4 Stenol 16-65	1.2
5 Preservative	q.s.
6 Water	to 100.0

This formulation gives a very light O/W emollient cream.

The first four components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. At this stage, the mixture needs homogenisation by, for example, a Silverson. Mixing should continue down to about 35C. Formula TS 483

Protective Day Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS45	4.0
2 Cutina CBS	8.0
3 Cetiol B	11.0
4 Paraffin oil	5.0
5 Parsol MCX	2.0
6 Parsol 1789	1.0
7 KOH (20%)	1.5
8 Glycerine	5.0
9 Preservative	q.s.
10 Water	to 100.0

This formulation gives a medium weight O/W skin cream with UV protection.

The first six components are melted together at about 85C. Components 7 & 8 are dissolved in the water, which is then heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 490

SOURCE: Henkel KGaA: Skin Care Project Formulations

Protective Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	7.0
2 Stenol 16-65	2.0
3 Cetiol MM	5.0
4 Eumulgin B2	3.0
5 Eutanol G	3.0
6 Cetiol SN	7.0
7 Hygroplex HHG (CLR)	4.0
8 Preservative	q.s.
9 Water to	100.0

This formulation gives a rich feeling O/W cream, of medium consistency, which helps to stimulate the skin's natural regenerative powers.

The first six components are heated together to 85C. Component seven is then added to the water and this mixture is also heated to 85C. The oil phase is then mixed into the water phase and dispersed. Mixing should continue down to about 35C. Formula TS 185

Light Repair Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	3.5
2 Sipol 16-18 C50	1.5
3 Cetiol MM	4.0
4 Eumulgin B2	1.5
5 Eutanol G	5.0
6 Myritol 318	5.0
7 Repair Complex CLR	5.0
8 Collagen CLR	2.0
9 Elastin CLR	2.0
10 Preservative	q.s.
11 Water to	100.0

This formulation gives a very light feeling O/W cream which helps to prepare the skin before sunbathing, by enhancing the speed of cell renewal.

The first six components are heated together to 85C. The water is heated to the same temperature. The oil phase is then mixed into the water phase and dispersed. Mixing should continue down to about 35C. Components seven to nine can then be incorporated, and the product homogenised. Formula TS 253

SOURCE: Henkel KGaA: Skin Care Project Formulations

Rejuvenating Cream W/O

	<u>%W/W</u>
I Dehymuls F	10.0
Cetiol V	10.0
Eutanol G	6.0
Vaseline, white	16.0
Microwax HP 67	3.0
Epidermin in oil	1.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	50.7

Formula No. A15-13

Herbal Cream W/O

	<u>%W/W</u>
I Dehymuls F	7.0
Novata AB	5.0
Cetiol V	5.0
Eutanol G	5.0
Vaseline, white	10.0
Calendula oil CLR	3.0
Oil of St. John's wort CLR	3.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	58.7

Formula No. A15-14

Vitamin Cream W/O

I Dehymuls F	7.0
Cetiol V	10.0
Eutanol G	6.0
Vegetable oil	8.0
Vaseline, white	12.0
Vitamin E Grandelan spec.	2.5
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	51.2

Formula No. A15-15

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Replenishing Cream

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	73.48
Carbopol 934	0.20
Propylene Glycol	3.00
Methyl Paraben	0.25
Phase B:	
Hest CSO (Cetearyl Octanoate)	6.00
Hest MS (Myristyl Stearate)	3.50
Hetoxamate SA-100 (PEG-100 Stearate)	2.00
Hetan SS (Sorbitan Stearate)	2.00
Hetoxol P (Emulsifying Wax)	2.00
Hetoxol G (Stearyl Alcohol & Ceteareth 20)	0.60
Dimethicone 350	0.80
Parsol MCX	2.00
Vitamin E Acetate	0.25
Propyl Paraben	0.15
Phase C:	
H ₂ O, Deionized	1.00
TEA 99%	0.22
Phase D:	
Sodium Hyaluronate (1%)	1.00
Soluble Collagen	0.25
Phase E:	
H ₂ O, Deionized	1.00
Germall 115	0.30

Procedure:

- 1) In a stainless steel kettle equipped with a Lightnin' type mixer add H₂O. Slowly sprinkle Carbopol 934 into vortex while mixing until free of lumps.
- 2) Add balance of Phase A, heat to 75C. In a separate kettle, combine ingredients of Phase B, heat to 75C while mixing.
- 3) Add B to A. Mix until uniform. Avoid aeration.
- 4) Add Phase C premixed and cool to 40C.
- 5) At 40C, add Phase D to batch.
- 6) Premix Phase E, add to batch.
- 7) Mix until uniform.

Specifications:

pH: 6.80
 Viscosity, #4/6 RPM: 65000

SOURCE: Heterene, Inc.: Formula HC 91-12-1

Ritavena Hand and Body Cream

A natural hand and body cream designed around the benefits of colloidal oats (Ritavena) to provide natural skin therapeutic moisturization and softening.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	10.00	----
2. Ritavena-5 (Hydrolyzed Oat Flour)	1.00	Natural Moisture
3. Distilled/Deionized Water	65.20	----
4. Sorbitol	3.50	Humectant
5. Methylparaben	0.15	Preservative
6. Forlan 500 (R.I.T.A. Blend)	6.00	Emolliency
7. Rita CA (Cetyl Alcohol)	2.50	Emulsifier
8. Mineral Oil (130-SUS-Penreco)	8.00	Emolliency
9. Rita Stearic Acid	2.00	Emulsifier
10. Propylparaben	0.05	Preservative
11. Triethanolamine @ 50%	0.80	pH
12. Germall II @ 25%	0.80	Preservative

Compounding Procedure:

Heat first water to 100C (boiling), add item 2 and mix in blender for 2 minutes. Heat items 3-5 to 75C. In separate beaker heat items 6-10 to 75C. Combine with agitation. Add item 11 and maintain heat and agitation for 10 minutes. Add Ritavena mixture and mix until uniform. Cool with agitation. At 45C add preservative.

Ref. No. 116-33

Therapeutic Barrier Cream

Elegant water in oil emulsion which resists chemicals and oils better than silicone systems. Based on Ritaplast to maximize barrier properties.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil	24.50	Oil-Out
2. Ritaplast (Barrier Base)	20.00	Barrier
3. R.I.T.A. Beeswax, Natural	13.00	Barrier
4. Lanolin USP	10.00	Barrier
5. Ritalan C (Isopropyl Palmitate and Lanolin Oil)	2.00	Film
6. Propylparaben	0.10	Preservative
7. Ritahydrox (Hydroxylated Lanolin)	0.30	Anchor
8. Distilled/Deionized Water	28.50	----
9. Borax	1.30	Stability
10. Methylparaben	0.10	Preservative
11. Fragrance	0.20	Odor

Compounding Procedure:

Heat items 1-7 and items 8-10 to 165F in separate containers. Add oil phase to water phase with mixing. Cool to 120F and add fragrance.

Ref. No. 116-18

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Skin Cream

	<u>Wt%</u>
A. Squalane	4.0
Beeswax	1.0
Amiter LG-OD	2.0
Cetyl Octanoate (Emalex CC-168)*	3.0
Hydrogenated Oil (Emalex S.T.G.-R.)*	4.0
Behenyl Alcohol	1.5
Stearic Acid	3.0
Propylene Glycol Monostearate	1.0
Glyceryl Monostearate, Self Emulsifying (Emalex GMS-7CAE)*	5.0
Dimethylpolysiloxane (300 c.s.)	0.4
Butylparaben	0.1
Amihope LL	1.0
B. CAE	0.5
Glycerin	5.0
Hydroxyethylcellulose (1% aq. soln.)	10.0
Methylparaben	0.2
Water	58.3
*Nihon Emulsion Co.	

Procedure:

1. Mix (A) at 80C.
2. Mix (B) at 80C.
3. Add (A) to (B).
4. Mix them with a homomixer, and then cool slowly to 30C.

Note:

This skin cream spreads well.

Skin Cream

	<u>Wt%</u>
A. Liquid Petrolatum	17.0
Cetanol	3.0
Propylene Glycol Monostearate	1.0
Glyceryl Monostearate; Self Emulsifying (HLB 5) (Emalex GMS-45RT; Nihon Emulsion Co.)	3.0
POE (10) Monostearate	2.0
POE (30) Monostearate	1.0
Butylparaben	0.1
Amihope LL	5.0
B. 1,3-Butylene Glycol	5.0
Acylglutamate HS-11	0.3
Methylparaben	0.2
Water	62.4

Procedure:

1. Mix (A) at 80C.
2. Mix (B) at 80C.
3. Add (B) to (A).
4. Mix them with a homomixer.
5. Cool them slowly to 30C.

Note:

This skin cream has low friction touch after use.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Skin Cream, Anhydrous

	<u>%W/W</u>
Lanette 16	10.0
Cetiol V	25.0
Cutina BW	15.0
Vaseline, white	35.0
Hard paraffin 52C	5.0
Wool fat, anhydrous	10.0
Formula No. A17-04	

Skin Cream O/W Transparent in Gel Form

	<u>%W/W</u>
I Eumulgin B3	13.0
Cetiol HE	20.0
Eutanol G	5.0
II Water	62.0

Preparation:

Eumulgin B3 and the fatty substances are melted on the water bath at 95C and the water is added to the fat melt also at 95C. The gel produced is stirred while cooling and perfume is added at 60C. The gel is cooled and stirring continued, although the stirring process should be terminated after a short while to avoid air pockets. In order to obtain the desired transparency, it is essential to observe the temperature specified.

Formula No. A17-05

Cream Base, Anhydrous

	<u>%W/W</u>
Cutina HR	6.0
Myritol 318	46.5
Cetiol SN	20.0
Eutanol G	20.0
Mg-Siel pharma	7.5
Formula No. A17-06	

Skin Cream, Anhydrous

	<u>%W/W</u>
Lanette 16	10.0
Dehymuls LS	10.0
Beeswax, white	15.0
Hard paraffin 52C	5.0
Vaseline, white	35.0
Cetiol V	25.0
Formula No. A17-07	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream O/W

	<u>%W/W</u>
I Cutina GMS	12.0
Lanette O	1.0
Cutina E24	3.0
Eumulgin B2	1.0
Cetiol SB45	20.0
Eutanol G	10.0
II 1,2-propylene glycol	5.0
Water	48.0

Formula No. A12-28

Skin Cream O/W with Shea Butter

	<u>%W/W</u>
I Cutina GMS	12.0
Lanette O	1.0
Eumulgin B2	1.0
Cutina E24	2.0
Cetiol SB45	5.0
IPP	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	69.0

Formula No. A12-29

Skin Cream O/W with Shea Butter

	<u>%W/W</u>
I Cutina GMS	12.0
Lanette O	1.0
Cutina E24	3.0
Eumulgin B2	1.0
Cetiol SB 45	15.0
Eutanol G	4.0
Cetiol SN	4.0
II 1,2-propylene glycol	3.0
Water	57.0

Formula No. A12-30

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream O/W

	<u>%W/W</u>
I Cutina E24	5.0
Cutina MD	10.0
Lanette O	2.0
Eutanol G	4.0
Myritol 318	4.0
Cetiol B	8.0
II Henkel Glycerin 86% DAB 9	5.0
Water	62.0

Note: High-fatting
Formula No. A12-19

Skin Cream O/W Fluid Type

	<u>%W/W</u>
I Cutina E24	4.0
Cutina MD	6.0
Lanette O	1.5
Cetiol B	8.0
II Henkel Glycerin 86% DAB 9	5.0
Water	75.5

Note: Soft consistency, fluid
Formula No. 12-20

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Novata AB/Cetiol MM	5.0
Eutanol G	3.0
Vaseline	15.0
Paraffin oil, high viscous	3.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	60.7

Formula A12-21

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream O/W
(Soft Cream)

	%W/W
I Cutina MD	4.0
Cutina CP	4.0
Eumulgin B1	1.0
Eumulgin B2	1.0
Cetiol B	5.0
II Carbopol 940	0.5
Triethanolamine	0.5
Henkel Glycerin 86% DAB 9	3.0
Water	81.0

Note: This model formula constitutes a particularly soft, smooth and easy-to-apply o/w-type cream.
Formula A11-18

Day Cream O/W

	%W/W
I Cutina E24	4.0
Cutina MD	15.0
Eutanol G	3.0
Cetiol B	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	70.0

Note: Soft consistency, low fattening
Formula A11-19

Day Cream O/W
(Soft Cream)

	%W/W
I Cutina CBS	12.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol SN	4.0
Eutanol G	4.0
Isopropyl palmitate	6.0
II Henkel Glycerin 86% DAB 9	5.0
Water	66.0

Formula A11-20

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream, Tinted Matting O/W

	<u>%W/W</u>
I Cutina MD	3.5
Lanette O	1.2
Siegert Stearin L2 SM	2.0
Cholesterin	0.5
Paraffin oil, high viscous	3.0
Pigment colors	2.5
II Luviskol K30	1.5
Allantoin	0.3
1,2-propylene glycol	2.0
Triethanolamine	1.0
Water	82.5

Formula No. P12-01

Skin Cream, Tinted, with Pearly Gloss O/W

	<u>%W/W</u>
I Cutina MD	3.5
Lanette O	1.2
Siegert Stearin L2 SM	2.0
Cholesterin	0.5
Paraffin oil, high viscous	3.0
Pigment colors	2.5
II Luviskol K30	1.5
Allantoin	0.3
Triethanolamine	1.0
1,2-propylene glycol	2.0
Veegum solution 4%	20.0
Water	57.5
III Timiron Starluster MP 115	5.0

Formula No. P12-02

Rouge Cream, Anhydrous

	<u>%W/W</u>
I Cutina LM	79.0
Eutanol G	15.0
II Pigment colors	4.0
Cosmetic titanium dioxide 300309	2.0

Formula No. P13-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	12.0
Vaseline	35.0
Paraffin oil, liquid	15.0
Microwax HP 67	2.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	30.7

Formula A12-22

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	12.0
Vaseline, white	30.0
Paraffin oil, liquid	15.0
Microwax HP 67	2.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	35.7

Formula A12-23

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	10.0
Dehymuls LS	10.0
Cetiol V	10.0
Vegetable oil	7.0
Vaseline, white	15.0
Paraffin oil, liquid	10.0
Microwax	4.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	30.7

Formula A 12-24

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	10.0
Cetiol V	10.0
Vegetable oil	7.0
Vaseline, white	25.0
Paraffin oil, low viscous	10.0
Microwax HP 67	4.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	30.7

Note: High-fatting

Example of a w/o-type cream with extremely low water content, good heat stability and smooth structure.

Formula No. A12-16

Care Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol V	8.0
Vegetable oil	15.0
Vaseline, white	20.0
Paraffin oil, low viscous	5.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	40.7

Note: Very soft cream structure

Formula No. A12-17

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol V	7.0
Vegetable oil	12.0
Vaseline, white	25.0
Paraffin oil, low viscous	12.0
Microwax HP 67	2.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	30.7

Note: High-fatting

Formula No. A12-18

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream W/O with Collagen

	<u>%W/W</u>
I Dehymuls K	25.0
Cetiol V	6.0
Paraffin oil, high viscous	4.0
Vaseline, white	5.0
II Magnesium sulfate-7-hydrate	0.3
Water	54.7
III Collagen	5.0

Note: pH setting 3.7 to 6.5

Preparation: Heat I to 70C, gradually stir in II at 75C,
add III to the cream at 35C.

Formula No. A15-07

Care Cream O/W with Azulene and Allantoin

	<u>%W/W</u>
I Cutina KD 16	16.00
Eumulgin B1	1.00
Eutanol G	12.00
Myritol 318	4.00
Paraffin oil, high viscous	6.00
II Allantoin	0.20
1,2-propylene glycol	3.00
Water	57.75
III Azulene solution 25% a.s.	0.05

Set pH to 7

Note: Medium-fatting, medium soft consistency, light blue tint
due to azulene additive.

Formula No. A15-08

Anti-Wrinkle Cream, Anhydrous

	<u>%W/W</u>
Dehymuls K	24.98
Cetiol V	16.00
Cetiol SN	5.00
Cutina BW	10.00
Vaseline, white	35.00
Wheatgerm oil, spec.	3.00
Vitamin oil Biocorno	4.00
Extrapon VC	1.00
Carrot oil CLR	1.00
Oxynex 2004	0.02

Formula No. A15-09

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream W/O with St. John's Wort Oil

	<u>%W/W</u>
I Dehymuls F	7.0
Eutanol G	5.0
Cetiol V	5.0
Cetiol MM	5.0
Vaseline	10.0
Calendula oil	3.0
St. John's wort oil	3.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	58.7

Formula No. A15-19

Skin Cream O/W with Avocado Oil

	<u>%W/W</u>
I Lamecreme LPM	8.0
Lamecreme SA 7	0.5
Lanette 16	2.0
Cutina CP	5.0
Wool fat	2.5
Avocado oil	3.0
Cegesoft C24	4.0
Silicon oil AK 350	0.5
Paraffin oil	4.5
II Henkel Glycerin 86% DAB 9	5.0
Water	64.8
III Perfume	0.2

Formula No. A15-20

Glycerine Cream O/W with Silicone

	<u>%W/W</u>
I Lanette 16	2.0
Cutina MD	14.0
Eumulgin B1	3.0
Eutanol G	10.0
Baysilon-Oil M300	5.0
II Henkel Glycerin 86% DAB 9	30.0
Water	35.8
III Cremogen camomile	0.2

Preparation: Heat phase I to 75C, stir in phase II at 80C, add phase III to the cream at 40C.

Formula No. A16-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Cream W/O with Shea Butter

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol SB 45	10.0
Cetiol V	6.0
Cetiol 868	4.0
Vaseline, white	12.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	54.7

Formula No. A12-25

Skin Cream W/O Shea Butter

	<u>%W/W</u>
I Dehymuls F	8.0
Cetiol SB 45	10.0
Cetiol 868	5.0
Vaseline, white	15.0
Paraffin oil, low viscous	5.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	51.7

Formula A12-26

Skin Cream O/W

	<u>%W/W</u>
I Cutina CBS	14.0
Cutina E24	3.0
Eumulgin B2	1.0
Cetiol SB 45	20.0
Eutanol G	5.0
II 1,2-propylene glycol	5.0
Water	52.0

Formula A12-27

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Skin Protecting Cream O/W with Silicone

	<u>%W/W</u>
I Lanette O	8.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol SN	15.0
Paraffin oil, high viscous	5.0
Baysilon-Oil M300	5.0
II Henkel Glycerin 86% DAB 9	6.0
Water	58.0

Formula No. A17-01

Skin Protecting Cream O/W Against Solvents

	<u>%W/W</u>
I Lanette N/SX	6.0
Siegert Stearin L2SM	6.0
Eutanol G	8.0
Talc	5.0
Kaolin	5.0
II Henkel Glycerin 86% DAB 7	10.0
Triethanolamine	0.3
Dehydrol 7000-3% solution	30.0
Water	29.7

Formula A17-02

Skin Protecting Cream W/O Against Aqueous Solutions

	<u>%W/W</u>
I Dehymuls E	7.0
Vaseline, white	10.0
Cetiol V	5.0
Paraffin oil, high viscous	5.0
Zinc oxide	10.0
Talc	10.0
II Water	53.0

Formula No. A17-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Smoothing Care Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS45	6.0
2 Cetiol LC	11.0
3 Lorol C16	1.5
4 Lorol C18	1.5
5 Cutina MD	3.0
6 KOH (20%)	2.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a very hard, heavy weight O/W skin cream with an exceptionally smooth, enriching feel.

The first five components are melted together at about 85C. Component 6 is dissolved in the water to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 500

Emollient Care Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS25	5.0
2 Cetiol B	9.0
3 Lorol C16	1.5
4 Lorol C18	1.5
5 Cutina MD	3.0
6 KOH (20%)	1.75
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a soft, medium weight O/W skin cream.

The first five components are melted together at about 85C. Component 6 is dissolved in the water which is heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 501

Night Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade CL special	20.0
2 Silicone Oil M100	1.0
3 Fragrance	q.s.
4 Preservative	q.s.
5 Water	to 100.0

This formulation gives an O/W cream which has a rich, smoothing feel on the skin.

Components 1 and 2 are added to the water and the mixture is heated to about 85C. The mixture is vigorously mixed until homogeneous. It can then be cooled, with moderate mixing down to about 35C.
Formula TS 510

SOURCE: Henkel KGaA: Skin Care Project Formulations

Soft Touch Cleansing Cream

	<u>%W/W</u>
A. Carbopol 940-2% Aq. Sol'n.	50.0
1,3-Butylene Glycol	12.0
Tween 20	0.5
Tween 80	0.5
Deionized Water	8.0
B. Mineral Oil, Heavy	20.0
Arlacel 60	1.0
Proto-Lan 8*	3.0
Solulan 98	1.0
C. Glydant DMDMH-55	0.3
May-Tein KTS (Sodium/TEA Lauryl Hydrolyzed Keratin)	2.0
Triethanolamine-99%	1.5
D. Fragrance	0.2
*(Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol)	

Procedure:

Heat Phase A & B separately to 80C. Add B to A with mixing. Add C. Mix carefully to avoid entrapping air. Mix and cool to 40C. Add D.

Properties:

A mild, creamy facial cleanser which leaves a smooth after-feel. May be washed off or rinsed off with water. Non-drying.

SOURCE: Maybrook Inc.: Formula #SW-3241

Care Cream

Solid cream. Good spreadability, good absorption. Leaves a pleasant soft touch.

Material/CTFA-Index:

A. Emulgator E2155/Stearyl Alcohol (and) Steareth-7 (and) Steareth-10	6.00%
Isopropylmyristat/Isopropyl Myristate	10.00
Stearylalcohol/Stearyl Alcohol	1.00
Paraffinol/Mineral Oil	3.00
Wacker-Belsil DM 100/Dimethicone	2.00
Wacker-Belsil SM-6018/Stearyl Methicone	5.00
B. Glycerin/Glycerine	3.00
Wasser dest./Water	70.00
Preservatives, fragrances, pigments	q.s.

Heat A and B to 65C, mix and homogenize, cool whilst stirring.

SOURCE: Wacker Silicone: Formulation 1325 AH

Sunflower Oil Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Monomuls 60-35	3.1
3 Novata AB	4.8
4 Sunflower Oil	10.2
5 Loro1 C16	2.05
6 Loro1 C18	2.05
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an O/W Cream, with good spreading and a medium weight feel.

The first six components are heated together to 85C. The water is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 417

Sunflower Oil Cream with Protein

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Monomuls 60-35	3.1
3 Novata AB	4.5
4 Sunflower Oil	10.2
5 Loro1 C16	2.05
6 Loro1 C18	2.05
7 Gluadin AGP	1.0
8 Preservative	q.s.
9 Water	to 100.0

This formulation gives an O/W Cream, with good spreading and a medium weight feel.

The first six components are heated together to 85C. Component seven is dissolved in the water and this mixture is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 418

Light Moisturizing Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	3.0
2 Myritol 318	10.0
3 Cetiol SB45	5.1
4 Monomuls 60-35	5.0
5 Sipol 1618 C50	2.2
6 Hygroplex HHG	2.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a light O/W cream with natural moisturising effect.

The first five components are melted together at about 85C. Component 6 is dissolved in the water and heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 460

SOURCE: Henkel KGaA: Skin Care Project Formulations

Tinted-Day-CreamRecipe:

A	Hostaphat KW 340 N	3.00%
	Triceteareth-4 Phosphate	
	Hostacerin DGS	8.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Cocoa Butter	1.00%
	Cocos oil	9.00%
	Walnut oil	5.00%
	Neo-Heliopan AV	0.90%
	Octyl Methoxycinnamate	
	Neo-Heliopan BB	0.10%
	Benzophenone-3	
	Antioxidant	q. s.
B	Water	38.75%
	Aquamollin BC pdr. h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Preservative	q. s.
C	Magnabrite HV (4% in water)	17.50%
	Magnesium Aluminum Silicate	
D	Titanium dioxide	6.00%
	Talcum	1.00%
	Pigment Sicopharm yellow	0.60%
	Pigment Sicopharm red	0.40%
	Pigment Sicopharm black	0.10%
E	Desaron	5.00%
	Desamido Collagen (and) Hyaluronic Acid	
	Hygroderm	3.00%
	"Moisturizing"-Factor	
	Perfume	0.30%

Procedure:

- I Melt A at 70C.
- II Heat B to 70C.
- III Stir II into I.
- IV Stir until cool.
- V Add D into C, then homogenize.
- VI At 35C stir V into IV, then add the components of E.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula A VI/3608

Universal Day Cream O/W

	<u>%W/W</u>
I Cutina MD	15.0
Eumulgin SMO 20	4.0
Eutanol G	4.0
Cetiol B	5.0
Cetiol LC	3.0
II Henkel Glycerin 86% DAB 9	3.0
Water	66.0
Formula No. A11-25	

Universal Day Cream O/W

	<u>%W/W</u>
I Cutina MD	15.0
Dehymuls SMO	1.0
Eumulgin SMO 20	4.0
Eutanol G	4.0
Cetiol B	5.0
Cetiol LC	3.0
II Henkel Glycerin 86% DAB 9	3.0
Water	65.0
Formula No. A11-26	

Day Cream O/W

	<u>W/W</u>
I Cutina MD	14.0
Eumulgin SMO 20	4.0
Eutanol G	3.0
Cetiol S	3.0
Lanette O	1.0
II Henkel Glycerin 86% DAB 9	3.0
Water	72.0
Formula No. A11-27	

Skin Cream O/W

	<u>%W/W</u>
I Cutina MD	14.0
Dehymuls SML	1.0
Eumulgin SML 20	3.0
Eutanol G	5.0
Cetiol B	5.0
Lanette O	0.5
II Henkel Glycerin 86% DAB 9	5.0
Water	66.5
Formula No. A11-28	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Universal Skin Cream O/W

	<u>%W/W</u>
I Cutina MD	14.0
Dehymuls SML	2.5
Eumulgin SML 20	1.5
Eutanol G	5.0
Cetiol B	5.0
Lanette O	1.0
II Henkel Glycerin 86% DAB 9	3.0
Water	68.0

Formula A11-29

Skin Cream O/W With Pleasurable Melting-on Effect

	<u>%W/W</u>
I Cutina MD	10.0
Lanette O	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Novata AB/Cetiol MM	5.0
Eutanol G	10.0
Paraffin oil, high viscous	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	60.0

Formula A11-30

Day Cream O/W

	<u>%W/W</u>
I Cutina MD	14.00
Forlanit E	1.00
Eutanol G	4.00
Paraffin oil, high viscous	2.00
II 1,2-propylene glycol	5.00
Triethanolamine	0.19
Water	73.81

Formula A11-31

Day Cream O/W

	<u>%W/W</u>
I Emulgade CA/CL spec.	25.0
II Water	75.0

Formula A11-33

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls K	20.0
Cetiol V	5.0
Vegetable oil	5.0
Vaseline, white	5.0
II Water	65.0

Note: Medium fattening, medium solid consistency
Formula No. A13-01

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls K	25.0
Myritol 318	10.0
Vaseline, white	5.0
II Water	60.0

Note: Medium fattening, medium solid consistency
Formula No. A13-02

Universal Skin Cream W/O Hydrocarbon-Free

	<u>%W/W</u>
I Dehymuls E	15.0
Cetiol V	15.0
Vegetable oil	5.0
II Water	65.0

Note: Medium fattening, w/o-type cream with a soft consistency,
model formula without vaseline.
Formula No. A13-03

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls E	7.0
Cetiol V	6.0
Cutina BW	3.0
Vaseline, white	12.0
Paraffin oil, high viscous	6.0
II Magnesium sulfate-7-hydrate	0.3
Henkel glycerin 80% DAB 9	5.0
Water	60.7

Note: Medium fattening
Formula A13-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls K	22.0
Cetiol V	3.0
Cutina BW	3.0
Vaseline, white	5.0
Paraffin oil, high viscous	3.0
II Magnesium sulfate-7-hydrate	0.3
Henkel Glycerin 86% DAB 9	5.0
Water	58.7

Note: Medium fatting
Formula No. A13-05

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls K	30.0
Cetiol V	4.0
Paraffin oil, high viscous	5.0
II Magnesium sulfate-7-hydrate	0.3
Henkel Glycerin 86% DAB 9	5.0
Water	55.7

Note: Medium fatting
Formula No. A13-06

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Novata AB	5.0
Eutanol G	3.0
Vaseline, white	15.0
Paraffin oil, low viscous	3.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	60.7

Note: This skin cream is an example of the possible uses of the Novata solid triglycerides. The addition of Novata AB enhances the overall structure of the cream; it allows the hydrocarbon shares either to be reduced or to be replaced completely. The addition of a maximum of 6% triglyceride improves the melting properties of creams on the skin.

Formula No. A13-07

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Vaseline, white	15.0
Paraffin oil, low viscous	8.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	65.7

Formula No. A13-08

Universal Skin Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Novata AB	5.0
Eutanol G	3.0
Vaseline, white	15.0
Paraffin oil, low viscous	3.0
Microwax HP 67	2.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	60.7

Note: This skin cream is an example of the possible uses of the Novata solid triglycerides. The addition of Novata AB enhances the overall structure of the cream; it allows the hydrocarbon shares either to be reduced or to be replaced completely. The addition of a maximum of 6% triglyceride improves the melting properties of creams on the skin.

Formula No. A13-09

Skin Cream W/O

	<u>%W/W</u>
I Dehymuls K	20.0
Dehymuls LS	5.0
Cetiol V	10.0
Myritol 318	10.0
II Water	55.0

Formula No. A13-10

Source: Henkel KGaA: Cosmetic Model Formulae

Urban Protection Day Cream

This light textured day cream contains an effective level of natural antioxidants to provide protection from urban environmental influences. The antioxidants are in the form of liposomes as Dermalome SOD and Dermalome E to provide enhanced penetration and efficacy and the Protein-bound Biomin SE/P/C.

<u>Ingredients/C.T.F.A.:</u>	<u>% by Weight</u>
Demineralized Water	65.00
Carbopol 1342, 2%/Carbomer	15.00
Glycerine	2.00
Brookswax D/Cetearyl Alcohol (and) Ceteareth-20	1.00
Finsolv TN/C12-15 Alcohols Benzoate	2.00
DC 200 Fluid, 350 cs/Dimethicone	0.50
Germaben II-E/Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Biomin Se/P/C/Selenium Polypeptides	0.30
Dermalome SOD/Lecithin (and) Superoxide Dimutase	10.00
Dermalome E/Lecithin (and) Tocopheryl Acetate	3.00
AMP-95/Aminomethylpropanol	0.20

Procedure:

1. Disperse the Carbopol in water while heating to 75C.
2. Add the Glycerin and mix well.
3. Blend the Finsolv TN, Brookswax D, and Silicone Fluid at 70C until uniform and add to water phase. Mix until uniform.
4. Add the AMP-95 and mix until uniform with fast propellor agitation.
5. Cool to 50C and add the Biomin SE/P/C and Germaben with sweep agitation.
6. Cool to 35C and add the Dermalomes.
7. Fragrance as desired and mix well.
8. Adjust pH to 5.0 with Citric Acid if required.

Formulation PF-0163 suggested by Brooks Industries, Inc.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Vitamin Cream O/W

	<u>%W/W</u>
I Cutina KD16	16.0
Eumulgin B1	1.0
Eutanol G	12.0
Vitamin oil Biocorno	5.0
Vitamin F glycerine ester	3.0
II Henkel Glycerin 80% DAB 9	5.0
Water	58.0
Set pH to 7	
Formula No. A15-01	

Vitamin Cream W/O

	<u>%W/W</u>
I Dehymuls K	30.0
Vegetable oil	10.0
Vitamin E Grandelan spec.	5.0
Vitamin F glycerine ester	5.0
II Henkel Glycerin 86% DAB 9	5.0
Water	45.0
Formula No. A15-02	

Vitamin Cream with Placenta Extract O/W

	<u>%W/W</u>
I Cutina MD	15.0
Eumulgin B1	3.0
Eutanol G	10.0
Paraffin oil, high viscous	3.0
Wheat germ oil spec.	2.0
Placenta liquid, oil-soluble	3.0
II Water	64.0
Note: Soft consistency	
Formula No. A15-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Vitamin Cream W/O

	<u>%W/W</u>
I Dehymuls F	7.0
Cetiol V	7.0
Myritol 318	6.0
Vaseline, white	10.0
Vitamin oil Biocorno	6.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	60.7

Formula No. A15-16

Vitamin Cream O/W

	<u>%W/W</u>
I Cutina E24	4.0
Cutina MD	5.0
Lanette O	2.0
Cetiol B	8.0
Myritol 318	6.0
Vitamin F glycerine ester CLR	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	67.0

Formula No. A15-17

Cream O/W With Elastin

	<u>%W/W</u>
I Cutina CBS	12.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Eutanol G	10.0
Cetiol 868	10.0
Avocado oil	3.0
II Henkel Glycerin 86% DAB 9	5.0
Water	47.0
III Elastin	10.0

Preparation: Heat phase I to 75C, stir in phase II heated to 80C. Add phase III to the cream at 40C. The pH is adjusted to 4.5-5.5 with citric acid, for example.

Formula No. A15-18

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Wash Cream

White thick lotion. Pleasant, soft feeling on the skin.

Material/CTFA-Index:

A: Teginacid/Glyceryl Stearate (and) Ceteareth-20	10.00%
Adol 66/Isostearyl Alcohol	5.00
Isopropyl Myristate	6.00
Eutanol G/Octyldodecanol	4.00
Texapon N 40/Sodium Laureth Sulfate	5.00
Mineral oil, high viscosity	5.00
B: Belsil DMC 6031/Dimethicone Copolyol	1.00
Propylene Glycol	11.00
Water	53.00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65C. Mix B well into A.

Temperature stability: at 45C 8 weeks.

Formulation 362 AH

Cleansing Cream

White firm cream.

Material/CTFA-Index:

A: Lanette N/Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	12.00%
Vaseline/Petrolatum	9.00
Paraffin	2.00
Mineral oil, low viscosity	5.00
Isopropyl Myristate	2.00
B: Belsil DMC 6035/Methicone Copolyol Acetate	3.00
Glycerine	4.00
Water	63.00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 70C, mix B well into A.

Temperature stability: at 45C over 10 weeks.

Formulation 361 AH

SOURCE: Wacker Silicone: Suggested Formulations

Washing Cream

White firm cream. Good cleansing effect and soft feeling on the skin.

Material/CTFA-Index:

A: Lamecreme KSM/Glyceryl Stearate se	10.00%
Lanette O/Cetearyl Alcohol	5.00
Isopropyl Myristate	6.00
Belsil DM 350/Dimethicone	2.00
Eutanol G/Octyldodecanol	4.00
Texapon N 40/Sodium Laureth Sulfate	5.00
Mineral oil, low viscosity	5.00
B: Propylene Glycol	12.00
Water	46.50
Belsil DMC 6032/Dimethicone Copolyol Acetate	4.50
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65C, mix B into A, stir cold.
 Temperature stability: at 45C over 10 weeks.
 Formulation 397 AH

Day Cream

White firm cream with a silky shine. Absorbed well, leaves a dry feeling on the skin.

Material/CTFA-Index:

A: Stearic Acid	25.00%
Belsil PDM 20/Phenyl Dimethicone	5.00
B: Glycerine	8.00
Aminomethylpropanol	1.50
Water	60.50
Preservatives, perfume, pigments	q.s.

Heat A and B each to 75C. Stir A slowly into B. Stir cold.
 Temperature stability: at 45C over 10 weeks.
 Formulation 399 AH

Skin Cream

White, creamy, silky shine.

Material/CTFA-Index:

A: Belsil PDM 20/Phenyl Dimethicone	3.60%
Stearic Acid	4.20
Cetyl Alcohol	1.00
B: Glycerine	2.00
Triethanolamine	0.80
Wasser dest./Water	88.40
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 80C, stir A into B.
 Temperature stability: at 45C over 10 weeks.
 Formulation 187/3 AH

SOURCE: Wacker Silicone: Suggested Formulations

Water In Oil Foundation Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	8.0
Squalane	15.1
Beeswax	8.0
Amiter LGOD	3.3
Amiter LGS-2	1.2
Amerchol H-9	1.7
Sorbitan Monooleate	0.6
Titanium Dioxide	7.0
Aluminum Monostearate	1.5
(W) Ajidew N-50	2.0
Propylene Glycol	5.0
Water	46.6
Preservative	q.s.

Procedure:

1. Suspend titanium dioxide and aluminum monostearate to the mixture of liquid paraffin and squalane.
 2. Add other (O) ingredients to the suspension.
 3. Heat (O) to 90-100C to dissolve.
 4. Heat (W) to 85C.
 5. Add (W) to (O) slowly with stirring.
 6. Cool to 40C with stirring.
- pH: 5.2

Vanishing Cream

	<u>Wt%</u>
(O) Stearic Acid	8.0
Liquid Paraffin (#70)	3.0
Isopropyl Myristate	3.0
Hydrogenated Lanolin	2.0
Nikko1 WCB	2.0
Glyceryl Monostearate (Self Emulsifying Type)	1.3
Polyoxyethylene (20) Cetyl Ether	1.7
(W) Ajidew N-50	3.0
Propylene Glycol	3.0
Glycerin	3.0
Triethanolamine	0.5
Water	69.5
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 85-86C.
 2. Add (W) to (O) slowly with agitation.
 3. Cool slowly to 30C with stirring.
- pH: 7.2

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

W/O-CreamRecipe:

A	Hostacerin WO	10.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Permulgin 3510	4.00%
	Beeswax (and) Vaseline	
	Shea Butter	2.00%
	Mineral oil, low viscosity	7.00%
	Isopropyl palmitate	7.00%
	Walnut oil	4.00%
	Antioxidant	q.s.
B	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	4.00%
	Water	61.25%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
III Stir II into I. IV Stir until cool.
V At 35C add C to IV.
Formula A VI/2717

W/O-CreamRecipe:

A	Hostacerin WO	8.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Lunacera M	4.00%
	Microcrystalline Wax	
	Vaseline	4.00%
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	8.00%
B	Glycerine	4.00%
	Water	61.60%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
III Stir II into I. IV Stir until cool.
V At 35C add C to IV.
Formula A VI/2707

SOURCE: Hoechst; Guide Formulations for Cosmetics & Toiletries

W/O-CreamRecipe:

A	Hostacerin WO	10.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Permulgin 3510	3.00%
	Beeswax (and) Vaseline	
	Mineral oil, low viscosity	10.00%
	Eutanol G	5.00%
	Octyldodecanol	
	Walnut oil	4.00%
	Antioxidant	q.s.
B	Allantoin	0.20%
	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	3.00%
	Water	60.05%
	Preservative	q.s.
C	Desaron	5.00%
	Desamido Collagen (and) Hyaluronic Acid	
	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add the components of C to IV.
 Formula A VI/3804

W/O-CreamRecipe:

A	Hostacerin WOL	5.00%
	Polyglyceryl-2 Sesquiosostearate (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Beeswax	1.00%
	Lunacera M	3.00%
	Microcrystalline Wax	
	Vaseline	7.00%
	Mineral oil, high viscosity	7.00%
	Cetiol 868	5.00%
	Octyl Stearate	
B	Water	71.60%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add C to IV.
 Formula A VI/2752

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O-Cream**Recipe:**

A	Hostacerin WO	10.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Permulgin 3510	4.00%
	Beeswax (and) Vaseline	
	Mineral oil, low viscosity	7.00%
	Isopropyl palmitate	7.00%
	Sunflower oil	5.00%
	Almond oil	3.00%
	Wheat germ oil	2.00%
	Antioxidant	q.s.
B	Aquamollin BC pdr.h.c.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	4.00%
	Water	57.25%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add C to IV.
 Formula A VI/2713

W/O-Cream**Recipe:**

A	Hostacerin WOL	5.00%
	Polyglyceryl-2 Sesquiosostearate (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Lunacera M	2.00%
	Microcrystalline Wax	
	Mineral oil, low viscosity	5.00%
	Isopropyl palmitate	5.00%
	Isopropyl isostearate	5.00%
	Perhydroqualene	5.00%
	D-Panthenol	0.50%
B	1,2-Propylenglycol	4.00%
	Magnesium sulfate	0.70%
	Water	66.40%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

- I Melt A at 80C. II Heat B to 80C.
 III Stir II into I. IV Stir until cool.
 V At 35C add C to IV.
 Formula A VI/2750

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O-CreamRecipe:

A	Hostacerin WOL	7.00%
	Polyglyceryl-2 Sesquiisostearate (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Beeswax	3.00%
	Mineral oil, low viscosity	4.00%
	Perhydro squalene	4.00%
	Almond oil	7.00%
	Sunflower oil	4.00%
	Wheat germ oil	1.00%
	Antioxidant	q.s.
B	Aquamollin BC Plv. hochkonz.	0.10%
	Ethylendiamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	3.00%
	Water	66.25%
	Preservative	q.s.
C	Perfume	0.40%
<u>Procedure:</u>		
I	Melt A at 80C.	II Heat B to 80C.
III	Stir II into I.	IV Stir until cool.
V	At 35C add C to IV.	
Formula A VI/2753		

W/O-CreamRecipe:

A	Hostacerin WOL	5.00%
	Polyglyceryl-2 Sesquiisostearate (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Beeswax	1.00%
	Lunacera M	1.00%
	Microcrystalline Wax	
	Mineral oil, low viscosity	8.00%
	Isopropyl palmitate	5.00%
	Cetiol SN	5.00%
	Cetearyl Isononanoate	
B	Glycerine	3.00%
	Water	71.60%
	Preservative	q.s.
C	Perfume	0.40%
<u>Procedure:</u>		
I	Melt A at 80C.	II Heat B to 80C.
III	Stir II into I.	IV Stir until cool.
V	At 35C add C to IV.	
Formula A VI/2751		

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O-CreamRecipe:

A	Hostacerin DGI	4.00%
	Polyglyceryl-2 Sesquiosostearate	
	Lunacera M	4.00%
	Microcrystalline Wax	
	Mineral oil, high viscosity	10.00%
	Cetiol SN	8.00%
	Cetearyl Isononanoate	
B	Gilugel IPP	8.00%
	Isopropyl Palmitate (and) Aluminum/Magnesium Hydroxide Stearate	
C	Water	65.60%
	Preservative	q.s.
D	Perfume	0.40%

Procedure:

I	Melt A at 80C.	II	Stir B into I (Ultra-Turrax).
III	Heat C to 80C.	IV	Stir III into II.
V	Stir until cool.	VI	At 35C add D to V.

Formula A VI/2805

All Round-CreamRecipe:

A	Hostacerin WO	10.00%
	Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Microcrystalline Wax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	10.00%
B	Water	69.60%
	Preservative	q.s.
C	Perfume	0.40%

Procedure:

I	Melt A at 80C.	II	Heat B to 80C.
III	Stir II into I.	IV	Stir until cool.
V	At 35C add C to IV		

Formula A VI/2703

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

W/O Cream with Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Di-(Cholesteryl, behenyl, octyldodecyl)	
N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.00
Cetearyl Octanoate	8.00
C12-15 Alkyl Benzoate	5.00
Phenoxyethanol	0.60
Tocopheryl Acetate	0.05
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate	5.00
Cetyl Dimethicone	2.00
Part C:	
Deionized Water	68.55
Sodium Chloride	0.80
Glycerin (99.5%)	5.00
Partially Deacetylated Chitin (1.0%)/Marine Dew PC-100	2.00
Part D:	
Methylparaben	0.20
Butylene Glycol	0.80

Procedure:

Pre-melt Part A at 50 degrees Centigrade. Add Part B to Part A. Pre-melt Part D by heating to 50 degrees C. Add to Part C. Slowly add Part C and D mixture to Parts A and B with high shear mixing.

Appearance: White, smooth, shiny lotion.

pH: 6.00-6.50

Viscosity: 20,000 cps (RVT #6 @ 10rpm @ 25 degrees C)

Hand Cream

	<u>Wt%</u>
(O) Liquid Paraffin (#70)	10.0
Cetyl Alcohol	5.0
Nikkol WCB	5.0
Isopropyl Myristate	5.0
Glyceryl Monostearate (Self Emulsifying Type)	2.9
Polyoxyethylene (20) Cetyl Ether	2.1
(W) Ajidew N-50	3.0
Water	67.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with stirring.
3. Cool to 40C with stirring.

pH: 5.2

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Section VI
Hair Care Products

Aerosol Finishing Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 200 proof	51.43
D-Panthenol 50P (Panthenol & Propylene Glycol)	1.00
AMP-95	1.47
Fragrance (Sunburst 94F/2197)	0.10
B. Luvimer 100P (Acrylates Copolymer)	6.00
C. Hydrofluorocarbon 152a	40.00
% VOC: 55%	

Procedure:

1. Combine phase A.
2. Sprinkle B into A and mix well.
3. Fill into appropriate containers with propellant.

Packaging:

White Coated Aluminum Can (Peerless Tube Corp.)
 Valve, Concave Kosmos Actuator & Overcap (Precision Valve Corp.)

Formulation PF-0338 suggested by BASF

Shaping Spray
Hair Spray/Spray Gel

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	84.20
Deionized water	7.63
D-Panthenol	0.50
Uvinul M40	0.10
AMP-95	1.47
Fragrance (Peach Floral 92F/3235)	0.10
B. Luvimer 100P (Acrylates Copolymer)	6.00

Procedure:

1. Combine ingredients in phase A in order listed.
2. Add phase B to A under mixing and mix until uniform.

Packaging:

White Coated Aluminum Can (Peerless Tube Corp.)
 AP4 1" Snap-On Pump & Overcap (Precision Valve Canada)

Formulation PF-0339 suggested by BASF

SOURCE: Angus Chemical Co.; Angus Product Formulary

Aerosol Hair Spray
Regular Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	5.00
AMP-95	0.15
SD Alcohol 40	42.50-57.50
Distilled Water	17.35
Plasticizer	q. s.
Fragrance, etc.	q. s.
Propellant (s)	20.00-35.00

Aerosol Hair Spray
Super Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	8.00
AMP-95	0.24
SD Alcohol 40	41.00-56.00
Distilled Water	15.768
Plasticizer	q. s.
Fragrance, etc.	q. s.
Propellant (s)	20.00-35.00

Aerosol Hair Spray
Maximum Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	11.00
AMP-95	0.34
SD Alcohol 40	39.50-54.50
Distilled Water	14.16
Plasticizer	q. s.
Fragrance, etc.	q. s.
Propellant (s)	20.00-35.00
Formulations PF-0264 suggested by ISP	

Aerosol Hair Spray
Regular Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage CP Resin	5.00
AMP-95	0.08
Phenyl Trimethicone	0.15
Ethanol (200P)	59.77
Propellant A-46	35.00
Fragrance	q. s.

Aerosol Hair Spray
Super Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage CP Resin	8.00
AMP-95	0.12
Phenyl Trimethicone	0.15
Ethanol (200P)	56.73
Propellant A-46	35.00
Fragrance	q. s.
Formulation PF-0266 suggested by ISP	
SOURCE: Angus Chemical Co.: Angus Product Formulary	

Aerosol Hair Spray Formulation Containing Water

<u>Ingredients:</u>	<u>% by Weight</u>
Luviflex VBM 35(PVP/Acrylates Copolymer)	6.00
AMP-95 (Aminomethyl Propanol)	0.26
Ethanol, SDA 40	43.74
Distilled Water	20.00
Dymel A (Dimethyl Ether)	30.00

Procedure:

- Combine resin with AMP and ethanol.
- After a clear solution is obtained, slowly add the water.
- Mix well.
- Package and charge with propellant.

Formulation PF-0198 suggested by BASF

Aerosol Hair Spray Formulation Containing Water

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold 8 (Acrylate/Acrylamide Copolymer)	3.00
AMP-95 (Aminomethyl Propanol)	0.25
Ethanol, SDA 40	46.75
Distilled Water	20.00
Dymel A (Dimethyl Ether)	30.00

Procedure:

- Combine resin with AMP and ethanol.
- After a clear solution is obtained, slowly add the water.
- Mix well.
- Package and charge with propellant.

Formulation PF-0199 suggested by BASF

Aerosol Hair Spray Formulation Containing Water

<u>Ingredients:</u>	<u>% by Weight</u>
Luviset CAP (Vinyl Acetate/Crotonic Acid/Vinyl Propionate Copolymer)	3.00
AMP-95 (Aminomethyl Propanol)	0.28
Ethanol, SDA 40	46.72
Distilled Water	20.00
Dymel A (Dimethyl Ether)	30.00

Procedure:

- Combine resin with AMP and ethanol.
- After a clear solution is obtained, slowly add the water.
- Mix well.
- Package and charge with propellant.

Formulation PF-0200 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Aerosol Hairspray "100% VOC"-CMB Horizon System

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol	91.67
AMP Regular	0.11
Advantage CP	8.00
Dimethicone Copolyol	0.10
Perfume, Kristine K/19718	0.12

Procedure:

Dissolve AMP neutralizer in ethanol. Add Advantage CP with stirring until uniform. Add remaining ingredients in order listed, mixing thoroughly after each addition. Charge into aerosol containers and pressurize using compressed gas (e.g. nitrogen) to 8 to 9 bar pressure.

Note: Containers should be checked for corrosion resistance to the product.

Formulation PF-0245E suggested by ISP

Aerosol Hairspray, Hydrocarbon Propellant

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol	60.82
AMP Regular	0.06
Advantage CP	4.00
Perfume, Kristine K/19718	0.12
Propane/butane	35.00

Procedure:

Dissolve AMP neutralizer in ethanol. Add Advantage CP with stirring until uniform. Add remaining ingredients in order listed, mixing thoroughly after each addition. Charge into aerosol containers and pressurize with propellant.

Formulation PF-0246E suggested by ISP

Aerosol Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol	71.74
Water, Deionized	20.00
AMP Regular	0.16
Advantage CP	8.00
Dimethicone polyol	0.10
Sufadone LP-300	0.10
Perfume	q.s.

Procedure:

This hairspray uses the compressed gas-CMB Horizon system and meets the 80% VOC requirement. Dissolve AMP Regular in ethanol and water. Add Advantage with stirring, until uniform. Add remaining ingredients with stirring until uniform. Charge into aluminum containers and pressurize with nitrogen.

Formulation PF-0239E suggested by ISP

SOURCE: Angus Chemical Corp.: Angus Product Formulary

Aerosol Spray

Normal hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	2.00
AMP Regular	0.25
Ethanol abs.	37.75
n-Pentane	20.00
DME	40.00
Perfume oil	q.s.

Procedure:

Place ethanol, AMP Regular and perfume oil in the stirrer vessel, add Ultrahold Strong. Stir until dissolved. Fill into containers.

Cloud point: Still clear at -35C

Pressure: 2.6 bar

Density: 0.6960

Formulation PF-0328 suggested by BASF

Aerosol Spray

Strong hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	3.00
AMP Regular	0.35
Luvisko1 VA 37 E	6.00
Ethanol abs.	50.65
DME	40.00
Perfume oil	q.s.

Procedure:

Place ethanol, Luvisko1 VA 37 E, AMP Regular and perfume oil in the stirrer vessel, add Ultrahold Strong and stir until dissolved. Fill into containers.

Cloud point: Still clear at -35C

Pressure: 2.8 bar

Density: 0.7520

Formulation PF-0329 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Aerosol Spray

Strong hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	4.00
AMP Regular	0.50
Ethanol abs.	40.50
Pentane	15.00
DME	40.00
Perfume oil	q.s.

Procedure:

Place ethanol, AMP Regular and perfume oil in the mixing vessel. Add Ultrahold Strong and stir until dissolved, then fill into containers.

Cloud point: Still clear at -35C

Pressure: 2.6 bar

Density: 0.7088

Formulation PF-0330 suggested by BASF

Aerosol Spray

Very strong hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	6.00
AMP Regular	0.75
Ethanol abs.	43.25
Propane/butane	50.00
Perfume oil	q.s.

Procedure:

Place ethanol, AMP Regular and perfume oil in the mixing vessel, add Ultrahold Strong and stir until dissolved, then fill into containers.

Cloud point: Still clear at -35C

Pressure: 4.0 bar

Density: 0.6640

Formulation PF-0331 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Alcohol-Free Aerosol Hair Spray

<u>Ingredients</u>	<u>% by Weight</u>
Lovocryl 47	8.00
AMP-95	1.38
Deionized Water	57.62
Dimethyl Ether	33.00
Fragrance	q.s.
Preservative	q.s.

Cloud Point: -15C

Procedure:

Dissolve AMP-95 in water. While maintaining good agitation, slowly sift in Lovocryl 47. Mix until dissolved. Filter and fill, then charge with propellant.

Valve:

Seaquist Valve:	NS-34
Stem:	0.013"
Gasket:	Butyl 0.042" THK. Code: 501
Spring:	0.020" SS
Body:	Capillary
Cup:	Regular, Epoxy Top, Laminate Bottom, Dimpled, Code: 1610
Vapor Tap:	0.013"
Dip Tube:	0.040"
Actuator:	Excell 200 Misty 0.018 Misty

Formula PF-0268 suggested by National Starch & Chemical Co.

Shine and Hold Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Amphomer	5.00
AMP Regular	0.82
Phenyl Trimethicone	5.00
Triethyl Citrate	0.10
Anhydrous Ethanol, SDA-40	89.08

Procedure:

Dissolve AMP in anhydrous ethanol, SDA-40. While maintaining good agitation, sift in Amphomer. When solution is complete, add Phenyl Trimethicone and Triethyl Citrate. Mix until homogeneous. Filter and fill.

Formulation PF-0269 suggested by National Starch & Chemical Co.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Alcohol-Free Aerosol Hair Spray

<u>Ingredients/CTFA Designations:</u>	<u>% by Weight</u>
Amphomer LV-71/Octylacrylamide/Acrylates/Butylaminoethyl Methacrylate Copolymer	5.00
AMP-95/Aminomethyl Propanol	0.96
Burst RSD-10/Dimethicone Silylate	0.50
Deionized Water	60.54
DME/Dimethyl Ether	33.00
Preservative	q.s.

Valve:

Seaquist Valve:	NS-34
Stem:	0.013"
Stem Gasket:	Butyl, 0.042" THK. Code: 500
Spring:	SS 0.020"
Body:	Capillary
	Alum. C.C. AN.RG., Epoxy Top, Epoxy Bottom, Buna
Dip Tube:	0.040"
Vapor Tap:	0.013"
Actuator:	Excell 200 - 0.016" Misty

Can: Advanced Monobloc Corp.

Procedure:

Disperse Burst in water. Dissolve AMP in solution. When complete, slowly sift in Amphomer LV-71 to the solution, while maintaining good agitation. Filter and fill concentrate. Charge cans with propellant.

Formulation PF-0258 suggested by National Starch & Chemical Co.

80% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol (190 Proof)	79.63
Water	3.96
Gantrez XL-80 (PVM/MA Decadiene Crosspolymer)	5.70
AMP-95	0.41
Gantrez V-425 (Butyl Ester of PVM/MA Copolymer)	10.00
Phenyl Trimethicone	0.10
Fragrance	0.20

Procedure:

1. Add ethanol and water to main tank. Start mixing and add Gantrez XL-80. Mix until completely blended.
2. Add AMP-95 and mix until blended.
3. Add Gantrez V-425 and then additional ingredients while mixing completely after each addition.

Formulation PF-0257 suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

Alcohol-Free Styling Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized water	93.03
Octylacrylamide (and) acrylates (and) butylamino-ethyl methacrylate copolymer (Amphomer)	3.50
AMP-95	0.62
Part B:	
Propylene glycol	0.50
Cocamidopropyl PG-dimonium chloride (Monaquat P-TC)	0.40
Cocamidopropyl betaine (Varion CADG)	0.25
Lauramide DEA (Monamid 716)	0.20
Polysorbate 20	0.15
Quaternium-15	0.10
Part C:	
Hydroxyethylcellulose (Natrosol-250 HHX)	1.25
Fragrance	q.s.

Procedure:

Combine A. When complete, add B. When homogenous slowly sift in C with good agitation.
Formulation PF-0253 suggested by National Starch and Chemical

Hair Setting Gel

Setting gel contains conditioning active ingredients for normal to dry hair.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Ethanol, 96% denatured	15.00
PVP/VA copolymer (PVP/VA E-735)	4.00
Cetrimonium chloride (Dehyquart A)	0.50
Part B:	
Water	77.70
Carbomer 940 (Carbopol 940)	0.60
Color	0.20
AMP-95	0.30
Part C:	
Trideceth-9 (and) PEG-5 octanoate (NEO-PCL Water Soluble)	1.00
Trideceth-9 (and) PEG-40 Hydrogenated castor oil	0.50
Fragrance	0.20

Procedure:

Swell carbomer in water using an Ultraturrax stirrer. Blend A and C separately. Add A to C. Add AC to B using an Ultraturrax stirrer. Adjust pH to 6.2.
Formulation PF-0254 suggested by Dragoco

SOURCE: Angus Chemical Co.: Angus Product Formulary

Alcohol-Free Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Octylacrylamide/acrylates/butylaminoethyl methacrylate (Amphomer)	2.50
AMP-95	0.40
Amodimethicone (and) nonoxynol 10 (and) tallowtrimonium chloride	0.40
Octoxynol-9 (Triton Z-100)	0.30
Cocamidopropyl betaine (Varion CADG)	0.10
Quaternium-15	0.10
Deionized Water	48.90
Fragrance	q.s.
Part B:	
Hydroxyethyl cellulose (Natrosol 250 HHR)	0.30
Deionized Water	37.00
Part C:	
Isobutane/propane	10.00

Procedure:

Prepare A and B. When solutions are complete, add A to B; mix until homogeneous. Filter and fill concentrate. Charge with C

Formulation PF-0181 suggested by National Starch

Setting Lotion

Extra-strong hold, for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	4.00
AMP-95	0.60
Ethanol, abs.	20.00
Water, distilled	75.40
Perfume oil	q.s.

Procedure:

Place ethanol, AMP-95, water and perfume oil in the mixing vessel, add Ultrahold Strong, stir until dissolved, then fill into containers.

Formulation PF-0336 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Aqua-Vital Moisturizing Spray (Pump Type)

	<u>%W/W</u>
A. Deionized Water	84.20
Cel-quat L200 (Polyquaternium-4)	0.20
Gel-Co (Gelatin)	1.00
Methylparaben	0.20
B. Propylene Glycol	6.00
Glycerin	1.00
Cationic Collagen Polypeptides	0.50
Aqua-Tein C (Collagen Amino Acids and Acetamide MEA)	2.00
Dowicil 200 (Quaternium-15)	0.20
Citric Acid, dry	0.40
Quat-Pro S (Steartrimonium Hydrolyzed Animal Protein)	0.20
C. Isopropyl Alcohol	4.00
Fragrance	0.10

Procedure:

Warm Phase A to bring all ingredients into solution. Add Phase B to Phase A. Pre-mix Phase C and add to Phase A/B at a temperature below 40C.

Properties:

A pump-type spray which moisturizes and protects the hair. Quats allow for easier combing. High molecular weight proteins impart a smooth, protective outer layer while the Amino Acids work from within. For best results, use a pump which delivers a fine mist.

Formula #HE-1607

Every Day Wave Gel Activator

	<u>%W/W</u>
Deionized Water	36.55
Carbopol 940 - 2% Aqueous Sol'n	25.00
Glycerin	20.00
Proto-Lan 30 (Propylene Glycol and PPG-12-PEG-65 Lanolin Oil and Hydrolyzed Collagen)	3.00
Dow Corning 193 Surfactant (Dimethicone Copolyol)	2.50
Panthenol	0.10
Propylene Glycol	10.00
DMDM Hydantoin	0.30
Solulan 98 (Polysorbate 80 and Cetyl Acetate and Acetylated Lanolin Alcohol)	2.00
Triethanolamine (TEA)	0.55

Procedure:

Mix all ingredients together except the TEA. Add TEA and mix carefully to avoid aeration.

Properties:

Softens and moisturizes to help return hair to a loose curl. The silicone serves to lubricate, add gloss and to "de-tack" the humectants. Good all-around formula for daily use.

Formula #HE-1608

SOURCE: Maybrook Inc.: Suggested Formulations

Birch Hair Tonic

	<u>%W/W</u>
Cetiol HE	2.0
Ethyl/isopropyl alcohol	30.0
Extrapon birch spec.	1.0
Perfume oil, water-soluble	1.0
Water	66.0
Formula No. WA51-01	

Hair Tonic, Oily

	<u>%W/W</u>
Cetiol HE	3.0
Dehyquart SP	0.4
Isopropyl alcohol	20.0
Eumulgin L	0.7
Water	75.9
Formula No. WA51-02	

Hair Tonic, Fat-Free

	<u>%W/W</u>
Dehyquart A	0.4
Isopropyl alcohol	20.0
Eumulgin L	1.0
Water	78.6
Formula No. WA51-03	

Hair Tonic, Fat-Free

	<u>%W/W</u>
Dehyquart SP	0.4
Isopropyl alcohol	20.0
Eumulgin L	0.7
Water	78.9
Formula No. WA51-04	

Hair Tonic for Greasy Hair

	<u>%W/W</u>
Ethanol 96%	30.0
Luviskol K30	0.5
1,2-propylene glycol	4.0
Lamacit ER	1.0
Nutrilan I	0.5
Lamepon PA-TR	1.0
Perfume	0.5
Water	62.5
Formula No. WA51-05	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bleaching Cream

	<u>%W/W</u>
I Emulgade F	30.0
Cetiol V or Eutanol G	5.0
II Water	57.0
III Ammonia 25%	8.0

Note: If used at a ratio of 1:1, the cream is mixed with diluted hydrogen peroxide and carbamide peroxide tablets dissolved in water. The hydrogen peroxide concentration can be between 3 and 10%. The German cosmetics legislation limits the use of ammonia to a maximum permissible concentration of 6% (calculated as NH₃) and requires a declaration for concentrations from 2% upwards. The NH₃ content of this formulation is 2%.

Formula No. UD11-01

Bleaching Emulsion

	<u>%W/W</u>
I Emulgade F	2.0
Cetiol V or Eutanol G	2.5
Wool fat, anhydrous	1.5
II Water	90.0
III Ammonia 25%	4.0

Note: The emulsion is stirred with concentrated hydrogen peroxide or carbamide peroxide tablets without the addition of water and so used.

The German cosmetics legislation limits the use of ammonia to a maximum permissible concentration of 6% (calculated as NH₃) and requires a declaration for concentrations from 2% upwards.

The NH₃ content of this formulation is 1.0%.

Formula No. UD21-01

Bleaching Oil, Gelatinizing

	<u>%W/W</u>
I Comperlan KD	39.0
Comperlan OD	35.0
Comperlan 100	5.0
Emulgade F spec.	5.0
II Isopropyl alcohol	10.0
III Ammonia 25%	6.0

Note: When used, the lotion is mixed with hydrogen peroxide (any percentage) at a ratio of 2:3. A transparent gel is obtained.

The German cosmetics legislation limits the use of ammonia to a maximum permissible concentration of 6% (calculated as NH₃) and requires a declaration for concentrations from 2% upwards.

The NH₃ content of this formulation is 1.5%.

Formula No. UD31-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Blow Drying Lotion

	<u>%W/W</u>
Dehyquart SP	0.6
Ethyl/isopropyl alcohol	60.0
Water	39.4
Formula No. WD51-01	

Blow Drying Lotion

	<u>%W/W</u>
Dehyquart SP	0.6
Nasuna B *)	1.5
Ethyl/isopropyl alcohol	50.0
Water	47.9
Formula No. WD51-03	

Blow Drying Lotion

	<u>%W/W</u>
Dehyquart LT	0.4
Cetiol HE	1.5
Ethyl/isopropyl alcohol	50.0
Water	48.1
Formula No. WD51-05	

Blow Drying Lotion

	<u>%W/W</u>
Gafquat 734	2.0
Dehyquart SP	0.3
Eumulgin RO 40	0.2
Ethyl/isopropyl alcohol	47.5
Water	50.0
Formula No. WD51-08	

Blow Drying Lotion, Clear

	<u>%W/W</u>
Dehyquart A	0.4
Nasuna B *)	1.0
Eumulgin L	0.6
Isopropyl alcohol	20.0
Water	78.0
Formula No. WD51-10	

Blow Drying Solution, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	2.0
Ethyl/isopropyl alcohol	30.0
Dehyquart SP	0.3
Water	67.7
Note: Filling: 40 parts solution	
60 parts propellant 12/114 (40:60)	
Formula No. WD71-01	

Note: *) The Nasuna types are not for sale in West Germany.
Various PVP/VA types on the market can be referred to.

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Bodifying Sculpting Lotion

This clear formula combines good holding power with conditioning, producing a bodyfying sculpting lotion which provides easy stylability. Hair acquires more body and a softer, silkier feel from the unique combination of bodyfying and styling properties which Crodacel QM imparts to this lotion - an effect of covalently bonding a fatty quaternary group to a cellulose backbone. Super Solan Flaked is used to plasticize the resin.

<u>Ingredients:</u>	<u>% by Weight</u>
A. SDA-40 Alcohol	40.00
Amphomer 28-4910	1.00
Super Solan Flaked	0.50
B. Crodacel QM	1.00
AMP-95	0.16
Deionized water	57.34

Procedure:

Dust the copolymer of Part A into the alcohol, mixing well until clear and then add Super Solan Flaked with mixing. Combine the ingredients of Part B with mixing and add to Part A, mixing until clear.

Formulation PF-0322 suggested by Croda Inc.

55% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	6.80
Ethanol	80.00
AMP-95	0.56
Acudyne 255 (41% solids)	12.50
Dow Corning 190 Fluid	0.10

Procedure:

Mix water, ethanol, AMP-95 and plasticizer. Add polymer with stirring. Mix until solution is clear.

Properties:

Cloud Point: <-22F

Viscosity: 5 cps, spindle #1 @ 60 rpm

Formulation PF-0317 suggested by Rohm and Haas

SOURCE: Angus Chemical Co.: Angus Product Formulary

Brushing Gel

	<u>Wt%</u>
A. Amihope LL	0.5
POE (20) Sorbitan Monolaurate	0.5
POE (20) Sorbitan Monostearate	0.5
POE (25) Glyceryl Monopyroglutamate Monoisostearate	1.0
Propylene Glycol	2.0
Grape Seed Oil	0.5
B. Carboxyvinylpolymer (Carbopol 940) (1.0% wt% solution)	50.0
Deionized Water	balance
Preservatives	0.2
C. 10% wt. NaOH Solution	2.0

Procedure:

1. Weigh each ingredients (A) in glass vessel and mix.
2. Add (B) to the former mixture and heat to 70-80C with stirring.
3. After dissolution, cool down to room temperature. Then add (C) to the mixed solution and it turns to gel state.

Note:

This brushing gel reduces an electrostatic charge produced by combing and leads to smooth combing.

Hair Rinse

	<u>Wt%</u>
A. Cetanol	3.0
Amiter LGOD-2	5.0
Glyceryl Monostearate, Self Emulsifying (HLB 11)	2.0
Amihope LL	3.0
B. 1,3-Butylene Glycol	5.0
Stearyltrimethyl Ammonium Chloride	3.0
Methylparaben	0.2
Water	the rest

Procedure:

1. Dissolve (A) at 80C.
2. Dissolve (B) at 80C.
3. Add (B) to (A).
4. Mix them with a homomixer, and cool to 30C.

Note:

This creamy hair rinse has light finishing touch.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Brushing Lotion

	<u>Wt%</u>
A. Amihope LL	0.5
POE (20) Sorbitan Monolaurate	1.5
POE (25) Glyceryl Monopyroglutamate Monoisostearate	1.0
Propylene Glycol	2.0
B. Stearyl Alcohol	0.5
Carboxyvinylpolymer (Carbopol 941)	15.0
(0.5 wt% solution; neutralized by NaOH)	
Deionized Water	balance
Preservatives	0.2
C. ProdeW 100	0.2
Ethanol	5.0

Procedure:

1. Weigh each ingredient (A) in glass vessel and mix.
2. Add (B) to the former mixture and heat to 70-80C with stirring.
3. After dissolution, cool down to 50C. Then add (C) to the mixed solution.
4. With stirring, cool down to room temperature.

Note:

This brushing lotion reduces an electrostatic charge produced by combing and leads a smooth combing.

Hair Brushing Lotion

	<u>Wt%</u>
Amihope LL	1.0
POE (20) Sorbitan Monolaurate (Polysorbate 20)	1.0
Water	50.0
Ethanol	48.0

Procedure:

Mix all components at room temperature.

Note:

This hair brushing lotion has good antistatic effect and smoothness for the hair.

Amihope LL acts as hair conditioning agent instead of the cationic surfactant.

Usage:

Spray the hair before brushing.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Cationic Thermal Styling Mousse
(Nonaerosol - For Foamers)

	<u>%W/W</u>
A. Supro-Tein V (Tea-Cocoyl Hydrolyzed Collagen (and Sorbitol))	3.00
Kera-Tein 1000 AS (Ethyl Ester of Hydrolyzed Keratin)	3.00
Ameroxol OE-20 (Oleth-20)	0.25
Dimethicone Copolyol	0.25
Polyox WSR N-3000 (2% Aq. Soln.) (PEG-14M)	1.50
Cocoamphocarboxypropionate	1.00
Deionized Water	82.00
B. Amersette (Methacrylol Ethyl Betaine/Methacrylates Copolymer)	1.00
SD Alcohol 40, Anhydrous	8.00
Fragrance, Preservatives	q.s.

Procedure:

1. Heat the water in Phase A to 65C. Add the rest of Phase A to the water and mix until dissolved.
2. Dissolve the Amersette in the Alcohol at room temperature.
3. Slowly add Phase B to Phase A. Mix until homogeneous.

Properties:

This nonaerosol styling mousse utilizes Amersette and Kera-Tein 1000 AS as styling agents for long-lasting hold properties. The Kera-Tein 1000 AS, a substantive cationic protein, also adds a natural shine and protective properties.

Supro-Tein V enhances the quality of the mousse foam while conditioning the hair. Polyox WSR N-3000 enhances combing and shine characteristics.

Formula #HF-1406

Firm Hold Cationic Hair Spray

	<u>%W/W</u>
Alcohol SD-40A	75.00
Gantrez ES-225 (Ethyl Ester of PVM/MA Copolymer)	10.00
Dow Corning 190 Polyether (Dimethicone Copolyol)	0.10
Fragrance	0.10
Aminomethyl Propanol-95	0.18
Water	13.62
Pro-Tein ES-20 (Ethyl Ester of Hydrolyzed Collagen)	1.00

Procedure:

1. Add alcohol to mixing vessel.
2. Add the Gantrez to the Alcohol. Mix until dissolved.
3. Add the rest of the ingredients in the order listed, one at a time and mixing in between additions.

Properties:

An excellent hair spray for hard-to-hold hair. The Pro-Tein ES-20 and DC-190 plasticize the resin and improve shine and combing ability. Pro-Tein ES-20 is a cationic, substantive protein which gives the hair a natural look and feel.

Formula #HF-1400

SOURCE: Maybrook Inc.: Suggested Formulations

Cold Wave Cream

	<u>%W/W</u>
I Lanette O	16.00
Eumulgin 05	2.50
Eumulgin 010	2.50
Cetiol V or Eutanol G	5.00
II Water	42.55
Turpinal SL	0.20
III Ammonia 25%	18.75
IV Thioglycolic acid 80%	12.50

Note: The German cosmetics legislation limits the thioglycolic acid content in products for personal use to 8% and in products for commercial use to 11%. The pH must not exceed 9.5.

The pH of this formula is 7.5-9.5.

Because of the thioglycolic acid content in the formulas UA 11-01, -02 and UA 21-01 of approx. 10%, these cold wave preparations are only permissible for commercial use.

Preparation (valid for all cold wave emulsions): The fatty substances are melted at 70-80C. The water is also heated to 70-80C and stirred into the fat melt. The mixture is cooled to approx. 30C whilst stirring and the emulsion forms. Ammonia is carefully stirred in and then slowly neutralized with thioglycolic acid while being cooled.

Due to the risk of discoloration, contact with metal should be avoided.

Formula No. UA11-01

Hair Straightening Cream

	<u>%W/W</u>
I Lanette O	14.0
Eumulgin 05	2.0
Eumulgin 010	2.0
Comperlan KD	2.0
Cetiol V	2.0
II Turpinal SL	0.2
Borax	0.5
Water	47.9
III Ammonia (25%)	18.9
IV Thioglycolic Acid (95%)	10.5

Preparation: All the ingredients of I are weighed and melted at approx. 80C. The water, in which Turpinal SL and Borax have been dissolved, is also heated to 80-90C and stirred into the fat melt which is kept at 80-90C in a water bath. The mixture is then cooled to approx. 30C at which stage the emulsion is formed. Ammonia is carefully added while stirring and finally the thioglycolic acid is added while the mixture is being cooled and stirred.

The hair straightening cream has a pH of between 9 and 9.3.

Formula No. UA11-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cold Wave Cream

	<u>%W/W</u>
I Lanette O	16.00
Eumulgin O5	2.50
Eumulgin O10	2.50
II Water	52.77
Turpinal SL	0.20
III Ammonia (25%)	15.50
IV Thioglycolic acid (95%)	10.53

Note: Cold wave cream for professional use.

Preparation: Melt I at 70-80C. Heat II to 70-80C and stir into I. Keep stirring until the mixture is cooled to under 30C (emulsification). Add thioglycolic acid, neutralize with ammonia/monoethanolamine while stirring and cooling, setting pH to 9.2.

Formula No. UA11-03

Cold Wave Emulsion

	<u>%W/W</u>
I Emulgade 1000 NI	5.00
II Water	68.77
Turpinal SL	0.20
III Ammonia (25%)	15.50
IV Thioglycolic acid (95%)	10.53

Preparation: Melt I at 70-80C. Heat II to 70-80C and stir into I. Keep stirring until the mixture is cooled to under 30C (emulsification). Add thioglycolic acid, neutralize with ammonia/monoethanolamine while stirring and cooling, setting pH to 9.2.

Note: Cold wave emulsion for professional use.

Formula No. UA21-01

Cold Wave Emulsion

	<u>%W/W</u>
I Emulgade 1000 NI	5.00
II Water	76.75
Turpinal SL	0.20
III Monoethanolamine (to pH 7)	4.90
Diisopropanolamine (to pH 9.2)	5.25
IV Thioglycolic acid (95%)	7.90

Preparation: Melt I at 70-80C. Heat II to 70-80C and stir into I. Keep stirring until the mixture is cooled to under 30C (emulsification). Add thioglycolic acid, neutralize with ammonia/monoethanolamine while stirring and cooling, setting pH to 9.2.

Note: Cold wave emulsion for general use.

Formula No. UA21-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cold Wave Emulsion, Foaming

	%W/W
I Emulgade 1000 NI	2.0
Texapon MLS	2.0
II Water	76.6
Turpinal SL	0.2
III Ammonia (25%)	11.3
IV Thioglycolic acid (95%)	7.9

Note: Thioglycolic acid content approx. 7.5%. Cold wave emulsion for general use.

Preparation: Melt I at 70-80C. Heat II to 70-80C and stir into I. Keep stirring until the mixture is cooled to under 30C (emulsification). Add thioglycolic acid, neutralize with ammonia/monoethanolamine while stirring and cooling, setting pH to 9.2.

Formula No. UA21-04

Cold Wave Solution, Foaming, Clear

	%W/W
I Texapon MLS	3.0
Dehydol 100DEO	0.5
II Water	79.2
Turpinal SL	0.2
III Thioglycolic acid 95%	7.9
IV Monoethanolamine	9.2

Note: Thioglycolic acid content approx. 7.5%. Cold wave for general use.

Preparation: II is added to I, then thioglycolic acid is added. While stirring and cooling, neutralize with monoethanolamine, setting pH to 9.2.

Formula No. UA61-01

Cold Wave Solution, Clear, Foaming

	%W/W
I Texapon MLS	3.0
Dehydol 100 DEO	0.5
II Viscontran HEC 30 000 PR (29% aqueous solution)	10.0
III Water	69.2
Turpinal SL	0.2
IV Thioglycolic acid 95%	7.9
V Monoethanolamine	9.2

Note: Thioglycolic acid content 7.5%. Cold wave solution for general use.

Preparation: I is added to III then II is stirred in. Add thioglycolic acid and while stirring and cooling neutralize with monoethanolamine, setting pH to 9.2.

Formula No. UA61-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cold Wave Fixative, Foaming

	<u>%W/W</u>
I Emulgade F	5.0
Water	40.0
II Sodium bromate	10.0
Water	40.0
III Texapon N40	5.0

Note: When using the formula, dilute 1:1 with water.

Preparation: Melt Emulgade F. Stir in the water heated to 80C.

After cooling, add phase II as a solution, then stir in Texapon N40.

Formula No. UB21-01

Cold Wave Fixative, Foaming, In Emulsion Form

	<u>%W/W</u>
I Emulgade F spec.	1.0
II Water	82.6
Citric acid	1.2
Turpinal SL	0.2
III Texapon N25/N40	5.0
IV Hydrogen peroxide 30%	10.0

Set pH to approx. 4.5 with citric acid or Turpinal SL.

Note: When using the formula, dilute 1:1 with water.

Preparation: Melt Emulgade F. Stir in the hot water in which the citric acid was dissolved. After cooling, add first Texapon N25 and then H2O2.

German cosmetics legislation limits the H2O2 content to 12% and requires the declaration "Contains 3% H2O2".

Formula No. UD21-03

Cold Wave Fixative in Emulsion Form

	<u>%W/W</u>
I Emulgade F spec.	5.0
Eumulgin B1	0.5
II Dehyquart A	5.0
Water	81.3
Turpinal SL	0.2
III Hydrogen peroxide (30%)	8.0

Preparation: Melt phase I, stir phase II (approx. 80C) into phase I. Allow to cool, stirring continuously, then add phase III.

Formula No. UB21-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cold Wave Fixative, Foaming

	<u>%W/W</u>
Texapon N40	15.0
Citric acid	0.5
Water	79.0
Hydrogen peroxide 30%	5.0
Sodium pyrophosphate, acidic	0.5
Note: Use in undiluted form.	
Declaration: "Contains 1.5% H2O2"	

Cold Wave Fixative with Bromate

	<u>%W/W</u>
Olamine K	10.0
Sodium bromate	5.0
Potassium bromate	2.0
Lamesoft 156	2.0
Water	78.7
Carbopol 940	1.0
Triethanolamine	1.3
Preparation: Stir together Olamine K with sodium bromate, potassium and Lamesoft 156 until the sodium bromate and potassium bromate fully dissolved. Then disperse Carbopol 940 (sprinkle in through a sieve), stirring well and neutralize with triethanolamine (pH 7).	
Formula No. U61-03	

Cold Wave Fixative, Foam, Aerosol-Packed

	<u>%W/W</u>
Texapon A	15.0
Water	81.0
Potassium bromate	4.0
Note: Desired pH: 4.0-4.5	
Filling: 92 parts product	
8 parts propellant 12:114 (40:60)	
Special spray nozzle necessary.	
Formula No. UB71-01	

Base for Hair Dye Creams

	<u>%W/W</u>
I Lanette N or SX, Emulgade F or F spec.	15.0
Cetiol V or Eutanol G, paraffin oil or vegetable oil	10.0
Beeswax or Cutina CP, wool fat or wool fat alcohols, refined	5.0
II Water	70.0
Formula No. UC 11-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Conditioner

White, high viscosity

Material/CTFA-Index:

Tylose H 4000 P/Hydroxyethylcellulose	1.80%
Water	91.20
Cetyl Alcohol	2.00
Belsil ADM 6057 E/Amodimethicone (and) Tallowtrimonium Chloride (and) Nonoxyno1-10	5.00
Preservatives, fragrances	q.s.

Mix Tylose H 4000 P into the water and whilst stirring bring to a temperature of 70C. Melt the cetyl alcohol and stir into the clear Tylose slime. Cool and add Belsil ADM 6057 E.

Temperature stability: at 45C over 10 weeks.

Formulation 231 AH

Conditioner

Creamy, easy to comb, reduces drying time.

Material/CTFA-Index:

Belsil CM 040/Cyclomethicone	5.00%
Lamecreme KSM/Glyceryl Stearate se	3.00
Cetyl Alcohol	1.00
Water	91.00
Preservatives, fragrances	q.s.

Heat Lamecreme KSM and the cetyl alcohol to 70C, work in the water stirring well. Leave to cool somewhat, mix in Belsil CM 040.

Temperature stability: at 45C over 10 weeks.

Formulation 311 AH

Conditioner

Slightly cloudy, high viscosity.

Material/CTFA-Index:

A: Water	94.50%
Tylose H 4000 P/Hydroxyethylcellulose	1.00
B: Belsil DMC 6035/Methicone Copolyol Acetate	2.00
Belsil ADM 6042 E/Amodimethicone (and) Emulsifier	2.50
Preservatives, fragrances, pigments	q.s.

Mix A well, mix in B.

Formulation 550 AH

SOURCE: Wacker Silicone: Suggested Formulations

Conditioner

Creamy soft. Produces a good shine and makes hair easy to comb

Material/CTFA-Index:

Water	90.30%
Ethylenglykol/Glycol	3.20
Lanette N/Cetearyl Alcohol (and) Sodium Cetearyl Sulfate	3.50
Belsil ADM 6056 E/Dimethicone (and) Amodimethicone (and) Nonoxynol-4 (and) Nonoxynol-14	2.50
Belsil DM 100000/Dimethicone	0.50
Preservatives, Fragrances	q.s.

Heat the glycol to 70C, dissolve Lanette N in it. Stir in 70C hot water, mix in Belsil ADM 6056 E and Belsil DM 100 000.
Formulation 577 AH

Hair Gel

Translucent gel. Good hold, wet look.

Material/CTFA-Index:

Water	59.50%
Carbopol 934/Carbomer 934	0.50
Triethanolamine	1.20
Glycerine	34.20
Propylene Glycol	2.00
Belsil DMC 6035/Methicone Copolyol Acetate	2.30
Preservatives, fragrances	q.s.

Mix the Carbomer 934 well into the water. Mix in the others homogeneously.

Temperature stability: at 45C over 10 weeks.

Formulation 353 AH

Hair Fixative

For dry hair with slight hold.

Material/CTFA-Index:

Luviskol VA 64/PVP/VA Copolymer	1.50%
Ethanol/Alcohol	30.00
Water	65.00
Genamin CTAC/Cetrimoniumchlorid	0.10
Propylene Glycol	0.30
Wacker-Belsil DMC 6031/Dimethicone Copolyol	1.00
Preservative, Fragrances, Pigments	q.s.

Dissolve Luviskol VA 64 in Alcohol then add the remaining ingredients.

Formulation 819 AH

SOURCE: Wacker Silicone: Suggested Formulations

Conditioner

<u>A</u>	Deionized Water	79.39%
	PVP (PVP K-30)	0.50
	Cetylpyridinium Chloride	1.00
	Pecosil SWPQ-40 (Hydrolyzed Wheat Protein/ DCP Copolymer, Quaternary)	2.00
<u>B</u>	Methylparaben	0.25
	Propylene Glycol	5.00
	Disodium EDTA	0.10
<u>C</u>	Cetyl Alcohol	1.25
	Stearyl Alcohol	1.25
	Lanolin	0.50
	Mineral Oil (Kaydol)	7.75
	Propylparaben	0.15
	Meadowfoam Seed Oil	0.50
<u>D</u>	Tocopheryl Acetate	0.01
	DMDM Hydantoin	0.35

Procedure:

Add PVP K-30 to phase A water, propeller mix until uniform. Add Cetylpyridinium Chloride and Pecosil SWP-83 to the rest of phase A and propeller agitate until uniform. Heat phase A to 72C and then add phase B to phase A. Heat phase C to 75C. When both phase AB and phase C are uniform and at temperature, add phase C to phase AB with propeller agitation. Cool ABC to 50C while continuing propeller agitation. Then add phase D to ABC, continue agitation while cooling ABCD to 35C.
Formula 14-60-A

Styling Gel

<u>A</u>	Deionized Water	50.00%
	Carbomer 940	0.50
	Triethanolamine (99%)	0.63
<u>B</u>	Deionized Water	42.97
	PVP (PVP K-30)	1.00
	Polyquaternium-11 (Gafquat 755)	4.00
	Pecosil SWP-83 (Hydrolyzed Wheat Protein/Dimethicone Copolyol Phosphate Copolymer)	0.50
	Panthenol	0.25
	Quaternium-15	0.10
	DMDM Hydantoin	0.05

Procedure:

Disperse Carbomer in phase A water with adequate agitation. When Carbomer is uniformly dispersed, add Triethanolamine under slow sweep agitation. With adequate agitation, add PVP to phase B water. When PVP is completely dissolved, Add remaining phase B items. When phase B is uniform, add phase B to phase A under slow sweep agitation.
Formula 14-61-A

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Conditioning Protein Hair Gel

<u>Ingredients:</u>	<u>Weight%</u>	<u>Function</u>
Deionized Water	98.0	Diluent
Carbopol 940	0.5	Gelling Agent
Triethanolamine	0.5	Neutralizer
Soluble Keratin	0.5	Protein
DMDM Hydantoin	0.3	Preservative
Benzophenone 4	0.1	UV Stabilizer
Fragrance	q.s.	
Color	q.s.	

Procedure:

1. Slowly sift Carbopol 940 resin into rapidly deionized water.
2. Reduce the agitation with sweep blade. Add triethanolamine, keratin, preservative, benzophenone, and EDTA. Mix until homogeneous.

Formula C0028

Hair Setting Gel

<u>Ingredients</u>	<u>Weight%</u>	<u>Function</u>
Carbopol 940	0.6	Gelling Agent
Water (Deionized)	80.0	Diluent
PVP/VA Copolymer	1.0	Hair Setting Resin
Triethanolamine (99%)	1.4	Neutralizing Agent
Water (Deionized)	16.1	Diluent
DMDM Hydantoin	0.3	Preservative
Disodium EDTA	0.1	Chelating Agent
Oleth-20	0.5	Lubricant/Fragrance Stabilizer

Procedure:

1. Slowly sift Carbopol 940 into the vortex of rapidly agitating water. When resin is dispersed, reduce agitation and mix until a homogeneous dispersion is obtained.
2. Separately combine copolymer, triethanolamine, water, preservative, and disodium EDTA until dissolved.
3. Add to Carbopol dispersion with moderate sweeping agitation.
4. Heat Oleth-20 to liquid. Add to gel with slow mixing.

Formula C0029

SOURCE: BF Goodrich Co.: Suggested Formulations

Conditioning Rinse Aerosol-Packed, Remains on Hair

	<u>%W/W</u>
I Lanette 18	2.0
Cetiol HE	1.0
II Henkel Glycerin 86% DAB 9	1.0
Dehyquart SP	0.5
Water	95.5

Preparation: Melt I at 70-80C. Heat II to 70-80C and stir into I.
Preserving and perfuming are carried out under 40C. The pH is adjusted to approx. 5 with phosphoric acid.

Filling: 90 parts active ingredient
 10 parts propellant (Frigen 12)
 Vertical valve and foam nozzle

Formula No. VB71-06

Conditioning Rinse, Aerosol-Packed

	<u>%W/W</u>
I Lanette 16	2.0
Cetiol HE	1.0
II Henkel Glycerin 86% DAB 9	1.0
Dehyquart SP	0.5
Water	55.5
III Ethanol	40.0

Preparation: I is melted at 75-80C. II is heated to 70-80C and stirred into I. After cooling to under 35C ethanol and perfume oil are added and the pH is adjusted to approx. 5 with phosphoric acid.

Filling: 90 parts active ingredient
 10 parts propellant (Frigen 12)

Valve: Vertical valve and foam nozzle
Formula No. VB71-07

Hair Conditioner, Aerosol-Packed

	<u>%W/W</u>
I Emulgade F special	4.0
Eutanol G	6.0
II Dehyquart A	4.0
Water (70-80C)	30.0
III Cosmedia Guar C261	0.5
Henkel Glycerin 86% DAB9	5.0
Water (70-80C)	50.5

Preparation: The melted phase I is stirred into phase II until homogeneous. The Cosmedia Guar C261 is made into a paste with glycerine and stirred into the hot water. The two cooled phases are stirred together until homogeneous and the pH is adjusted to 4-5 with phosphoric acid.

Filling: Aerosol cans with vertical valves and foam nozzles are filled (minus 30% safety volume) with:

 92% active ingredient solution and
 8% propellant, e.g. propane/butane 3.5 bar

Formula No. VB71-08

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Conditioning Setting Lotion, Clear

	<u>%W/W</u>
Nasuna B *)	3.0
Dehyquart SP	0.6
Cetiol HE	1.0
Water	95.4
Formula No. WB51-07	

Conditioning Setting Lotion, Clear

	<u>%W/W</u>
Dehyquart SP	0.6
Luviskol VA 64	2.0
Citric acid	0.3
Water	97.1
Formula No. WB51-09	

Conditioning Setting Lotion, Clear

	<u>%W/W</u>
Dehyquart A	0.5
Luviskol VA 64	2.0
Water	97.5
Formula No. WB51-10	

Conditioning Setting Lotion, Cloudy

	<u>%W/W</u>
Nasuna B *)	3.0
Dehyquart SP	0.6
Antara 430	0.1
Water	96.3
Formula No. WB51-12	

Setting Lotion, Clear, Oily

	<u>%W/W</u>
Nasuna B *)	2.0
Eumulgin L	1.2
Cetiol HE	1.0
Dehyquart SP	0.6
Isopropyl alcohol	20.0
Water	75.2
Formula WB51-14	

Preparation: Nasuna B is dissolved in alcohol, water is added and Carbopol 940 is then stirred in. When Carbopol 940 is uniformly dispersed, the solution is neutralized with triethanolamine and then perfumed.

Note: *) The Nasuna types are not for sale in West Germany. Various PVP/VA types on the market can be referred to.

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream-RinseRecipe:

A	Genamin KDM-F	3.75%
	Behentrimonium Chloride	
	Cetyl alcohol	3.00%
B	Water	92.75%
	Preservative	q.s.
C	Perfume	0.30%
	Dyestuff solution	q.s.
D	Citric acid -->pH 4.0	q.s.

Procedure:

- I Melt A and B together at 75C.
 II Stir until 35C, then add the components of C.
 III Finally adjust the pH with D.
 Formula B II/1023

Cream-RinseRecipe:

A	Genamin KDM-F	1.50%
	Behentrimonium Chloride	
	Genapol L-3	2.00%
	Laureth-3	
	Cetyl alcohol	2.50%
	Jojoba oil	1.00%
B	Water	92.70%
	Preservative	q.s.
C	Perfume	0.30%
	Dyestuff solution	q.s.
D	Citric acid -->pH 4.0	q.s.

Procedure:

- I Melt A at 75C.
 II Heat B to 75C.
 III Stir II into I.
 IV Stir until cool.
 V At 35C add the components of C to IV.
 VI Finally adjust the pH with D.
 Formula B II/1060

SOURCE: Hoechst; Guide Formulations for Cosmetics & Toiletries

Cream-RinseRecipe:

A	Genamin KDM-F	2.00%
	Behentrimonium Chloride	
	Hostaphat KL 340 N	1.50%
	Trilaureth-4 Phosphate	
	Cetyl alcohol	2.00%
	Mineral oil, high viscosity	2.00%
B	Water	92.20%
	Preservative	q. s.
C	Perfume	0.30%
	Dyestuff solution	q. s.
D	Citric acid -->pH 4.0	q. s.

Procedure:

- I Melt A at 75C.
 - II Heat B to 75C.
 - III Stir II into I.
 - IV Stir until cool.
 - V At 35C add the components of C to IV.
 - VI Finally adjust the pH with D.
- Formula B II/1055

Cream-RinseRecipe:

A	Genamin KDM-F	2.50%
	Behentrimonium Chloride	
	Hostaphat KL 340 N	1.50%
	Trilaureth-4 Phosphate	
	Cetyl stearyl alcohol	3.00%
	Mineral oil, high viscosity	1.00%
B	Water	89.20%
	Genamin KSL	2.50%
	PEG-5 Stearyl Ammonium Lactate	
	Preservative	q. s.
C	Perfume	0.30%
	Dyestuff solution	q. s.
D	Citric acid-->pH 4.0	q. s.

Procedure:

- I Melt A at 75C.
 - II Heat B to 75C.
 - III Stir II into I.
 - IV Stir until cool.
 - V At 35C add the components of C to IV.
 - VI Finally adjust the pH with D.
- Formula B II/1054

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Cream-RinseRecipe:

A	Genamin DSAC	1.50%
	Distearyldimonium Chloride	
	Hostacerin DGS	1.50%
	Polyglyceryl-2 PEG-4 Stearate	
	Cetyl alcohol	2.00%
	Mineral oil, high viscosity	1.00%
B	Genamin CTAC	2.00%
	Cetrimonium Chloride	
	Water	91.70%
	Preservative	q. s.
C	Perfume	0.30%
	Dyestuff solution	q. s.
D	Citric acid-->pH 4.0	q. s.

Procedure:

I Melt A at 75C. II Heat B to 75C.
III Stir II into I. IV Stir until cool.
V At 35C add the components of C to IV.
VI Finally adjust the pH with D.
Formula B.II/1052

Cream-RinseRecipe:

A	Genamin DSAC	1.50%
	Distearyldimonium Chloride	
	Hostacerin T-3	1.50%
	Ceteareth-3	
	Cetyl alcohol	2.50%
	Mineral oil, high viscosity	1.00%
B	Genamin KSL	2.00%
	PEG-5 Stearyl Ammonium Lactate	
	Water	91.20%
	Preservative	q. s.
C	Perfume	0.30%
	Dyestuff solution	q. s.
D	Citric acid-->pH 4.0	q. s.

Procedure:

I Melt A at 75C. II Heat B to 75C.
III Stir II into I. IV Stir until cool.
V At 35C add the components of C to IV.
VI Finally adjust the pH with D.
Formula B II/1051

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Curl Activator
(Formula 82-1010)

	<u>% By Weight</u>
<u>Oil Phase:</u>	
Alkamuls GMS	3.0
Cetyl Stearyl Alcohol	2.0
Petrolatum (Penreco)	2.0
Drakeol 10 (Penreco)	6.5
Sesame Oil	0.1
<u>Water Phase:</u>	
Cellosize QP	0.5
Propylene Glycol	5.0
Glycerine	4.0
Alkamuls GMS	3.5
Solulan 75 (Amerchol)	0.5
Preservative	Q.S.
Water	72.9
Fragrance, Dye	Q.S.

Blending Procedure:

Charge water into mixing vessel and while warming to 75C, lightly blend in Cellosize QP. Once Cellosize QP is completely dispersed, blend in remaining water phase ingredients in order listed. In a separate container, prepare oil phase and gently warm to 75C. With rapid but smooth agitation, slowly add oil phase to water phase. Once system is uniform, cool with moderate agitation to 40-45C and blend in dye and fragrance.

Use Directions: Lightly coat hair with a small amount of activator. Work into hair with fingers. Brush and style.

Wave Lotion (Buffered)
(Formula 92-1209)

	<u>% by Weight</u>
A.	
Miranol DM	8.0
Arlacel 165	3.5
Cetyl Alcohol	1.0
Stearyl Alcohol	0.5
B.	
Ammonium thioglycolate 100%	10.0
Ammonium hydroxide 25%	3.0
Ammonium dithioglycolic acid	5.0
Deionized water	q.s to 100
Ammonium Xylene Sulfonate	2.0

Procedure:

Heat "A" to 75C with agitation. Add "B" to "A". Continue agitation until uniform.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

**Economy Creme Rinse Conditioner
(Formula 86-0902M)**

Miracare SCS is a flaked conditioner concentrate specially developed to produce luxurious creme rinse products. A unique blend of emollients and conditioning agents, Miracare SCS readily disperses in 75-80C water to form elegant hair care products.

	% By Weight
Miracare SCS	5.0
Sodium Chloride	0.2
Citric Acid	0.3
Fragrance, Dye, Preservative	Q.S.
Water	94.5

Blending Procedure: Dissolve Sodium Chloride and Citric Acid in water and then heat to 75-80C. With smooth agitation, slowly blend Miracare SCS into heated water system. Mix until completely uniform. With smooth agitation cool system to 40C and add compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties

Appearance After 24 Hrs:	Viscous, Opaque Lotion
pH (10% Aq.):	2.5-3.5
% Non Volatiles:	5-7

CTFA Identification: Water, Cetearyl Alcohol, PEG-40 Castor Oil, Stearalkonium Chloride, Citric Acid, Sodium Chloride, Fragrance, Preservative, Dye(s).

**"Light" Creme Rinse Conditioner
(Formula 88-0806)**

	% By Weight
Rhodaquat M242B/99	0.80
Cetyl Alcohol NF	4.00
Citric Acid	0.20
Fragrance, Dye(s), Preservative	Q.S.
Water	95.00

Blending Procedure: Dissolve Citric Acid in water and heat to 70-75C. With smooth agitation, slowly blend in Rhodaquat M242B/99 followed by Cetyl Alcohol NF. Mix until completely uniform. With smooth agitation, cool system to 40-45C and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties

Appearance After 24 Hours:	Viscous, Opaque Lotion
pH:	2.2-3.2
Viscosity After 24 Hours (25C):	5,000-8,000 cps (No. 4 Spindle @ 10 RPM)

CTFA Identification: Water, Cetyl Alcohol, Cetrimonium Bromide, Citric Acid, Fragrance, Preservative, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Extra-Firm Holding Hairspray

Extra strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	5.00
AMP Regular	1.16
Ethanol	33.84
Dimethyl ether	60.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P to the solution and mix until clear.

Cloud point: -35C
 Pressure: 4.2 bar
 Density: 0.74 g/cm³

Formulation PF-0289 suggested by BASF

Firm Holding Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	3.00
AMP Regular	0.69
Ethanol	46.31
Propane/Butane	50.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P to the solution and mix until clear.

Cloud point: -35C
 Pressure: 4.0 bar
 Density: 0.67 g/cm³

Formulation PF-0290 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Extra Firm Holding Hairspray

Extra strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	5.00
AMP Regular	1.16
Ethanol	43.84
Propane/Butane	50.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P to the solution and mix until clear.

Cloud point: -35C
 Pressure: 4.0 bar
 Density: 0.68 g/cm³

Formulation PF-0291 suggested by BASF

80% VOC Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	5.00
AMP-95	1.16
Water	13.84
Ethanol	40.00
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP-95 and perfume. Add Luvimer 100 P to the solution and mix until clear. Add water and mix thoroughly.

Cloud point: -35C
 Pressure: 43.2 bar
 Density: 0.81 g/cm³

Formulation PF-0292 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Firm Holding Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	1.00
AMP-95	0.23
Luviskol VA 37 I	8.00
Water	5.50
Ethanol	22.77
Dimethyl ether	62.50
Perfume	q.s.

Procedure:

Combine ethanol, AMP-95 and perfume. Add Luvimer 100 P and Luviskol VA 37 I to the solution and mix until clear, add water and mix thoroughly.

Cloud point: -35C
 Pressure: 4.7 bar
 Density: 0.75 g/cm³

Formulation PF-0293 suggested by BASF

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	0.60
AMP Regular	0.14
Luviskol VA 37 E	4.80
Ethanol	54.46
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Luviskol VA 37 E to the solution and mix until clear.

Cloud point: -35C
 Pressure: 3.2 bar
 Density: 0.77 g/cm³

Formulation PF-0294 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Firm Holding Luster Spritz

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	15.00
AMP Regular	0.38
Cyclomethicone	0.30
Panthenol	0.45
SDA-40A Alcohol	83.84
Fragrance	q.s.

Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add Stepanhold Extra and mix until thoroughly dissolved. Add Cyclomethicone, mixing thoroughly. Add Panthenol and mix well until dissolved. Add desired fragrance and mix well.

Formulation PF-0159 suggested by Stepan Co.

Conditioning Firm Hold Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	13.75
AMP Regular	0.35
Ammonyx KP	0.50
Methyl Gluceth-20	0.25
SDA-40A Alcohol	85.15
Fragrance	q.s.

Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add Stepanhold Extra and mix until completely dissolved. Add Ammonyx KP and mix thoroughly. Add methyl gluceth-20 and mix until completely dissolved. Add desired fragrance and mix well.

Formulation PF-0160 suggested by Stepan Co.

Medium Hold Sheen Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	11.25
AMP Regular	0.29
Dimethicone Copolyol Surfactant	0.25
PEG-75 Lanolin	0.15
SDA-40A Alcohol	88.04
Fragrance	q.s.

Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add Stepanhold Extra and mix until completely dissolved. Add dimethicone copolyol and mix thoroughly. Add PEG-75 lanolin and mix until dissolved. Add desired fragrance and mix well.

Formulation PF-0161 suggested by Stepan Co.

SOURCE: Angus Chemical Co.; Angus Chemical Formulary

Foam Conditioner for Body and Volume, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	2.0
Cosmedia Polymer HSP 1180	8.0
Eumulgin SML 20	0.3
Ethanol	15.0
Water	74.7

Note: Adjust pH to 6 with triethanolamine

Filling: 92 parts product

8 parts propellant propane/butane 3.5 bar

Valve: Vertical valve and foam nozzle

Formula No. WB71-08

Setting Lotion, Aerosol-Packed

	<u>%W/W</u>
I Nasuna B *)	5.0
Ethanol 96%	10.0
Dehydol 100	0.1
II Eumulgin SML 20	0.1
Eumulgin RO 40	0.1
Perfume	0.1
III Water	84.6

Preparation: Phases I and II are mixed until homogeneous and then phase III is added.

Filling: Aerosol cans with vertical valve and foam nozzle are filled (minus 30% safety volume) with:

92% active ingredient solution

8% propellant, e.g. propane/butane 3.5 bar

Formula No. WB71-10

Note: *) The Nasuna types are not for sale in West Germany.

Various PVP/VA types on the market can be referred to.

Foam Conditioner

	<u>%W/W</u>
Lamequat L	6.0
Dehyton K	3.0
1,2-propylene glycol	10.0
Lamacit GML-12	2.0
Ethanol 96%	20.0
Perfume	0.3
Water	58.7

Preparation: Mix perfume with Lamacit GML-12 and ethanol. The remaining ingredients are added in the order given.

Formula No. WB71-11

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Foaming Anti-Dandruff Hair Conditioner

<u>Ingredients:</u>	<u>% by Weight</u>
Cetyltrimethylammonium bromide	10.00
Hydroxyethyl cellulose	1.00
Sodium hydroxide	0.15
Polymer JR 30M	0.50
Bronopol	0.01
Zinc pyridinethione	0.35
Perfume and color	q.s.
Water	q.s. to 100

Formulation PF-0112 from Cosmetics and Toiletries, Vol 100,
April 1985

Flexible Styler Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Alcohol SD-40	98.20
AMP Regular	0.10
Resyn 28-2930	1.00
Crodamol PTC	0.20
Lanezol AWS	0.20
Crotein ADW	0.30

Procedure:

Add ingredients to alcohol in the order given with mixing.
Fill.

Formulation PF-0343 suggested by Croda, Inc.

Permethy1 Non-Aerosol Hair Spray-Low VOC

<u>Ingredients:</u>	<u>% by Weight</u>
A. SDA 40-2-200	74.00
Gantrez ES-225	9.20
B. AMP Regular	0.40
Permethy1 101A	5.15
Permethy1 102A	10.00
Vigilan AWS	1.00
C. Fragrance	0.25

Procedure:

Mix A together until clear and uniform. Slowly add B ingredients in order, mix until clear solution develops. Next add fragrance as desired.

Formulation PF-0342 suggested by Presperse Inc.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Gel Curl Activator With Lanolin

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Carbopol 940 Resin (1)	0.50	Gelling Agent
Deionized Water	55.90	Diluent
Hydrogenated Starch Hydroxylate (2)	9.60	Gloss, Sheen
Glycerin	22.40	Humectant
Part B:		
PEG-60 Lanolin (3)	5.00	Conditioning
Propylene Glycol	3.00	Humectant
Dimethicone Copolyol (4)	2.30	Lubricant
Triethanolamine (99%)	1.00	Neutralizer
Methyl Parabens	0.20	Preservative
Disodium EDTA (5)	0.10	Chelating Agent

(1) BF Goodrich Co.

(2) Glyco Division, Lonza

(3) Croda, Inc.

(4) Dow Corning

(5) Dow Chemical

Preparation Procedure:

- 1) Slowly sift Carbopol 940 into vortex of water, starch, and glycerin while rapidly agitating.
- 2) Separately combine Part B, add to Part A with moderate sweeping agitation.

Formula C0025

Clear Curl Activator Gel

<u>Ingredients:</u>	<u>Weight%</u>	<u>Function</u>
Water	78.6	Diluent
Carbopol 940	0.5	Gelling Agent
Glycerin	10.0	Humectant
Propylene Glycol	10.0	Humectant
Methyl Parabens	0.2	Preservative
Propyl Parabens	0.1	Preservative
Triethanolamine (99%)	0.5	Neutralizer
Disodium EDTA	0.1	Chelating Agent
Fragrance	q.s.	

Procedure:

1. Slowly sift Carbopol 940 into the vortex of rapidly agitating water. When resin is dispersed, reduce agitation and mix until homogeneous dispersion is obtained.
2. Separately combine glycerine, glycol, parabens, triethanolamine, EDTA, and fragrance.
3. Add to Carbopol dispersion with moderate sweeping agitation until clear gel is obtained.

Formula C0027

SOURCE: BF Goodrich Co.: Suggested Formulations

Hair Brushing Lotion

	Wt%
A. Amihope LL	0.5
TL-10 (PEG-20 Sorbitan Monolaurate)	0.5
1,3-Butanediol (Butylene Glycol)	0.5
Stearyl Alcohol	0.3
Carbopol 941 (Carbomer 941)*	10.0
B. Water	68.2
C. Ethanol	20.0

*0.5% wt Carbomer 941 aqueous solution (Neutralized by NaOH)

Procedure:

1. Each chemical cited in (A) is weighed in a glass vessel. Heat it to 60-70C and stir until the solution is homogeneous.
2. Add a previously warmed water (B) (60-70C) to the former prepared solution and cool it to room temperature with stirring.
3. Add 20.0g ethanol (C) to the cooled solution with stirring.

Note:

This hair brushing lotion has a good antistatic effect and gives good combability. Amihope LL decreased the friction between hair and comb or brush remarkably.

Usage:

Spray the hair before brushing.

Hair Brushing Lotion

	Wt%
Amihope LL	0.5
POE (20) Sorbitan Monolaurate (Polysorbate 20)	0.5
Ethanol	99.0

Procedure:

Mix all components at room temperature.

Note:

This hair brushing lotion is an alcoholic type and has good antistatic effect and smoothness for the hair.

Amihope LL acts as hair conditioning agent instead of the cationic surfactant.

Usage:

Spray the hair before brushing.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hair Conditioner with CAE

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Cetanol	3.0
Amiter LGS-2 (Disteareth-2 Lauroyl Glutamate)	2.0
Nikko1 MYS-55 (PEG-55 Stearate)	1.0
Phase B:	
CAE (PCA Ethyl Cocoyl Arginate)	1.0
A-SM (Stearamine Oxide)	3.0
ProdeW 100 (Sorbitol & Sodium Lactate & Proline & Sodium PCA & Hydrolyzed Collagen)	2.0
Glycerin	10.0
Methyl paraben	0.2
Water	77.8

Specifications:

pH: 5.0
Vis: 2500 cps

Procedure:

Mix ingredients phase A and heat to 75-80 degrees C. Mix ingredients phase B and heat to 75-80 degrees C. Add phase A to phase B and mix with homomixer (1500 to 2500 rpm). Cool to 35 degrees C.

This hair conditioner has good antistatic and conditioning effects.

SOURCE: Ajinomoto USA Inc.: Formula No. 1 CR-56-11

Setting Lotion

Normal hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	2.00
AMP-95	0.35
Ethanol, abs.	30.00
Water, distilled	67.65
Perfume oil	q.s.

Procedure:

Place ethanol, AMP-95, water and perfume oil in the mixing vessel, add Ultrahold Strong, stir until dissolved, then fill into containers.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Formulation PF-0335 suggested by BASF

Hair Conditioner with Guar Derivative

	<u>%W/W</u>
I Lanette O	12.0
Cetiol V	1.0
II Dehyquart A	1.0
Water	55.0
III Cosmedia Guar C261	1.0
Water	30.0

Preparation: Cosmedia Guar C261 is sprinkled into the hot water from phase III (70C), stirred, left to swell, and cooled to room temperature. Phase I is melted at 70-80C and an emulsion is prepared in the normal way with the hot water phase II. Phase III is added to the cooled emulsion and homogenized.

Note: Tube filling.

Formula No. VA21-13

Hair Conditioner with Guar Derivative

	<u>%W/W</u>
I Emulgade F special	15.0
Cetiol V	2.0
II Water	41.8
III Cosmedia Guar C261	1.0
Water	40.2

Preparation: See formula VA21-13 above.

Note: Tube filling

Formula No. VA21-15

Vitamin Lecithin Hair Conditioner, Pearly

	<u>%W/W</u>
I Emulgade F special	15.0
Eutanol G	4.0
Comperlan 100	1.5
Tocopherol oil	1.0
Wheatgerm oil	0.5
II Dehyquart A	4.0
Water	74.0

Formula No. VA21-16

Hair Conditioner with Jojoba Oil Substitute

	<u>%W/W</u>
I Emulgade F special	8.0
Soluvit Richter	2.0
Cetiol J600	3.0
II Dehyquart A	3.0
Water	84.0

Formula No. VA21-17

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Hair Conditioning Gel

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	89.94
Hydroxyethylcellulose	0.80
Hydroxypropyl Guar/Hydroxypropyltrimonium Chloride	0.40
Citric Acid	0.06
Methylparaben	0.02
Part B:	
Panthenol	0.30
Sodium PCA/Ajidew N-50	3.00
Partially Deacetylated Chitin (1% Solution)/Marine-Dew	3.00
Polyquaternium-11	2.00
Diazolidinyl Urea	0.30

Procedure:

Add part A ingredients in order. Heat to 75 degrees Centigrade. Mix until clear and uniform. Cool to 50 degrees Centigrade. Add part B ingredients in the given order, mixing well after each addition. Continue mixing and cooling to 35 degrees Centigrade.

Appearance: Clear gel

pH: 4.50-5.50

Viscosity: 7,000-10,000 (RVT #5 @ 10 rpm @ 25 degrees C)

Hair Liquid (Soft Type)

	<u>Wt%</u>
(O) Pyroter GPI-25	9.0
2-Hexyldecyl Alcohol	1.0
Ethyl Alcohol	40.0
Methylparaben	0.1
Perfume	q.s.
(W) Ajidew T-50	4.0
Water	45.9

Procedure:

1. Dissolve (O) and (W) separately at room temperature to be clear solutions.
2. Add (W) to (O) with stirring.

pH: 7.0

Viscosity: 6 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hair Cream

	Wt%
(O) Liquid Paraffin (#70)	38.0
Isopropyl Myristate	3.0
Squalane	0.5
Nikkol WCB	0.5
Polyoxyethylene (6300) Monostearate	0.1
Glyceryl Monostearate (Self Emulsifying Type)	4.1
Polyoxyethylene (20) Cetyl Ether	2.9
(W) Ajidew N-50	3.0
Water	47.9
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) slowly with agitation.
3. Finish stirring at 40C.

pH: 7.3

Viscosity: 900 cps

Hair Tonic

	Wt%
(O) Pyroter GPI-25	2.7
Pyroter CPI-40	0.3
Ethyl Alcohol (95%)	50.0
L-Menthol	0.4
Camphor	0.05
Methylparaben	0.05
Perfume	q.s.
(W) Ajidew T-50	4.0
Water	42.5

Procedure:

1. Dissolve (O) and (W) separately at room temperature to be clear solutions.
2. Add (W) to (O) with stirring.

pH: 7.5

Viscosity: 5 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hair Dressing Cream O/W, with Allantoin

	<u>%W/W</u>
I Eumulgin O5	8.0
Eumulgin O10	8.0
Paraffin oil, high viscous	40.0
Vaseline, white	10.0
II Allantoin	0.3
Water	33.7

Formula No. WF11-05

Hair Dressing Gel, Transparent

	<u>%W/W</u>
I Eumulgin B1	5.0
Ethyl/isopropyl alcohol	50.0
II Water	38.0
Dehyquart C cryst.	0.2
III Carbopol 940	0.8
IV Triethanolamine	1.0
Water	5.0

Formula No. WF11-07

Hair Dressing Gel

	<u>%W/W</u>
I Nasuna B *)	4.0
Ethyl/isopropyl alcohol	50.0
II Water	38.3
III Carbopol 940	0.7
IV Water	6.0
Triethanolamine	1.0

Formula No. WF11-09

Hair Dressing Gel

	<u>%W/W</u>
I Nasuna B *)	3.0
Isopropyl alcohol	20.0
II Water	70.0
Eumulgin L	0.7
III Carbopol 940	0.8
IV Water	4.5
Triethanolamine	1.0

Formula No. WF11-12

Note: *) The Nasuna types are not for sale in West Germany.
Various PVP/VA types on the market can be referred to.

Hair Dressing Gel, Oily

	<u>%W/W</u>
I Eumulgin B3	13.0
Cetiol HE	20.0
Eutanol G	5.0
II Water	62.0

Preparation: Melt I in a water or glycerine bath at approx. 95C.
Stir II into I at 95C. Cease stirring when the mixture has cooled to 60C, to avoid air pockets forming.

Formula No. WF11-13

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Hair Moisturizer

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	79.03
Hetoxide G-26 (Glycereth-26)	3.0
Disodium EDTA	0.1
Methyl Paraben	0.15
Phase B:	
Hetamide MA (Acetamide MEA)	1.0
Hetsorb L-20 (Polysorbate 20)	0.2
Hest CSO (Cetearyl Octanoate)	10.0
Hetoxamate SA-100 (PEG-100 Stearate)	0.7
Glyceryl Stearate	0.7
Hest MS (Myristyl Stearate)	0.5
Cocoa Butter	0.5
Cetyl Alcohol	1.5
Hetoxol G (Stearyl Alcohol & Ceteareth-20)	2.5
Propyl Paraben	0.05
Phase C:	
Kathon CG	0.07

Specifications:

pH: 5.0

Viscosity #4/30: 7500 cps

Procedure:

- 1) In a suitable stainless steel kettle equipped with a Lightnin' mixer, add Phase A. Heat to 75C while mixing.
 - 2) In a separate stainless steel kettle, add Phase B. Heat to 75C while mixing until uniform.
 - 3) When both phases reach 75C, add Phase B to Phase A. Mix until uniform.
 - 4) Cool to 40C.
 - 5) Add Phase C. Mix well.
- Formula HC93-102

Hair Pomade

<u>Ingredients:</u>	<u>%</u>
Mineral Oil	25.00
Hetlan AC (Acetylated Lanolin)	10.00
Petroleum	50.00
Hest CSO (Cetearyl Octanoate)	2.00
Hest L-2-0 (Laureth-2 Octanoate)	7.00
Paraffin	6.00

Procedure:

- 1) In a stainless steel kettle, combine all ingredients. Heat to 70C, while mixing until completely melted and uniform.
- Formula HP93-101

SOURCE: Heterene, Inc.; Suggested Formulations

Hair Relaxer
Formula 93-0302

<u>Component:</u>	<u>% By Weight</u>
A. Dermalcare NI	10.0
Mineral Oil	10.0
Cetyl Alcohol	2.0
B. Sodium Hydroxide (50%)	5.0
Deionized Water	63.0
C. Preservative, Fragrance, Dye	q.s.

Blending Procedure:

Heat "A" to 85C, "B" to 55C. With agitation, add "B" to "A". Continue agitation and cool to 35C, then add "C".

Typical Formulation Properties:

Appearance: White, Opaque, viscous cream
% Nonvolatile: 20-25

Hair Relaxer
Formula 93-0309

<u>Component:</u>	<u>% By Weight</u>
A. Dermalcare DV-4232	10.0
Mineral Oil	10.0
Petrolatum	10.0
Stearyl Alcohol	2.0
B. Deionized Water	62.0
Propylene Glycol	3.0
C. Sodium Hydroxide (50%)	3.0
Preservative, Fragrance, Dye(s)	q.s.

Blending Procedure:

Heat "A" and "B" separately to 75C. With agitation, add "B" to "A". Continue agitation until uniform and cool to 55C, then add "C" (without preservative, fragrance and dye). Continue agitation until uniform and cool to 35C. Then add compatible preservative, fragrance and dye.

Typical Formulation Properties:

Appearance: White, opaque, viscous cream
% Nonvolatile: 30-35%

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Hair Rinse Emulsion

	<u>%W/W</u>
I Lanette O	0.3
Dehyquart SP	0.6
II Water	99.1
Formula No. VC21-01	

Hair Rinse Emulsion

	<u>%W/W</u>
I Emulgade F spec.	14.5
II Dehyquart C cryst.	0.6
Nasuna B	3.0
Citric acid	0.5
Isopropanol	81.4

Note: When used, the concentrate is diluted with water at a ratio of 1:7!

Formula No. VC21-03

Hair Rinse

	<u>%W/W</u>
Dehyquart SP	0.6
Antara 430	0.1
Citric acid	0.3
Water	99.0
Formula No. VC21-05	

Hair Rinse, Clear, Fat-Free

	<u>%W/W</u>
Polyquart H81	2.0
Citric acid	0.2
Water	97.8
Formula No. VC51-02	

Hair Rinse, Clear, Fat-Free

	<u>%W/W</u>
Dehyquart LT	0.4
Citric acid	0.5
Water	99.1
Formula No. VC51-04	

Hair Rinse, Fat-Free

	<u>%W/W</u>
Dehyquart A	2.0
Eumulgin L	0.8
Water	97.2
Formula No. VC51-07	

Hair Rinse Foam, Aerosol-Packed

	<u>%W/W</u>
Dehyquart SP	0.6
Citric acid	0.5
Cetiol HE	1.0
Water	97.9
Filling: 92 parts solution/8 parts propellant 12/114/Foam nozzle	
Formula No. VC71-01	
SOURCE: Henkel KGaA: Cosmetic Model Formulae	

Hair Sculpturing Treatment
(Formula 90-0501M)

This light conditioning formula provides a soft hold that is ideally suited for hair modeling and sculpturing. Unlike most styling treatments that leave the hair tacky and stiff, this unique formula demonstrates superb styling properties and leaves the hair soft and manageable. It also reduces tangles and fly away hair caused by static charges.

Recommended Use Directions: Shampoo and rinse hair as normal. Thoroughly massage sculpturing rinse into wet hair. Do not rinse out. Towel dry hair as normal. Style and sculpture hair as desired and blow dry.

	<u>% by Weight</u>
Mirapol A-15	0.50
Jaguar HP-60 COS	0.75
Mirapol 133	3.50
Propylene Glycol	0.50
Glycerine	1.00
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	74.15
SD Alcohol 40	20.00

Blending Procedure: Blend Propylene Glycol and Glycerine in water. With smooth agitation, disperse Jaguar HP-60 COS in water base. Heat to 50C. Once system is uniform, blend in Mirapol A-15. Adjust formulation pH to 3.5-4.5 with citric acid as needed. Slowly blend in Mirapol 133 and mix until uniform. Cool with smooth agitation to 30-35C and blend in compatible Fragrance, Dye(s), and Preservative. Once system is uniform, blend in SD Alcohol 40.

Typical Formulation Properties:

Appearance @ 25C:	Clear to Slightly Hazy Liquid
Viscosity @ 25C:	1,000-3,000 cps
pH:	3.5-4.5

Flexible Hold Styling Mousse
(Formula 90-0102M)

This styling mousse formula provides a soft hold for all hair types. It incorporates extra body building ingredients which help protect the hair from blow drying and repeated styling treatments. This styling mousse is ideally suited for both aerosol and pump dispenser applications.

	<u>% by Weight</u>
Mirataine BET-O-30	1.50
Mirataine CBC	1.50
Mirapol 133	2.00
Fragrance, Dye, Preservative	Q.S.
Water	95.00

Blending Procedure: Charge water into mixing vessel. With smooth agitation, slowly blend in Mirataine BET-O-30 and Mirataine CBC and mix until uniform. With smooth agitation, slowly blend in Mirapol 133 and mix until uniform. Add compatible Fragrance, Dye, and Preservative

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Hair Setting Cream
(Formula 84-0804)

	<u>% By Weight</u>
<u>Phase I:</u>	
H ₂ O	74.3
Carbopol 940 (BF Goodrich)	0.2
<u>Phase II:</u>	
PVP-VA 335	5.0
DEA	1.0
SD-40 Alcohol	10.0
<u>Phase III:</u>	
Alkamuls GMS	4.0
Dermalcare DV-4232	5.0
Cetyl Alcohol NF	0.5
<u>Blending Procedure:</u>	

Charge water into mixing vessel and heat to 35-40C. With rapid and smooth agitation, slowly sift Carbopol 940. Mix until completely uniform. In separate mixing vessels, prepare Phase II and Phase III. Heat Phase III to 75-80C. Slowly blend Phase II into Phase I and mix until uniform. Once system is uniform, blend Phase III into vessel. Cool to 35C and package.

Permanent Wave
(Formula 92-1208)

	<u>% by Weight</u>
Deionized water	82.0
Miranol C2M-SF Conc.	5.0
Ammonium thioglycolate, 100%	8.0
Ammonium hydroxide, 25%	5.0
Perfume	q.s.
Color	q.s.
<u>Procedure:</u>	

Add in order listed and mix until uniform.

Cold Perm (Carbonated)
(Formula 92-1210)

	<u>% by Weight</u>
Deionized water	77.0
Miranol C2M-SF Conc.	5.0
Ammonium thioglycolate, 100%	10.0
Ammonium carbonate	5.0
Ammonium hydroxide, 25%	3.0
Perfume	q.s.
Color	q.s.
<u>Procedure:</u>	

Add in order listed and mix until uniform.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	2.40
AMP Regular	0.56
Luviskol VA 37 E	1.20
Ethanol	55.84
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Luviskol VA 37 E to the solution and mix until clear.

Cloud point: -35C
 Pressure: 3.2 bar
 Density: 0.76 g/cm³

Formulation PF-0295 suggested by BASF

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	0.60
AMP Regular	0.14
Luviskol VAP 343 E	4.80
Ethanol	54.46
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Luviskol VAP 343 E to the solution and mix until clear.

Cloud point: -35C
 Pressure: 3.2 bar
 Density: 0.77 g/cm³

Formulation PF-0296 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Luviset CAP	2.00
AMP Regular	0.16
Silicone fluid	0.10
Fragrance	0.05
Methylene chloride	15.00
Ethanol, anhydrous	52.69
Propane/butane, 40/60	30.00

Formulation PF-0120 from Cosmetics and Toiletries, Vol. 100,
April 1985

Medium Hold Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Luviset CAP	2.00
AMP Regular	0.16
Silicone 566 Fluid	0.10
Propane/ Butane, 40/60	30.00
Ethanol, anhydrous	67.74

Formulation PF-0121 from Cosmetics and Toiletries, Vol 100,
April 1985

Firm Holding/High Humidity Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	15.00
AMP Regular	0.38
Dimethicone Copolyol Surfactant	0.20
SDA-40A Alcohol	84.42
Fragrance	q.s.

Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add Stepanhold Extra and mix until completely dissolved. Add dimethicone copolyol and mix thoroughly. Add desired fragrance and mix well.

Formulation PF-0158 suggested by Stepan Co.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	2.40
AMP Regular	0.56
Luviskol VAP 343 E	1.20
Ethanol	55.84
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Luviskol VAP 343 E to the solution and mix until clear.

Cloud point: -35C
 Pressure: 3.2 bar
 Density: 0.76 g/cm³

Formulation PF-0297 suggested by BASF

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	2.40
Ultrahold 8	0.60
AMP Regular	0.62
Ethanol	56.38
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Ultrahold 8 to the solution and mix until clear.

Cloud point: -35C
 Pressure: 3.2 bar
 Density: 0.76 g/cm³

Formulation PF-0298 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	0.60
Untrahold 8	2.40
AMP Regular	0.38
Ethanol	56.62
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer P and Ultrahold 8 to the solution and mix until clear.

Cloud point: -35C

Pressure: 3.8 bar

Density: 0.76 g/cm³

Formulation PF-0299 suggested by BASF

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	2.40
Ultrahold Strong	0.60
AMP Regular	0.63
Ethanol	56.37
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Ultrahold Strong to the solution and mix until clear.

Cloud point: -35C

Pressure: 3.2 bar

Density: 0.76 g/cm³

Formulation PF-0300 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	0.60
Ultrahold Strong	2.40
AMP Regular	0.42
Ethanol	56.58
Dimethyl ether	40.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100 P and Ultrahold Strong to the solution and mix until clear.

Cloud point: -35C

Pressure: 3.2 bar

Density: 0.76 g/cm³

Formulation PF-0301 suggested by BASF

Pump Setting Spray (100% VOC)

Extra strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	6.00
AMP Regular	1.39
Ethanol	92.61
Perfume	q.s.

Procedure:

Combine Ethanol, AMP Regular and perfume. Add Luvimer 100 P to the solution and mix until clear.

Formulation PF-0302 from BASF

Pump Setting Spray (80% VOC)

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	6.00
AMP-95	1.39
Water	12.61
Ethanol	80.00
Perfume	q.s.

Procedure:

Combine Ethanol, AMP-95 and perfume. Add Luvimer 100 P to the solution and mix until clear.

Formulation PF-0303 from BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Hair Spray, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	5.0
Ethyl/isopropyl alcohol	75.0
Methylene chloride	20.0

Note: Filling: 40 parts hair lacquer
60 parts propellant 11/12 (50:50)

In accordance with the German cosmetics legislation, the methylene chloride content must not exceed 35%.

The packaging must bear the following inscription: "Do not spray near flames or glowing objects."

Formula No. WE71-01

Hair Spray, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	4.0
Ethyl/isopropyl alcohol	96.0

Note: Filling: 40 parts hair lacquer
60 parts propellant 11/12 (50:50)

Formula No. WE71-03

Note: *) The Nasuna types are not for sale in West Germany.

Various PVP/VA types on the market can be referred to.

Hair Dressing Cream O/W

	<u>%W/W</u>
I Eumulgin O5	6.0
Eumulgin O10	6.0
Paraffin oil	60.0
II Water	28.0

Formula No. WF11-01

Hair Dressing Cream W/O

	<u>%W/W</u>
I Dehymuls F	9.0
Paraffin oil	12.0
Vaseline, white	15.0
Cetiol V	10.0
II Henkel Glycerin 86% DAB 9	5.0
Magnesium sulfate-7-hydrate	0.3
Water	48.7

Formula No. WF11-03

Hair Dressing Cream O/W

	<u>%W/W</u>
I Eumulgin B1	5.0
Cutina MD	15.0
Paraffin oil, low viscous	20.0
II Water	60.0

Formula No. WF11-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

High Solids Hair Spray-80% VOC

<u>Ingredients:</u>	<u>% by Weight</u>
OAC-2 (Lovocryl-47)	8.00
AMP-95	1.43
Triethyl citrate (CitroFlex-2)	0.20
Lauramide DEA (Monamid 716)	0.15
Glycerin	0.10
dl-Panthenol	0.10
Deionized water	10.02
Anhydrous ethanol SDA-40	50.00
n-Butane	12.00
DME	18.00
Fragrance, preservative	q.s.

Recommended Valve Specifications:

Precision Valve Corp., 0.016 in stem, 0.016 in body, no vapor tap, 0.122 in dip tube; actuator: 0.016 in MB concave Delta.

Formula PF-0277 from Cosmetics & Toiletries, November, 1993.

High Solids Hair Spray
Innovative 80% Equivalent

<u>Ingredients:</u>	<u>% by Weight</u>
OAC-2 (Lovocryl-47)	10.00
AMP-95	1.79
Lauramide DEA (Monamid 716)	0.10
Glycerin	0.10
dl-Panthenol	0.05
Deionized water	32.96
Anhydrous ethanol SDA-40	22.00
DME	33.00
Fragrance, preservative	q.s.

Recommended Valve Specifications:

Seaquist NS-34, 0.013 in stem, capillary body, 0.013 in vapor tap, 0.040 in dip tube; actuator; Excell 200 Misty 0.016 in Misty.

Formulation PF-0278 from Cosmetics & Toiletries, November, 1993

SOURCE: Angus Chemical Co.: Angus Product Formulary

Instant Hair Conditioner, Clear

	<u>%W/W</u>
Isopropanol	70.0
Cetiol HE	20.0
Dehyquart C cryst.	5.0
Henkel Glycerin 86% DAB 9	5.0
Note: Low viscous	
Formula No. VB51-01	

Instant Hair Conditioner, Fat-Free, Clear

	<u>%W/W</u>
Dehyquart A	4.0
Henkel Glycerin 86% DAB 9	10.0
Viscontran HEC 30 000 PR 2% in water	60.0
Isopropanol	5.0
Water	21.0

Note: High viscous
Formula No. VB51-03

Hair Conditioning Rinse, Clear

	<u>%W/W</u>
I Eumulgin B2	2.2
Comperlan COD	3.7
Dehyquart A	1.5
Polyquart H81	2.0
II Citric acid	0.3
Water	90.3

Note: High viscous
Preparation: Melt phase I at approx. 65C and stir in phase II also heated to 65C. Stir until cooled to approx. 40C.
Formula No. VB51-05

Hair Conditioning Rinse, Clear

	<u>%W/W</u>
I Eumulgin B2	2.2
Comperlan COD	3.7
Dehyquart A	1.5
II Citric acid	0.3
Water	92.3

Note: High viscous
Preparation: Melt phase I at approx. 65C and stir in phase II also heated to 65C. Stir until cooled to approx. 40C.
Formula No. VB51-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Instant Hair Conditioner With Jojoba Oil Substitute

	<u>%W/W</u>
I Emulgade A	3.5
Comperlan 100	1.5
Cetiol J600	1.0
II Henkel Glycerin 86% DAB 9	5.0
Dehyquart A	4.0
Water	85.0

Formula No. VB21-24

Conditioning Rinse

	<u>%W/W</u>
I Emulgade K	4.0
II Perfume	0.1
Citric acid, 50% solution	0.1
Water	95.8

Preparation: Sprinkle Emulgade K into the hot water phase (85-90C) stirring continuously. Perfume and preserve when under 40C. Full emulsification occurs at between 30-40C.
Formula No. VB21-26

Conditioning Rinse with Jojoba Oil Substitute

	<u>%W/W</u>
I Emulgade K	5.0
II Cetiol J600	1.5
Perfume	0.1
Citric acid 50% solution	0.1
III Water	93.3

Preparation: Sprinkle Emulgade K into the hot water phase (85-90C) stirring continuously. When the mixture starts to emulsify, immediately add Cetiol J600. Perfume and preserve when under 40C. Full emulsification occurs at between 30 and 40C.
Formula No. VB21-27

Conditioning Rinse with Protein

	<u>%W/W</u>
I Emulgade K	5.0
II Hydagen P	1.0
Water	92.2
III Eutanol G	1.5
Perfume	0.1
Citric acid 50%	0.2

Preparation: Make a paste with Hydagen P and part of the hot water (60C). Stir Emulgade K into the hot water phase (85-90C). Add the Hydagen P/water mixture. Immediately stir in Eutanol G. Stir until cooled to 30-40C. Perfume when under 40C.
Formula No. VB21-28

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Intensive Hair Conditioner Foam, Aerosol-Packed

	<u>%W/W</u>
I Cutina AGS	3.0
Lanette O	4.0
Eumulgin O10	3.0
Cetiol V	2.0
II Dehyton AB30	3.0
Dehyquart SP	1.5
Henkel Glycerin 86% DAB9	8.0
Citric acid	0.5
Water	75.0
Filling: 92 parts solution	
8 parts propellant 12/114 (40:60)	
Foam nozzle	
Formula VA71-01	

Instant Hair Conditioning Cream

	<u>%W/W</u>
I Lanette O	12.0
Cetiol SN	1.0
Comperlan KM	3.0
II Dehyquart A	2.0
Henkel Glycerin 86% DAB 9	5.0
Citric acid	0.5
Water	76.5
Note: Tube filling	
Formula No. VB11-01	

Instant Hair Conditioning Cream

	<u>%W/W</u>
I Lanette 16	2.5
Comperlan KM	5.0
II Dehyquart A	2.0
Henkel Glycerin 86% DAB 9	5.0
Citric acid	1.0
Water	74.5
III Water	10.0
Note: Squeeze-bottle filling	
Formula No. VB11-02	

Instant Hair Conditioning Cream

	<u>%W/W</u>
I Lanette O	12.0
Cetiol SN	1.0
Comperlan KD	3.0
II Dehyquart SP	1.5
Henkel Glycerin 86% DAB 9	5.0
Citric acid	0.5
Water	77.0
Note: Tube filling	
Formula No. VB11-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Instant Hair Conditioner Foam, Aerosol-Packed

	<u>%W/W</u>
I Lanette 16	3.0
Dehyquart A	2.0
II Henkel Glycerin 86% DAB 9	5.0
Citric acid	1.0
Water	89.0
Note: Filling: 92 parts solution	
	8 parts propellant 12/114 (40:60)
Foam nozzle	
Formula No. VB71-01	

Instant Hair Conditioner Foam, Aerosol-Packed

	<u>%W/W</u>
I Emulgade F spec.	3.5
Cetiol V	1.0
II Dehyquart LT	1.5
Henkel Glycerin 86% DAB 9	5.0
Citric acid	1.0
Water	88.0
Note: Filling: 92 parts solution	
	8 parts propellant 12/114 (40:60)
Foam nozzle	
Formula No. VB71-03	

Protein Conditioning Rinse, Aerosol-Packed

	<u>%W/W</u>
I Emulgade F special	2.0
Emulgin B2	1.0
Eutanol G	8.0
II Dehyquart A	8.0
Hydagen P	0.5
Water	30.0
III Cosmedia Guar C261	0.5
Water	50.0
Preparation: Phase I is melted at approx. 70-80C. Hydagen P is dissolved in Dehyquart A, heated to approx. 60C, until homogeneous. The hot water (70-80C) is added. The aqueous phase II is added to phase I. Perfuming and preserving are carried out at under 40C. Cosmedia Guar C261 is sprinkled into the hot water (70-80C), stirring strongly. The swollen mixture is added when the emulsion has cooled and homogenized by stirring. The pH is adjusted to approx. 4 with phosphoric acid.	
Note: Filling: 89 parts liquid	
	11 parts propellant, propane/butane
Foam nozzle	
Formula No. VB71-04	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Instant Hair Conditioning Cream

	<u>%W/W</u>
I Cutina MD	8.0
Lanette O	2.5
Cetiol V	5.0
II Dehyquart SP	1.5
Henkel Glycerin 86% DAB 9	10.0
Citric acid	0.1
Water	72.9
Note: Tube filling	
Formula No. VB11-05	

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Emulgade F	3.5
Cetiol V or Eutanol G	10.0
II Citric acid	3.0
Henkel Glycerin 86% DAB 9	3.0
Perfume lemon	0.2
Water	80.3
Application: 1 teaspoonful in 100 c1 water	
Formula No. VB21-01	

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Lanette 16	3.0
II Dehyquart A	2.0
Citric acid	1.0
Water	82.0
III Water	12.0
Formula No. VB21-02	

Instant Hair Conditioning Emulsion with Pearly Gloss

	<u>%W/W</u>
I Lanette 16	2.5
Comperlan KM	5.0
II Dehyquart A	2.0
Citric acid	1.0
Water	79.5
III Water	10.0
Formula No. VB21-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Intensive Hair Conditioning Cream

	<u>%W/W</u>
I Emulgade F	15.0
II Water	85.0
Formula No. VA 11-01	

Intensive Hair Conditioning Cream

	<u>%W/W</u>
I Lanette O	12.0
Hydagen P	2.0
Wool wax alcohol	6.0
II Lanette E	3.0
Water	77.0
Formula No. VA 11-03	

Intensive Hair Conditioning Cream, Herbal Pack

	<u>%W/W</u>
I Eumulgin B1	1.0
Emulgade F spec.	15.0
Wool wax alcohol	4.0
Eutanol G	5.0
Vaseline, white	2.0
II Dehyquart A	2.0
Hexaplant Richter	3.0
Citric acid	0.2
Water	67.8

Note: When used at a ratio of 1:1, the cream must be diluted with water!

Formula No. VA 11-04

Intensive Hair Conditioning Cream, Vitamin Pack

	<u>%W/W</u>
I Emulgade F spec.	12.0
Wool wax alcohol	4.0
Eutanol G	5.0
Vaseline, white	2.0
II Dehyquart A	8.0
Soluvit Richter	3.0
Citric acid	0.2
Water	65.8

Note: When used at a ratio of 1:1, the cream must be diluted with water!

Formula No. VA11-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Lanette 16	3.0
II Dehyquart A	4.0
Hydagen P	2.0
III Citric acid 10% solution	1.2
Water	89.8

Preparation: Lanette 16 is melted at 75-80C. Hydagen P is dissolved in Dehyquart which is slightly warmed. Then the citric acid solution and the water (75-80C) are added and mixed with phase I while stirring. Stir until completely cooled.
Formula No. VB21-04

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Lanette O	4.0
II Citric acid	1.0
Dehyquart C cryst.	0.6
Water	94.4

Formula No. VB21-05

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Emulgade 1000 NI	4.0
Eutanol G	2.0
II Dehyquart SP	1.5
Henkel Glycerin 86% DAB 9	5.0
Citric acid	0.5
Water	87.0

Note: Squeeze-bottle filling
Formula No. VB21-07

Instant Hair Conditioning Emulsion

	<u>%W/W</u>
I Emulgade 1000 NI	4.0
Eutanol G	2.0
II Dehyquart LT	1.5
Citric acid	0.5
Water	92.0

Formula No. VB21-09

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Intensive Hair Conditioning Emulsion

	<u>%W/W</u>
I Emulgade F spec.	10.0
Cetiol	2.0
II Dehyquart SP	1.5
Henkel Glycerin 86% DAB 9	10.0
Citric acid	0.5
Viscontran MHPC 6000-0.8% solution	20.0
Water	56.0

Note: Tube filling
Formula No. VA21-08

Intensive Hair Conditioning Emulsion

	<u>%W/W</u>
I Lanette O	8.0
Eumulgin B2	2.0
Comperlan 100	1.0
Cetiol B	2.0
II Dehyquart LT	1.5
Henkel Glycerin 86% DAB 9	10.0
Citric acid	0.5
Water	75.0

Formula No. VA21-10

Intensive Hair Conditioning Emulsion

	<u>%W/W</u>
I Cutina AGS	12.0
Eutanol G	2.0
Lanette O	3.0
Comperlan KD	2.0
Dehyquart LT	1.5
II Henkel Glycerin 86% DAB 9	10.0
Citric acid	0.1
Viscontran MHPC 6000-0.8% Solution	20.0
Water	49.4

Formula No. VA21-11

Intensive Hair Conditioning Emulsion

	<u>%W/W</u>
I Emulgade F special	15.0
Comperlan KM	5.0
Eutanol G	2.0
II Dehyquart LDB	2.0
Henkel Glycerin 86% DAB 9	10.0
Citric acid	0.5
Water	65.5

Formula No. VA21-12

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Intensive Hair Conditioning Emulsion

	%W/W
I Lanette O	15.0
Eutanol G	3.0
Vaseline, white	3.0
II Lanette E	3.0
Water	73.8
Citric acid	0.2
III Cholesterin	2.0
Formula No. VA 21-03	

Intensive Hair Conditioning Emulsion for Dry Hair

	%W/W
I Eumulgin B1	1.0
Emulgade F spec.	15.0
Eutanol G	5.0
Wool wax alcohol	2.0
Vaseline, white	2.0
II Hydagen P	2.0
Dehyquart A	2.0
Hexaplant Richter	3.0
Citric acid 10% solution	1.3
Water	66.7

Preparation: Phase I is melted at 75-80C. Hydagen P is dissolved in Dehyquart A which is warmed slightly. The hot water (approx. 80C) and the remaining ingredients of phase II are added and stirred into phase I. Stirring continues until the mixture is cold.

Formula No. VA21-04

Intensive Hair Conditioning Emulsion

	%W/W
I Cutina MD	8.0
Cetiol V	2.0
Lanette O	2.0
Henkel Glycerin 86% DAB 9	10.0
II Citric acid	0.1
Viscontran MHPC 6000 0.8% solution	20.0
Dehyquart A	2.0
Water	55.9

Formula No. VA21-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Instant Hair Conditioning Emulsion, Clouding

	%W/W
I Comperlan KM	1.0
Dehyquart LT	2.0
II Henkel Glycerin 86% DAB9	3.0
Citric acid	0.3
Water	93.7

Note: When this hair conditioner is shaken, pearly gloss clouding is produced (suspended material which settles when left to stand).

Formula No. VB21-10

Instant Hair Conditioning Emulsion

	%W/W
I Lanette 16	2.0
Comperlan LP	4.0
II Dehyquart A	4.0
Henkel Glycerin 86% DAB 9	5.0
Citric acid	1.0
Water	84.0

Formula No. VB21-12

Conditioning Rinse with Guar Derivative

	%W/W
I Emulgade 1000 NI	4.0
II Dehyquart A	4.0
Water	51.7
III Cosmedia Guar C261	0.3
Water	40.0

Note: Cosmedia Guar C261 is sprinkled into the hot water from phase III (70C), stirred, left to swell, and cooled to room temperature. Phase I is melted at 70-80C and an emulsion is prepared in the normal way with the hot water phase II. Phase III is added to the cooled emulsion and homogenized. Squeeze bottle filling.

Formula No. VB21-14

Conditioning Rinse with Guar Derivative

	%W/W
I Emulgade 1000 NI	4.0
II Water	44.5
III Cosmedia Guar C261	1.5
Water	50.0

Note: Cosmedia Guar C261 is sprinkled into the hot water from phase III (70C), stirred, left to swell, and cooled to room temperature. Phase I is melted at 70-80C and an emulsion is prepared in the normal way with the hot water phase II. Phase III is added in the normal way with the hot water phase II. Phase III is added to the cooled emulsion and homogenized. Squeeze bottle filling.

Formula No. VB21-16

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Keratin Creme Dry Hair Dressing

	<u>%W/W</u>
A. Deionized Water	42.70
Carbopol 940-2% Aq. Sol'n. (Carbomer 940)	40.00
Kera-Tein 1000 SD (Hydrolyzed Keratin)	1.00
B. Petrolatum	5.00
Tween 60 (Polysorbate 60)	1.50
Arlacel 60 (Sorbitan Stearate)	1.50
Olive Oil	2.00
Cetyl Alcohol	1.00
Isopropyl Palmitate	2.00
Jojoba Oil	0.10
Castor Oil	1.00
Proto-Lan 8*	1.00
C. Triethanolamine - 99%	1.20
Fragrance, Preservatives	q.s.
*CTFA: Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol.	

Procedure:

Heat Phases A & B separately to 80C. Add Phase B to A at 80C with agitation. Mix until smooth. Add Phase C carefully to avoid aeration.

Properties:

A leave-in creme hair dressing which conditions, reduces split ends and dryness. Proto-Lan 8 contains proteins, essential fatty acids and phospholipids which replenish and rejuvenate overworked and stressed hair. Kera-Tein 1000 SD moisturizes, protects and strengthens the hair. Leaves a natural shine and smooth finish.

Uses:

For wet or dry hair--Massage a small amount into the hair and especially into the ends to improve natural shine, styling and softness.

SOURCE: Maybrook Inc.; Formulation #HC-511

Keratin Infused Hair Treatment

	<u>%W/W</u>
A. Panthenol	0.10
Methyl Paraben	0.20
Fragrance	0.20
Polysorbate 80	0.50
SD Alcohol 40A	2.00
B. Deionized Water	87.30
Dowanol DPM (PPG-2 Methyl Ether)	1.00
Gafquat 755N (Polyquaternium-11)	1.00
Kera-Tein 1000 AS (Ethyl Ester of Hydrolyzed Keratin)	3.00
Quat-Pro S 30 (Stearyltrimonium Hydroxyethyl Hydrolyzed Collagen)	1.00
Quaternium-15	0.20
Amersil DMC-357 (Dimethicone Copolyol)	0.50
C. Dow Corning 929 Emulsion (Amodimethicone and Tallowtrimonium Chloride and Nonoxynol-10)	3.00

Procedure:

Pre-mix Phase A until clear. Add water from Phase B to Phase A. Add the rest of the (B) ingredients with mixing. Mixture should be clear at this stage. Add Phase C (mixture becomes milky).

Properties:

A leave-in conditioner/detangler for adding body and shine to the hair. Makes fine, limp hair feel thicker, more manageable. The Quat-Pro S 30 adds body and smoothness due to its high molecular weight. Kera-Tein 1000 AS is a cationic, keratin derivative which adds shine and combability to this product.

SOURCE: Maybrook Inc.: Formula #HC-510

Extra Rich Conditioner

	<u>Weight, %</u>
Mackine 601	2.5
Cetyl Alcohol	1.8
Mackpro WLW	2.0
Phosphoric Acid	1.6
Sodium Chloride	0.3
Mackstat DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first five components to water and heat to 70C.
2. With stirring, cool to 50C.
3. Add dye, Mackstat DM and fragrance.
4. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Light Holding/Body Building Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	11.88
AMP Regular	0.30
Dimethicone Copolyol Resin Modifier	0.15
Panthenol	0.20
PPG-10 Methyl Glucose Ether	0.10
SDA-40A Alcohol	87.37
Fragrance	q.s.

Procedure:

Charge alcohol to mixing vessel. With moderate agitation, add AMP and mix well. Add Stepanhold Extra and mix until completely dissolved. Add dimethicone copolyol, panthenol, and PPG-10 methyl glucose ether, mixing well after each addition. Add desired fragrance and mix thoroughly. Formulation PF-0162 suggested by Stepan Co.

Forever Curls Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Crovol A-70	1.00
Ethanol SDA-40	63.50
Amphomer 28-4910	0.75
Deionized Water	33.62
AMP-95	0.13
Hydrotriticum QL	1.00

Procedure:

Dust Amphomer into alcohol under vigorous agitation. Premix water, AMP-95 and Crovol A-70. Add alcohol solution to water solution with mixing. When clear, mix in Hydrotriticum QL. Formulation PF-0169 suggested by Croda Inc.

Conditioning Firm Hold Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Stepanhold Extra	13.75
AMP-Regular	0.35
Ammonyx KP	0.50
Methyl gluceth-20	0.25
SDA-40A Alcohol	85.15
Fragrance	q.s.

Procedure:

Charge alcohol to vessel. With moderate agitation, add AMP-Regular. Mix well. Add Stepanhold Extra. Mix until completely dissolved. Add Ammonyx KP. Mix thoroughly. Add methyl gluceth-20. Mix until completely dissolved. Add fragrance. Mix well. Formulation PF-0178 suggested by Stepan Co.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Liquid Protein Protective Hair Finish

	<u>%W/W</u>
A. Deionized Water	89.4
Methylparaben	0.2
Celquat L-200 (Polyquaternium-4)	0.2
Sodium Benzoate	0.2
B. Citric Acid, granular	0.4
Quat-Pro S30 (Stearyltrimonium Hydroxyethyl Hydrolyzed Collagen)	1.0
Cationic Collagen Polypeptides	3.0
Carsquat CT 429 (Cetrimonium Chloride)	0.3
Dowicil 200	0.2
C. Isopropyl Alcohol	5.0
Fragrance	0.1

Procedure:

1. Mix and heat Phase A to 160F. Mix until dissolved. Heat off.
2. Mix and cool to 120F.
3. Add Phase B.
4. Pre-mix Phase C and add to the rest of the batch.

Properties:

This protective styler utilizes the protective and film-forming properties of proteins to coat and seal the hair. Quat-Pro S30 and Cationic Collagen Polypeptides are cationic, enhanced proteins which build body and add a smooth, natural texture to the hair due to their moisture binding properties. The high molecular weight of these substantive proteins will gently set the hair. The two polymeric quats add an easy to style combing ability.

SOURCE: Maybrook Inc.; Formula #HC-508

Wheat Germ Foaming Conditioner

	<u>Weight, %</u>
Mackam 35	10.0
Mackalene 116	8.0
Mackalene 716	1.0
Natrosol 250 HHR	0.7
Mackstat DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely hydrate Natrosol.
2. Add first three components and heat to 40C.
3. Blend until clear.
4. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.; Suggested Formulation

Low Cost 80% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 28-2930	5.00
AMP-95	0.47
Anhydrous Ethanol, SDA-40	65.00
Deionized Water	14.53
Propellant A-31	6.40
Propellant A-108	8.60

Pressure: 75 psi
 Cloud Point: -12C
 Spray Rate: 0.72 grams/second

Procedure:

Dissolve AMP in anhydrous ethanol and water. While maintaining good agitation, slowly sift in Resyn 28-2930. When solution is complete, filter and fill. Charge cans with propellants.

Valve Specifications: Precision Valve:

Stem: 04-1215 0.16
 Gasket: 05-0310 Buna
 Spring: 06-6010 SS
 Body: 07-7910 .013"
 Cup: 32-7300-62 Flat, ET/B, Dimpled, FBS
 Dip Tube: 09-2010 0.122" ID
 Actuator: Concave Delta .020" MB

Formulation PF-0285 suggested by National Starch and Chemical Co.

Superhold Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning Q2-5220	0.50
Gantrez ES-225	10.00
AMP Regular	0.20
SD Alcohol 40	89.30

Procedure:

Weigh out the alcohol and dissolve the AMP Regular into it. Stir in the resin and the Dow Corning Q2-5220 resin modifier. Mix until uniform and add the fragrance, if desired. Dow Corning 193 or Dow Corning 190 surfactant can be substituted for Dow Corning Q2-5220 resin modifier.

Formulation PF-0286 suggested by Dow Corning

SOURCE: Angus Chemical Co.: Angus Product Formulary

Maximum Keratin Therapy
(For Extremely Damaged Hair)

Hair is composed of Keratin protein. As hair becomes damaged and abused, protein is lost. The hair becomes weaker, more difficult to manage and loses its gloss and liveliness.

This formulation will replenish protein lost from the hair with a soluble keratin protein. Kera-Tein 1000 has been made with the optimum molecular shape and weight so as to maximize its coating and repair properties. It will help seal extremely damaged hair improving its texture and shine.

'Maximum Keratin Therapy' should be applied after shampooing and left on for 15-20 minutes prior to rinsing.

	<u>%W/W</u>
A. Deionized Water	85.15
Methylparaben	0.20
Celquat H-100 (Polyquaternium-4)	0.30
Kera-Tein 1000 (Hydrolyzed Keratin)	10.00
Cationic Collagen Polypeptides	1.00
Cetrimonium Chloride	0.20
Ceraphyl 60 (Quaternium-22)	0.30
Dowicil 200 (Quaternium-15)	0.20
B. Ivarlan AWS (PPG-12-PEG-65 Lanolin Oil)	2.00
Polysorbate 20	0.50
Fragrance	0.15

Procedure:

1. Dissolve Methylparaben and Celquat in the water. Slight warming may be necessary to solubilize the Paraben.
2. Add the rest of Phase A. Mix.
3. Premix Phase B and add. Mix.

SOURCE: Maybrook Inc.; Formulation #HC-503

Clear Leave-On Hair Conditioner

	<u>Weight, %</u>
Mackalene 426	8.0
Natrosol 250 HHR	1.0
Mackstat DM	q.s.
Deionized Water, Dye, Fragrance qs to	100.0

Procedure:

1. Completely disperse Natrosol in water.
2. Add Mackalene 426 and blend until clear.
3. Heat to 40C and add remaining components.

SOURCE: McIntyre Group Ltd.; Suggested Formulation

Mink Anti-Dandruff Hair Groom

A very effective hair groom for controlling dandruff. Holds hair in place, provides thickness to the hair shaft and produces a rich luster.

	<u>Wt. %</u>
A. Glyceryl Stearate, pure (Cerasynt SD, Van Dyk)	1.0
Stearic Acid XXX (Emersol 132, Emery)	2.5
Lanolin Fatty Acids (Amerlate LFA, Amerchol)	0.5
Cetyl Palmitate (Standamul 1616, Henkel)	3.5
Mineral Oil (Carnation, Sonneborn)	12.0
Mink Oil (Heavy Fraction, Emulan)	10.0
B. Water	50.0
Triethanolamine, 99%	0.6
Sorbitol, 70% (Sorbo, ICI)	7.5
C. Zinc Pyrithione, 48% (Omadine, Olin)	0.5
Water	10.7
D. Propylene Glycol (and) Diazolidinyl Urea (and)	
Methyl Paraben (and) Propyl Paraben	
(Germaben II, Sutton)	1.0
Perfume	0.2

Procedure:

1. Melt Phase A. Hold at 75C.
2. Heat Phase B to 75C, then add to Phase A via high speed propellor agitation. Stir cool to 45C.
3. Add Phase C and D at 45C.

SOURCE: Emulan, Inc.: Suggested Formulation

Cream Rinse

This viscous cream rinse offers extended life to curly, wavy hair in high humidity conditions. Lexorez 100 contributes to this attribute and also lends to the hair's shine.

	<u>%w/w</u>
A. Deionized Water	84.10
Preservatives	QS
B. Stearamidopropyl Dimethyl and Glycol Stearate and	
Ceteth-2 (Lexate CRC)	4.70
Mineral Oil NF (5 LT)	4.70
Glycerin/Diethylene Glycol/Adipate Crosspolymer	
(Lexorez 100)	4.70
Cetyl Alcohol (Cetal)	0.90
PEG-150 Distearate (Kessco PEG 6000 Distearate)	0.90
C. Citric Acid NF	QS pH = 4.5

Procedure:

1. Combine section "A" and heat to 75C.
2. Combine section "B" and heat to 70C.
3. Immediately begin cooling to ambient temperature. Agitate continuously.
4. At 40C adjust pH to approximately 5 with phase "C".

SOURCE: Inolex Chemical Co.: Formula CD-105

Moisturizing Styling Spray
(Formula 90-0103M)

This specially formulated moisturizing spray demonstrates superb holding properties for optimum styling and sculpting ease. This formula should be applied to the hair as a fine mist with a pump dispenser or aerosol spray.

	<u>% By Weight</u>
SD Alcohol 40	15.00
Propylene Glycol	0.50
Polycare 133	2.00
Fragrance, Dye, Preservative	Q.S.
Water	82.50

Blending Procedure:

Charge water into mixing vessel and slowly blend in propylene glycol. With rapid but smooth agitation, slowly blend Polycare 133 water and mix until completely uniform. Add SD Alcohol 40 and then blend in fragrance, dye and preservative.

CTFA Identification: Water, SD Alcohol 40, Polymethacrylamidopropyl Trimonium Chloride, Propylene Glycol, Fragrance, Preservative, Dye.

Hair Conditioner/Rinse
(Formula 92-1203)

	<u>% by Weight</u>
Miranol DM Conc 45%	15.0
Alkamuls EGMS	2.5
Cetyl Alcohol NF	2.0
Jaguar C13S	0.3
Citric Acid	Q.S. to pH 4-5
Fragrance, dyes, preservatives	Q.S.
Deionized Water	80.5

Procedure:

Disperse Jaguar C13S thoroughly in water. Adjust pH with citric acid to 4-5 and warm to 70-75C, then blend in Alkamuls EGMS, Miranol DM and cetyl alcohol. With smooth agitation, cool system to 40-45C and add compatible fragrance, dyes and preservative.

Typical Formulation Properties:

Appearance:	Opaque/pearlescent, viscous liquid
pH:	5-6
% Non-Volatile:	12

CTFA Identification: Water, stearoamphoacetate, glycol stearate, cetyl alcohol, guar hydroxypropyl trimonium chloride, fragrance, citric acid, dyes, preservatives.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Non-Aerosol Hair Spray w/Permethyl 101A

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	84.10
Gantrez ES 225	7.20
B. AMP Regular	0.20
Permethyl 101A	8.00
Vigilan AWS	0.50
Fragrance	q.s.

Procedure:

Mix Gantrez into alcohol with high speed agitation, when solution is clear, add AMP. Slowly add Permethyl and Vigilant. Maintain clarity and adjust fragrance to desired level. Formulation PF-0340 suggested by Presperse, Inc.

Permethyl Non-Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SDA 40-2-200	83.85
Gantrez ES-225	7.20
B. AMP Regular	0.20
Permethyl 102A	8.00
Vigilan AWS	0.50
C. Fragrance	0.25

Procedure:

Mix A together until clear and uniform. Slowly add B ingredients in order, mix until clear solution develops. Next add fragrance as desired. Formulation PF-0341 suggested by Presperse Inc.

Spritz-A-Style Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Alcohol SD-40	78.19
AMP Regular	0.45
Gantrez ES-225	9.00
Crovol A-70	1.00
Crotein ADW	2.00
Deionized Water	9.36

Procedure:

Add ingredients to alcohol in the order given with mixing. Fill. Formulation PF-0344 suggested by Croda Inc.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Non-Lye Hair Relaxer Cream
(Formula 93-0304)

<u>Component:</u>	<u>% By Weight</u>
A. Dermalcare DV-4232	10.0
Mineral Oil	10.0
Petrolatum	7.5
B. Deionized Water	55.1
Chel CD*	0.2
Ammonia (28%)	8.4
Thioglycolic Acid	8.8
C. Preservative, Dye	q.s.

Blending Procedure:

Heat "A" to 85C, "B" to 45C. With agitation, add "B" to "A". Continue agitation until uniform and cool to 35C, then add "C". Adjust pH to 9.0 with ammonia, as needed.

Typical Formulation Properties:

Appearance: Opaque, viscous cream
% Nonvolatile: 30-35

CTFA Identification:

Water, Mineral Oil, Petrolatum, Cetearyl Alcohol (and) Poly-sorbate 60, Thioglycolic Acid, Ammonia, Chelating Agent, Preservative, Dye(s).

*Chel CD (Cyclohexane Diamine Tetraacetic Acid)

Clear Gel Hair Pomade
(Formula 92-0228)

<u>Step A:</u>	<u>% By Weight</u>
Proto-Lan 8	0.8
Mirasil PTM	0.5
Provol 50	1.0
Lantrol	2.0
Co-Gell A-2	14.0
Kaydol Mineral Oil	67.4
<u>Step B:</u>	
Co-Gell B270	14.0
Fragrance	0.3

Blending Procedure:

Heat Step A to 77-80C with agitation. Add Step B and continue heating to 90-100C, let stand for 90 minutes. Cool to 75C, then add Fragrance with slow mixing and let stand for 30 minutes. Package and cool.

CTFA Identification: Mineral Oil, Aluminum Isostearate, Laurate, Palmitate, Isopropyl Palmitate and Fragrance.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Professional Care Intensive Conditioner

	<u>%W/W</u>
A. Ammonyx 4 (Stearalkonium Chloride)	6.00
Deionized Water	83.20
Cationic Collagen Polypeptides	2.00
Kera-Tein 1000 (Hydrolyzed Keratin)	1.00
B. C-Base (Mineral Oil and PEG-30 Lanolin and Cetyl Alcohol)	5.00
Petrolatum	0.50
Isopropyl Myristate	1.00
Stearyl Alcohol-70%	1.00
C. Fragrance	0.30
Preservatives	q.s.

Procedure:

- 1) Heat phases A & B separately to 75C.
- 2) Add Phase B to Phase A at 75C. Mix.
- 3) Mix and cool to 35C.

Properties:

This intensive conditioning treatment utilizes the time-proven softening benefits of Stearalkonium Chloride along with the moisturization and body building benefits of proteins. Kera-Tein 1000 is derived from hair while Cationic Collagen Polypeptide is a cationic, high molecular weight collagen. The combination of these two proteins provides an optimum balance of hair moisturizing, sealing and strengthening. C-Base is the basis for the emulsification system.

SOURCE: Maybrook Inc.: Formula #HC-505

Cream Hair Conditioner

	<u>Weight %</u>
A. Oleyl Alcohol	10.0
Cetyl Alcohol	2.5
Mackester EGMS	3.0
BHA	0.1
B. Mackalene 316	25.0
Paragon II	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Heat part A to 70C.
2. Add Mackalene 316 to water and heat to 70C.
3. Add A and B and with continuous blending cool to 45C.
4. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Professional Treatment Conditioner
(Formula 6-0907M)

Miracare CT-100 is a flaked conditioner concentrate specially formulated to produce high performance hair care products. Based on a unique conditioning agent, Cetrimonium Bromide, Miracare CT-100 readily disperses in 75-80C water to form elegant creme rinse products which gently condition the hair leaving it soft and manageable. The distinct feel imparted on the hair by Miracare CT-100 makes it a favorite of professional beauticians.

	<u>% by Weight</u>
Cetyl Alcohol NF	1.0
Miracare CT-100	4.0
Fragrance, Dye, Preservative	Q.S.
Water	95.0

Blending Procedure:

Warm water to 75-80C. With smooth agitation, slowly blend in Miracare CT-100 followed by the Cetyl Alcohol NF. Mix until completely uniform. Cool to 40C with smooth agitation and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties:

Appearance After 24 Hrs.:	Viscous, Opaque Lotion
% Non Volatiles:	4-6
pH (10% Aq.):	3-5

CTFA Identification: Water, Stearyl Alcohol, Cetrimonium Bromide, Cetyl Alcohol, Fragrance, Preservative, Dye(s).

"Light" Creme Rinse Conditioner
(Formula 88-0806)

	<u>% by Weight</u>
Rhodaquat M242B/99	0.80
Cetyl Alcohol NF	4.00
Citric Acid	0.20
Fragrance, Dye(s), Preservative	Q.S.
Water	95.00

Blending Procedure:

Dissolve Citric Acid in water and heat to 70-75C. With smooth agitation, slowly blend in Rhodaquat M242B/99 followed by Cetyl Alcohol NF. Mix until completely uniform. With smooth agitation, cool system to 40-45C and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties:

Appearance After 24 Hours:	Viscous, Opaque Lotion
pH:	2.2-3.2
Viscosity After 24 Hours (25C):	5,000-8,000 cps (No. 4 @ 10 RPM)

CTFA Identification: Water, Cetyl Alcohol, Cetrimonium Bromide, Citric Acid, Fragrance, Preservative, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Protein & Lanolin Hot Oil Treatment

	<u>%W/W</u>
Deionized Water	40.50
Collagen Hydrolyzate Cosmetic N55 (Hydrolyzed Collagen)	3.00
Quat-Pro S30 (Stearyltrimonium Hydroxypropyl Hydrolyzed Collagen)	1.00
Solulan L575 (PEG-75 Lanolin)	50.00
Ammonyx 4 (Stearalkonium Chloride)	5.00
Fragrance	0.20
Quaternium-15	0.30

Procedure:

Heat Water and Ammonyx to 75C. Mix until dissolved. Add Solulan and mix until clear and uniform. Cool to 50C. Add CHC N55 and Quat-Pro S30. Cool to 40C, add fragrance and Quaternium. Product will opacify as it cools.

Properties:

A Hot Oil treatment which revitalizes hair and fights damage caused by styling, chemical treatments and weather exposure. This Protein & Lanolin enriched formula is heat activated to condition and then rinse clean. Quat-Pro S is particularly attracted to the most damaged areas of the hair.

Directions:

Heat product in hot tap water. This will clear it. Note: Product is opaque and will separate at room temperature. Wet hair and massage in for one minute. Rinse hair with warm water. Shampoo and dry hair as usual.

SOURCE: Maybrook Inc.: Formula #HC-801

Pump Type Hair Spray

	<u>Weight, %</u>
Resyn 26-1314	6.0
Mackpro Conditioner*	0.3
Deionized Water	7.6
Ethanol, Fragrance qs to	100.0

Procedure:

1. Dissolve Resyn 26-1314 in alcohol.
2. Add remaining components and blend until clear.

*Based on 100% concentration.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Pump Hair Spray

Alcohol SD 40-A	80.00%
Octylacrylamide/Acrylates/Butylaminoethyl Methacrylate Copolymer (Amphomer)	3.50
Aminomethyl Propanol	0.61
Pecosil SWP-83 (Hydrolyzed Wheat Protein/Dimethicone Copolyol Phosphate Copolymer)	0.10
Phoenamid LD (Lauramide DEA)	0.10
Deionized Water	15.49
Fragrance	0.20

Procedure:

Sprinkle the Amphomer into the alcohol under propeller agitation. When the Amphomer is completely dissolved, add the remaining items with continuous propeller agitation.

Formula 14-63-A

Hair Styling Gel

<u>A</u> Deionized Water	85.95%
Carbomer 940	1.00
<u>B</u> Deionized Water	3.00
Triethanolamine (99%)	1.00
<u>C</u> Vinylcaprolactam/PVP/Dimethylaminoethylmethacrylate Copolymer	7.50
<u>D</u> Silicone Quaternium-5 (Pecosil SMQ-40)	1.50
<u>E</u> Methylchloroisothiazolinone (and) Methyliso- thiazolinone	0.05

Procedure:

Disperse Carbomer in Phase A water. When a uniform dispersion is obtained, add Phase B to Phase A. Slowly sweep in Phase C, Phase D and Phase E until a uniform gel is obtained.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Alcohol SD 40-A	80.00
Amphomer	3.50
AMP-95	0.61
Pecosil SWP-83	0.10
Phoenamid LD	0.10
Deionized water	15.49
Fragrance	0.20

Procedure:

Sprinkle the Amphomer into the alcohol under propeller agitation. When the Amphomer is completely dissolved, add the remaining items in order with continuous propeller agitation.

Formulation PF-0320

Aerosol Spray

Normal hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	2.00
AMP Regular	0.25
Ethanol abs.	47.75
Propane/butane	50.00
Perfume oil	q.s.

Procedure:

Place ethanol, AMP Regular and perfume oil in the stirrer vessel, add Ultrahold Strong and stir until dissolved. Fill into containers.

Cloud point: Still clear at -35C

Pressure: 3.6 bar

Density: 0.6548

Formulation PF-0327 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Pump Hair Spray
Regular Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	8.00
AMP-95	0.25
SD Alcohol 40	76.00
Distilled Water	15.75
Plasticizer	q. s.
Fragrance, etc.	q. s.

Pump Hair Spray
Super Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	12.00
AMP-95	0.37
SD Alcohol 40	74.00
Distilled Water	13.63
Plasticizer	q. s.
Fragrance, etc.	q. s.

Pump Hair Spray
Maximum Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage V Resin	14.00
AMP-95	0.43
SD Alcohol 40	73.00
Distilled Water	12.57
Plasticizer	q. s.
Fragrance, etc.	q. s.
Formulations PF-0263 suggested by ISP	

Pump Hair Spray
Regular Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage CP Resin	8.00
AMP-95	0.12
Dimethicone Copolymer	0.20
Ethanol (190P)	91.68
Fragrance	q. s.

Pump Hair Spray
Super Hold

<u>Ingredients:</u>	<u>% by Wt</u>
Advantage CP Resin	12.00
AMP-95	0.19
Dimethicone Copolymer	0.20
Ethanol (190P)	87.61
Fragrance	q. s.

Formulations PF-0265 suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

Pump Setting Conditioning Mousse

Applicable to wet hair, normal hold, light conditioning effect, for all climatic zones.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	3.00
AMP-95	0.69
Cremophor A 25	0.20
Luviquat Mono CP	0.50
Perfume	q.s.
Preservative	q.s.
Water	95.61

Procedure:

Combine all ingredients and mix until homogeneous.
Formulation PF-0307 from BASF

Setting Lotion

Applicable to wet hair, strong hold, for all climatic zones.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	6.00
AMP-95	1.39
Water	60.00
Ethanol	32.61
Perfume	q.s.

Procedure:

Combine Ethanol, AMP-95 and perfume. Add Luvimer 100 P to the solution and mix until clear.
Formulation PF-0308 from BASF

80% VOC DME Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	6.84
Ethanol	40.00
AMP-95	0.56
Acudyne 255 (41% solids)	12.50
Dimethylether (DME)	40.00
Dow Corning 190 Fluid	0.10

Procedure:

Mix water, ethanol, AMP-95 and plasticizer. Add polymer with stirring. Mix until solution is slightly turbid, but actives are dispersed. Charge DME. The mixture immediately turns clear.

Properties:

Cloud Point: <-22F

Vapor Pressure: 42 psig @ 70F

Formulation PF-0314 suggested by Rohm and Haas

SOURCE: Angus Chemical Co.: Angus Product Formulary

Pump Spray

Normal hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	3.00
AMP Regular	0.60
Ethanol abs.	96.40
Perfume oil	q.s.

Procedure:

Place ethanol, AMP Regular and perfume oil in the mixing vessel, add Ultrahold Strong and stir until dissolved, then fill into containers.

Formulation PF-0332 suggested by BASF

Pump Spray

Strong hold for all climatic zones, easy to comb and wash out.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	5.00
AMP-95	0.80
Water, distilled	10.00
Ethanol abs.	84.20
Perfume oil	q.s.

Procedure:

Place ethanol, AMP-95, water and perfume oil in the mixing vessel, add Ultrahold Strong and stir until dissolved. Fill into containers.

Formulation PF-0333 suggested by BASF

Setting Foam

Firm dense foam for a normal hold.

<u>Ingredients:</u>	<u>% by Weight</u>
Ultrahold Strong	2.00
AMP-95	0.35
Cremophor A 25	0.20
Perfume oil + Cremophor RH 40 (1:3)	0.40
Water, distilled	87.05
Propane/butane	10.00

Procedure:

Place ethanol, AMP-95, Cremophor A 25 and water in the stirrer vessel. Add Ultrahold Strong and stir until dissolved. Fill into containers.

Formulation PF-0334 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Setting Conditioning Mousse
Alcohol Free

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 28-2913	3.50
AMP-95	0.38
Crotein SPO	0.05
DC-1932 Surfactant	0.10
Tween 20	0.20
Monamid 150 ADD	0.20
Triton X-100	0.30
Deionized Water	85.27
Fragrance	q.s.
Preservative	q.s.
Propellant	10.00

Procedure:

Mix AMP-95 in water. Add Resyn 28-2913 slowly while maintaining good agitation. When solution is complete, add remaining ingredients in the concentrate. Filter and fill concentrate when uniform. Charge propellant.

Formulation PF-0177 suggested by National Starch and Chemical

Extra-Hold Conditioning Mousse

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Octylacrylamide/acrylates butylaminoethyl methacrylate copolymer (Amphomer)	3.75
AMP-95	0.60
Amodimethicone (and) nonoxynol-10 (and) tallowtrimonium chloride	0.40
Linoleamidopropyl PG dimonium chloride phosphate (Phospholipid EFA)	0.60
SD Alcohol 3A	10.00
Water	37.35
Part B:	
Hydroxyethyl cellulose	0.30
Water	37.00
Part C:	
Propellant	10.00

Procedure:

Prepare A and B separately. To prepare B, carefully sprinkle hydroxyethyl cellulose into water with good agitation. Heat may be applied to help solubilization. Blend B in A, pressurize with C.

Formulation PF-0180 suggested by Mona Industries

SOURCE: Angus Chemical Co.: Angus product Formulary

Setting-Conditioning Mousse
Aqueous-Alcoholic

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 28-2913	3.00
AMP-95	0.33
Croetin SPO	0.10
DC-1932 Surfactant	0.10
Tween 20	0.20
Monamid 150 ADD	0.20
Glycerine	0.10
Triton A-100	0.50
Anhydrous Ethanol	20.00
Deionized Water	65.47
Fragrance	q.s.
Preservative	q.s.
Propellant	10.00

Procedure:

Mix AMP-95 in water. Add Resyn 28-2913 slowly while maintaining good agitation. When solution is complete, add remaining ingredients in the concentrate. Filter and fill concentrate when uniform. Charge propellant.

Formulation PF-0176 suggested by National Starch and Chemical

Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
AMP-95	0.20
Gantrez ES-225	5.00
Anhydrous ethanol	10.00
Dow Corning 193	0.50
Water	74.30
Perfume, preservative	q.s.
Propellant S-46	10.00

Procedure:

Add AMP-95 to anhydrous ethanol, then stir in Gantrez ES-225. In a separate container add Dow Corning 193 to water. Stir the mixture containing Gantrez ES-225 into the water containing Dow Corning 193. Add perfume and preservative. Charge concentrate (90% by weight) into can and pressurize with propellant A-46 (10% by weight).

Formulation PF-0175 suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

Setting Lotion, Clear, In Gel Form

	<u>%W/W</u>
Nasuna B*)	4.0
Carbopol 940	0.7
Ethyl/isopropyl alcohol	50.1
Triethanolamine	1.0
Water	44.2

Preparation: Nasuna is dissolved in alcohol, water is added and Carbopol 940 is then stirred in. When Carbopol 940 is uniformly dispersed, the solution is neutralized with triethanolamine and then perfumed.

Formula No. WB11-01

Setting Lotion, Clear, In Gel Form

	<u>%W/W</u>
I Ethyl/isopropyl alcohol	45.0
Nasuna B *)	3.0
II Water	45.2
III Carbopol 940	0.8
IV Water	5.0
Triethanolamine	1.0

Formula No. WB11-03

Setting Lotion, Clear, Liquid

	<u>%W/W</u>
Nasuna B *)	1.5
Ethyl/isopropyl alcohol	50.0
Dehyquart A	0.5
Water	48.0

Formula No. WB 51-02

Setting Lotion, Clear, Liquid

	<u>%W/W</u>
Luviskol VA 64	2.0
Dehyquart C cryst.	0.1
Water	97.9

Formula No. WB51-04

Conditioning Setting Lotion, Clear

	<u>%W/W</u>
Nasuna B *)	2.00
Dehyquart SP	0.25
Ethyl/isopropyl alcohol	50.00
Water	47.75

Formula No. WB51-05

Conditioning Setting Lotion, Clear

	<u>%W/W</u>
Nasuna B *)	2.0
Polyquart H81	2.0
Water	96.0

Formula No. WB51-06

Note: *)The Nasuna types are not for sale in West Germany. Various PVP/VA types on the market can be referred to.

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Setting Lotion, Foam, Aerosol-Packed

	<u>%W/W</u>
I Lanette O	1.5
Eumulgin B1	1.5
Cetiol V	3.0
II Dehyquart C cryst.	0.1
Luviskol VA 64	4.0
Water	89.9

Note: Filling: 92 parts emulsion
8 parts propellant 12/114 (40:60)

Foam nozzle

Shake aerosol before use!

Formula No. WB71-01

Setting Lotion, Foam, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	2.0
Dehyquart SP	0.6
Cetiol HE	1.0
Water	96.4

Note: Filling: 92 parts solution
8 parts propellant 12/114 (40:60)

Foam nozzle

Shake aerosol before use!

Formula No. WB71-03

Setting Lotion, Foam, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	2.0
Polyquart H	2.0
Water	96.0

Note: Filling: 92 parts product
8 parts propellant 12/114 (40:60)

Foam nozzle

Shake aerosol before use!

Formula No. WB71-04

Setting Lotion, Extra Strong, Aerosol-Packed

	<u>%W/W</u>
Nasuna B *)	8.0
Eumulgin RO 40	0.2
Comperlan COD	0.2
Ethanol	10.0
Water	81.6

Note: Filling: 92 parts product
8 parts propellant, Frigen 12

Valve: Vertical valve and foam nozzle

Formula No. WB 71-06

Note:

*) The Nasuna types are not for sale in West Germany. Various PVP/VA types on the market can be referred to.

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Setting Mousse

Applicable to wet hair, strong hold, for all climatic zones.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	5.00
AMP-95	1.16
Cremophor A 25	0.20
Perfume	q.s.
Water	83.64
Preservative	q.s.
Propane/Butane	10.00

Procedure:

Combine all ingredients and mix until homogeneous.

Formulation PF-0304 from BASF

Setting Conditioning Mousse

Applicable to wet hair, strong hold, for conditioning effect, improves the wet combability, gives body to the hair, prevents "flyaway" effect.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	3.00
AMP-95	0.69
Luviquat FC370	2.50
Cremophor A 25	0.20
Luviquat Mono CP	0.50
Perfume/Cremophor RD 40 1:3	q.s.
Preservative	q.s.
Water	83.11
Propane/Butane	10.00

Procedure:

Combine all ingredients and mix until homogeneous.

Formulation PF-0306 from BASF

Pump Setting Mousse

Applicable to wet hair, normal hold, for all climatic zones.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100 P	3.00
AMP-95	0.69
Perfume	q.s.
Preservative	q.s.
Water	96.11

Procedure:

Combine all ingredients and mix until homogeneous.

Formulation PF-0305 from BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

Shine N' Set--Styling & Moisturizing Spray

	<u>%W/W</u>
PVP	1.00
Gafquat 755N (Polyquaternium 11)	3.00
Barquat CT-429 (Cetrimonium Chloride)	1.00
Quat-Pro E (Triethonium Hydrolyzed Collagen Ethosulfate)	3.00
Kera-Tein 1000 (Hydrolyzed Keratin Protein)	0.50
Glycerin	10.00
Propylene Glycol	10.00
Glydant (DMDM Hydantoin)	0.20
Aqua-Tein S (Acetamide MEA (and) MEA-Hydrolyzed Silk (and) Propylene Glycol)	0.50
Deionized Water	69.30
Fragrance	q.s.
Tween 20	1.50

Procedure:

Dissolve the PVP in hot water. Add the rest of the ingredients, except fragrance and Tween. Pre-dissolve the fragrance in the Tween, and add to the batch below 40C.

Properties:

This formula contains an effective combination of styling resins, combing aids and hair softening and shining agents. In addition, Quat-Pro E serves to moisturize and build body in the hair. The cationic nature and film forming properties of this substantive protein will protect the hair. Kera-Tein 1000 and Aqua-Tein S will condition and add highlights. In addition, Aqua-Tein S will penetrate the hair cuticle to bring moisture to where it is needed most. Note: This system is suitable for dispensing from a Mistette pump.

SOURCE: Maybrook Inc.: Formula #HE-1902

Silk and Soy Styling/Blow Drying Conditioner

	<u>%W/W</u>
A. Flexan 130 (Sodium Polystyrene Sulfate)	2.00
Soy-Tein NL (Hydrolyzed Soy Protein)	2.00
Silk Pro-Tein (Hydrolyzed Silk)	0.50
Deionized Water	89.70
Glydant (DMDM Hydantion)	0.30
B. Methyl Paraben	0.20
d1-Panthenol	0.10
Isopropyl Alcohol	5.00
Fragrance	q. s.
Tween 20 (Polysorbate 20)	0.20

Procedure:

Mix Phase A and B separately. Add Phase B to Phase A. Mix.

Properties:

In this formula, natural Silk and Soy proteins moisturize and beautify the hair. Flexan 130, a high molecular weight polymer, is the primary setting agent. Its use level can be varied depending on the control desired. Films are hard and moisture resistant yet water soluble. Excellent wet combing and a natural, glossy look are an added benefit of using this product.

Formula #HF-1201

Moisturizing Styling Spray

	<u>%W/W</u>
A. Alcohol SDA-40	15.00
PVP/VA E-535 (PVP/VA Copolymer)	4.00
Lantrol AWS 1692 (PPG-12 PEG-65 Lanolin Oil)	2.00
Fragrance	0.10
B. Deionized Water	61.60
Glycerin	10.00
Kera-Tein 1000 AS (Ethyl Ester of Hydrolyzed Keratin)	3.00
Aqua-Tein C (Collagen Amino Acids (and) Acetamide MEA (and) Propylene Glycol)	3.00
Cetrimonium Chloride	1.00
DMDM Hydantoin	0.30

Procedure:

Pre-mix Phase A and Phase B separately. Mix the two phases together.

Properties:

This styling spray has been designed to provide softness along with sufficient styling and bodying characteristics to achieve the "Modern Upswept Look". Shine and moisturization are provided by the Aqua-Tein C, Kera-Tein 1000 AS and glycerin. Improved body and flexibility will also result. Aqua-Tein C penetrates to where its needed most, resulting in an improved condition of the hair.

Formula #HE-1903

SOURCE: Maybrook Inc.: Suggested Formulations

Silky Soft Conditioner for Bodied Hair

	<u>%W/W</u>
A. Deionized Water	78.00
Collagen Hydrolyzate Cosmetic N-55 (Hydrolyzed Collagen)	6.00
Carsquat SDO-85 (Stearalkonium Chloride)	4.00
Polquatonium-11	0.40
Panthenol	0.10
Methylparaben	0.20
Propylparaben	0.10
Quat-Pro S (Stearyltrimonium Hydroxy Ethyl Hydrolyzed Collagen)	0.50
Silk Pro-Tein (Hydrolyzed Silk)	0.50
B. Laneth-15	2.50
Cetyl Alcohol	7.00
C. Proto-Lan 8*	0.50
Fragrance	0.20
Color	q.s.

*(Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol)

Procedure:

Heat Phase A and B separately to 80C. Add A to B at 80C. Mix and cool to 60C. Add the Proto-Lan 8. Mix and cool to 50C. Add the fragrance. Mix to incorporate.

Properties:

Provides maximum conditioning for damaged, dry hair. Contains substantive silk and collagen proteins to smooth and protect the hair shaft. Proto-Lan 8 adds essential fatty acids phospholipids and lipo-proteins to replenish and rejuvenate the hair. Improves texture, bodies the hair. Good wet and dry combing.

SOURCE: Maybrook Inc.; Formulation #HC-502

Spray Leave-On Conditioner

	<u>Weight, %</u>
Mackpro Conditioner*	0.5
Mackalene 426	3.0
Paragon Preservative	qs
Water, Dye, Fragrance qs to	100.0
*Based on 100% concentration.	

Procedure:

1. Add components to water.
2. Heat to 40C and blend until clear.

SOURCE: McIntyre Group Ltd.; Suggested Formulation

Simply Hair

	<u>%W/W</u>
A. Deionized Water	90.00
Collagen Hydrolyzate Cosmetic N55 (Hydrolyzed Collagen)	3.00
Gafquat HS-100 (Polyquaternium-28)	1.00
B. Glyceryl Stearate SE	1.00
Maywax D (Cetearyl Alcohol (and) Cetareth-20)	5.00
C. Fragrance, preservatives	q.s.

Procedure:

Heat Phases A&B to 80C. Add B to A. Mix and cool to 40C. Add C.

Properties:

A simple, easy-to-make hair conditioner with good all-around properties. Aids in combing. Adds body, manageability and improves the condition of the hair. The collagen protein can be substituted with other proteins such as keratin, wheat, soy or quaternaries depending on market targeted.

SOURCE: Maybrook Inc.: Formula #HC-509

Styling Mousse

	<u>Weight, %</u>
PVP/VA E335	4.5
SDA 40 Alcohol	1.5
Mackpro Conditioner*	1.0
Deionized Water, Fragrance, Dye qs to	100.0

Procedure:

1. Combine components and blend until clear.
2. Pressurize with suitable propellant.

*Based on 100% concentration.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Simply Wheat Non-Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Alcohol SD-40	60.0
Resyn 29-2930	3.0
Procetyl 10 (PPG-10 Cetyl Ether)	0.8
AMP Regular (Amino Methyl Propanol)	0.4
Part B:	
Deionized Water	35.6
Crotein ADW (AMP Isostearoyl Hydrolyzed Wheat Protein)	0.2

Procedure:

Add the AMP of Part A to the alcohol with mixing. When uniform, add the Resyn 28-2930 with mixing. When uniform, add Procetyl 10. Separately mix the ingredients of Part B, then add to Part A with mixing.

Formulation PF-0201 suggested by Croda

80% VOC Aerosol Hairspray Formulation
Extra Hold

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez V-225 Resin	7.00
AMP-95	0.32
SD Alcohol 40	46.50
Distilled Water	16.18
Propellant A-17	9.00
Dimethyl Ether Propellant	21.00
Plasticizer	q.s.
Fragrance	q.s.

Formulation PF-0202 suggested by International Specialty Products

80% VOC Aerosol Hairspray Formulation
Super Hold

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez V-425 Resin	8.00
AMP-95	0.32
SD Alcohol 40	46.00
Distilled Water	15.68
Propellant A-17	9.00
Dimethyl Ether Propellant	21.00
Plasticizer	q.s.
Fragrance	q.s.

Formulation PF-0203 suggested by International Specialty Products

SOURCE: Angus Chemical Co.: Angus Product Formulary

Smooth and Shine Keratin Hair Conditioner

	<u>%W/W</u>
A. Mineral Oil, Light	5.00
Isopropyl Palmitate	1.00
Maywax P (Emulsifying Wax, NF)	12.00
Glyceryl Monostearate, Pure	0.50
B. PEG-40 Stearate	0.30
Panthenol	0.30
Lipo-Peptide AME-30 (Acetamide MEA and Lauroyl Hydrolyzed Collagen and Glycerin)	3.00
Methyl Paraben	0.20
Ammonyx 4 (Stearalkonium Chloride)	1.00
Deionized Water	75.60
Kera-Tein 1000 SD (Hydrolyzed Keratin)	0.50
C. Quaternium-15	0.20
Fragrance	0.20

Procedure:

Mix and heat Phase A and B separately to 80C. Add B to A.
Mix and cool to 50C. Add Phase C.

Properties:

A leave-in hair conditioner which gives the hair a silk-soft and luxurious feel. Excellent combing aid. Massage a small amount into the hair and especially into damaged ends.

SOURCE: Maybrook Inc.: Formula #HC-512

Pearly Lotion Conditioner

	<u>Weight, %</u>
Mackalene 316	7.0
PEG 400 Distearate	0.5
Sodium Sulfate	0.5
Propylene Glycol	2.0
Mackstat DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first four components to water and heat to 65C.
2. With mild agitation cool to 50C. and add remaining components.
3. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Soy Hydrating Hair Therapie

	<u>%W/W</u>
A. Deionized Water	91.30
Natrosol 250HR (Hydroxyethylcellulose)	0.50
B. Soy-Tein NL (Hydrolyzed Soy Protein)	3.00
Carsoquat CT 429 (Cetrimonium Chloride)	2.00
C. Soy-Quat C (Cocodimonium Hydroxypropyl Hydrolyzed Soy Protein)	1.00
Solulan 98 (Polysorbate 80 and Cetyl Acetate and Acetylated Lanolin Alcohol)	2.00
Fragrance	0.20
Preservative	q.s.

Procedure:

Heat water and Natrosol to 70C. Mix and cool until product is thickened and clear. Add phase B. Mixture will haze slightly. Pre-mix phase C and add to batch. This will clear the product.

Properties:

A Soy-based hair hydrating and softening therapy for badly damaged hair.

Usage:

May be used before or after shampooing. If used before shampooing, no need to rinse out prior to lathering hair. If used after shampooing, rinse shampoo out. Treat hair. Rinse clear. For added conditioning, Soy Quat C and Solulan 98 amounts may be raised proportionately.

SOURCE: Maybrook Inc.: Formula #HE-01805

Foaming Conditioner

	<u>Weight, %</u>
Mackam 35	10.0
Mackalene 116	15.0
Mackpro Conditioner*	2.5
Hydroxyethylcellulose	0.7
Mackstat DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Thoroughly disperse the Hydroxyethylcellulose in water and heat to 45C.
2. Add Mackam 35, Mackalene 116 and Mackpro conditioner.
3. Blend until clear.
4. Add Mackstat DM, fragrance and dye.
5. Cool and fill.

*Based on 100% concentration.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Soy Infused Hair Treatment

	<u>%W/W</u>
A. Panthenol	0.10
Methyl Paraben	0.20
Fragrance	0.20
Polysorbate 80	0.50
SD Alcohol 40A	2.00
Dowanol DPM (PPG-2 Methyl Ether)	1.00
Soy-Quat C (Cocodimonium Hydroxypropyl Hydrolyzed Soy Protein)	0.50
B. Deionized Water	87.80
Gafquat 755N (Polyquaternium-11)	1.00
Soy-Tein NL (Hydrolyzed Soy Protein)	3.00
Dowicil 200 (Quaternium-15)	0.20
Amersil DMC-357 (Dimethicone Copolyol)	0.50
C. Dow Corning 929 Emulsion (Amodimethicone and Tallowtrimonium Chloride and Nonoxynol-10)	3.00

Procedure:

Pre-mix Phase A. Add water from Phase B to Phase A. Add the rest of the (B) ingredients with mixing. Add Phase C (mixture will be milky.)

Properties:

A leave-in conditioner/detangler with vegetable proteins for adding body and shine to the hair. Makes fine, limp hair feel thicker, more manageable. The Soy-Tein NL, a substantive vegetable protein, adds body and manageability. Soy-Quat is a cationic soy derivative which adds shine and combability to this product.

SOURCE: Maybrook Inc.: Formulation #HC-513

Mild Pearl Conditioner

	<u>Weight, %</u>
Mackalene 326	7.0
PEG 400 Distearate	0.5
Sodium Chloride	0.5
Mackstat DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add the first three components to water and heat to 65C.
2. With continuous stirring, cool to 40C. and add dye, Mackstat DM and fragrance.
3. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Spray GelIngredients:

	<u>Weight%</u>	<u>Function</u>
Part A:		
Carbopol 980 (1) (1% dispersion)	30.00	Gelling Agent
Part B:		
Deionized Water	59.17	Diluent
PVP/VA Copolymer (2)	8.00	Hair Setting Resin
Triethanolamine (99%)	0.12	Neutralizer
Disodium EDTA	0.01	Chelating Agent
Part C:		
Glycerin	2.00	Humectant
Polysorbate 20 (3)	0.50	Lubricant/ Fragrance
Methylparaben	0.20	Preservative
(1) Carbomer (BFGoodrich Co.)		
(2) Luviskol VA-73W (BASF)		
(3) Tween 20 (ICI Americas, Inc.), Protasorb L-20 (Protameen), or Nikkol TL-10 (Nikko)		

Procedure:

1. Prepare 1% Carbopol 980 dispersion in room temperature deionized water.
2. Mix Part B ingredients until all ingredients dissolve.
3. Add Part B to Part A with moderate agitation.
4. Mix Part C ingredients with slight heating until paraben is dissolved.
5. Add Part C to Parts A and B.
6. Add a small additional amount of TEA until gel is clear.

Properties:

pH: 5.60 to 5.80
 Viscosity (cps) @ 25C: 4,500 to 8,000
 Viscosity (cps) @ 50C (day 60): 4,500 to 8,000
 Clarity (%T): 92.0 to 95.0

Special Instructions:

In this formulation, a PVP/VA (70:30) copolymer in aqueous solution is required to maintain optimum clarity at up to 4% resin solids. Additionally, the best clarity will be seen when the pH is maintained between 5.55 and 5.80. Special care should be taken to not exceed this pH.

Additional hold can be obtained by the addition of PVP K90 (BASF) at 0.5% to Part B without a reduction of gel clarity.

Comments:

This clear gel has excellent pump spray quality, with moderate hold and little tack on hair under humid conditions. Carbopol 980 gives a very clear gel structure to suspend air bubbles, yet thins when pumped through sprayer to give a fine mist.

Note:

Recommended pump sprayer is: Calmar Mark IV high pressure, 1.5 lb. precompression spring, WH orifice (Calmar, Inc.)

SOURCE: BF Goodrich Co.: Formulation C0040

Styling Gel with Shellac

<u>Ingredients:</u>	<u>% by Weight</u>
A Carbopol 1382	1.00
Demineralized water	52.30
Phenonip	0.50
B Tris Amino	1.20
C Ethanol	42.00
Shellac Wax MHP105 D0	3.00

Procedure:

Disperse Carbopol 1382 in demineralized water containing Phenonip, according to the procedure suggested by BF Goodrich (430-I). Carbopol 1382 can also be dispersed using a rotor-stator at high turbulence. Foam formation may then occur; this foam can be eliminated using a small amount of a strong inorganic acid (20 ppm).

Neutralize with Tris Amino. As soon as a clear gel is obtained, 50% of the Ethanol is added to obtain a hydro-alcoholic gel of Carbopol 1382.

Shellac is dissolved in the remainder Ethanol. When the shellac is completely dissolved, the solution is gradually added to the hydro-alcoholic gel while gently stirring with an anchor mixer.

To remove most of the entrapped air, the gel is slowly stirred for 30 minutes. Finally the hydro-alcoholic Shellac gel is transferred to a suitable bottle.

Important Note: Attention needs to be given to the Shellac solution; the speed of dissolution is low. The Shellac solution is best prepared while boiling Shellac under reflux with Ethanol, or to dissolve Shellac in Ethanol and to age the solution overnight.

Formulation PF-0337 suggested by BF Goodrich

High Solids 55% VOC Pump Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl 47	8.00
AMP-95	1.38
Citroflex-2	0.22
Monamid 716	0.20
Anhydrous Ethanol, SDA-40	55.00
Deionized Water	35.20
Fragrance	q.s.
Preservative	q.s.

Procedure:

Dissolve AMP-95 in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl 47. When dissolved, add remaining ingredients and mix until homogeneous.

Valve: Seaquist EuroMist II 160 output with a 0.016" x 0.010"

Shallow actuator.

Formulation PF-0267 suggested by National Starch & Chemical Co.

SOURCE: Angus Chemical Co.; Angus Product Formulary

Styling Mousse

Eastman AQ 55S water-dispersible polyester is the fixative in these conditioning mousse formulas. Eastman AQ 55S polymer offers excellent curl retention, humidity resistance, and sheen for hair. Myvatex Texture Lite emulsifier and Myvatex 60 emulsifier provide a stable hair conditioning base for both hydroalcoholic and alcohol-free formulas. Levels of Eastman AQ 55S and Myvatex Texture Lite can be adjusted to modify levels of hold and conditioning. These mild, nonionic, soap-free formulas are suitable for all hair types.

Formulation X22176-106 (Hydroalcoholic)

<u>Concentrate:</u>	<u>%W/W</u>
Distilled water	q.s.* to 100
Eastman AQ 55S polymer	8.0
Myvatex Texture Lite emulsifier	2.0
Monamid 150 ADD	1.0
Myvatex 60 emulsifier	0.3
SDA-40C alcohol	20.0
Fragrance	q.s.*
Citric acid	q.s.*

*q.s.=quantity sufficient

Procedure:

1. Heat Eastman AQ 55S and water to 80-85C with mixing until the polymer is completely dispersed in the water.
2. Cool to room temperature.
3. Slowly add Myvatex Texture Lite with high-speed agitation. Care should be taken when mixing to avoid aeration.
4. When uniform, add Myvatex 60 and Monamid 150 ADD.
5. Slowly add SDA-40C alcohol.
6. Add fragrance.
7. Adjust pH to 6.5-7.0 with citric acid.
8. Aerosol final concentrate at 5.23 g/mL of A46 propellant (Aeropress).

Formulation X22176-107 (Alcohol-Free)

<u>Concentrate:</u>	<u>%W/W</u>
Distilled water	q.s.* to 100
Eastman AQ 55S polymer	8.0
Myvatex Texture Lite emulsifier	5.5
Monamid 150 ADD	1.0
Myvatex 60 emulsifier	0.3
Preservative	q.s.*
Fragrance	q.s.*
Citric acid	q.s.*

*q.s.=quantity sufficient

Procedure:

1. Heat Eastman AQ 55S and water to 80-85C with mixing until the polymer is completely dispersed in the water.
2. Cool to room temperature and add preservative.
3. Slowly add Myvatex Texture Lite with high-speed agitation. Care should be taken when mixing to avoid aeration.
4. When uniform, add Myvatex 60 and Monamid 150 ADD.
5. Add fragrance. 6. Adjust pH to 6.5-7.0 with citric acid.
6. Aerosol final concentrate at 5.23 g/mL of A46 propellant (Aeropress).

SOURCE: Eastman Chemical Co.: Suggested Formulations

Super-Hold Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SDA 40 Alcohol (190 Proof)	82.43
Stepanhold R-1	12.00
Deionized Water	5.00
AMP-95	0.37
Perfume	0.20

Procedure:

Dissolve the Stepanhold R-1 in alcohol and add the AMP; mix well. Add the deionized water and perfume; mix until the product is clear.

Formulation PF-0102 suggested by Stepan Chemical Co.

Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez ES-225 or ES-425	4.00
AMP-Regular	0.09
Arosurf 66-E2	0.10
Isopropyl Lanolate	0.05
Fragrance	0.10
Ethanol, SDA Anhydrous	45.66
Propellant	50.00

Procedure:

Dissolve the neutralizer (AMP) in the alcohol and add the Gantrez resin. When the resin is in solution, add the remaining ingredients in the order listed.

Formulation PF-0103 suggested by the Sherex Chemical Co.

Hairspray
(Mechanically Actuated)

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 18-2930	4.50
AMP-95	0.36
Emcol CC-9	0.15
Fragrance	q.s.
Ethanol (190 proof SDA-40)	94.99

Valve: Calmar M-2

Formulation PF-0117 suggested by National Starch & Chemical Corp.

SOURCE: Angus Chemical Co.: Angus Product Formulary

Ultra Rich Conditioner
(Formula 90-0303M)

	<u>% by Weight</u>
Rhodaquat M270C/18	3.50
Cetyl Alcohol NF	1.50
Alkamuls EGMS/C	1.00
Jaguar HP-60	0.80
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	93.20

Blending Procedure: Disperse Jaguar HP-60 in water and mix until uniform. Warm water system to 70-75C and blend in Rhodaquat M270C/18, Cetyl Alcohol NF, and Alkamuls EGMS. Once system is uniform, adjust formulation pH to 3.5-4.5 with Citric Acid as needed. With smooth agitation, cool system to 40-45C and blend in compatible Fragrance, Dye(s) and Preservative.

Typical Formulation Properties

Appearance @ 25C:	Opaque/Pearlescent Liquid
pH:	3.5-4.5
% Non Volatiles:	4-5

CTFA Identification: Water, Cetyl Alcohol, Glycol Stearate, Stearalkonium Chloride, Hydroxypropyl Guar, Fragrance, Preservative, Citric Acid, Dye(s).

Hair Relaxer
(Formula 92-1205)

	<u>% by Weight</u>
Miranol DM Conc. (45%)	15.0
Sodium Hydroxide (50%)	8.0
Mineral Oil	5.0
Alkamuls EGDS	3.0
Cetyl Alcohol NF	1.0
Deionized Water	68.0
Preservative, Dyes	q.s.

Procedure: Heat all ingredients (except sodium hydroxide) with mixing to 75C until uniform. Continue mixing and cool to 45C, then add sodium hydroxide. Continue mixing until uniform. Add compatible preservative and dye.

Typical Formulation Properties:

Appearance @ 25C:	Viscous, opaque liquid
Viscosity @ 25C:	8,000-10,000 cps
pH:	9-11
% Non Volatiles:	20

CTFA Identification: Water, Stearoamphoacetate, Mineral Oil, Sodium Hydroxide, Glycol Stearate, Cetyl Alcohol, Preservative, Dyes.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Vegetable Creme Hair Dressing

	<u>%W/W</u>
A. Deionized Water	44.70
Carbopol 940-2% Aq. Sol'n. (Carbomer 940)	35.00
Wheat-Tein NL (Hydrolyzed Wheat Protein)	3.00
Tween 20 (Polysorbate 20)	1.50
B. Mayphos OL 3N (DEA-Oleth-3 Phosphate)	0.30
Arlacel 60 (Sorbitan Stearate)	1.50
Petrolatum	2.00
Wheat Germ Oil	2.00
Sesame Oil	3.00
Cetyl Alcohol	1.00
Arlacel 165 (Glyceryl Stearate (and) PEG-100 Stearate)	1.00
Isopropyl Palmitate	3.00
Shea Butter	1.00
C. Triethanolamine-99%	1.00
Preservatives, Fragrance	q.s.

Procedure:

Heat Phases A & B separately to 80C. Add Phase B to A at 80C with agitation. Mix until smooth. Add phase C carefully to avoid aeration.

Properties:

A creme hair dressing based on natural vegetable oils and proteins. Conditions and moisturizes leaving a smooth finish and natural shine. Reduces split ends and dryness without leaving a greasy feel. Wheat-Tein NL protects and repairs the hair. Mayphos OL 3N acts as an adjunct emulsifier and adds an attractive shine. Excellent for setting, pressing, blow drying and conditioning. Massage a small amount into the hair and especially into the ends.

SOURCE: Maybrook Inc.: Formula #HE-1651

Clear Conditioner

	<u>Weight, %</u>
Mackpro Conditioner*	2.0
Hydroxyethylcellulose	1.0
Mackstat DM	qs
Water, Fragrance, Dye qs to	100.0

Procedure:

1. Completely disperse Hydroxyethylcellulose in water.
2. Heat to 45C and add Mackpro conditioner.
3. Adjust pH to 5.0 with lactic acid.
4. When product is clear, add remaining components.
5. Cool and fill.

*Based on 100% concentration

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Water-Based Hair Sprays

These formulations demonstrate a dual-resin approach to alcohol-free hair spray systems which utilize the quick-setting benefits of Eastman AQ polymer to achieve comparable performance with traditional alcohol products. The combination of Eastman AQ water-dispersible polyesters and conventional water-soluble resins provides performance improvements over single component systems. This technology provides formulation flexibility to optimize performance in rinseability/washability, degree of hold, humidity resistance, film elasticity, and viscosity control for spray pattern.

Formulation X21980-057 (Pump)

Phase A:	
Distilled water	%W/W 90.4
Eastman AQ 55S polymer	5.0
Phase B:	
Germall II diazolidinyl urea	0.3
Methylparaben	0.3
Phase C:	
Luviskol VA 73W PVP/VA copolymer-50% solids	4.0
Procedure:	
1. Heat Phase A to 85C.	
2. With mixing, hold at 80-85C for 15 minutes.	
3. Cool to 60C, add Phase B, and mix until dissolved.	
4. Cool to 40C and add Phase C.	
5. Add water lost during heating.	
6. Mix until uniform; filter and package.	
pH: 6.0+-1.0	

Formulation X21980-058 (Aerosol)

Phase A:	
Distilled water	%W/W 60.4
Eastman AQ 38S polymer	5.0
Phase B:	
Germall II diazolidinyl urea	0.3
Methylparaben	0.3
Phase C:	
Luviskol VA 73W PVP/VA copolymer-50% solids	4.0
Phase D:	
Dymel A dimethyl ether	30.0
Procedure:	
1. Heat Phase A to 85C.	
2. With mixing, hold at 80-85C for 15 minutes.	
3. Cool to 60C, add Phase B, and mix until dissolved.	
4. Cool to 40C and add Phase C.	
5. Add water lost during heating.	
6. Add Phase D at room temperature.	
7. Mix until uniform; filter and package.	
8. Agitate aerosol container to ensure solution of propellant.	
pH: 6.0+-1.0	

SOURCE: Eastman Chemical Co.: Suggested Formulations

Water-Based Pump Hair Spray

Water-based spray provides clear glossy film and strong hold on hair. Fixative polymer requires no neutralization; has low viscosity for effective spray pattern and better dry time.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	91.50
Part B:	
Dimethicone copolyol	0.30
Lauramide DEA (Monamide 716)	0.30
AMP-Acrylates Copolymer (Diahold A-503)	7.00
Glycerin	0.20
Propylene Glycol	0.40
Fragrance	0.10
Preservative	0.20

Procedure:

Add A to vessel. Add B in order with mixing. Adjust pH to 6.5.

Formulation PF-0250 suggested by Sandoz

Hair Spritzing Spray, Non-Aerosol

<u>Ingredients:</u>	<u>% by Weight</u>
Crovol M40 (corn oil PEG-20 complex)	0.50
AMP-95	0.16
Ethanol DEB 100	to 100
Gantrez ES425 (PVM/MA copolymer)	8.00
Escalol 507 (octyl dimethyl PABA)	1.00
Water, deionized	11.36
d-Panthenol	0.10
Perfume, preservatives, color	q.s.

Procedure:

Dissolve the AMP-95 in the alcohol. Add the Gantrez ES resin with mixing. Mix in the Escalol, then Crovol. Premix the water and Panthenol then add the alcohol. Mix until clear.

Formulation PF-0249E

SOURCE: Angus Chemical Co.: Angus Product Formulary

Wet Gel, Alcohol-Free

	<u>%W/W</u>
I Eumulgin HRE 60	1.0
Perfume	0.5
II Water	55.0
Carbopol 940	0.8
III Water	5.0
Triethanolamine	1.5
IV Nasuna B	0.5
Water	35.7

Preparation: Carbopol 940 is sprinkled into the alcohol/water mixture stirring continuously, and allowed to swell. Later it is neutralized with the triethanolamine dissolved in 5 parts water.

Nasuna B is dissolved in the remaining water, stirring continuously. This solution is added to the swollen Carbopol. Eumulgin SML 20 and perfume are mixed together and then mixed with a small quantity of the above gel before being mixed with the remaining gel.

Formula No. WF11-27

Wet Gel

	<u>%W/W</u>
Ethyl alcohol 96%	41.0
Water	51.9
Carbopol 940	0.8
Triethanolamine	1.0
Eumulgin SML 20	5.0
Perfume	0.3

Preparation: See Formula WF11-27

Formula No. WF11-30

Setting Lotion, Clear, in Gel Form

	<u>%W/W</u>
Nasuna B	4.0
Carbopol 940	0.7
Ethyl/isopropyl alcohol	50.1
Triethanolamine	1.0
Water	44.2

Preparation: See Formula WF11-27

Formula No. WF 11-32

Hair Oil

	<u>%W/W</u>
Paraffin oil	60.0
Cetiol V	30.0
Isopropyl myristate	10.0

Formula No. WF31-01

Hair Oil

	<u>%W/W</u>
Paraffin oil	90.0
Cetiol B	10.0

Formula No. WF31-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Wet Gel with Glitter Effect, Contains Alcohol

	<u>%W/W</u>
I Water	20.0
Ethyl alcohol 96%	41.0
Carbopol 940	0.7
II Water	5.0
Triethanolamine	1.0
III Water	25.0
Nasuna B	1.0
IV Eumulgin SML 20	5.0
Perfume	0.3
V Polyester glitter blue 25/105R	1.0

Preparation: Carbopol 940 is sprinkled into the alcohol/water mixture stirring continuously, and allowed to swell. Later it is neutralized with the triethanolamine dissolved in 5 parts water.

Nasuna B is dissolved in the remaining water, stirring continuously. This solution is added to the swollen Carbopol.

Eumulgin SML 20 and perfume are mixed together and then mixed with a small quantity of the above gel before being mixed with the remaining gel.

Finally, the polyester glitter is stirred in. To improve the appearance the Carbopol gel can be colored yellow (for golden polyester glitter) or blue (for blue polyester glitter).

Formula No. WF11-14

Wet Gel with Glitter Effect, Contains Alcohol

	<u>%W/W</u>
I Water	20.0
Ethyl alcohol 96%	41.0
Carbopol 940	0.7
II Water	5.0
Triethanolamine	1.0
III Water	29.2
Nasuna B	1.0
IV Eumulgin RO 40	0.8
Perfume	0.3
V Polyester glitter blue 25/105R	1.0

Preparation: See Formula WF11-14

Formula No. WF11-16

Wet Gel

	<u>%W/W</u>
Ethyl alcohol 96%	40.0
Water	53.1
Carbopol 940	0.6
Triethanolamine	1.0
Eumulgin SML 20	5.0
Perfume	0.3

Preparation: See Formula WF11-14

Formula No. WF11-17

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Wet Gel with Reduced Alcohol Content

	<u>%W/W</u>
I Water	40.0
Ethyl alcohol 96%	20.0
Carbopol 940	0.8
II Water	5.0
Triethanolamine	1.2
III Nasuna B	0.5
Water	30.0
IV Eumulgin HRE 40	2.0
Perfume	0.5

Preparation: Carbopol 940 is sprinkled into the alcohol/water mixture stirring continuously, and allowed to swell. Later it is neutralized with the triethanolamine dissolved in 5 parts water.

Nasuna B is dissolved in the remaining water, stirring continuously. This solution is added to the swollen Carbopol.

Eumulgin SML 20 and perfume are mixed together and then mixed with a small quantity of the above gel before being mixed with the remaining gel.

Formula No. WF11-19

Wet Gel, Alcohol-Free

	<u>%W/W</u>
I Water	55.0
Carbopol 940	0.8
II Water	5.0
Triethanolamine	2.0
III Water	35.0
Nasuna B	1.0
IV Polyquart H81	1.0
Perfume	0.2

Preparation: See formula WF11-19

Formula No. WF11-23

Wet Gel, Alcohol-Free

	<u>%W/W</u>
I Eumulgin HRE 40	1.0
Perfume	0.5
II Water	55.0
Carbopol 940	0.8
III Water	5.0
Triethanolamine	1.5
IV Nasuna B	0.5
Water	35.7

Preparation: See formula WF11-19

Formula No. WF11-25

SOURCE: Henkel KGaA; Cosmetic Model Formulae

Wheat Moisturizing and Styling Gel

	<u>%W/W</u>
A. Tween 20 (Polysorbate 20)	1.00
Ivarlan AWS (PPG-12 PEG-65 Lanolin Oil)	2.00
Fragrance (Novarome Tuberose MG-02)	0.20
Glycerin	10.00
Deionized Water	22.20
Wheat-Tein NL (Hydrolyzed Wheat Protein)	1.00
Preservative, color	q.s.
B. Carbopol 940 (2% Aq. Sol'n) (Carbomer 940)	50.00
C. Aminomethyl Propanol	0.60
D. Isopropyl Alcohol 99%	10.00
PVP/VA E-735 (PVP/VA Copolymer)	2.00
E. Kera-Tein 1000 AS (Ethyl Ester of Hydrolyzed Keratin)	1.00

Procedure:

Pre-mix AWS, Tween and Fragrance until clear. Add the Glycerin, water and wheat. Mix until homogeneous. Add to Phase B. Add Phase C (AMP) to A/B. Mixture will clear and thicken. Pre-mix Phase D. Add to batch. Add Phase E. Mix.

Properties:

A thick, spreadable gel providing hair holding and moisturizing. Adds shine and protective proteins to the hair. Kera-Tein 1000 AS is a substantive cationic ester. Wheat-Tein NL is a substantive, film-forming protein.

Formula #HF-1003

Hi-Fashion Hair Sculpture Gel

	<u>%W/W</u>
A. Deionized Water	19.50
Pro-Tein ES-20 (Ethyl Ester of Hydrolyzed Collagen)	3.00
Tetrasodium EDTA	0.10
Aqua-Tein C (Collagen Amino Acids (and) Acetamide MEA (and) Propylene Glycol)	1.00
Carbomer 940 - 2% Aq. Sol'n	44.00
B. SD Alcohol 40A	30.00
PVP/VA E535	2.00
Fragrance	0.10
C. Aminomethyl Propanol-95	0.30

Procedure:

1. Mix Phase A at room temperature.
2. Pre-mix Phase B, then add to A.
3. Add Phase C to A/B.

Properties:

A pumpable, styling gel for the very fashionable new hair-styles. Repairs and conditions while providing a professional-hold. Protein ES-20 is a cationic protein which provides shine and flex to the hair. This cationic protein is unusual in that it is compatible with the anionic Carbopol.

Aqua-Tein C nurtures the hair from within providing a natural feel and bounce while protecting the hair from external damage.

Formula #HF-1002

SOURCE: Maybrook Inc.: Suggested Formulations

3 in 1 Professional Conditioning Mousse with Sunscreen

<u>Ingredients:</u>	<u>% by Weight</u>
Water	70.153
Polycare 133	3.15
Igepal CO-630	0.18
Miranol Ultra C-32	0.18
Syntase 230	0.045
Mirapol A-15	0.10
dI-Panthenol	0.045
Alcohol (190 proof)	16.00
Silbione 71634	0.120
Silbione 70646	0.027
AMP-95	q.s. pH=5.0
Preservative, Fragrance	q.s.
A-46 Propellant	10.00

Procedure:

1. Add water to the main beaker and dissolve the dI-Panthenol and Syntase 230.
2. Add and dissolve the Polycare 133.
3. Add Igepal CO 630, Mirapol A-15, Miranol Ultra C-32, and Alcohol.
4. Prephase Silbione 71634 and Silbione 70646, then add to main phase.
5. Add fragrance and preservative.
6. Adjust pH with AMP-95.
7. Package product using Propellant A-46.

Valve:

Actuator:	021560
Stem:	1270
Stem gasket:	0330
Spring:	6010
Body:	0-6973
Mounting Clip:	Conical, Aluminum Epon

Typical Formulation Properties:

Appearance of JUS: White, Opaque Lotion
pH: 4.5-5.0

Formulation PF-0283 suggested by Rhone-Poulenc

SOURCE: Angus Chemical Co.: Angus Product Formulary

55% VOC DME/HFC-152a Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	22.42
Ethanol	34.60
AMP-95	0.56
Acudyne 255 (41% solids)	12.50
HFC-152a	9.60
Dimethylether (DME)	20.40
Dow Corning 190 Fluid	0.10

Procedure:

Mix water, ethanol, AMP-95 and plasticizer. Add polymer with stirring. Mix until solution is slightly turbid, but actives are dispersed. Charge HFC-152a and DME. The mixture immediately turns clear.

Properties:

Cloud Point: <-22F

Vapor Pressure: 40 psig @ 70F

Formulation PF-0316 suggested by Rohm and Haas

55% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	31.84
Ethanol	55.00
AMP-95	0.56
Acudyne 255 (41% solids)	12.50
Dow Corning 190 Fluid	0.10

Procedure:

Mix water, ethanol, AMP-95 and plasticizer. Add polymer with stirring. Mix until solution is clear. Neutralization level is 55%.

Properties:

Cloud Point: <-22F

Viscosity: 8.5 cps, spindle #1 @ 60 rpm

Formulation PF-0315 suggested by Rohm and Haas

SOURCE: Angus Chemical Co.: Angus Product Formulary

80% VOC Non-Aerosol Hair Spray

<u>Ingredients/CTFA Designations:</u>	<u>% by Weight</u>
Amphomer LV-71/Octylacrylamide/Acrylates/Butylaminoethyl Methacrylate Copolymer	5.00
AMP-95/Aminomethyl Propanol	0.98
Uvinul MS-40/Benzophenone-4	0.05
d1-Panthenol/Panthenol	0.21
DC-193/Dimethicone Copolyol	0.30
Citroflex-2/Triethyl Citrate	0.20
Armeen DM-18D/Dimethyl Stearamine	0.17
Deionized Water	13.09
Anhydrous Ethanol, SDA-40	80.00

Procedure:

Dissolve AMP and Armeen DM-18D in water and ethanol. While maintaining good agitation, slowly sift in Amphomer LV-71. When solution is complete, add remaining ingredients and mix well until homogeneous. Filter and fill.

Formulation PF-0259 suggested by National Starch & Chemical Co.

80% VOC Pump Hair Spray with Gantrez C-425 and Gantrez XL-80

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol (190 proof)	79.63
Water	3.96
Gantrez XL-80 (PVM/MA Decadiene Crosspolymer)	5.70
AMP-95	0.41
Gantrez V-425 (Butyl Ester of PVM/MA Copolymer)	10.00
Phenyl Trimethicone	0.10
Fragrance	0.20

Procedure:

1. Add Ethanol and water to main tank. Start mixing and add Gantrez XL-80. Mix until completely blended.
2. Add AMP-95 and mix until blended.
3. Add Gantrez V-425 and then additional ingredients while mixing completely after each addition.

Formulation PF-0260 suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

80% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 28-2930	5.41
Amphomer LV-71	1.19
AMP-95	0.74
Dimethicone copolyol	0.11
Cocamidopropyl betaine	0.10
Fragrance	0.15
Deionized water	12.30
Anhydrous ethanol, SDA-40	80.00

Procedure:

Dissolve AMP-95 in water and ethanol. While maintaining good agitation, slowly sift in Resyn 28-2930 and Amphomer LV-71. When solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill.
Formulation PF-0206 suggested by National Starch and Chemical

Non-Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Alcohol SD-40	60.00
Resyn 28-2930	3.00
PPG-10 cetyl ether	0.80
AMP-95	0.40
B. Deionized water	35.60
Crotein ADW	0.20

Procedure:

Add the AMP-95 of Part A to the alcohol with mixing. When uniform, add the Resyn 28-2930 with mixing. When uniform, add the PPG-10 cetyl ether. Separately, mix the ingredients of Part B, then add to Part A with mixing.
Formulation PF-0222 suggested by Croda Inc.

80% VOC Aerosol Hairspray Formulation
Stiff Feel

<u>Ingredients:</u>	<u>% by Weight</u>
Advantage V Resin	8.00
AMP-95	0.24
SD Alcohol 40	46.00
Distilled Water	15.76
Propellant A-17	9.00
Dimethyl Ether Propellant	21.00
Plasticizer	q.s.
Fragrance	q.s.

Formulation PF-0205 suggested by International Specialty Products

SOURCE: Angus Chemical Co.; Angus Product Formulary

80% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl-47	4.13
Resyn 28-2930	1.37
AMP-95	0.96
Sandopan LS-24	0.20
DC Q2-5220	0.20
Deionized Water	13.14
Anhydrous Ethanol, SDA-40	80.00
Fragrance	q.s.

Valve: Seaquist Euromist II 160 output with a 0.016" x 0.010" deep actuator.

Procedure:

Dissolve AMP in ethanol. Slowly sift in Resyn 28-2930, maintaining good agitation. When dissolved, slowly sift in Lovocryl-47. Upon dissolution, add the water followed by the remaining ingredients. Continue mixing until homogeneous. Filter and fill. Formulation PF-0282 suggested by National Starch & Chemical Corp.

80% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Amphomer LV-71	3.75
AMP-95	0.78
Armeen DM 18D	0.14
Citroflex-2	0.20
Monamid 716	0.15
Solulan-75	0.10
Neo-Heliopan AV	0.10
Glycerine	0.10
Panthenol	0.10
Deionized Water	14.58
SDA-40 Anhydrous	50.00
Fragrance	q.s.
Prop. A-17 (n-butane)	15.00
Dimethyl ether	15.00

Procedure:

Dissolve AMP-95 and Armeen DM 18D in water and ethanol. While maintaining good agitation, slowly sift in Amphomer LV-71. When solution is complete, add remaining ingredients and mix until homogeneous. Filter, fill and charge with propellants.

Precision Valve and Actuator Specifications:

Stem:	04-1215 0.16"
Stem Gasket:	05-0350 Butyl
Spring:	06-6010 SS
Body:	07-7970 .016" LD
Mounting Cup:	32-7300-62 Flat, Epon Top/Bottom Dimpled, FBS
Dip Tube:	09-2010
Actuator Style:	21-8146 Kosmos
Orifice Size:	.025" MB Concave

Formulation PF-0284 from National Starch and Chemical Co.

SOURCE: Angus Chemical Co.: Angus Product Formulary

80% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Resyn 28-2930	5.41
Amphomer LV-71	1.19
AMP-95	0.74
Dimethicone copolyol	0.11
Cocamidopropyl betaine	0.10
Fragrance	0.15
Deionized water	12.30
Anhydrous ethanol, SDA-40	80.00

Procedure:

Dissolve AMP-95 in water and ethanol. While maintaining good agitation, slowly sift in Resyn 28-2930 and Amphomer LV-71. When solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill.
Formulation PF-0206 suggested by National Starch and Chemical

Non-Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Alcohol SD-40	60.00
Resyn 28-2930	3.00
PPG-10 cetyl ether	0.80
AMP-95	0.40
B. Deionized water	35.60
Crotein ADW	0.20

Procedure:

Add the AMP-95 of Part A to the alcohol with mixing. When uniform, add the Resyn 28-2930 with mixing. When uniform, add the PPG-10 cetyl ether. Separately, mix the ingredients of Part B, then add to Part A with mixing.
Formulation PF-0222 suggested by Croda Inc.

80% VOC Aerosol Hairspray Formulation
Stiff Feel

<u>Ingredients:</u>	<u>% by Weight</u>
Advantage V Resin	8.00
AMP-95	0.24
SD Alcohol 40	46.00
Distilled Water	15.76
Propellant A-17	9.00
Dimethyl Ether Propellant	21.00
Plasticizer	q.s.
Fragrance	q.s.

Formulation PF-0205 suggested by International Specialty Products

SOURCE: Angus Chemical Co.: Angus Product Formulary

**80% VOC Pump Hair Spray with
Gantrez V-225, Advantage V and Gantrez XL-80**

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol (190 proof)	78.82
Water	3.13
Gantrez XL-80 (PVM/MA Decadiene Crosspolymer)	5.70
AMP-95	0.45
Advantage V (VA/Butyl Maleate/Isobornyl Acrylate Copolymer)	5.75
Gantrez V-225 (Ethyl Ester of PVM/MA Copolymer)	5.75
Phenyl Trimethicone	0.10
Fragrance	0.30

Procedure:

1. Add Ethanol and water to main tank. Start mixing and add Gantrez XL-80. Mix until completely blended.
2. Add AMP-95 and mix until blended.
3. Add Advantage V, Gantrez V-225 and then additional ingredients while mixing completely after each addition.

Formulation PF-0261 suggested by ISP

Alcohol-Free Styling Mist

<u>Ingredients/CTFA Designations:</u>	<u>% by Weight</u>
Amphomer LV-71/Octylacrylamide/Acrylates/Butylamino-ethyl Methacrylate Copolymer	7.00
AMP-95/Aminomethyl Propanol	1.50
Monamid 716/Lauramide DEA	0.15
Glycerine	0.10
Dow Corning 190/Dimethicone Copolyol	0.20
Uvimul MS-40/Benzophenone 4	0.05
Fragrance/Sunflower Fragrance 12294	0.20
Germaben II/Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Deionized Water	89.80

Formulation PF-0262 suggested by National Starch & Chemical Co.

SOURCE: Angus Chemical Co.: Angus Product Formulary

80% VOC Shine and Hold Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Amphomer	5.00
AMP-95	0.82
Dow Corning 190	5.00
Monamid 716	0.20
Anhydrous Ethanol, SDA-40	80.00
Deionized Water	8.98

Procedure:

Dissolve AMP-95 in ethanol and water. While maintaining good agitation, sift in Amphomer. When solution is complete, add DC-190 and Monamid 716. Mix until homogeneous. Filter and fill. Formulation PF-0270 suggested by National Starch & Chemical Co.

Non-Aerosol 80% VOC Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez A-425	24.00
SD-40 200P	68.00
AMP-95	0.98
Phenyl Trimethicone	0.10
Deionized Water	6.67
Fragrance	0.25

Procedure:

1. Add Ethanol and AMP-95 to suitable container. Mix well.
2. Add Gantrez A-425. Mix well.
3. Add Phenyl Trimethicone. Mix well.
4. Add fragrance. Mix well.

Formulation PF-0287 suggested by ISP

Firm Holding Hairspray

Strong hold, for all climatic zones, easy combability, good brush-out, good wash-out properties.

<u>Ingredients:</u>	<u>% by Weight</u>
Luvimer 100P	3.00
AMP Regular	0.69
Ethanol	36.31
Dimethyl ether	60.00
Perfume	q.s.

Procedure:

Combine ethanol, AMP and perfume. Add Luvimer 100P to the solution and mix until clear.

Cloud point: -35C

Pressure: 3.9 bar

Density: 0.74 g/cm³

Formulation PF-0288 suggested by BASF

SOURCE: Angus Chemical Co.: Angus Product Formulary

80% VOC Super Hold Hair Spray

Silicone polymer blend reduces viscosity, improves spray pattern by functioning as a defoamer and improves set retention.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Vinyl acetate/butyl maleate/isobornyl acrylate copolymer	10.00
AMP-95	0.14
Phenyl trimethicone (Abil AV-20HS)	0.10
Dimethicone copolyol (Abil B 8852)	0.10
Dimethicone/sodium PG propyl dimethicone thiosulfate copolymer (Abil S-201)	0.20
SD alcohol 40	37.71
Water	16.50
Dimethyl ether	21.00
Stearyl heptanoate (Tegosoft SH)	0.15
Sodium lauroyl sarcosinate	0.05
Disodium dodecenyyl sulfosuccinate	0.05
Part B:	
Isobutane (and) propane	14.00

Procedure:

Mix A, mixing well between additions. Fill into spray containers. Charge spray containers with B.

Formulation PF-0252 suggested by Goldschmidt

80% VOC Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
AMP-95	0.70
Deionized water	11.00
Ethanol	72.00
Part B:	
Monoethyl ester of polymethyl vinyl ether/maleic acid (Gantrez V-215)	16.00
Part C:	
Fragrance	0.30

Procedure:

Mix A until uniform. Add B, mix until uniform. Add C.

Formulation PF-0251 suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

Section VII

Insect Repellents

Insect Repellent Cream O/W

	<u>%W/W</u>
I Cutina MD	8.0
Siebert Stearin L2SM	8.0
Eumulgin B2	1.0
Cetiol LC	5.0
Repellent 790	10.0
II Viscontran MHPC 6000 2% solution	5.0
Triethanolamine	1.0
Water	62.0

Note: Avoid contact with eyes and mucous membranes
Formula No. I11-01

Insect Repellent Cream O/W

	<u>%W/W</u>
I Cutina MD	12.0
Siebert Stearin L2SM	4.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	5.0
Repellent oil 28432C	10.0
II Viscontran HEC 30 000 PR-4% solution	37.4
III Triethanolamine	0.2
Water	28.4

Note: Avoid contact with eyes and mucous membranes
Formula No. I11-02

Insect Repellent Emulsion O/W, Liquid

	<u>%W/W</u>
I Cutina MD	2.5
Siebert Stearin L2SM	3.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Cetiol V	5.0
Repellent 790	10.0
II Veegum	2.5
Triethanolamine	0.2
Water	73.8

Note: Avoid contact with eyes and mucous membranes
Formula No. I21-01

Insect Repellent Oil, Alcoholic

	<u>%W/W</u>
Eutanol G	40.0
Paraffin oil, high viscous	20.0
Cetiol HE	10.0
Repellent 790	20.0
Ethyl alcohol 96%	10.0

Note: Avoid contact with eyes and mucous membranes
Formula I31-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Insect Repellent Stick

	%W/W
Eutanol G	10.0
Comperlan 100	8.0
Siegert Stearin L2SM	9.3
Menthol	2.0
Dimethyl phthalate	30.0
Isopropyl alcohol	24.0
Henkel Glycerin 86% DAB 9	13.2
Sodium hydroxide solution 38%	3.5

Preparation: Eutanol G, Comperlan 100, Siegert Stearin, dimethyl phthalate and isopropyl alcohol are heated on the water bath at 70C until the Comperlan has melted. Together with the sodium hydroxide solution, the glycerine is also heated to 70C and added to the alcoholic fat melt. The compound is then cast into moulds, it solidifies in a few minutes and can be taken out of the mould before it completely cools. It is advisable to work with a slight excess of alcohol. The amount is approx. 10% in the case of small batches, whilst in the case of larger ones, correspondingly less.

Note: Max. pH 11
Formula No. I41-01

Insect Repellent Stick

	%W/W
Lanette 18	12.0
Eutanol G	5.0
Comperlan HS	25.0
Carnauba wax	3.0
Hard paraffin 72C	12.0
Ethyl alcohol 96%	10.0
Repellent oil 28432C	33.0

Preparation: Lanette 18, Eutanol G, Comperlan HS, Carnauba wax and hard paraffin are melted on the water bath. Ethyl alcohol and repellent oil are mixed together and heated to 70C. After the fat melt has also cooled down to 70C, this mixture is slowly stirred into it and then cast in moulds. The compound solidifies in a few minutes. The sticks can be taken out of the mould before they have completely cooled down.

Note: Avoid contact with eyes and mucous membranes
Formula No. I41-02

Insect Repellent Spray, Aerosol-Packed

	%W/W
Repellent oil 28432 C	20.0
Eutanol G	40.0
Ethyl or isopropyl alcohol	40.0

Filling: 50 parts active ingredient concentrate
50 parts propellant 12/114 (40:60)

Note: Avoid contact with eyes and mucous membranes
Formula No. I71-01

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Section VIII

Lotions

Alpha Hydroxy Acid Lotion

Rich emulsion containing alpha hydroxy acid to gently exfoliate and rejuvenate the skin. Extra mildness.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Grillocose PS (Methyl Glucose Sesquistearate)	3.00	Emulsifier
2. Behenyl Alcohol (Lanette 22)	3.00	Thickener
3. Mineral Oil 9NF	7.50	Emollient
4. Octyl Octanoate (Tegosoft EE)	7.50	Emollient
5. *Grilloten LSE 65K (Sucrose Cocoate)	2.00	Emulsifier/ Emollient
6. Sodium Cetearyl Sulfate (Lanette E)	0.10	Emulsifier/ Cleaning
7. Glycerine	3.00	Humectant
8. Xanthan Gum (Keltrol G-T)	0.40	Thickener
9. Distilled/Deionized Water	62.70	----
10. Patlac LA (Lactic Acid, 88%)	5.60	Hydroxy Acid
11. Sodium Hydroxide (20% Soln.)	5.00	pH Adjuster
12. Glydant	q.s.	Preservative
13. Fragrance-Nature's Herbal #165-050	0.20	Odor

* Substitution with Ritalan C and Natural Extract DP is being investigated.

Compounding Procedure:

Add Patlac LA to 10% water and adjust pH with Sodium Hydroxide solution to 3.8. In remaining water, dissolve item 8. Add items 6 and 7 and heat to 80C. Separately heat items 1-5 to 80C. Add items 1-5 to items 6-9 and mix. While mixing cool to 45C and add items 12 and 13. At 40C add prepared Lactic Acid solution (pH 3.8) and homogenize.

Ref No. 119-11

Light Hand Lotion

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritachol 2000 (R.I.T.A. Blend)	3.50	Emulsifier
2. Pationic SSL (Sodium Stearoyl Lactylate)	1.40	Mildness
3. Rita IPP (Isopropyl Palmitate)	1.30	Emollient
4. Distilled/Deionized Water	88.50	----
5. Propylene Glycol	5.00	Humectant
6. Fragrance	0.10	Odor
7. Glydant	0.20	Preservative

Compounding Procedure:

Combine items 1-3 and heat to 70C. Combine items 4 and 5 and heat to 70C. Add oil phase to water phase and mix well. Cool to 40C and add fragrance/dyes/preservatives.

Ref. No. 119-92

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Alpha Hydroxy Acid Lotion

Rich emulsion containing alpha hydroxy acid to gently exfoliate and rejuvenate the skin.

<u>Ingredients/Trade Name:</u>	<u>%W/W</u>	<u>Function</u>
1. Grillocoese PS (Methyl Glucose Sesquistearate)	3.00	Emulsifier
2. Behenyl Alcohol (Lanette 22)	3.00	Thickener
3. Mineral Oil 9NF	7.50	Emollient
4. Isopropyl Palmitate	7.50	Emollient
5. Sodium Cetearyl Sulfate (Lanette E)	0.10	Emulsifier, Cleaning
6. Glycerine	3.00	Humectant
7. Xanthan Gum (Keltrol G-T)	0.40	Thickener
8. Distilled/Deionized Water	64.70	----
9. Patlac LA (Lactic Acid 88%)	5.60	Hydroxy Acid
10. Sodium Hydroxide (20% Soln.)	5.00	pH Adjuster
11. Glydant	q.s.	Preservative
12. Fragrance-Nature's Herbal #165-050	0.20	Odor

Compounding Procedure:

Add Patlac LA to 10% water and adjust pH with Sodium Hydroxide solution to 3.8. In remaining water, dissolve item 7. Add items 5 and 6 and heat to 80C. Separately heat items 1-4 to 80C. Add items 1-4 to items 5-8 and mix. While mixing, cool to 45C and add items 11 and 12. At 40C add prepared Lactic Acid solution (pH 3.8) and homogenize.

Ref. No. 119-18B

Hand and Body Lotion

All over hand and body lotion with excellent feel and moisturizing benefits.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil	5.00	Emollient
2. Petrolatum	4.00	Emollient
3. Ritawax ALA (R.I.T.A. Blend)	6.00	Skin Feel
4. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00	Rub In
5. Ritapro 165 (R.I.T.A. Blend)	5.00	Emulsifier
6. Polyquta 3000 (Polyquaternium-10)	0.50	Skin Feel
7. Distilled/Deionized Water	69.10	----
8. Glycerine	6.00	Moisture
9. Fragrance - Eau Sauvage 169-118	0.20	Odor
10. Glydant	0.20	Preservative

Compounding Procedure:

Dissolve Polyquta 3000 in water. Add Glycerine and heat to 70C. Separately heat items 1-5 to 70C. Add items 1-5 to water mixture while mixing. Cool and add preservative and perfume.

Ref. No. 119-36

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Barrier Lotion

This buttery lotion applies easily and protects the hands from harsh environments.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	75.30	Diluent
Glycerin	3.00	Humectant
Triethanolamine (99%)	0.40	Neutralizing Agent
Part B:		
Dimethicone, 1000 cs.	10.00	Barrier
Pemulen TR-1	0.30	Emulsifier
Carbopol 954	0.20	Thickener
Part C:		
Mineral Oil	10.00	Barrier
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80	Preservative

- (1) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
- (2) Carbomer (BFGoodrich)
- (3) Drakeol 19 (Penreco)
- (4) Germaben II-E (Sutton Laboratories)

Preparation:

1. Blend Part A ingredients in a vessel which will contain the entire formulation.
2. Prepare Part B in a separate vessel by mixing polymers in dimethicone to produce a fine suspension.
3. With vigorous agitation, add Part B to Part A. Promptly add Part C to the mixture. Mix to produce a smooth, glossy product.
4. Add Part D and blend thoroughly.

SOURCE: BFGoodrich Co.; Formula P0024

Body Lotion

Thick lotion leaving a soft touch.

Material/CTFA-Index:

A: Emulgator E2149/Stearyl Alcohol (and) Steareth-7	7.00%
Tegosoft 189/Isooctadecyl Isononanoate	1.00
Wacker-Belsil SM 6018/Stearyl Methicone	2.50
Isopropyl Myristate	7.00
B: Wacker-Belsil DMC 6035/Methicone Copolyol Acetate	2.00
C: Carbopol 934 2%ig/Carbomer 934	15.00
Water	65.50
Preservatives, fragrances, pigments	q.s.

Heat A and C each to 70C. Mix C well into A, add B.

Formulation 1326 AH

Body Lotion

White, creamy lotion which dissolves easily.

Material/CTFA-Index:

A: Mineral Oil, thinly liquid	5.00%
Stearic acid	5.00
Cetyl Alcohol	1.50
B: Water	81.20
Allantoin/5-Ureido-hydantoin	0.50
Triethanolamine	0.80
C: Propylene Glycol	3.00
Wacker-Belsil DMC 6035/Methicone Copolyol Acetate	3.00
Preservative, Perfume, Colourings	q.s.

Heat A and B to 65C. Add A to B with stirring. Add C and stir until cool.

Formulation 1225/7 AH

SOURCE: Wacker Silicone: Suggested Formulations

Body Lotion

Thick lotion with good absorption leaving a soft touch on the skin.

Material/CTFA-Index:

A: Emulgator E2149/Stearyl Alcohol (and) Steareth-7	7.00%
Tegosoft 189/Isooctadecyl Isononanoate	1.00
Wacker-Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	2.50
Isopropyl Myristate	7.00
B: Wacker-Belsil DMC 6038/Dimethicone Copolyol	3.00
Carbopol 934 2%ig/Carbomer 934	5.00
Triethanolamine 2%ig	5.00
Water	69.50
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 70C. Mix B well into A.

Formulation 1337 AH

Skin Lotion

Thin lotion with good spreadability and quick absorption.

Material/CTFA-Index:

A: Stearic Acid	2.80%
Cetyl Alcohol	1.00
B: Glycerine	2.00
Wacker-Belsil DMC 6038/Dimethicone Copolyol	4.00
Triethanolamine	0.80
Wasser dest./Water	89.40
Preservatives, fragrances, pigments	q.s.

Heat A and B to 80C, stir A into B.

Formulation 1336 AH

SOURCE: Wacker Silicones: Suggested Formulations

Body Lotion

Thick lotion. Easily spread, quickly absorbed and leaves a pleasant soft feeling on the skin.

Material/CTFA-Index:

A: Emulgator E 2155/Stearyl Alcohol (and) Steareth and Steareth-10	6.00%
Isopropyl Myristate	10.00
Stearyl Alcohol	1.00
Mineral oil	3.00
Belsil DM 100/Dimethicone	0.50
B: Glycerine	3.00
Wasser dest./Water	76.00
Preservatives, fragrances, pigments	q.s.
Heat A and B to 65C, mix and homogenise, cool whilst stirring.	
Temperature stability: at 45C over 10 weeks.	
Formulation 153 AH	

Body Lotion

Easily spread, quickly absorbed.

Material/CTFA-Index:

A: Belsil PDM 200/Phenyl Dimethicone	3.60%
Stearic Acid	2.80
Cetyl Alcohol	1.00
B: Glycerine	2.00
Triethanolamine	0.80
Wasser dest./Water	89.80
Preservatives, fragrances, pigments	q.s.
Heat A and B each to 80C, stir A into B.	
Formulation 187/4 AH	

Hand Lotion

White, thick lotion. Does not feel greasy.

Material/CTFA-Index:

Water	79.40%
Carbopol 934/Carbomer 934	0.40
Mineral oil, low viscosity	10.00
Belsil DM 350/Dimethicone	10.00
Triethanolamine	0.20
Preservatives, perfume	q.s.
Mix the Carbomer 934 slowly into the water until a homogeneous mixture is formed. Mix the mineral oil and Belsil DM 350 and add whilst stirring. Finally stir in the triethanolamine.	
Temperature stability: at 45C over 10 weeks.	
Formulation 188 AH	

SOURCE: Wacker Silicone: Suggested Formulations

Body Lotion

Thick lotion. Leaves a soft feeling on the skin.

Material/CTFA-Index:

A: Emulgator E 2149/Stearyl Alcohol (and) Steareth	7.00%
Tegosoft 189/Isooctadecyl Isononanoate	1.00
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethyl- silane (and) Stearoxy Dimethyldisiloxane	2.50
Isopropyl Myristate	7.00
Belsil DMC 6035/Dimethicone Copolyol Acetate	2.00
B: Carbopol 934 2%ig/Carbomer 934	15.00
Water	65.50
Preservatives, pigments, fragrances	q.s.

Heat A and B each to 70C. Stir B well into A.

Temperature stability: at 45C 8 weeks.

Formulation 360 AH

Hand Lotion

Very greasy, but well absorbed. Good water-repellent effect.

Material/CTFA-Index:

A: Polyethylenglykol 400/PEG-8	2.00%
Isopropyl Myristate	3.00
Cetyl Alcohol	1.00
Stearic Acid	2.00
B: Tris Amino/Tromethamine	0.50
Propylene Glycol	4.50
Glycerine	2.00
Water	65.00
C: Belsil CM 1000/Cyclomethicone(a.) Dimethiconol	20.00
Preservatives, perfume, pigments	q.s.

Heat A and B to approx. 65C. Stir B into A, add C and stir until cool.

Formulation 359 AH

SOURCE: Wacker Silicone: Suggested Formulations

Body Lotion

White lotion with low viscosity. Leaves a soft feeling on the skin.

Material/CTFA-Index:

A: Water	84.50%
Carbopol 934/Carbomer 934	0.10
B: Glycerine	3.00
Triethanolamine	0.90
C: Cetyl Alcohol	1.00
Stearic Acid	0.80
Arlacel 165/Glyceryl Stearate se	1.50
D: Isopropyl Myristate	1.50
Diisopropyladipat	1.50
Mineral Oil (low viscosity)	2.00
E: Belsil CM 1000/Cyclomethicone(a.) Dimethiconol	3.00
Preservatives, perfume, pigments	q.s.

Mix A and heat to 75C, add B. Heat C to 72C and stir slowly into AB. Heat D to 72C and stir slowly into ABC, add E and stir until cool.

Temperature stability: at 45C more than 10 weeks.

Formulation 625 AH

Body LotionMaterial/CTFA-Index:

A: Mineral Oil (high viscosity)	1.00%
Cetyl Alcohol	1.00
Stearic Acid	1.50
Belsil CM 030/Cyclomethicone	5.00
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	3.00
Belsil BNP/Boron Nitride	2.00
B: Triethanolamine	0.80
Propylene Glycol	3.00
Water	82.70
Preservatives, fragrances, pigments	q.s.

Heat A and B to 80C. Stir A into B, mix well. Cool whilst stirring.

Temperature stability: at 45C over 10 weeks.

Formulation 775AH

SOURCE: Wacker Silicone: Suggested Formulations

Body Lotion

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	64.80
Carbopol 934	0.20
Hetoxide G-7 (Glycereth-7)	3.00
Phase B:	
Hest MS (Myristyl Stearate)	3.00
Product SE-100 (Glyceryl Stearate & PEG-100 Stearate)	6.00
Hest L-2-0 (Laureth-2 Octanoate)	10.00
Stearic Acid	5.00
Phase C:	
TEA 99%	2.00
H ₂ O, Deionized	5.00
Phase D:	
Germaben II	1.00

Specifications:

pH: 7.00

Viscosity #4/30: 8000 cps

Procedure:

- 1) In a stainless steel kettle, add H₂O. Disperse Carbopol 934 using Lightnin' type mixer. Add Hetoxide G-7 and heat to 75C while mixing.
 - 2) In a separate stainless steel kettle, combine Phase A and heat to 75C while mixing.
 - 3) Add Phase B to Phase A. Mix until uniform.
 - 4) Premix Phase C and add to batch. Mix until uniform, avoiding aeration.
 - 5) Cool to 45C while mixing.
 - 6) Add Phase D. Mix until uniform.
- Formula HL 93-111

Moisture Lotion

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H ₂ O, Deionized	76.00
Phase B:	
Hest G-7-T0 (Glycereth-7 Trioctanoate)	5.00
Hest IS-2-0 (Isosteareth-2 Octanoate)	5.00
Hetol CS (Cetearyl Alcohol)	5.00
Hetoxol L-12 (Laureth-12)	3.00
Product SE-100 (Glyceryl Stearate & PEG-100 Stearate)	5.00
Phase C:	
Germaben II	1.00

Specifications:

pH: 7.05

Viscosity #4/30: 9000 cps.

Procedure:

- 1) In separate stainless steel kettles, add Phase A and Phase B and heat to 75C while mixing.
 - 2) At 75C, add Phase B to Phase A while mixing until homogeneous.
 - 3) Cool to 40C and add Phase C. Mix well.
- Formula HL 93-120-5

SOURCE: Heterene, Inc.: Suggested Formulations

Cationic Conditioning Lotion

This novel formulation moisturizes while imparting a soft, velvety feel to the skin.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	90.30	Diluent
Glycerin	2.00	Humectant
Triethanolamine (99%)	0.30	Neutralizing Agent
Distearyldimonium Chloride (1)	0.10	Conditioner
Part B:		
Isopropyl Palmitate	2.50	Emollient
White Petrolatum	1.00	Moisture Barrier
Octyl Hydroxystearate (2)	1.00	Emollient
Glycol Stearate	1.00	Opacifier
Dimethicone (100 cs.)	0.50	Lubricant
Pemulen TR-1	0.40	Emulsifier/ Stabilizer
Part C:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (4)	0.90	Preservative

(1) Arosurf TA-100 (Sherex Chemical)

(2) Wickenol 171 (CasChem)

(3) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)

(4) Germaben IIE (Sutton Laboratories)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. With mixing, heat to 60C.
2. In a separate vessel, combine all Part B ingredients except Pemulen. Heat to 60C.
3. When all Part B ingredients have melted, reconfirm temperature and add Pemulen. Use agitation to break-up any soft agglomerates of resin.
4. With vigorous agitation, add Part B to Part A. Continue mixing to produce a smooth emulsion.
5. At 45-50C, add Part C. Continue mixing. Fill containers @ 35C.

SOURCE: BFGoodrich Co.: Formula P0021

Cationic Conditioning Lotion

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	80.00	Diluent
Glycerin	2.00	Humectant
Triethanolamine 99%	0.30	Neutralizing Agent
Distearyldimonium Chloride (1)	0.10	Conditioner
Part B:		
Hydroxypropyl Methyl Cellulose (2)	0.10	Film Former
Deionized Water	10.00	Diluent
Part C:		
Isopropyl Palmitate	2.50	Emollient
White Petrolatum	1.00	Moisture Barrier
Octylhydroxy Stearate (3)	1.00	Emollient
Glycol Stearate	1.00	Opacifier
Dimethicone	0.50	Lubricant
Cetyl Alcohol	0.20	Bodying Agent
Pemulen TR-1 (4)	0.40	Emulsifier/ Stabilizer
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (5)	0.90	Preservative

(1) Arosurf TA-100 (Sherex Chemical)

(2) Methocel E4M (Dow Chemical Co.)

(3) Wickeno1 171 (CasChem)

(4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)

(5) Germaben IIE (Sutton Laboratories)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. With mixing, heat to 60C.
2. In a separate vessel, disperse the methocel into available deionized water. Gently warm to facilitate dissolution.
3. In a separate vessel, combine all of the oil phase ingredients (Part C), except Pemulen. Heat to 60C.
4. When all Part C ingredients have melted, reconfirm temperature and add Pemulen resin. Use agitation to break-up any soft agglomerates of resin.
5. With vigorous agitation, add Part C to Part A. Continue mixing to produce a smooth emulsion.
6. Combine the thickened Part B to the emulsion and continue mixing.
7. At 45-50C, add Part D. Continue mixing, and fill containers at 35C.

SOURCE: BFGoodrich Co.: Formula P0026

Cleansing Lotion, Liquid

	<u>%W/W</u>
Texapon N25	15.0
Lamepon S-TR	50.0
Nutrilan I	10.0
Lamesoft LMG	5.0
Irgasan DP 300	0.5
1,2-propylene glycol	2.0
Perfume	0.5
Sodium chloride	1.0
Water	16.0

Note: Medium viscous, WAS 19%

Preparation: Mix Irgasan DP 300 and 1,2-propylene glycol until you have a clear solution. Add Texapon N25 and the remaining ingredients in the order given above. Slight heating may be necessary to clear the Lamesoft LMG in the solution.

Formula No. L610-22

Cleansing Liquid

	<u>%W/W</u>
Lamepon S-TR	58.0
Monomuls 90-L 12	1.0
Ethanol 96%	10.0
Irgasan DP 300	0.5
Lamacit GML-20	2.0
Perfume	0.1
Water	28.4

Note: Low viscous, WAS 19%

Preparation: Lamepon S-TR, Monomuls 90-L 12 are stirred together and heated until they form a homogenous solution. After cooling to 40C the remaining ingredients are added in the order shown above.

Formula L610-23

Cleansing Lotion

	<u>%W/W</u>
Texapon N25	37.5
Lamepon S	28.0
Lamesoft LMG	5.0
Lamesoft 156	5.0
Sodium chloride	1.7
Perfume	0.3
Water	22.5

Note: Medium viscous, WAS 19%

Formula No. L610-24

SOURCE: Henkel KGaA; Cosmetic Model Formulae

Cleansing Lotion, Pearly

	<u>%W/W</u>
Texapon N40	20.0
Texapon TH	20.0
Euperlan PK 771	5.0
Hydagen P	2.0
Sodium chloride	4.0
Perfume	1.0
Water	48.0
Note: WAS 17%, low viscous	
Formula No. L610-09	

Cleansing Lotion, Pearly

	<u>%W/W</u>
Texapon N40	30.00
Texapon EVR	30.00
Euperlan PK771	10.00
Hydagen P	2.00
Sodium chloride	0.50
Perfume	1.00
Citric acid	0.05
Water	26.45
Note: WAS 19%, medium viscous	
Formula No. L610-11	

Deodorant, Cleansing Lotion, Liquid, Clear

	<u>%W/W</u>
Texapon N40	40.0
Dehyton AB30	5.0
Hydagen DEO	1.5
Comperlan KD	5.0
Perfume	0.5
Water	48.0
Note: WAS 18%	
Formula No. L610-13	

Cleansing Lotion, Clear, Soap Free, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	30.0
Comperlan LS	3.0
Sodium chloride	2.0
Soluvit complex	3.0
Perfume	1.0
Citric acid 10% solution	0.4
Water	60.6
Note: WAS 11%	
Formula No. L610-15	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cleansing Lotion, Pearly, Soap Free, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	40.0
Hydagen P	2.0
Euperlan PK776	10.0
Sodium chloride	1.5
Perfume	1.0
Citric acid 10% solution	0.8
Water	44.7
Note: WAS 15%	
Formula No. L610-16	

Cleansing Lotion, Pearly, Soap Free, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	35.0
Dehyton K	15.0
Cutina EGMS	3.0
Comperlan LS	0.5
Perfume	0.5
Water	46.0
Note: WAS 16%	
Formula No. L610-18	

Cleansing Lotion, Pearly, Soap Free, Especially Skin Compatible

	<u>%W/W</u>
Texapon ASV	35.0
Dehyton K	15.0
Cutina EGMS	3.0
Perfume	0.5
Water	46.0
Note: WAS 15%	
Formula No. L610-19	

Cleansing Lotion, Cloudy

	<u>%W/W</u>
Texapon N25	50.0
Lamepon S	20.0
Lamesoft 156	5.0
Monomuls 90-L 12	2.0
Perfume	0.3
Water	22.7
Note: High viscous, tube filling, WAS 23%	
Preparation: Monomuls 90-L 12 is dissolved in the Texapon N25 and Lamepon S while heat is applied. The other ingredients are then added in the order given above.	
Formula No. L610-21	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Collagen and Cocoa Butter Skin Lotion

	<u>%W/W</u>
A. Cetyl Alcohol	1.50
Lanolin, Anhydrous, USP	1.50
Kessco Glyceryl Monostearate, pure	0.50
Cocoa Butter	0.75
Acetulan (Cetyl Acetate (and) Acetylated Lanolin Alcohol)	2.00
Tween 60 (Polysorbate 60)	0.50
Arlacel 60 (Sorbitan Stearate)	0.50
Proto-Lan 8*	1.00
Propylparaben	0.20
B. Supro-Tein V (TEA-Cocoyl Hydrolyzed Collagen (and) Sorbitol)	0.50
Methylparaben	0.20
Glycerin	2.50
Gelamide 250F (milled) (Polyacrylamide)	0.20
Carbopol 934, 2% Aq. sol'n (Carbomer 934)	15.00
Deionized Water	67.70
C. Triethanolamine-99%	0.45
D. Collagen Native Extra 1% (Soluble Collagen)	5.00
Fragrance, color	q.s.
*(Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol)	

Procedure:

Pre-dissolve Gelamide in water phase. Add the rest of the ingredients to Phase B and heat to 70C. Heat Phase A separately X----->to 70C. Heat Phase A separately to 70C. Add Phase B to Phase A at 70C. Add the TEA, Phase C. Mix and cool to 40C. Add Phase D. Mix to incorporate.

Properties:

A superb, non-greasy, quick penetrating, skin softener and moisturizer. Use for hands, face, throat - wherever troublesome dry skin exists.

SOURCE: Maybrook Inc.; Formula #SK-2005

Conditioning Hand Lotion

This lotion moisturizes and softens the skin without leaving a greasy, heavy feel.

Part 1:	<u>Weight%</u>
Deionized Water	81.0
Pemulen TR-1 (1)	0.4
Glycerin	2.0
Methyl Paraben	0.1
Propyl Paraben	0.1
Part 2:	
White Petrolatum	1.0
Isopropyl Palmitate	2.5
Dimethicone	2.5
Triethanolamine (99%)	0.3
Part 3:	
Distearyldimonium Chloride (2)	0.1
Deionized Water	10.0
Part 4:	
Fragrance	q.s.
Color	q.s.

(1) BFGoodrich Co.

(2) Sherex Chemical Co. (Arosurf TA-100)

Procedure:

1. Combine deionized water, glycerin and parabens. With rapid agitation, sift the Pemulen TR-1 into the water phase ingredients. After the addition of resin, reduce agitation and continue mixing for approximately 30 minutes while heating the mixture to 70C.
2. Combine the oil phase ingredients in Part 2 and heat to 70C with mixing.
3. Form the emulsion by slowly adding the oil phase to the water phase with rapid agitation. Allow 15-20 minutes additional mixing time.
4. Disperse the Dimethyldimonium chloride into the available water in Part 3 and add this mixture to the emulsion, with mixing.
5. Add color, and fragrance as needed.

SOURCE: BFGoodrich Co.: Formula P0014

Dry Skin Care Lotion
(Formula 92-0729)

<u>Part A:</u>	<u>% By Weight</u>
Deionized Water	74.43
Sorbitol 70%	3.00
Triethanolamine (99%)	1.85
Sodium Chloride	0.02
<u>Part B:</u>	
Mineral Oil	7.00
Petrolatum	3.00
Lanolin	3.00
Lanolin Alcohol	3.00
Stearic Acid	2.50
Cetyl Alcohol N.F.	1.75
<u>Part C:</u>	
Fragrance, Preservative	q.s.

Blending Procedure:Step 1 (Part A):

Charge water into mixing vessel and add sorbitol, triethanolamine and sodium chloride. Heat with mixing to 70C.

Step 2 (Part B):

Charge "Part B" components into a vessel and heat with gentle mixing to 70-75C, being sure that all components are melted.

Step 3:

When both parts are at 70-75C, add "Part B" to "Part A" with good mixing, and mix fifteen minutes at 70C. After emulsion is homogeneous, begin cooling with moderate agitation.

Step 4 (Part C):

At 40C, add remainder of components and cool with agitation to 25C.

Typical Formulation Properties:

Appearance at 25C: Slightly off-white lotion
 pH (10%): 7.5-8.0
 Viscosity at 25C (RVT #5 @ 20 rpm): 15,000-20,000 cps

CTFA Identification:

Water, mineral oil, petrolatum, sorbitol, lanolin, lanolin alcohol, stearic acid, triethanolamine, cetyl alcohol, fragrance, preservative, sodium chloride.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 92-0729

Emollient Care Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina FS25	5.0
2 Cetiol B	9.0
3 Sipol 1618 C50	2.0
4 Cutina MD	2.0
5 KOH (20%)	1.75
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives a viscous, medium weight O/W skin lotion.

The first four components are melted together at about 85C. Component 5 is dissolved in the water which is heated to the same temperature. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C. Formula TS 502

Cleansing Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	8.0
2 Cetiol B	9.0
3 Cetiol MM	4.0
4 Cyclomethicone 345	0.5
5 Natrosol (H.E.C.)	0.5
6 Preservative	q.s.
7 Water	to 100.0

This formulation gives a medium weight O/W skin lotion.

The first three components are melted together at about 85C. Component 5 is dissolved in the water which is heated to the same temperature. The oil phase is then added to the water phase, also at about 85C, and dispersed. Mixing should continue down to about 35C. The Cyclomethicone can then be added. Formula TS 503

Viscous Body Milk

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade SE	7.0
2 Cegesoft C24	7.0
3 Novata AB	4.0
4 Preservative	q.s.
5 Water	to 100.0

This formulation gives a very light O/W skin lotion with a viscous consistency.

The first three components are melted together at about 85C. The oil phase is then added to the water phase, also at about 85C, and dispersed. Mixing should continue down to about 35C. Formulation TS 505

SOURCE: Henkel KGaA: Skin Care Project Formulations

Emollient Fluid

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina E24	2.0
2 Cetiol 1414E	5.0
3 Cutina MD	2.0
4 Sipo1 1618 C50	2.0
5 Urea	3.0
6 Glycerine	2.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a high viscosity O/W Lotion with good emollience, and a very pleasant, light skin feel.

The first five components are melted together at about 85C. Components 6 & 7 are dissolved in the water and heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 451

Cleansing Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina E24	2.0
2 Cetiol 1414E	10.0
3 Cutina MD	2.0
4 Sipo1 1618 C50	2.0
5 Urea	3.0
6 Glycerine	2.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives an O/W lotion with good emollience, and a very pleasant skin feel.

The first five components are melted together at about 85C. Components 6 & 7 are dissolved in the water and heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 452

SOURCE: Henkel KGaA: Skin Care Project Formulations

Emollient Fluid

<u>Ingredient:</u>	<u>%W/W</u>
1 Eumulgin B2	1.5
2 Myritol 318	5.0
3 Eutanol G	5.0
4 Novata AB	4.0
5 Sipol 1618 C50	1.5
6 Cutina MD	3.5
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a light, viscous O/W lotion, with good emolliency.

The first six components are melted together at about 85C. The water is then heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C.
Formula TS 461

General Hand and Body Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Generol 122 E25	3.0
2 Eutanol G	10.0
3 Novata AB	5.1
4 Monomuls 60-35	5.0
5 Lorol C16	1.1
6 Lorol C18	1.1
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a fairly heavy O/W emollient lotion.

The first five components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to 35C.
Formula TS 485

Hand & Body Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Generol 122 E25	3.0
2 Eutanol G	10.0
3 Cetiol SB45	5.1
4 Monomuls 60-35	5.0
5 Sipol 1618 C50	2.2
6 Dow Corning 345 Fluid	4.0
7 Preservative	q.s.
8 Water	to 100.0

This formulation gives a low viscosity O/W emollient lotion.

The first five components are melted together at about 85C. The water is heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C. The volatile 345 Fluid can now be added and the product homogenised.
Formula TS 486

SOURCE: Henkel KGaA: Skin Care Project Formulations

Emollient Lotion

	<u>%W/W</u>
A. Amerchol L-101 (Mineral Oil (and) Lanolin Alcohol)	3.00
Acetulan (Cetyl Acetate (and) Acetylated Lanolin Alcohol)	2.00
Stearic Acid T.P.	4.00
Mineral Oil, 70 vis.	15.00
*Proto-Lan 4R	2.50
Arlacel 165 (Glyceryl Stearate (and) PEG-100 Stearate)	1.50
B. Deionized Water	60.40
Glycerin	4.00
Triethanolamine	2.00
Methylparaben	0.20
Solulan L-575 (PEG-75 Lanolin)	5.00
Glydant (DMDM Hydantoin)	0.40
Fragrance, color	q.s.
*(Cocoyl Hydrolyzed Collagen (and) Mineral Oil (and) Hydrogenated Lanolin (and) Emulsifying wax N.F. (and) Myristyl Myristate)	

Procedure:

1. Heat Phases A and B separately to 80C.
2. Add Phase B to Phase A at 80C with agitation.
3. Mix and cool to 40C.
4. Add Phase C. Mix to incorporate.

Properties:

A water in oil emulsion which exhibits considerable slip in application. Highly emollient with considerable skin softening effects. An efficient moisturizer using the occlusive nature of mineral oil to trap moisture in the skin and the hygroscopic action of glycerin and collagen to attract moisture to the skin. Note: Addition of 2-3% Collagen Native Extra 1% (Soluble Collagen) makes this an excellent nutrient eye cream.

SOURCE: Maybrook Inc.: Formula #SK-2003

Emollient Lotion

A: Deionized Water	37.60%
Pecosil WDS-100 (Dimethicone Copolyol Phosphate)	3.00
Carbomer 934 (2% Aq.)	25.00
Propylene Glycol	5.00
Triethanolamine (99%)	0.70
B: Pelemol GMS (Glyceryl Stearate)	2.00
Meadowfoam Seed Oil	4.00
Pelemol ISL (Isostearyl Lactate)	7.20
Macademia Nut Oil	2.00
Cetearyl Alcohol	2.00
Pelemol BB (Behenyl Behenate)	0.50
Dimethicone (5,000 cs)	2.00
Pelemol OPG (Octyl Pelargonate)	8.00
C: Germaben II	1.00

Procedure:

Heat phase A to 70-75C. Heat phase B to 70-75C. Agitate both phase A and B until uniform. Under homogenization add phase B to phase A. When uniform, change to prop. agitation and cool to 45C. Add phase C to AB, and continue prop. agitation to 35C. Formula 14-110-A

Light Body Lotion
(Cold Mix)

A: Deionized Water	50.10%
Pecosil PS-100 (Dimethicone Copolyol Phosphate)	3.00
Carbopol 934 (2% Aq.)	25.00
B: Pelemol ICB (Isocetyl Behenate)	10.00
Pelemol EE (Eicosyl Erucate)	10.00
C: Triethanolamine (99%)	0.90
D: Germaben II	1.00

Procedure:

Combine phase A with sweep agitation. Combine phase B. Under homogenization, add phase B to phase A. When uniform, switch to propeller agitation and add phase C then phase D. Formula 14-115-A

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Emollient Lotion

<u>A</u>	Propylene Glycol	5.00%
	Deionized Water	71.88
	Magnesium Aluminum Silicate	0.75
	Xanthan Gum	0.25
<u>B</u>	Pecosil PS-200 (Dimethicone Copolyol Phosphate)	3.00
	NaOH (Sodium Hydroxide)	0.12
<u>C</u>	Pelemol GMS (Glyceryl Stearate)	5.00
	Pelemol ISB (Isostearyl Behenate)	5.00
	Pelemol 89 (Octyl Isononanoate)	5.00
	Cetearyl Alcohol	2.00
	Dimethicone (5000 cs)	1.00
<u>D</u>	Germaben II	1.00

Procedure:

1. Prewet Magnesium Aluminum Silicate and Xanthan Gum with the Propylene Glycol. 2. Homogenize this slurry into phase A water. 3. When phase A is uniform, add phase B to phase A with sweep agitation and heat AB to 70-75C. 4. Heat phase C to 70-75C with adequate agitation. 5. Homogenize phase C into AB. 6. When uniform, switch to sweep agitation and cool to 45C. 7. Add phase D and continue cooling and sweep agitation to 35C.
Formula 14-111-B

Light Body Lotion

<u>A</u>	Deionized Water	67.30%
	Pecosil PS-100 (Dimethicone Copolyol Phosphate)	2.70
	Carbomer 934 (2% Aq.)	10.00
	Xanthan Gum	0.30
	Germaben II	1.00
<u>B</u>	Pelemol SPO (Cetyl/Stearyl Octanoate)	9.00
	Pelemol DIA (Diisopropyl Adipate)	9.00
<u>C</u>	Triethanolamine (99%)	0.70

Procedure

With prop. agitation disperse Xanthan Gum in D.I. water. When uniform, add remainder of phase A items. Continue prop. agitation while adding phase B to phase A. Mix until uniform then add phase C. After A, B, and C are combined, homogenize to obtain finished lotion.
Formula 14-106-A

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Face Lotion

	<u>%W/W</u>
Cetiol HE	3.0
Ethyl alcohol 96%	25.0
Henkel Glycerin 86% DAB 9	3.0
Cremogen witch hazel extract	3.0
Perfume, water-soluble	0.5
Water	65.5
Formula No. B51-01	

Herbal Face Lotion

	<u>%W/W</u>
Cetiol HE	2.0
Ethyl alcohol 96%	20.0
Sedaplant Richter	5.0
Henkel Glycerin 86% DAB 9	3.0
Water	70.0
Formula No. B51-02	

Herbal Face Lotion

	<u>%W/W</u>
Cetiol HE	2.0
Ethyl alcohol 96%	15.0
Hexaplant Richter	5.0
Henkel Glycerin 86% DAB 9	3.0
Water	75.0
Formula No. B51-03	

Herbal Face Lotion

	<u>%W/W</u>
Cetiol HE	2.0
Ethyl Alcohol 96%	30.0
Hexaplant Richter	5.0
Henkel Glycerin 86% DAB 9	2.0
Allantoin	0.2
Water	60.8
Formula No. B51-04	

Astringent Tonic

	<u>%W/W</u>
Cetiol HE	3.0
Henkel Glycerin 86% DAB 9	3.0
Ethyl alcohol 96%	25.0
Cremogen witch hazel extract	10.0
Perfume, water-soluble	0.3
Viscontran HEC 30 000 PR-2% solution	30.0
Water	28.7
Formula No. B51-05	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Fragrance Lotion

This glossy, white lotion imparts slight emolliency from a smooth, greaseless application.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	88.50	Diluent
Glycerin	4.00	Humectant
Dimethicone Copolyol (1)	0.30	Lubricant
Disodium EDTA	0.10	Chelating Agent
Part B:		
C12-15 Alcohols Benzoate (2)	3.00	Emollient/Fragrance Fixer
Fragrance, Noville #24093	2.00	
Oleth-10 (3)	0.20	Particle Size Reduction
Pemulen TR-1 (4)	0.25	Emulsifier
Carbopol 981 (5)	0.35	Thickener
Part C:		
Aminomethyl Propanol (95%) (6)	0.50	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	0.80	Preservative

- (1) 193 Surfactant (Dow Corning)
 (2) Finsolv TN (Finetex)
 (3) Procol OA-10 (Protameen Chemicals), Brij 96 (ICI)
 (4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
 (5) Carbomer (BFGoodrich)
 (6) AMP-95 (Angus Chemical)
 (7) Germaben II (Sutton Labs)

Preparation:

1. Blend Part A ingredients in a vessel which will contain the entire formulation.
2. Blend Part B ingredients in a separate vessel. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
3. With moderate agitation, add Part B to Part A. Mix for 15-20 minutes. Add Part C and mix vigorously to produce a glossy, white product.
4. Mix Part D into emulsion.

SOURCE: BFGoodrich Co.: Formula P0005

Fragrance Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	88.50
Glycerin	4.00
Dimethicone Copolyol	0.30
Disodium EDTA	0.10
B. C12-15 Alcohols Benzoate	3.00
Fragrance, Noville #24093	2.00
Oleth-10	0.20
Pemulen TR-1	0.25
Carbopol 981	0.35
C. AMP-95	0.50
D. Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80

Procedure:

- Blend Part A ingredients in a vessel which will contain the entire formulation.
- Blend Part B ingredients in a separate vessel. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
- With moderate agitation, add Part B to Part A. Mix for 15-20 minutes. Add Part C and mix vigorously to produce a glossy, white product.
- Mix Part D into emulsion.

Formulation PF-0223 suggested by B.F.Goodrich

Emollient Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Water	83.80
Part B:	
Tromethamine magnesium aluminum silicate (Veegum Pro)	1.50
Part C:	
Triethanolamine	0.10
Glycerin	3.50
Part D:	
Mineral Oil	3.60
Petrolatum	0.40
Stearic Acid XXX	1.60
Cetyl alcohol	1.50
Glyceryl stearate SE	1.40
Cetyl acetate (and) acetylated lanolin alcohol	2.00
Dimethicone	0.60
Part E:	
Preservative, dye, fragrance	q.s.

Procedure:

Heat A to 70-75C; slowly add B while agitating at maximum available shear. Mix until smooth. Add C to AB with slow agitation until uniform. Maintain at 70-75C. Heat to 75-80C. Add D to ABC; mix until cool. Add E; package.

Formulation PF-0273 suggested by Vanderbilt

SOURCE: Angus Chemical Co.; Angus Product Formulary

Gentle Cleansing Lotion

A gentle, non-greasy cleanser designed to effectively dissolve makeup and impurities without disturbing the skin's natural moisture balance. Leaves skin feeling thoroughly cleansed, supple and moisturized. Ideal for dry or sensitive skin.

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
A: Deionized Water	76.31
Sodium PCA/Ajidew N-50	0.50
Tetrasodium EDTA/Hamp-ene 220	0.05
Propylene Glycol	2.00
Methylparaben	0.20
TEA-Cocoyl Glutamate/Amisoft CT-12	10.00
PEG-40 Hydrogenated-Castor Oil/Cremophor RH-40	1.00
PEG-150 Distearate/Lipopeg 6000DS	1.00
PEG-78 Glyceryl Cocoate/Varionic LI-67	1.50
B: Glyceryl Stearate SE/Lexemul 55SE	2.50
Glycol Stearate/Lexemul EGMS	1.00
Cetearyl Alcohol/Lanette O	3.60
Propylparaben	0.10
C: Imidazolidinyl Urea/Germall 115	0.20
D: Fragrance/Manheimer #137G	0.04

Manufacturing Procedure:

Heat Phase A to 75C. Heat Phase B to 75C. Add Phase B to Phase A while mixing with good agitation. Mix for 20 minutes at 75C. Start cooling. At 50C, add Phase C. At 40C, add Phase D. Continue mixing and cooling to 30C.

Appearance: Opaque, white lotion

pH: 5.20-5.60

Viscosity: 1,700 to 2,500 cps (LVT #3 @ 12 rpm @ 25C)

Milk Lotion

(O) Liquid Paraffin (#70)	31.6 wt%
Paraffin Wax (mp 42-44C)	4.5
Cetyl Alcohol	4.5
Sorbitan Monostearate	1.8
Polyoxyethylene (20) Sorbitan Monooleate	2.8
Tocopherol Acetate	0.2
(W) Ajidew T-50	4.0
Water	50.5
Preservative	0.1

Procedure:

1. Heat (O) and (W) to 80C.
2. Add (W) to (O) with agitation.
3. Cool to 42C with stirring.

pH: 6.2

Viscosity: 25,000 cps

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Hand Lotion

Thick white lotion. Absorbs well, is not greasy.

Material/CTFA-Index:

A: Mineral Oil	1.00%
Cetyl Alcohol	1.00
Stearic Acid	1.50
Belsil CM 030/Cyclomethicone	5.00
Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	23.00
B: Triethanolamine	0.80
Propylene Glycol	3.00
Wasser dest./Water	84.70
Preservatives, perfume	q.s.

Heat A and B each to 85C, stir A into B, cool whilst stirring.

Temperature stability: at 45C over 10 weeks.

Formulation 132 AH

Hand Lotion

Thick, white lotion. Easily spread, quickly absorbed.

Material/CTFA-Index:

A: Belsil SDM 6022/Dimethicone (and) Stearoxy Dimethylsilane (and) Stearoxy Dimethyldisiloxane	4.00%
Oleic Acid	1.50
B: Morpholine	0.30
Wasser dest./Water	89.20
C: Carbopol 934 Lsg 2%isg/Carbomer 934	5.00
Preservatives, perfume	q.s.

Heat A and B to 60C, mix together whilst stirring quickly. Mix C to AB at 45C under high shear conditions. Fill at over 40C.

Temperature stability: 8 weeks at 45C.

Formulation 156 AH

SOURCE: Wacker Silicone: Suggested Formulations

Hand LotionMaterial/CTFA-Index:

Water	78.30%
Carbopol 934/Carbomer 934	0.40
Mineral Oil (high viscosity)	8.50
Belsil CM 1000/Cyclomethicone(a.)Dimethiconol	11.50
Tris Amino/Tromethamine	0.20
Preservatives, perfume, pigments	q.s.

Add Carbopol 934 to water with good agitation. Add the other ingredients in this order.

Temperature stability: at 45C 8 weeks.

SOURCE: Wacker Silicone: Formulation 340 AH

Gentle Cleansing Lotion

A gentle, non-greasy cleanser designed to effectively dissolve makeup and impurities without disturbing the skin's natural moisture balance. Leaves skin feeling thoroughly cleansed, supple and moisturized. Ideal for dry or sensitive skin.

<u>Ingredients/Trade Name</u>	<u>% by Wt</u>
A) Deionized Water	76.31
Sodium PCA/Ajidew N-50	0.50
Tetrasodium EDTA/Hamp-ene 220	0.05
Propylene Glycol	2.00
Methylparaben	0.20
TEA-Cocoyl Glutamate/Amisoft CT-12	10.00
PEG-40 Hydrogenated-Castor Oil/Cremophor RH-40	1.00
PEG-150 Distearate/Lipopeg 6000DS	1.00
PEG-78 Glyceryl Cocoate/Varionic LI-67	1.50
B) Glyceryl Stearate SE/Lexemul 55SE	2.50
Glycol Stearate/Lexemul EGMS	1.00
Cetearyl Alcohol/Lanette O	3.60
Propylparaben	0.10
C) Imidazolidinyl Urea/Germall 115	0.20
D) Fragrance/Manheimer #137G	0.04

Manufacturing Procedure:

Heat phase A to 75C. Heat phase B to 75C. Add phase B to phase A while mixing with good agitation. Mix for 20 minutes at 75C. Start cooling. At 50C, add phase C. At 40C, add phase D. Continue mixing and cooling to 30C.

Appearance: Opaque, white lotion

pH: 5.20-5.60

Viscosity: 1,700 to 2,500 (LVT #3 @ 12 rpm @ 25C)

SOURCE: Ajinomoto USA, Inc.: Suggested Formulation

Intensive Treatment Lotion
(Formula 91-1101)

<u>Water Phase:</u>	<u>% By Weight</u>
<u>W-1</u> Water	84.25
Glycerine (99%)	3.50
Propylene Glycol	0.15
Cheelox 100 (Dow)	0.10
<u>W-2</u> Carbopol 934 (Goodrich)	0.20
<u>W-3</u> Rhodigel EZ	0.15
<u>W-4</u> Triethanolamine (99%)	1.35
 <u>Oil Phase:</u>	
Drakeol 9 (Penreco)	3.50
Stearic Acid TP	1.50
Alkamuls EGMS	1.50
Alkamuls SPS	1.00
Alkamuls GMS	1.00
Cetyl Alcohol NF	1.50
Mirasil DM 300	0.20
Solulan 75 (Amerchol)	0.10
 Fragrance, Dye, Preservative	 Q.S.

Blending Procedure:

- (1) Combine W-1 ingredients and heat to 50-55C.
- (2) With vigorous agitation, lightly sift W-2 into heated W-1. Continue heating system to 75-80C. Mix until uniform.
- (3) With rapid but smooth agitation, slowly blend W-3 into heated system. Mix until completely dispersed.
- (4) Slowly blend W-4 into heated water system. The system should thicken noticeably with this addition.
- (5) In a separate mixing vessel, combine Oil Phase ingredients. With smooth agitation, warm to 75-80C (avoid scorching).
- (6) With rapid but smooth agitation, slowly blend the heated Oil Phase into the heated (75-80C) Water Phase. Mix until completely uniform.
- (7) With moderate agitation, slowly cool system to 35-40C and add compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties

Appearance After 24 Hrs:	Smooth, Opaque Lotion
% Non Volatiles:	14.5-16.5
pH (10% Aq.):	7.5-9.0

CTFA Identification: Water, Glycerine, Mineral Oil, Glycol Stearate, Cetyl Alcohol, Stearic Acid, Triethanolamine, Cetyl Esters, Glyceryl Stearate, Dimethicone, Carbomer 934, Xanthan Gum, Propylene Glycol, PEG-75 Lanolin, Tetrasodium EDTA, Fragrance, Preservative, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 91-1101

Light Protective Day Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	3.5
2 Sipol 16-18 C50	1.5
3 Cetiol MM	4.0
4 Eumulgin B2	1.5
5 Eutanol G	5.0
6 Myritol 318	5.0
7 Eusolex 6300	0.75
8 Repair Complex CLR	5.0
9 Elastin CLR	2.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a lightweight O/W lotion, with a high viscosity, which helps to protect the skin from harmful UV Rays, and also aids skin cell removal. The first seven components are heated together to 85C. The water is heated to the same temperature. The oil phase is then mixed into the water phase and dispersed. Mixing should continue down to about 35C. Components eight and nine can then be incorporated, and the product homogenised.

Formula TS 255

Pearlescent Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina E24	5.0
2 Cetiol B	5.0
3 Myritol 318	2.0
4 Monomuls 90 L12	5.0
5 Sipol 1618 C50	2.0
6 Cetiol MM	5.0
7 Carbopol 980	0.1
8 NaOH (10%)	0.4
9 Glycerine	5.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a moderately viscous O/W skin lotion with pearl sheen appearance.

The first six components are melted together at about 85C. Component 7 is dissolved in half the water with vigorous mixing. Components 8 & 9 are dissolved in the other half. The two halves of the water phase are added together and heated to the same temperature as the oil phase. The oil phase is then added to the water phase and dispersed. Mixing should continue down to about 35C. The pearl appearance begins to develop after a few hours.

Formula TS 441

SOURCE: Henkel KGaA: Skin Care Project Formulations

Low Solids Mild Cationic Lotion

The following formulation is an ideal starting point for face, body, or baby skin moisturizers. It is a low solids (7.67 by weight) version of SC-183 possessing the same feel characteristics - a pleasant cushiony feel, no tacky water phase, and a moist rubdown. It dries more quickly, with a powdery cationic long lasting after feel.

<u>Part A:</u>	<u>%</u>
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	1.17
Polawax (Emulsifying Wax NF)	1.00
Crodacol S-95 (Stearyl Alcohol)	0.33
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	1.00
Crodamol PTC (Pentaerythrityl Tetra Caprate)	0.67
Carnation Mineral OI1	1.00
Snow White Petrolatum	2.00
Dimethicone 200SF (350 cps)	0.50
<u>Part B:</u>	
Water, deionized	82.33
Glycerin	8.00
<u>Part C:</u>	
Germaben II	1.00
Hydrotriticum 2000 (Hydrolyzed Whole Wheat Protein)	1.00

Procedure:

Combine ingredients of Part A with mixing and heat to 75C. Combine ingredients of Part B with mixing and heat to 75C. Add Part B to Part A with good mixing. Continue mixing and cool to 45C. Add Part C with mixing and cool to desired fill temperature.

SOURCE: Croda, Inc.: Formula SC-192-1

Normal Skin Lotion

A light emollient lotion for hand, body and facial use. Applies easily, spreads on skin without drag, and is rapidly absorbed.

	<u>Wt.%</u>
A. Glyceryl Stearate (and) PEG 100 Stearate (ICI, Arlancel 165)	5.0
Stearic Acid, TP	1.0
Mink Oil (Emulan, Light Fraction)	5.0
PEG-5 Soya Sterol (Henkel, General 122E5)	2.0
Soy Sterol (Henkel, General 122)	1.0
B. Water	84.8
C. Germaben II (Sutton)	1.0
Fragrance	0.2

Procedure:

Add 75C Phase B to 75C Phase A via propellor agitation. Stir cool to 45C. Add Phase C.

SOURCE: Emulan, Inc.: Suggested Formulation

Lubriderm Type Lotion

	<u>Wt%</u>
Distilled Water	78.10
Ritavena 5	0.50
Sorbitol 70% Soln.	3.50
Forlan 500	6.00
Cetyl Alcohol	0.70
Mineral Oil	8.00
Stearic Acid	2.00
Methylparaben	0.15
Propylparaben	0.05
TEA (50%)	1.00

pH: 7.8

Viscosity: 3835 cps

Stabilities:

Freeze/Thaw: v. sl. sep. after 1 cycle

40F: no change after 6 weeks

110F: separation after 3 weeks

Description of System: oil/0.5% Ritavena 5

Centrifuge Results after 7 Min @ 1660rpm: very slight

Formula 111-187

Lubriderm Type Lotion

	<u>Wt%</u>
Distilled Water	77.60
Ritavena 5	1.00
Sorbitol 70% Soln.	3.50
Forlan 500	6.00
Cetyl Alcohol	0.70
Mineral Oil	8.00
Stearic Acid	2.00
Methylparaben	0.15
Propylparaben	0.05
TEA (50%)	1.00

pH: 8.0

Viscosity: 4350 cps

Stabilities:

Freeze/Thaw: no change after 3 cycles

40F: no change after 6 weeks

110F: separation after 4 weeks

Description of System: oil/1% Ritavena 5

Formula 111-188

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

Lubriderm Type Lotion with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	87.60
2. Sorbitol 70% Solution	3.50
Part B:	
3. Distilled Water (100C)	10.00
4. Ritavena 5	1.00
Part C:	
5. Forlan 500	6.00
6. Rita C	0.70
7. Mineral Oil 85/95	8.00
8. Stearic Acid	2.00
9. Methylparaben	0.15
10. Propylparaben	0.05
Part D:	
11. Triethanolamine (50%)	1.00

Compounding Procedure:

Heat Part A and Part C to 165F. Combine with agitation. Add Part D and maintain heat for 10 minutes. Premix Part B in a blender for 2 minutes. Add to mixture. Mix until uniform. Cool with agitation to 95F.
Formula 111-188

Low Solids Anionic Lotion with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water (100C)	10.00
2. Ritavena 5	2.00
Part B:	
3. Distilled Water	72.62
4. Propylene Glycol	5.00
5. Rita CA	3.00
6. Pationic ISL	2.00
7. Tauranol I-78-6	1.25
8. Patlac IL	1.00
9. Patlac NAL	1.00
10. Glycerin	1.00
11. Ritapro 165	0.40
12. Methylparaben	0.15
13. Propylparaben	0.15
Part C:	
14. Germall II	0.20
15. Perfume	0.10
16. Color	0.03
17. Patlac LA (44% Solution)	0.20

Compounding Procedures:

Heat Part B to 165F with agitation. Maintain 165F for 10 minutes. Premix Part A in a blender for 2 minutes. Add to Part B. Mix until uniform. Cool with agitation to 120F. Add Part C. Cool to 95F. Adjust pH to 5.0+/-0.2 with Patlac LA (44% Solution).
Formula 111-201

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

Mild Lotion with Amihope

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Mineral Oil	5.00
Amiter LGOD (Di-Octyldodecyl Lauroyl Glutamate)	2.00
Propylene Glycol Stearate	0.50
PEG-5 Hydrogenated Castor Oil	1.50
PEG-5 Glyceryl Stearate	2.50
Butylparaben	0.10
Amihope-LL	3.00
Phase B:	
Acylglutamate HS-11	0.30
Carbomer 941	0.20
Sodium Hydroxide	0.08
Butylene Glycol	5.00
Methylparaben	0.20
Water	79.62

Procedure:

Dissolve Carbomer 941 and sodium hydroxide in water first. Add all other ingredients of Phase B to the solution and dissolve at 75 to 80 degrees centigrade.

Dissolve Phase A ingredients at 80 degrees centigrade. When both phases are at 80 degrees Centigrade add A to B with agitation.

Cool down to room temperature while continuing mixing.

This lotion has a smooth feeling and good spreadability.

Formula No. NON-404

W/O Lotion With Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Di-(Chlolesteryl, behenyl, octyldodecyl)	
N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.00
Cetearyl Octanoate	10.00
C12-C15 Alkyl Benzoate	5.00
Phenoxyethanol	0.60
Tocopherol Acetate	0.05
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate	5.00
Cetyl Dimethicone	3.00
Part C:	
Deionized Water	65.55
Sodium Chloride	0.80
Glycerin (99.5%)	5.00
Partially Deacetylated Chitin (1.0%)/Marine Dew	2.00
Part D:	
Methylparaben	0.20
Butylene Glycol	0.80

Procedure:

Pre-melt Part A at 50 degrees Centigrade. Add Part B to Part A. Pre-melt Part D by heating to 50 degrees C. Add to Part C. Slowly add Part C and D mixture to Parts A and B with high shear mixing.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Moisturizing Hand and Body Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	3.5
2 Stenol 16-65	1.2
3 Eumulgin B2	2.0
4 Eutanol G	4.5
5 Hygroplex HHG (CLR)	2.0
6 Preservative	q.s.
7 Water to	100.0

This formulation gives a light O/W lotion, with a low viscosity, which helps to stimulate the skin's natural regenerative powers.

The first four components are heated together to 85C. Component five is then added to the water and this mixture is also heated to 85C. The oil phase is then mixed into the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 116

Regenerative Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Emulgade CL special	20.0
2 Repair Complex CLR	10.0
3 Preservative	q.s.
4 Water to	100.0

This formulation gives a medium weight O/W cream which helps to stimulate the skin's natural regenerative powers.

The Emulgade is added to the water and the mixture is heated to about 85C. The Emulgade is then dispersed. Mixing should continue down to about 35C when the Repair Complex can be added.

Formula TS 230

Sunflower Oil Body Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Generol 122 E10	9.8
2 Monomuls 60-35	5.0
3 Cetiol SB45	5.0
4 Sunflower Oil	10.0
5 Henkel Glycerine	5.0
6 Preservative	q.s.
7 Water to	100.0

This formulation gives a heavy O/W Lotion which has an attractive pearl sheen appearance. It is of medium consistency with a caring skin feel.

The first four components are heated together to 85C. Component five is dissolved in the water and this mixture is also heated to 85C. The oil phase can then be added to the water phase and dispersed. Mixing should continue down to about 35C.

Formula TS 412

SOURCE: Henkel KGaA: Skin Care Project Formulations

Moisturizing Lotion

This lotion exhibits the soft feel and emolliency of a traditional stearate soap formulation without the greasiness and potential irritation. It is easily absorbed and is formulated to give a pH of 6.

Ingredient (CTFA):

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	72.20	Diluent
Hydroxypropyl Methylcellulose (1) (1.0% Solution)	10.00	Aqueous Smoothing Aid
Glycerin	2.00	Humectant
Disodium EDTA	0.05	Chelating Agent
Part B:		
Petrolatum	5.00	Moisture Barrier
Mineral Oil (2)	3.00	Moisture Barrier
Glycol Stearate	2.00	Emollient/ Opacifier
Isostearyl Benzoate (3)	2.00	Emollient
Paraffin	2.00	Opacifier
Dimethicone (100 cs.)	0.50	Lubricant
Pemulen TR-1 (4)	0.30	Emulsifier/ Stabilizer
Part C:		
Triethanolamine (99%)	0.25	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (5)	0.70	Preservative
(1) Methocel E4M (Dow Chemical)		
(2) Drakeol 7 (Penreco)		
(3) Finsolv SB (Finetex)		
(4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)		
(5) Germaben IIE (Sutton Labs)		

Preparation:

1. Combine Part A ingredients. Mix until homogeneous.
2. Combine all Part B ingredients except Pemulen in a separate vessel. Heat both phases to 60-65C.
3. Confirm that Part B is homogeneous and at the specified temperature. Add Pemulen to this phase. Agitate to break-up soft lumps of resin. With vigorous agitation, promptly add Part B to Part A. Maintain temperature at 60C.
4. Mix for 15-30 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C (triethanolamine) and discontinue heating. Continue vigorous agitation to produce a smooth product.
5. When the temperature falls to 40-45C add Part D. Continue mixing until the product temperature is 30-35C. Cease agitation and fill containers.

SOURCE: BF Goodrich Co.; Formula P0001

Moisturizing Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized water	72.25
Hydroxypropyl Methylcellulose (1.0% solution)	10.00
Glycerin	2.00
Disodium EDTA	0.05
Part B:	
Petrolatum	5.00
Mineral Oil	3.00
Glycol Stearate	2.00
Isostearyl Benzoate	2.00
Paraffin	2.00
Dimethicone (110 cs.)	0.50
Pemulen TR-1	0.30
Part C:	
AMP-95	0.20
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.70

Procedure:

Combine A ingredients. Mix until homogeneous. Combine all B ingredients except Pemulen in a separate vessel. Heat both phases to 60-65C. Confirm that B is homogeneous and at the specified temperature. Add Pemulen to this phase. Agitate to break-up soft lumps of resin. With vigorous agitation, promptly add B to A. Maintain temperature at 60C. Mix for 15-30 minutes or until a smooth non-grainy dispersion is apparent. Add C and discontinue heating. Continue vigorous agitation to produce a smooth product. When the temperature falls to 40-45C add D. Continue mixing until the product temperature is 30-35C. Cease agitation and fill containers.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Formulation PF-0224 suggested by B.F. Goodrich

Body LotionMaterial/CTFA-Index:

A: Hostacerin WO/Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	8.00%
Belsil CM 1000/Cyclomethicone (and) Dimethiconol	10.00
Isopropyl Palmitate	10.00
B: Water	72.00
Preservatives, perfume, pigments	q.s.

W/O Lotion

Heat A and B to 75-80C. Stir B into A.
Temperature stability: at 45C 8 weeks.

SOURCE: Wacker Silicone: Formulation 813 AH

Moisturizing Lotion
(Formula 87-0805M)

<u>Water Phase:</u>	<u>% By Weight</u>
Propylene Glycol	2.50
Carbopol 934 (Goodrich)	0.25
Sodium Hydroxide (50% Aq.)	0.13
D.I. Water	89.47
<u>Oil Phase:</u>	
Alkamuls MM/M	2.00
Alkamuls GMS	1.50
Alkamuls SS	0.35
Dermalcare NI	1.50
Stearic Acid TP	2.30
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure: Combine Propylene Glycol and water and heat to 75-80C. With vigorous agitation, slowly sift Carbopol 934 into heated water system. Once Carbopol 934 is completely dispersed, slowly blend in Sodium Hydroxide (50%) solution. In a separate mixing vessel, combine Oil Phase ingredients. With smooth agitation, heat Oil Phase to 75-80C (avoid scorching). With rapid but smooth agitation, slowly blend molten Oil Phase into heated Water Phase. Mix until completely uniform. With smooth agitation, slowly cool system to 35-40C and add compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties

Appearance After 24 Hrs:	Viscous, Opaque Lotion
% Non Volatiles:	9-11

Hand & Body Lotion
(Formula 89-0903M)

<u>Water Phase:</u>	<u>% By Weight</u>
Glycerine	0.50
Triethanolamine (99%)	1.20
Versene 100 (Dow)	0.10
D.I. Water	83.20
<u>Oil Phase:</u>	
Alkamuls GMS	2.50
Alkamuls LVL	2.00
Alkamuls MM/M	5.00
Cetyl Alcohol NF	2.50
Stearic Acid TP	3.00
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure: Combine Water Phase ingredients and heat to 75-80C. In a separate mixing vessel, combine Oil Phase ingredients and, with smooth agitation, heat to 75-80C (Avoid Scorching). With rapid but smooth agitation slowly blend heated Oil Phase into heated Water Phase. Mix until completely uniform. With smooth agitation, cool to 40C and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties

Appearance After 25 Hrs:	Opaque Lotion
% Non Volatiles:	16-18

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Moisturizing Skin LotionOil Phase:

Glucam P-20	3.0g
Britol 7 (Mineral Oil)	4.5g
Pelan AC (Cetyl Acetate & Acetylated Lanolin Alcohol)	2.0g
Pelemol GMS (Glyceryl Monostearate)	1.0g
Phoenate 200 DL (PEG-4 Dilaurate)	0.5g

Water Phase:

Pecogel H-12 (PVP/Polycarbamyl Polyglycol Ester)	10.0g
Phenoxyol T (Cetearyl Alcohol & Ceteareth 20)	2.0g
DL Carboxypyrrolidone	1.0g
Water	76.0g

Procedure:

Heat oil and water phases to 80C. Add oil phase to water phase at temperature with agitation and continue agitation while cooling. Perfume and stabilizers can be added when temperature cools to 40C.

Part of the mineral oil can be replaced with petroleum jelly for a thicker formulation.

Emollient Skin Lotion

<u>A</u> Deionized Water	76.00%
Propylene Glycol	5.00
Glycerin	2.50
<u>B</u> Pelemol ICB (Isocetyl Behenate)	10.00
Pelemol ISB (Isostearyl Behenate)	2.00
Pelemol BB (Behenyl Behenate)	0.25
Pelemol GTB (Glyceryl Tribehenate)	0.25
Phenoxyol T (Cetearyl Alcohol (and) Ceteareth-20)	1.50
Cetearyl Alcohol	1.50
<u>C</u> Phenoxyethanol (and) Methylparaben (and)	1.00
Ethylparaben (and) Propylparaben (and)	
Butylparaben (Phenonip)	

Procedure:

Heat phase A to 70-75C. Heat phase B to 70-75C with adequate agitation. Homogenize phase B into phase A. Switch to propeller agitation and cool AB to 45C. Add phase C to AB with continued propeller agitation. When ABC reaches 35C, stop.

Formula 14-63-D

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Natural Collagen, Aloe and Lanolin Hand Lotion

	<u>%W/W</u>
A. Deionized Water	69.00
Tetrasodium EDTA	0.05
Carbopol 934, 2% Aq. sol'n (Carbomer 934)	7.00
Methylparaben	0.30
Propylparaben	0.15
Triethanolamine-99%	2.00
Propylene Glycol	2.50
Collagen Hydrolyzate Cosmetic 55 (Hydrolyzed Collagen)	1.00
B. Diisopropyl Adipate	2.00
Stearic Acid	4.00
Cetyl Alcohol	1.00
Anhydrous Lanolin, USP (Lanolin)	5.00
Amerchol L-101 (Mineral Oil (and) Lanolin Alcohol)	5.00
C. Aloe Vera Gel	1.00
Fragrance, color	q.s.

Procedure:

1. Heat Phases A and B separately to 75C.
2. Add A to B at 75C with adequate mixing.
3. Mix and cool to 40C.
4. Add Phase C. Mix to incorporate.

Properties:

Incorporates three of the most beneficial youth-giving ingredients known--Lanolin, Hydrolyzed Collagen and Aloe. Penetrates quickly into the skin to leave a soft, silky afterfeel. Cost effective, but with strong marketing appeal.

SOURCE: Maybrook Inc.: Formula #SK-2020

O/W Broad-Spectrum Protective Moisturizing Lotion with Vitamins

<u>Ingredients:</u>	<u>% by Weight</u>
A. Parsol MCX	2.00
Parsol 1789	1.00
Parsol 5000	0.60
Glyceryl Monostearate	2.00
Cetyl Alcohol Extra	2.00
Dermol 185	6.00
Antaron V-220 (Ganex V-220)	2.00
Prisorine 3505	2.00
Butylated Hydroxytoluene	0.05
Edeta BD	0.10
Phenonip	0.60
Amphisol A	1.50
B. Deionized Water	10.00
AMP 10% sol'n	3.97
C. Deionized Water	21.31
Propylene Glycol	5.00
Carbopol 981 1% sol'n	10.00
AMP 10% sol'n	1.02
D. Deionized Water	20.00
Parsol HS	0.60
AMP 10% sol'n	1.80
E. Vitamin E Acetate	2.00
F. Ropufa 25 N-6 Oil	2.00
G. Panthenol	2.00
H. Ponceau Red SX 0.2% sol'n	0.05
I. Perfume (Parfex 49915)	0.40

Remarks:

- a) While not a sunscreen, this formulation scored an SPF 8 when tested according to the FDA/OTC method (range-finding assay on six subjects. IRI Ref. 582627).
- b) Dermatologically tested perfume for sunscreens.

Procedure:

Heat part A to 85C while stirring. When homogeneous, add part B pre-heated to 75C, while mixing. Add part C pre-heated to 75C, while mixing. Then add part D pre-heated to 60C. Cool to 40C, add parts E, F, G, H, and I. Compensate for water loss and continue stirring while cooling to ambient temperature.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Formulation PF-0312E suggested by Givaudan-Roure SA

O/W Hand and Body Lotion

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	80.30	----
2. Acritamer 934 (Carbomer)	0.10	Viscosity
3. Glycerine	4.00	Humectant
4. Tetrasodium EDTA	0.05	Stability
5. Methylparaben	0.20	Preservative
6. Rita GMS (Glyceryl Stearate)	3.20	Emulsifier
7. Rita Stearic Acid	3.00	Emulsifier
8. Ritachol (Mineral Oil and Lanolin Alcohol)	3.00	Feel
9. Rita CA (Cetyl Alcohol)	1.40	Emulsifier
10. Ritachol 1000 (R.I.T.A. Blend)	0.60	Emulsifier
11. Ritaderm (R.I.T.A. Blend)	2.00	Moisturizing
12. Rita IPP (Isopropyl Palmitate)	0.50	Emollient
13. Propylparaben	0.10	Preservative
14. Triethanolamine @ 50%	1.20	pH
15. Glydant	0.25	Preservative
16. Fragrance	0.10	Odor

Compounding Procedure:

To water sift in item 2. Agitate until uniform. Then weigh in items 3-5 and begin heating to 70C. In another vessel weigh items 6-13 and heat to 70C. To water blend add item 14. After neutralization add oil phase with continuous agitation. Cool and add fragrance.

Ref. No. 119-96

Lanolin Hand and Body Lotion

Creamy texture, lanolin based lotion which absorbs quickly and does not leave a greasy residual film.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	72.37	----
2. Acritamer 941 (Carbomer)	0.05	Viscosity
3. Propylene Glycol	5.00	Humectant
4. Methylparaben	0.10	Preservative
5. Triethanolamine @ 50%	1.48	pH
6. Rita Stearic Acid	2.60	Emulsifier
7. Mineral Oil (70 vis.-Penreco)	8.00	Emolliency
8. Ritaderm (R.I.T.A. Blend)	2.75	Moisture
9. Lanolin, Xtra Deo (R.I.T.A. Lanolin)	1.00	Protection
10. Propylparaben	0.05	Preservative
11. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00	Feel
12. Rita GMS (Glyceryl Stearate)	2.00	Emulsifier
13. Rita CA (Cetyl Alcohol)	0.30	Emulsifier
14. Fragrance	0.10	Odor
15. Glydant	0.20	Preservative

Compounding Procedure:

Weigh item 1 and sift in item 2 until completely dispersed. Add items 3-4 and begin heating to 70C. In another container weigh and add ingredients 6-13 and heat to 70C. Add oil phase to water phase. Add item 5. Mix for 10-15 minutes. Begin cooling, then add fragrance and preservative.

Ref. No. 119-98

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Washing Lotion
Clear, 15.3% active ingredient

Recipe:

A	Genapol ZRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Hostapon KCG	8.00%
	Sodium Cocoyl Glutamate	
	Genapol AMG	5.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Perfume	0.50%
	Water	39.50%
	Dyestuff solution	q. s.
	Preservative	q. s.
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.00%
	Laureth-3	
C	Sodium chloride	2.00%

Procedure:

- I Add one after another the components of B to A.
 II If necessary adjust the pH.
 III Finally adjust the viscosity with C.

Formula A II/4010

Washing-Lotion
Clear, 10.5% active ingredient

Recipe:

A	Genapol AMG	20.00%
	Magnesium-PEG-3 Cocamide Sulfate	
B	Hostapon KCG	6.00%
	Sodium Cocoyl Glutamate	
	Glucamate DOE 120	1.00%
	PEG-120 Methyl Glucose Dioleate	
	Perfume	0.30%
	Water	62.70%
	Dyestuff solution	q. s.
	Preservative	q. s.
	Genagen CAB	10.00%
	Cocamidopropyl Betaine	

Procedure:

- I Add one after another the components of B to A.
 II If necessary adjust the pH.

Formula A II/4019

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Washing-Lotion

With bacteriostatic effect, clear, 10.5% active ingredient

Recipe:

A	Octopirox	0.20%
	Piroctone Olamine	
B	Genapol AMG	20.00%
	Magnesium-PEG-3 Cocamide Sulfate	
C	Hostapon KCG	6.00%
	Sodium Cocoyl Glutamate	
	Glucamate DOE 120	1.00%
	PEG-120 Methyl Glucose Dioleate	
	Perfume	0.30%
	Dyestuff solution	q.s.
	Preservative	q.s.
D	Allantoin	0.20%
E	Water	62.30%
F	Genagen CAB	10.00%
	Cocamidopropyl Betaine	

Procedure:

- I Dissolve A in B.
 - II One after another the components of C are added to I.
 - III Dissolve D in warmed E.
 - IV Stir III into II.
 - V If necessary adjust the pH.
 - VI Finally adjust the viscosity with F.
- Formula A II/4020

Handwashing-Paste

Clear, gel type, with solvent, 21.2% active ingredient

Recipe:

A	Genapol UD-030	5.00%
	Undeceth-3	
	Oleic acid	4.00%
	Triethanolamine	2.00%
	Preservative	q.s.
B	Genapol ZRO liquid	15.00%
	Sodium Laureth Sulfate	
	Hostapur SAS 60	20.00%
	Sodium C14-17 Sec. Alkyl Sulfonate	
	Water	29.00%
C	Shellsol D 70	25.00%
	Petroleum Distillates	

Procedure:

- I Mix the components of A.
 - II One after another, the components of B are added to I.
 - III Heat II to 70C, then add C.
 - IV Finally homogenize if necessary.
- Formula A II/1029

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Section IX

Shampoos

Amino Moisture Balance Shampoo

	<u>%W/W</u>
A. Deionized Water	35.10
Sodium C14-C16 Olefin Sulfonate	35.10
May-Tein CT (TEA-Cocoyl Hydrolyzed Collagen)	10.00
Quat-Pro S (Stearyltrimonium Hydroxy Ethyl Hydrolyzed Collagen)	1.50
Aqua-Tein C (Collagen Amino Acids (and) Acetamide MEA (and) Propylene Glycol)	3.00
Cocoamphocarboxyglycinate	5.00
Monamid CMA (Cocamide MEA)	3.00
Methylparaben	0.20
B. Dowicil 200 (Quaternium-15)	0.20
Ammonium Chloride	2.00
Deionized Water	5.00
Citric Acid	q.s.
Fragrance, color	q.s.

Procedure:

Warm phase A to 65C. Mix until melted and homogeneous. Adjust pH while warm to pH=6.5. Pre-dissolve Ammonium Chloride in water. Add carefully to avoid air entrapment. Cool to 50C. Add fragrance

Properties:

This shampoo is an effective cleanser with excellent foam generating properties. Quat-Pro S and Aqua-Tein C provide the conditioning required for good manageability and an optimum moisture balance throughout the hair. May-Tein CT provides anti-irritancy and mildness. Quat-Pro S, a quaternized, high molecular weight protein coats, seals and protects the hair. The hair is left feeling soft and bodied.

SOURCE: Maybrook Inc.: Formula #HS-115

Shampoo

Clear, low viscosity

Materials/CTFA-Index:

Texapon NA/Ammonium Laureth Sulfate	22.50%
Hoe S 3267/Cocamidopropyl Betaine	22.50
Water	48.00
Belsil ADM 6041 E/Amodimethicone (and) Emulsifier	1.00
Belsil DMC 6031/Dimethicone Copolyol	1.00
Ammonium Chloride	5.00
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 in water, add the remaining components and adjust the viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 150 AH

Amino-Soy Revital Shampoo

	<u>%W/W</u>
A. Deionized Water	46.70
Monamate OPA-30 (Disodium Oleamido PEG-2 Sulfosuccinate)	8.00
Monateric ISA-35 (Sodium Isostearamphopropionate)	8.00
Soy-Tein NL (Hydrolyzed Soy Protein)	2.00
Ammonium Lauryl Sulfate	25.00
May-Tein SY (TEA-Cocoyl Hydrolyzed Soy Protein)	10.00
B. Glydant	0.30
Fragrance	q.s.
Citric Acid, 50% Solution	q.s. to pH 6.5

Procedure:

Mix and heat phase A to 50C. Mix until homogeneous. Mix and cool to 40C. Add fragrance & preservative. Add citric acid to thicken.

Properties:

A foaming vegetable shampoo with excellent foam generation. Mild, yet thorough cleansing. May-Tein SY is a mild, foaming Lipo-protein which is biodegradable. Soy-Tein NL adds conditioning and post-shampoo benefits. These substantive proteins equilibrate the moisture content of the hair so it actually improves with time. Moist hair is less raspy, feels better and is less prone to breakage. An excellent shampoo for permed or treated hair.

SOURCE: Maybrook Inc.: Formulation #HS-202

Shampoo for Permed Hair

	<u>Weight, %</u>
Mackanate OP	20.0
Mackanate CP	12.0
Mackol 70NS	10.0
Mackamine WGO	4.0
Mackalene 716	1.0
Paragon Preservative	q.s.
Citric acid to pH 6.0	
Sodium Chloride qs to 2000 cps	
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 40C.
2. Blend until clear and adjust pH with citric acid.
3. Add remaining components and adjust viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Anti-Dandruff Shampoo

Therapeutic shampoo containing 2% zinc pyrithione in a thick, rich foaming conditioning shampoo.

<u>Ingredients:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	31.1	Diluent
Ammonium Lauryl Sulfate (28%) (1)	34.3	Surfactant
Lauramidopropyl Betaine (32%) (2)	7.5	Surfactant
Part B:		
Carbopol 1382 (3)	0.5	Suspension Stabilizer
Cocamide DEA (4)	3.5	Foam Stabilizer
Part C:		
Deionized Water	16.0	Diluent
Disodium EDTA	0.1	Chelant
DMDM Hydantoin (5)	0.4	Preservative
Guar Hydroxypropyltrimonium Chloride (6)	0.5	Conditioner
Sodium Hydroxide (10%)	2.0	Neutralizing Agent
Part D:		
Zinc Pyrithione (48%) (7)	4.1	Active

- (1) Standapol A (Henkel)
- (2) Mackam LMB-LS (McIntyre Group)
- (3) Carbomer (BFGoodrich)
- (4) Standamid KD (Henkel)
- (5) Glydant (Lonza)
- (6) N-Hance (Aqualon)
- (7) Zinc Omadine (Olin Chemical)

Preparation Procedure:

1. Combine Part A ingredients, slowly mix, heat to 40-50C.
2. Separately heat cocamide DEA to 50C, slowly mix in Carbopol forming a paste, add to Part A.
3. Combine Part C ingredients, carefully disperse guar before adding NaOH, add to Part A&B.
4. With slow mixing add zinc pyrithione to shampoo base; mix 20-30 minutes.

SOURCE: BF Goodrich Co.; Formula C-0038

Antidandruff-Shampoo
Clear, 15.1% active ingredient

Recipe:

A	Octopirox	0.50%
	Piroctone Olamine	
B	Water	10.00%
C	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
	Genapol SBE	5.00%
	Disodium Laureth Sulfosuccinate	
	Perfume	0.30%
D	Allantoin	0.20%
E	Water	40.30%
F	Dyestuff solution	q. s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Genapol L-3	1.50%
	Laureth-3	
G	Sodium chloride	1.20%

Procedure:

I Mix A and B. II C is added by continuing stirring until the solution is clear. III Dissolve D in warmed E. IV Stir III into II. V One after another the components of F are added to IV. VI If necessary adjust the pH. VII Finally adjust the viscosity with G.

Formula B I/6134

Antidandruff-Shampoo

Recipe:

A	Octopirox	0.75%
	Pyroctone Olamine	
B	Water	10.00%
C	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
	Genapol SBE	10.00%
	Disodium Laureth Sulfosuccinate	
D	Perfume	0.30%
	Water	34.25%
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q. s.
E	Sodium chloride	1.70%

Procedure:

I Mix A and B. II C is added by continuing stirring until the solution is clear. III One after another the components of D are added to II. IV If necessary adjust the pH. V Finally adjust the viscosity with E.

Formula B I/6136

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Anti-Dandruff Shampoo

	<u>%W/W</u>
Texapon IES	50.0
Dehyton AB 30	10.0
Bactericide	0.5
1,2-propylene glycol	5.0
Water	34.5
Note: WAS 28%, viscous	
Formula No. T61-16	

Shampoo for Greasy Hair

	<u>%W/W</u>
Texapon MG	40.0
Comperlan F	1.0
Paravital 9B	5.0
Sodium chloride	2.0
Water	52.0
Note: WAS 15.5%, medium viscous	
Formula No. T61-18	

Sulfur Shampoo

	<u>%W/W</u>
Texapon IES	40.0
Bioschwefel-Fluid	3.0
Water	57.0
Note: WAS 20%, viscous	
Formula No. T61-19	

Shampoo, with Azulene, Clear

	<u>%W/W</u>
Texapon ASV	30.0
Texapon SBN	30.0
Azulene	0.1
Sodium chloride	4.0
Water	35.9
Note: WAS 19%, viscous	
Formula No. T61-20	

Herbal Shampoo, Clear

	<u>%W/W</u>
Texapon N25/N40	50.0
Comperlan KD	2.0
Extrapon 5 spec.	2.0
Extrapon birch spec.	1.0
Sodium chloride	2.0
Water	43.0
Note: WAS 16%, medium viscous	
Formula No. T61-21	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Anti-Dandruff Shampoo with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Sodium Lauryl Sulfate	51.70
2. Distilled Water	8.80
3. Pationic ISL/85	3.00
4. Rita EGDS	3.00
5. Ritamid C	4.50
6. Propylene Glycol	2.00
Part B:	
7. NaCl (25% Solution)	+ -1.00
8. Patlac LA (44% Solution)	QS
Part C:	
9. Flowers of Sulfur	2.00
Part D:	
10. Ritavena 5	4.00
11. Distilled Water (100C)	20.00

Compounding Procedure:

Premix Part D in blender for 2 minutes. Heat part A to 165F. When at temperature stir Part A until homogeneous. Switch to high shear mixing (do not aerate). Add Part C into Part A and shear for 10-12 minutes (until thoroughly dispersed). While still warm, switch again to regular impeller mixer and add Part D. Mix well while cooling in water bath. Adjust pH to 7.5 with Patlac LA if needed. Adjust viscosity with NaCl solution. Formula 113-120A

Anti-Dandruff Shampoo with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Sodium Lauryl Sulfate	51.70
2. Distilled Water	8.80
3. Pationic ISL/85	3.00
4. Rita EGDS	3.00
5. Ritamid C	4.50
6. Propylene Glycol	2.00
Part B:	
7. NaCl (25% Solution)	+ -1.00
8. Patlac LA (44% Solution)	QS
Part C:	
9. Flowers of Sulfur	2.00
Part D:	
10. Ritavena 5	4.50
11. Distilled Water (100C)	19.50

Compounding Procedure:

Heat Part A to 165F. When at temperature, stir until homogeneous, then switch to high shear mixing (do not aerate). Sprinkle Part C into Part A and shear for 10-12 minutes (until thoroughly dispersed). Premix Part D in blender for 1 minute. While still warm, switch A & C to regular impeller mixer and add Part D. Mix well while cooling in water bath. Adjust pH to 7.5 with Patlac LA if needed. Adjust viscosity with NaCl solution.

Formula 113-120B

SOURCE: R.I.T.A. Corp.: Ritavena 5 Suggested Formulations

Anti-Dandruff Shampoo with Ritavena 5

<u>Ingredients:</u>	%W/W
Part A:	
1. Sodium Lauryl Ether Sulfate	57.69
2. Pationic ISL/85	3.00
3. Rita EGDS	3.00
4. Propylene Glycol	2.00
Part B:	
5. Zinc Omadine	2.00
Part C:	
6. Ritavena 5	4.50
7. Distilled Water (100C)	26.41
Part D:	
8. Patlac LA (44% Solution)	+ -0.40
Part E:	
9. NaCl (25% Solution)	+ -1.00

Compounding Procedure:

Heat Part A in water bath to 165F, stir until uniform. Premix Part C in blender for 2 minutes. Place Part A under high shear mixer (do not aerate). Add Part B and shear for approximately 12-15 minutes (until thoroughly dispersed). While still warm, remove from high shear mixer, place under regular impeller mixer and add Part C. Water bath cool to 120F. Add Part D to pH=5.5. Adjust viscosity with Part E if necessary.

Note: 2% Zinc Omadine is not necessary as functionality remains with 1% Zinc Omadine. Acid pH is necessary for proper stability of Omadine.

Formula 113-141C

Silicone Shampoo with Ritavena 5

<u>Ingredients:</u>	%W/W
Part A:	
1. Pationic 138C	8.00
2. Masil SF 60,000	1.00
3. Ritapeg 150 DS	2.00
4. Rita EGDS	3.00
5. Witconate SXS	2.00
6. Propylparaben	0.05
Part B:	
7. Distilled Water	34.25
8. Bio-Terge AS-40	37.50
9. Methylparaben	0.15
Part C:	
10. Distilled Water (100C)	10.00
11. Ritavena 5	2.00
Part D:	
12. Kathon CG	0.05

Compounding Procedure:

Heat Parts A and B to 165F. Combine. Mix until uniform. Premix Part C in blender for 2 minutes. Add Part C to mixture. Cool to 120F. Add Part D.

Formula 114-7

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

Balance Shampoo

<u>Component:</u>	<u>%</u>
Plantaren 2000	20.0
Texapon ALS	6.5
Antil 141S	3.0
Perfume	q.s.
Water, preservative	up to 100

WAS: 12

pH-value: 5,5

Viscosity mPas: 4220

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 93/178/9

Shampoo with Care Additive

<u>Component:</u>	<u>%</u>
Plantaren PS 10	16.0
Lamequat L	2.0
Perfume oil	q.s.
NaCl	2.0
Water, preservative	up to 100

pH-value: 5,5

WAS: 10

Viscosity mPas: 14600

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 92/184/26

Shampoo with Plantaren PS 10

<u>Component:</u>	<u>%</u>
Plantaren PS 10	15.0
Dehyton K	10.0
Cetiol HE	2.0
NaCl	0.5
Perfume oil	q.s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 12

Viscosity mPas: 3700

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 92/184/28

SOURCE: Henkel KGaA: Model Formulae

Clear Shampoo

	%
Texapon K 14 S 70 spezial	11.0
Dehyton K	7.0
Plantaren 1200	4.0
Arlypon F	0.9
NaCl	3.0
Perfume	q.s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 12

Viscosity mPas: 8000

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 90/139/39

Mild, Clear Care Shampoo

	%
Texapon N70	8.0
Plantaren 1200	4.0
Lamequat L	3.0
NaCl	1.3
Perfume	q.s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 10

Viscosity mPas: 3200

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 90/139/41

Clear Shampoo with Panthenol

	%
Plantaren 1200	10.0
Texapon ALS	17.0
D-Panthenol USP (50%)	1.0
NaCl	2.3
Perfume	q.s.
Water, preservative	up to 100

pH-value: 5,5

WAS: 10

Viscosity mPas: 5000

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 90/139/50

SOURCE: Henkel KGaA: Model Formulae

Clear Shampoo with Protein

<u>Component:</u>	<u>%</u>
Texapon N70	11.0
Dehyton K	7.0
Plantaren 1200	4.0
Nutrilan I-50	2.0
NaCl	1.6
Perfume	q.s.
Water, preservative	up to 100
pH-value: 5,5	
WAS: 12	
Viscosity mPas: 4300	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 90/139/38	

Clear Shampoo with Hydrolyzed Keratin

<u>Component:</u>	<u>%</u>
Plantaren 1200	13.0
Texapon ALS	11.0
Nutrilan Keratin W	3.0
NaCl	0.4
Perfume	q.s.
Water, preservative	up to 100
pH-value: 5,5	
WAS: 10	
Viscosity mPas: 11700	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 90/139/47	

Mild, Clear Shampoo with Keratin

<u>Component:</u>	<u>%</u>
Texapon K 14 S spez.	29.0
Plantaren 2000	4.0
Nutrilan Keratin W	1.0
Arylypon F	3.0
NaCl	1.0
Perfume	q.s.
Water, preservative	up to 100
Viscosity mPas: 5220	
WAS: 10	
pH-value: 6,5	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/087/43	

SOURCE: Henkel KGaA: Model Formulae

Clear & Bright Shampoo Plus Conditioner
(Formula 90-1109)

This rich lathering shampoo conditions the hair while it cleans and leaves the hair soft and manageable. Unlike many conditioning shampoos, which leave the hair feeling heavy or oily, this formula conditions the hair without heavy buildup.

<u>Step A:</u>	<u>% By Weight</u>
Water	22.20
Jaguar C-162	0.30

Charge water into mixing vessel. With rapid but smooth agitation, slowly disperse Jaguar C-162 in water. With smooth agitation, warm system to 40-45C.

<u>Step B:</u>	
Rhodapon L-22HNC	65.00
Ammonium Xylene Sulfonate (40%)	5.00
Citric Acid (25% Aqueous)	Q.S. to pH 5.5-6.0

With smooth agitation slowly blend Rhodapon L-22HNC and AXS-40 into heated water system. Mix until completely uniform (heat may be needed). Adjust pH system to 5.5-6.0 with Citric Acid (25% Aq.) as needed.

<u>Step C:</u>	
Alkamide LE	1.50
Mirapol 550	0.50
Mirataine BET-0-30	5.00
Citric Acid (25% Aqueous)	Q.S. to pH 5.5-6.0

Combine Alkamide LE, Mirapol 550, and Mirataine BET-0-30. Mix until uniform. This should produce a pourable slurry. Slowly blend the slurry into the main system and mix until uniform. Adjust pH of system to 5.5-6.0 with Citric Acid as needed.

<u>Step D:</u>	
Fragrance	Q.S.
Dye(s)	Q.S.
Preservative	Q.S.

Slowly blend compatible Fragrance, Dye(s), and Preservative into system. Mix until uniform.

<u>Step E:</u>	
Ammonium Chloride	Q.S.
or	
Ammonium Xylene Sulfonate (40%)	Q.S.

If desired, trace concentrations (0.05% increments) of Ammonium Chloride may be added to increase the formulation viscosity. Additions of AXS-40 (0.5% increments) may be used to lower the formulation viscosity.

Typical Formulation Properties

Appearance @ 25C:	Clear Liquid
pH (as is):	5.5-6.0
Viscosity @ 25C (No. 4 Spindle @ 20RPM)	4,000-6,000 cps

CTFA Designation: Water, Ammonium Lauryl Sulfate, Ammonium Xylene Sulfonate, Lauramide DEA, Oleamidopropyl Betaine, Polyquaternium 7, Hydroxypropyl Guar Hydroxypropyltrimonium Chloride, Citric Acid, Preservative, Dye, Ammonium Chloride.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 90-1109

Conditioning, Anti-Dandruff Shampoo
(Formula 91-1105)

	<u>% By Weight</u>
<u>Step A:</u> Jaguar C-17	0.50
Water	35.00
<u>Step B:</u> Rhodigel EZ	0.05
<u>Step C:</u> Citric Acid	Q.S. to pH 5-7
<u>Step D:</u> Rhodapon SB 8208S	45.00
<u>Step E:</u> Alkamide C-212	1.80
Alkamuls EGMS	0.90
<u>Step F:</u> Zinc Omadine 48% Active Dispersion (Olin)	2.00
Water	45.00
<u>Step G:</u> Citric Acid	Q.S. to pH 5.5-6.5
<u>Step H:</u> Fragrance, Dye(s), Preservative	Q.S.
<u>Step I:</u> Mirataine CBC	6-14

Blending Procedure:

- Step A: With rapid but smooth agitation, disperse Jaguar C-17 in water. Heat system to 40-45C with smooth agitation.
- Step B: With vigorous agitation, disperse Rhodigel EZ into heated water base. With vigorous agitation, continue to heat system to 60C.
- Step C: Adjust formulation pH to 5-7 with Citric Acid as needed.
- Step D: With smooth agitation, slowly blend in Rhodapon SB 8208S. With smooth agitation heat system to 70-75C.
- Step E: With smooth agitation, slowly blend Alkamide C-212 and Alkamuls EGMS into heated system. Mix until uniform.
- Step F: Combine water and Zinc Omadine dispersion and mix until uniform. With rapid but smooth agitation, slowly blend into heated shampoo base. Mix until uniform and then cool system to 40-45C with smooth agitation.
- Step G: Adjust formulation pH to 5.5-6.5 with Citric Acid as needed.
- Step H: Add compatible Fragrance, Dye(s), and Preservative.
- Step I: Adjust formulation viscosity to 7,000-11,000 cps (No. 4 Spindle @ 10 RPM-25C) with the incremental addition of Mirataine CBC as needed.

Typical Formulation Properties

Appearance @ 25C: Viscous, Opaque Liquid
 pH: 5.5-6.5
 Viscosity @ 25C: 7,000-11,000 cps (No. 4 spindle @ 10 RPM)
 % Non Volatiles: 20-23
 Active Ingredient: Zinc Pyrithione

Other Ingredients (CTFA Identification): Water, Sodium Lauryl Sulfate, Cocamidopropyl Betaine, Cocamide MEA, Glycol Stearate, Guar Hydroxypropyltrimonium Chloride, Fragrance, Preservative, Citric Acid, Xanthan Gum, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 91-1105

Conditioning Shampoo

Thick, stable shampoo having good cleaning and conditioning properties of the hair.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	21.55	Diluent
Ammonium Lauryl Sulfate (28%) (1)	43.00	Surfactant
Ammonium Laureth Sulfate (27%) (2)	11.00	Surfactant
Part B:		
Carbopol 1382 (3)	0.75	Suspension Stabilizer
Cocamide DEA (4)	3.50	Foam Stabilizer
Part C:		
Dimethicone (100,000 cs) (5)	1.00	Lubricant
Olealkonium Chloride (6)	0.50	Conditioner
Part D:		
Deionized Water	16.00	Diluent
Disodium EDTA	0.10	Chelant
DMDM Hydantoin (7)	0.40	Preservative
Guar Hydroxypropyltrimonium Chloride (8)	0.20	Conditioner
NaOH (10%)	2.00	Neutralizing Agent

- (1) Standapol A (Henkel)
- (2) Standapol EA-3 (Henkel)
- (3) Carbomer (BFGoodrich)
- (4) Standamid KD (Henkel)
- (5) 200 Fluid (Dow Corning)
- (6) M-Quat JO 50 (PPG-Mazer)
- (7) Glydant (Lonza)
- (8) N-Hance (Aqualon)

Preparation Procedure:

1. Combine Part A ingredients, slowly mix, heat to 50C.
2. Separately heat cocamide DEA to 50C, slowly mix in Carbopol forming a paste, add to Part A with moderate speed, mixing 30 minutes.
3. Separately combine Part C ingredients, heat to 50C, slowly mix to combine with Parts A and B with moderate speed mixing.
4. Separately add guar into first three ingredients of Part D, when dispersed add NaOH, combine with Parts A, B, and C, with slow agitation for 20 minutes.

SOURCE: BF Goodrich Co.: Formula C-0038

Conditioning Shampoo

High-viscosity product with a silky shine. Very mild.

Material/CTFA-Index:

Water	53.50%
Texapon ASV/Sodium Laureth Sulfate (and) Magnesium Laureth Sulfate (and) Sodium Laureth 8-Sulfate (and) Sodium Oleth Sulfate (and) Magnesium Oleth Sulfate	20.00
Dehyton K/Cocamidopropyl Betaine	11.00
Comperlan KD/Cocamide DEA	4.00
Sodium Chloride	1.00
Texapon SG/Sodium Laureth Sulfate (and) Cocamide MEA (and) Glycol Distearate	10.00
Belsil DMC 6031/Dimethicone Copolyol	0.50
Preservatives, fragrances	q.s.

Mix all components in the given order.

Temperature stability: at 45C over 10 weeks.

Formulation 201 AH

Shampoo

Clear, thin gel.

Materials/CTFA-Index:

Hoe S 3267/Cocamidopropyl Betaine	22.50%
Wasser, dest./Water	52.00
Texapon NA/Ammonium Laureth Sulfate	22.50
Belsil DMC 6033/Dimethicone Copolyol Acetate	1.00
Belsil ADM 6041 E/Amodimethicone (and) Emulsifier	1.00
Ammonium Chloride	1.00
Preservatives, fragrances	q.s.

Dissolve Hoe S 3267 in water, add Texapon NA, Belsil DMC 6033 and Belsil ADM 6041 E, homogenise the mixture and adjust the desired viscosity with the ammonium chloride.

Temperature stability: at 45C over 10 weeks.

Formulation 151 AH

SOURCE: Wacker Silicone: Suggested Formulations

Conditioning Shampoo

<u>Ingredients:</u>	<u>%</u>
Phase A:	
H2O, Deionized	54.995
Celquat H-100	0.10
Standapol ES-2	25.00
Hetaine CLA (Canolamidopropyl Betaine)	5.00
Hetamide RC (Cocamide DEA)	1.50
Hest E.G.D.S. (E.G.D.S)	0.80
SF 96-350	0.75
Merquat 280	0.75
Phase B:	
Kathon CG	0.07
Phase C:	
Citric Acid	0.035
FD&C Blue #1	Q.S.

Specifications:

- pH: 5.5-6.0
- Viscosity #3/12: 5000 cps

Procedure:

- 1) In a stainless steel kettle add H2O. While mixing sprinkle Celquat H-100 into vortex.
 - 2) Add remainder of Phase A and heat to 75C while mixing until homogeneous.
 - 3) Cool to 40C and add Phase B.
 - 4) Adjust pH with citric acid.
 - 5) Color as desired.
- Formula HS 93-85

Clear Shampoo

<u>Ingredients:</u>	<u>%</u>
H2O, Deionized	56.93
Sodium Laureth-2 Sulfate	25.0
Hetaine CLA	9.5
Decyl Polyglucose	7.5
PEG-7 Glyceryl Cocoate	1.0
Kathon CG	0.07

Specifications:

- pH: 6.50
- Viscosity #3/12: 5500 cps

Procedure:

In a stainless steel tank equipped with a Lightnin' type mixer, combine all ingredients. Mix until uniform.

Comments:

This mild shampoo is alkanolamide and salt free, while maintaining viscosity.

It is also a cold process formula.

Formula HS 93-90

SOURCE: Heterene, Inc.: Suggested Formulas

Conditioning Shampoo
(Formula 92-1202)

	<u>% by Weight</u>
A. Deionized water	61.20
Jaguar C-17	0.30
Citric Acid	Q.S. to pH 4.0-5.0
B. Rhodacal A-246L	20.0
Mirataine BET C-30	15.0
Alkamide DC-212/S	2.0
Alkamuls EGMS/C	1.0
Sodium Chloride	0.5
Preservative	Q.S.
Fragrance and dye(s)	Q.S.

Blending Procedure:

Dissolve Jaguar C-17 thoroughly in water. Adjust pH to 4-5 with citric acid with agitation. Heat to 65C, then add "B" (except Alkamuls EGMS/C and sodium chloride). Adjust pH of formulation to 5-6 with citric acid, then add Alkamuls EGMS/C and sodium chloride. Continue agitation until uniform and cool to room temperature.

Note: Sodium chloride may be added in trace concentrations (0.05-0.1%) to increase viscosity and to provide a very good pearl.

Tentative Specifications:

Solids: 16.2%
pH: 5.0-6.0
Viscosity: 4,500-5,000 cps

After-Perm Conditioning Shampoo
(Formula 92-1211)

	<u>% by Weight</u>
A. Deionized water	60.7
Jaguar HP 8	0.3
Citric Acid	q.s. to pH 4-5
B. Rhodopon ESY	22.0
Mirataine BET C 30	12.0
Alkamide DC-212/S	2.0
Alkamuls EGMS/C	1.0
Ammonium Xylene Sulfonate	2.0
Fragrance, preservative, dye	q.s.

Procedure:

Disperse Jaguar HP 8 thoroughly in water. Adjust pH with citric acid to 4-5. Heat/mix to 75C and add "B" in order given. Continue agitation until uniform. At 45C, adjust pH to 5-6 with citric acid, if necessary.

Typical Formulation Properties:

Appearance @ 25C: Viscous, opaque liquid
Viscosity @ 25C: 3500 cps
pH: 5-6
% Non-Volatiles: 15

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Conditioning Shampoo
(Crème of Nature Type)
Formula 92-1212

	<u>% by Weight</u>
Step A:	
Deionized water	52.2
Jaguar C-13S	0.3
Citric Acid	q.s. to pH 4-5
Step B:	
Rhodapon L22HNC	30.0
Mirataine BET C-30	12.0
Alkamuls EGMS/C	2.0
Hydrolyzed Collagen	2.0
Alkamide DC-212/S	1.0
Sodium Chloride	0.5
Fragrance, dyes, preservative	Q.S.

Blending Procedure:

Disperse Jaguar C-13S thoroughly in water and adjust pH to 4-5 with citric acid. Continue agitation and heat to 75C, then add "B" in order listed. Continue agitation to cool to 45C. Adjust pH to 5-6 with citric acid, if necessary.

Typical Formulation Properties:

Appearance:	Viscous, opaque liquid
% Nonvolatile:	16.5
pH:	5.0-6.0
Viscosity:	3,800 cps

CTFA Identification: Water, Ammonium Lauryl Sulfate, Cocamidopropyl Betaine, Glycol Stearate, Hydrolyzed Collagen, Cocamide DEA, Sodium Chloride.

Neutralizing Shampoo
(Formula 93-0501)

<u>Component:</u>	<u>% by Weight</u>
A.	
Rhodapex ES	18.0
Mirataine COB	10.0
Alkamide DC-212/S	2.0
B.	
Deionized Water	69.1
Sodium Borate	0.5
Acetic Acid	0.2
Sorbic Acid	0.2
C.	
Phenolphthalein	Q.S.
FD&C Yellow #6	Q.S.
Methyl Paraben	Q.S.
Fragrance	Q.S.

Procedure:

Heat "A" and "B" separately to 75C. With agitation, add "B" to "A" until uniform and cool to 45C. Adjust pH to 4.0-5.5 with acetic acid, if necessary. Add "C", then package.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Conditioning-Shampoo
Clear, 17.0% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
B	Belsil DMC 6032	0.50%
	Dimethicone Copolyol	
	Merquat 550	5.00%
	Polyquaternium-7	
	Perfume	0.30%
C	Water	33.90%
	Glycerine	5.00%
	Genagen CAB	10.00%
	Cocamidopropyl Betaine	
	Genapol L-3	1.80%
	Laureth-3	
	Dyestuff solution	q. s.
	Preservative	q. s.
D	Sodium chloride	0.50%

Procedure:

- I Mix the components of A.
 - II Add the components of B to I, and stir until a clear solution has been obtained.
 - III One after another the components of C are added to II.
 - IV If necessary adjust the pH.
 - V Finally adjust the viscosity with D.
- Formula B I/6139

Conditioning-Shampoo
Clear, 11.5% active ingredient

Recipe:

A	Genapol LRO liquid	25.00%
	Sodium Laureth Sulfate	
B	Genamin KSL	2.00%
	PEG-5 Stearyl Ammonium Lactate	
C	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Perfume	0.30%
	Water	57.20%
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q. s.
	Preservative	q. s.
D	Sodium chloride	1.50%

Procedure:

- I Dissolve B in A.
 - II One after another the components of C are added to I.
 - III If necessary adjust the pH.
 - IV Finally adjust the viscosity with D.
- Formula B I/6118

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Conditioning-Shampoo
With pearl lustre effect, 18.0% active ingredient

Recipe:

A	Coconut fatty acid diethanolamide	2.20%
B	Water	10.00%
C	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Genamin KSL	2.00%
	PEG-5 Stearyl Ammonium Lactate	
	Softigen 767	0.40%
	PEG-6 Caprylic/Capric Glycerides	
	Perfume	0.30%
	Belsil DMC 6032	1.00%
	Dimethicone Copolyol	
	Genapol TSM	2.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
D	Polymer JR 400	0.60%
	Polyquaternium-10	
E	Water	27.50%
F	Genagen CAB	7.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q.s.
	Preservative	q.s.
G	Sodium chloride	2.00%

Procedure:

- I Dissolve A in warmed B.
- II One after another the components of C are added to I.
- III Dissolve D in warmed E, then stir into II.
- IV One after another the components of F are added to III.
- V If necessary adjust the pH.
- VI Finally adjust the viscosity with G.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula B I/6140

Conditioning Shampoo

Creamy, white with a silky shine.

Material/CTFA-Index:

A: Texapon A/Ammonium Lauryl Sulfate	20.00%
Texapon NA/Ammonium Laureth Sulfate	20.00
B: Genapol PMS/Glycol Distearate	3.00
Comperlan 100/Cocamide MEA	3.00
Lanette O/Cetearyl Alcohol	1.00
C: Water	50.00
Carbopol 934/Carbomer 934	1.50
Triethanolamine	2.00
D: Wacker-Belsil ADM 6057 E/Amodimethicone(a.)	
Trideceth-10(a.) Cetrimonium Chloride	3.00
Preservative, fragrances, pigments	q.s.

Mix A and heat to 70C, melt B and then stir into A.
Mix C stir AB into C at approx. 35C and then add D.

Formulation 985 AH

Conditioning Shampoo

High-viscosity product with a silky shine.

Material/CTFA-Index:

Water	48.00%
Texapon ASV/Sodium Laureth Sulfate (and) Magnesium Laureth Sulfate (and) Sodium Laureth 8-Sulfate (and) Sodium Oleth Sulfate (and) Magnesium Oleth Sulfate	25.00
Dehyton K/Cocamidopropyl Betaine	11.00
Comperlan KD/Cocamide DEA	4.00
Texapon SG/Sodium Laureth Sulfate (and) Cocamide MEA (and) Glycol Distearate	6.00
Wacker-Belsil DM 6600 E/Dimethicone (and) Trideceth-10	5.00
Preservative, fragrances, pigments	q.s.

Mix all the ingredients in this order.

Formulation 661 AH

SOURCE: Wacker Silicone: Suggested Formulations

Conditioning-Shampoo
Clear, 19.0% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
	Genapol AMG	5.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Hostapon SCHC	5.00%
	Sodium Cocoyl Hydrolyzed Collagen	
	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
B	Beilsil DMC 6032	2.00%
	Dimethicone Copolyol	
	D-Panthenol	1.00%
	Perfume	0.30%
C	Water	34.20%
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.50%
	Laureth-3	
	Dyestuff solution	q.s.
	Preservative	q.s.
D	Sodium chloride	2.00%

Procedure:

- I Mix the components of A.
 II Add the components of B to I, and stir until a clear gel has been obtained.
 III One after another the components of C are added to II.
 IV If necessary adjust the pH.
 V Finally adjust the viscosity with D.
 Formula B I/6128

Antidandruff-Shampoo

With pearl lustre effect, 14.2% active ingredient

Recipe:

A	Octopirox	0.50%
	Piroctone Olamine	
B	Water	10.00%
C	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
D	Genapol PGL	4.00%
	Glycol Distearate (and) Cocamide MEA (and)	
	PPG-4 Deceth-4	
	Perfume	0.30%
	Water	34.20%
	Dyestuff solution	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
E	Sodium chloride	1.00%

Procedure:

- I Mix A and B. II C is added by continuing stirring until the solution is clear. III One after another the components of D are added to II. IV If necessary adjust the pH. V Finally adjust the viscosity with E.
 Formula B I/6126

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Conditioning Shampoo, Clear

	%W/W
Texapon N25	35.0
Lamepon S	15.0
Comperlan OD	1.0
Lamequat L	4.0
Perfume	0.2
Sodium chloride	0.5
Water	44.3
Note: Medium viscous, WAS 16%	
Formula No. T61-65	

Conditioning Shampoo, Clear

	%W/W
Texapon N25/N40	20.0
Texapon K14 S special	20.0
Dehyquart E	3.5
Sodium chloride	3.5
Water	53.0
Note: Low viscous, WAS 12%	
Formula No. T61-67	

Anti-Dandruff Shampoo, Clear

	%W/W
Texapon N25	25.0
Dehyton K	15.0
Lamepon S	20.0
Lamepon UD	5.0
Lamequat L	1.5
Lamesoft LMG	1.5
Perfume	0.3
Water	31.7
Note: Medium viscous, WAS 19%	
Preparation: Lamesoft LMG is dissolved in Texapon N25 (or in a part of it) and the other substances are added in the order given above.	
Formula No. T61-70	

Anti-Dandruff Shampoo with Sulfur

	%W/W
Texapon N25	40.0
Lamepon S-TR	15.0
Lamepon UD	5.0
Comperlan KD	1.5
Bioschwefel fluid	0.2
Perfume	0.3
Sodium chloride	1.5
Water	36.5
Note: Medium viscous, WAS 19%	
Formula No. T61-72	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cream Shampoo with Protein

	<u>%W/W</u>
I Texapon CS paste	90.0
Comperlan LP	5.0
Hydagen P	2.0
Water	3.0

Note: WAS 58%, paste

Preparation: The ingredients shown in the formula are mixed together and melted at approx. 75C.

Formula No. T65-08

Herbal Shampoo in Cream Form

	<u>%W/W</u>
I Texapon CS paste	35.0
Siegert Stearin L2 SM	10.0
Triethanolamine	4.0
Sodium chloride	3.0
Water	45.0
II Hexaplant Richter	3.0

Note: AS 34%, WAS 20%, paste, pH 6-7

Preparation: The ingredients shown in the formula are mixed together and melted at approx. 75C. Hexaplant Richter is added below 40C.

Formula No. T65-10

Softening Shampoo in Cream Form with Guar Derivative

	<u>%W/W</u>
I Texapon N70	20.0
Comperlan 100	3.0
Cutina AGS	3.0
II Water	42.4
Sodium chloride	0.8
III Cosmedia Guar C261	0.8
Water 70-80C	30.0

Note: WAS 17%

Preparation: Phases I and II are heated to approx. 80C and mixed together slowly while stirring continuously. When they have cooled to under 40C, Phase III, which has also been allowed to cool, is added.

Formula No. T65-11

Cream-Shampoo with Ampholyte

	<u>%W/W</u>
I Texapon CS paste	35.0
Dehyton G	7.0
Siegert Stearin L2 SM	10.0
II Water	45.0
Sodium chloride	3.0

Note: WAS 36%, pH 6-7

Preparation: Phases I and II are heated to approx. 80C while being slowly mixed together and stirred continuously. When the mixture has cooled to under 40C, the pH is regulated with triethanolamine.

Formula No. T65-13

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Cristal Clear Shampoo

<u>Component:</u>	%
Texapon NSO	25.0
Plantaren 2000 UP	5.0
Dehyton K	8.0
Lamequat L	3.0
Arlypon F	1.5
Eumulgin L	1.0
Perfume oil 200 192 B	0.5
Water, preservatives	up to 100
Viscosity in mPas, 20C/after storage: 2400	
Hint: The choice of perfume influences the colour stability.	
Formulation No.: 93/109/9p	

Cristal Clear Shampoo

<u>Component:</u>	%
Texapon NSO	20.0
Plantaren 2000 UP	5.0
Dehyton K	8.0
Arlypon F	3.0
Eumulgin L	1.0
Perfume oil 200 288	0.5
Water, preservatives	up to 100
Viscosity in mPas, 20C/after storage: 12,000	
Hint: The choice of perfume influences the colour stability.	
Formulation No.: 93/109/6p	

Cristal Clear Shampoo

<u>Component:</u>	%
Texapon NSO	20.0
Plantaren 2000 UP	5.0
Dehyton K	8.0
Arlypon F	2.5
Eumulgin L	1.0
Perfume oil 200 288	0.5
Water, preservatives	up to 100
Viscosity in mPas, 20C/after storage: 2400	
Hint: The choice of perfume influences the colour stability.	
Formulation No.: 93/109/5P	

Cristal Clear Shampoo

<u>Component:</u>	%
Texapon NSO	25.0
Plantaren 2000 UP	5.0
Dehyton K	10.0
Arlypon F	3.5
Aethoxal B	1.0
Perfume oil 200 288	0.5
Viscosity in mPas, 20C/after storage: 12400	
Hint: The choice of perfume influences the colour stability.	
Formulation No.: 93/109/3P	

SOURCE: Henkel KGaA: Model Formulae

Everyday Mild Conditioning Shampoo
(Formula 92-0213)

	<u>% By Weight</u>
Miranol C2M Conc. NP	20.0
Rhodapon ES	20.3
Mirataine BET-0-30	4.9
Alkamuls EGMS/C	2.0
Jaguar C-14 COS	0.2
Propylene Glycol	1.0
Citric Acid	Q.S. to pH 6-7
D.I. Water	51.6
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure:**Step A:**

Charge water into mixing vessel. Heat to 50C. With smooth agitation, slowly sift in Jaguar C-14 COS. Mix until uniform and add Citric Acid Q.S. to pH 4.0-4.5. When uniform, blend in Propylene Glycol, Miranol C2M Conc. N.P. and Rhodapon ES. Slowly blend in BET-0-30. Shampoo will thicken with betaine addition. Mix until uniform and adjust pH to 6.0-7.0 with Citric Acid.

Step B:

Heat system to 70-75C and add Alkamuls EGMS/C. Mix until completely uniform and then allow system to cool to 40-45C and add Fragrance, Dye(s) and Preservative.

Typical Formulation Properties

Appearance @ 25C:	Pearlescent Liquid
pH (as is):	6.0-7.0
Viscosity @ 25C:	4,000-6,000 cps
% Non-Volatiles	19-21

CTFA Identification: Water, Disodium Cocoamphodiacetate, Sodium Laureth Sulfate, Sodium Chloride, Glycol Stearate, Oleamidopropyl Betaine, Guar Hydroxypropyltrimonium Chloride, Citric Acid.

Economy Shampoo
(Formula 92-0417)

	<u>% By Weight</u>
Rhodapex NA61	6.5
Alkamide DC 212/S	0.4
Cellosize QP 30,000H (Union Carbide)	1.0
Fragrance, Dye, Preservative	q.s.
Water	92.1

Blending Procedure: Charge water into mixing vessel and warm to 45-50C. With rapid, but smooth agitation, sift slowly the Cellosize QP 30,000H into heated water so as to avoid clumping. Mix until system is completely clear and uniform. Slowly blend Rhodapex NA61, followed by Alkamide DC212/S. Cool to 40-45C with moderate agitation. At 40-45C, add fragrance, dye and preservative.

Typical Formulation Properties

Appearance @ 25C:	Clear liquid
Viscosity @ 25C (cps):	Brookfield RVT #4 spindle @ 20 rpm: 1200-1700
Approximate % Solids:	5.3

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Family Shampoo

	<u>%W/W</u>
A. Celquat L 200 (Polyquaternium-4)	0.10
Deionized Water	57.25
Methylparaben	0.15
B. Quat-Pro S (Stearyltrimonium Hydroxyethyl Hydrolyzed Collagen)	1.00
C. TEA-Lauryl Sulfate	30.00
Supro-Tein V (TEA-Cocoyl Hydrolyzed Collagen (and) Sorbitol)	6.00
Cocamide MEA	5.00
D. Fragrance	0.30
Dowicil 200 (Quaternium-15)	0.20

Procedure:

1. Heat Phase A to 70C. Mix until homogeneous.
2. Add Phase B. Mix to incorporate.
3. Add Phase C. Mix to incorporate.
4. Add Phase D below 40C. Mix to incorporate.

Properties:

This one shampoo can satisfy the entire family's needs. Hair is left clean, refreshed, and soft to the touch.

Formula #HS-107

Collagen Gel Shampoo

	<u>%W/W</u>
A. Bioterge AS-40 (Sodium C16-18 Olefin Sulfonate)	44.00
Monamid 150-LW (Lauramide DEA)	3.40
Deionized Water	44.60
B. Miranol C2M Concentrate (Disodium Cocoamphodiacetate)	6.00
Collagen Hydrolyzate Cosmetic 50 (Hydrolyzed Collagen)	2.00
C. Fragrance, preservative, color	q.s.
Citric Acid to pH 6.5	q.s.
NaCl	q.s.*
*q.s. to desired viscosity	

Procedure:

1. Heat Phase A to 60C. Mix carefully until clear.
2. Add Phase B. Mix to incorporate.
3. Add Phase C when product is below 40C. Mix to incorporate.

Properties:

Mild, creamy lather, rinses readily from hair. A clear gel protein shampoo for developing body and imparting a clean, natural look.

Formula #HS-105

SOURCE: Maybrook Inc.: Suggested Formulations

Frequent-Use Antidandruff Shampoo Plus Conditioner

Vanseal CS, Cocoyl Sarcosine, enhances the quality and quantity of the lather produced by the primary surfactant, ammonium lauryl sulfate. Both are mild surfactants that make this shampoo safe for daily use. The formula is thickened with a synergistic combination of Veegum HS, Magnesium Aluminum Silicate and Hydroxypropyl Guar. The primary hair conditioning agent is Polyquaternium-10 and Zinc Pyrithione is the anti-dandruff agent.

<u>Ingredient:</u>	<u>% by Weight*</u>
A: Veegum HS, Magnesium Aluminum Silicate	1.00
Deionized Water	47.35
Citric Acid	0.05
Hydroxypropyl Guar**	1.00
B: Deionized Water	15.00
Vanseal CS, Cocoyl Sarcosine**	3.00
Ammonium Lauryl Sulfate	30.00
Polyquaternium-10***	0.50
C: Sodium Hydroxide (25% Soln.) to pH 6.5	q.s.
Zinc Pyrithione***	2.10
Preservative, Dye, Fragrance	q.s.

*As Received Basis

**Jaguar HP-60

***Polymer LR-400

****Zinc Omadine, 48% Dispersion

Mixing Procedure:

Mix the Polyquaternium-10 in the Part B water until a clear solution is achieved. Add Ammonium Lauryl Sulfate and Vanseal CS and continue mixing until uniform and clear. Deaerate if necessary. Heat Part A water to 50C and add Veegum HS while stirring with a propeller mixer at 1800 rpm. Continue mixing for 1 hour. Remove from heat and allow the batch to cool. Add Citric Acid and then the Hydroxypropyl Guar. Continue mixing for 15 minutes. Slow the mixer to 500 rpm and add the part B mixture. Continue mixing and cooling until smooth and uniform. Add Part C ingredients in the order shown, mixing until uniform. Package in opaque bottles.

Formula Properties:

Viscosity: 7000+-1000 cps (Brookfield Model LVT at 60 RPM)

pH: 6.5+-0.2

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 456

Gentle Shampoo

A clear, moderately viscous shampoo that provides rich, lubricious lather and softness to the hair. This pH-balanced formula is extremely gentle and provides effective cleansing without harsh stripping.

	<u>% by Weight</u>
Part A:	
Deionized Water	45.55
Methylparaben	0.20
Lauroamphoglycinatate (and) Trideceth Sulfate (Miranol MHT)	30.00
TEA-Cocoyl Glutamate (Amisoft CT-12)	20.00
Sodium Cocoyl Glutamate (Amisoft CS-11)	1.00
PEG-150 Distearate	1.50
Sodium PCA (Ajidew N-50)	1.00
Part B:	
Methylchloroisothiazolinone (and) Methylisothiazol- inone (Kathon CG)	0.05
Fragrance (Noville #84504)	0.20
Citric Acid	0.50

Compounding Procedure:

Heat part A to 65C until completely homogeneous. Cool to 40C. Add part B.

Color: Light straw-clear

pH: 5.65

Viscosity: 3,750 cps (#4 spindle @ 10 rpm)

Conditioning Shampoo

Milky cloudy, high viscosity.

Material/CTFA-Index

A: Water	76.50%
Tylose H 4000 P/Hydroxyethylcellulose	0.80
B: Comperlan KD/Cocamide DEA	3.00
Texapon NA/Ammonium Laureth Sulfate	16.70
Belsil ADM 6057 E/Amodimethicone (and) Tallowtrimon- ium Chloride (and) Nonoxynol-10	3.00
Preservatives, fragrances, pigments	q.s.

Homogenise A well, mix Belsil ADM 6057 E.

SOURCE: Wacker Silicone: Formulation 551 AH

Hair Repair Shampoo
(Shampoo for Damaged Hair)

<u>Ingredients:</u>	<u>%w/w</u>
Tetrasodium EDTA	0.1
Water	60.5
Ammonium Lauryl Sulfate	10.0
Ammonium Laureth Sulfate (2M E.O.)	20.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.5
Cocamidopropyl Betaine (Tego Betaine L-7)	5.0
Dimethicone Copolyol (Abil B 8851)	0.5
Propylene Glycol	1.0
Dimethicone/Sodium Poly PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.0
Quaternium-80 (Abil Quat 3272)	0.4
Color	Q.S.
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 7.0
Ammonium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Glycol Dioleococoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

Note: For manufacturing ease, a 25% solution of Ammonium Chloride can be made.

Note: SLS/SLES and Sodium Chloride may be substituted for the ALS/ALES and Ammonium Chloride.

Ethnic Hair Care
Cream Conditioning Shampoo

<u>Ingredients:</u>	<u>%w/w</u>
Water	37.6
Sodium Lauryl Sulfate	45.0
Glyceryl Stearate (Tegin)	3.0
Octyl Palmitate (Tegosoft OP)	0.5
Isopropyl Palmitate (Tegosoft P)	0.5
Cocamidopropyl Betaine (Tego Betaine F)	7.0
Quaternium-80 (Abil Quat 3272)	0.4
Dimethicone Copolyol (Abil B 88183)	0.5
Jajoba Oil	0.5
Citric Acid (25% Solution)	to pH 6.8
Cocamidopropyl Betaine (and) Glyceryl Laurate (Antil HS 60)	5.0
Fragrance	Q.S.
Sodium Chloride (25% solution)	Q.S.

Procedure:

1. Heat the water to 60-65C. Add the Sodium Lauryl Sulfate, Tegin, and the Tegosofts. Mix until fully dispersed.
2. Begin cooling. Cool to 45C.
3. Add the remaining ingredients in order.
4. Adjust viscosity.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Shampoo

With silky lustre effect, 16.5% active ingredient

Recipe:

A	Hostapon SCID	2.00%
	Sodium Cocoyl Isethionate	
B	Water	53.00%
C	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
	Genapol SBE	5.00%
	Disodium Laureth Sulfosuccinate	
	Perfume	0.30%
	Genapol L-3	2.00%
	Laureth-3	
	Genagen CAB	5.00%
	Cocamidopropyl Betaine	
	Genapol TSM	2.00%
	PEG-3 Distearate (and) Sodium Laureth Sulfate	
	Dyestuff solution	q. s.
	Preservative	q. s.
D	Sodium chloride	0.70%

Procedure:

- I Dissolve A by warming stirring in B (60C).
 - II Cool down and add the components of C at 35C under stirring.
 - III If necessary adjust the pH.
 - IV Finally adjust the viscosity with D.
- Formula B I/2130

Hair Shampoo

With pearl lustre effect, 19.6% active ingredient

Recipe:

A	Hostapon SCI	5.00%
	Sodium Cocoyl Isethionate	
B	Water	40.30%
C	Genapol L-3	2.00%
	Laureth-3	
	Genapol AMG	6.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
	Genapol PGL	5.00%
	Glycol Distearate (and) Cocamide MEA (and)	
	PPG-4 Deceth-10	
	Perfume	0.30%
	Dyestuff solution	q. s.
	Preservative	q. s.
D	Sodium chloride	1.40%

Procedure:

- I Dissolve A in warmed B.
 - II One after another the components of C are added to I.
 - III If necessary adjust the pH.
 - IV Finally adjust the viscosity with D.
- Formula B I/2128

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Hair Shampoo
Clear, 14.4% active ingredient

Recipe:

A	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
B	Genapol SBE	6.00%
	Disodium Laureth Sulfosuccinate	
	Perfume	0.30%
	Water	55.00%
	Genapol L-3	2.00%
	Laureth-3	
	Genagen CAB	5.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q.s.
	Preservative	q.s.
C	Sodium chloride	1.70%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula B I/1128

Hair Shampoo
Clear, 16.9% active ingredient

Recipe:

A	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
B	Perfume	0.30%
C	Water	52.50%
D	Natriumhydroxid	0.20%
E	Hostapon LEC	4.00%
	Laureth-3 Carboxylic Acid	
	Genapol L-3	2.00%
	Laureth-3	
	Dyestuff solution	q.s.
	Preservative	q.s.
F	Sodium chloride	1.00%

Procedure:

I Mix A and B.

II Dissolve D in C.

III Stir II into I.

IV One after another the components of E are added to III.

V If necessary adjust the pH.

VI Finally adjust the viscosity with F.

Formula B I/1124

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Hair Shampoo

With pearl lustre effect, 12.2% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
	Water	53.20%
	Genapol TS powder	1.50%
	PEG-3 Distearate	
	Sodium chloride	1.50%
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
B	Dyestuff solution	q.s.
	Preservative	q.s.
	Perfume	0.30%
C	Sodium chloride	0.50%

Procedure:

- I Melt the components of A at 70C.
 - II Stir until cool.
 - III At 40C add the components of B to II.
 - IV If necessary adjust the pH.
 - V Finally adjust the viscosity with C.
- Formula B I/2124

Hair Shampoo

With pearl lustre effect, 16.0% active ingredient

Recipe:

A	Genapol LRO liquid	40.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Genapol PGM conc.	5.00%
	Sodium Laureth Sulfate (and) Glycol Distearate (and) Cocamide MEA	
	Perfume	0.30%
	Water	38.70%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
C	Sodium chloride	2.00%

Procedure:

- I One after another the components of B are added to A.
 - II If necessary adjust the pH.
 - III Finally adjust the viscosity with C.
- Formula B I/2129

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Hair Shampoo
Clear, 18.4% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Hostapon LEC	5.30%
	Laureth-3 Carboxylic Acid	
	NaOH (50% in water)	0.70%
	Perfume	0.30%
	Genapol L-3	1.00%
	Laureth-3	
	Water	48.45%
	D-Panthenol	0.50%
	Genagen CAB	8.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q. s.
	Preservative	q. s.
C	Sodium chloride	0.75%

Procedure:

- I One after another the components of B are added to A.
 II If necessary adjust the pH.
 III Finally adjust the viscosity with C.
 Formula B I/1126

Hair Shampoo
For greasy hair, clear, 19.4% active ingredient

Recipe:

A	Genapol LRO liquid	50.00%
	Sodium Laureth Sulfate	
B	Hostapur SAS 60	6.00%
	Sodium C14-17 Sec. Alkyl Sulfonate	
	Extrapon 5 special	3.00%
	Perfume	0.30%
	Water	32.70%
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q. s.
	Preservative	q. s.
C	Sodium chloride	2.00%

Procedure:

- I One after another the components of B are added to A.
 II If necessary adjust the pH.
 III Finally adjust the viscosity with C.
 Formula B I/6123

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Hair Shampoo

For every day, clear, 15.2% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Perfume	0.30%
	Gelita Sol C	1.00%
	Hydrolyzed Collagen	
	Water	43.20%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	10.00%
	Cocamidopropyl Betaine	
	Genapol L-3	1.00%
	Laureth-3	
C	Sodium chloride	1.50%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula B I/1112

Hair Shampoo

For every day, clear, 15.3% active ingredient

Recipe:

A	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
B	Genapol AMG	8.00%
	Magnesium-PEG-3 Cocamide Sulfate	
	Hostapon KCG	5.00%
	Sodium Cocoyl Glutamate	
	Perfume	0.30%
	Water	46.70%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
	Genapol L-3	2.00%
	Laureth-3	
C	Sodium chloride	2.00%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula B I/6119

SOURCE: Hoechst; Guide Formulations for Cosmetics & Toiletries

Hair Shampoo

Mild, for every day, clear, 12.8% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Genapol PGC	2.00%
	Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine	
	Perfume	0.30%
	Tocopherol acetate	0.05%
	Extrapon sage	0.50%
	Extrapon blam mint	0.50%
	Honey	0.50%
	Extrapon camomile special	0.50%
	Belsil DMC 6032	0.30%
	Dimethicone Copolyol	
	Dyestuff solution	q.s.
	Preservative	q.s.
C	Cosmedia Guar C 261	0.20%
	Guar Hydroxypropyltrimonium Chloride	
D	Water	53.35%
E	Genagen CAB	10.00%
	Cocamidopropyl Betaine	
	Sodium chloride	1.80%

Procedure:

- I One after another the components of B are added to A.
- II Dissolve C in D.
- III Stir II into I.
- IV If necessary adjust the pH.
- V Finally adjust the viscosity with E.

Hair Shampoo

Clear, 15.8% active ingredient

Recipe:

A	Hostapon SCID	2.00%
	Sodium Cocoyl Isethionate	
B	Water	54.30%
C	Genapol LRO liquid	30.00%
	Sodium Laureth Sulfate	
	Genapol SBE	5.00%
	Disodium Laureth Sulfosuccinate	
	Perfume	0.30%
	Genapol L-3	2.00%
	Laureth-3	
	Genagen CAB	5.00%
	Cocamidopropyl Betaine	
	Dyestuff solution	q.s.
	Preservative	q.s.
D	Sodium chloride	1.40%

Procedure:

- I Dissolve A by warming stirring in B (60C).
- II Cool down and add the components of C at 35C under stirring.
- III If necessary adjust the pH.
- IV Finally adjust the viscosity with D.

SOURCE: Hoechst: Formulas B I/6141 and B I/1127

Herbal Shampoo, Clear

	<u>%W/W</u>
Texapon ASV	50.0
Hexaplant Richter	3.0
Water	47.0
Note: WAS 14%, low viscous	
Formula No. T61-23	

Dead Nettle Extract Shampoo, Clear

	<u>%W/W</u>
Texapon N25/N40	30.0
Comperlan KD	6.0
Cetiol HE	5.0
Dead nettle extract (Extractum Lamii Albi fluid)	0.5
Water	59.0
Note: WAS 14%, viscous	
Formula No. T61-25	

Fruit Shampoo (Apple) pH-Balanced

	<u>%W/W</u>
Texapon TH	30.0
Dehyton AB30	10.0
Comperlan KD	2.0
Paravital 9B	2.0
Apple aroma	0.2
Perfume oil apple	0.5
Color solution 2% Pine needle green 5/067114	0.1
Water	55.2
Note: WAS 20.5%, low viscous, desired pH: 5-6	
Formula No. T61-27	

Shampoo, Clear, Liquid, Very Acidic

	<u>%W/W</u>
Texapon A	40.0
Comperlan KD	3.0
Sodium chloride	2.0
Sodium sulfate	2.0
Citric acid	0.2
Water	52.8
Note: WAS 17%, medium viscous, desired pH: 4.0-4.5	
Formula No. T61-29	

Shampoo with Ampholyte

	<u>%W/W</u>
Dehyton AB 30	50.0
Water	50.0
Note: WAS 15%, low viscous	
Formula No. T61-30	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Herbal Shampoo, Pearly

	<u>%W/W</u>
Texapon N40	48.0
Euperlan PK 810	5.0
Comperlan KD	3.0
Hexaplant Richter	3.0
Sodium chloride	1.0
Water	40.0
Note: WAS 18%	
Formula No. T64-62	

Mild, Pearly Gloss Shampoo

	<u>%W/W</u>
Texapon SBN	30.0
Euperlan PK 810	12.0
Comperlan F	4.0
Soluvit-Richter	2.0
Sodium chloride	0.5
Water	51.5
Note: WAS 17%	
Formula No. T64-64	

Shampoo for Dry Hair, With Protein

	<u>%W/W</u>
I Hydagen P	2.0
Dehyton AB 30	3.0
Water	29.0
II Texapon N25	40.0
Euperlan PK 810	5.0
Cetiol HE	2.0
Sodium chloride	2.5
Water	16.5
Note: WAS 14%	

Preparation: Hydagen P is homogeneously mixed in Dehyton AB 30 and water (approx. 60C) and allowed to cool. The remaining ingredients are then added.

Formula No. T64-65

Protein Shampoo, Very Skin Compatible

	<u>%W/W</u>
Texapon K14S special	25.0
Texapon EVR	25.0
Dehyton G	5.0
Hydagen P	0.5
Water	44.5
Note: WAS 17%	
Formula No. T64-66	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Keratin Neutralizing Shampoo

	<u>%W/W</u>
Stepanol AM (Ammonium Lauryl Sulfate)	40.0
Witcamide 6519 (Lauramide DEA)	4.0
Amphosol CA (Cocamidopropyl Betaine)	15.0
Mayphos 5C10 (PPG-5-Ceteth-10 Phosphate)	5.0
Cationic Collagen Polypeptides	3.0
Kera-Quat WKP (Cocodimonium Hydroxypropyl Hydrolyzed Keratin)	1.0
Deionized Water	32.0
Fragrance, Preservatives	q.s.
Citric Acid	q.s. to pH=4

Procedure:

Mix all ingredients together except the Citric Acid. When homogeneous, add the citric acid slowly and with gentle agitation to pH=4.

Properties:

A high foaming, mild, neutralizing shampoo. Restores body and shine to damaged hair. Two cationic proteins condition, protect and re-vitalize the hair. Cationic Collagen Polypeptide, a substantive high molecular weight protein, is very stable at low pH's and is particularly effective at sealing and protecting the hair. Keri-Quat WKP, a substantive quaternized keratin, adds back essential amino acids lost during processing and improves shine and combability.

SOURCE: Maybrook Inc.: Formulation #HS-301

Wheat Germ Conditioning Shampoo

	<u>Weight, %</u>
Mackol 70NS	12.0
Mackanate OP	20.0
Mackanate WGD	8.0
Mackam WGB	5.0
Citric Acid to pH 5.5	
Sodium Chloride qs to viscosity=2000 cps	
Paragon Preservative	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 60C.
2. Blend until clear.
3. Adjust pH to 5.5.
4. Add remaining components and adjust viscosity with sodium chloride.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Liquid Shampoo

Slightly yellow, clear, low viscosity.

Materials/CTFA-Index:

Belsil DMC 6031/Dimethicone Copolyol	5.00%
Water	60.00
Genapol CRT 40/DEA Lauryl Sulphate	35.00
Preservatives, fragrances	q.s.

Dissolve Belsil DMC 6031 in water, mix in Genapol CRT 40.

Temperature stability: at 45C over 10 weeks.

Formulation 222 AH

Shampoo

Clear, liquid.

Material/CTFA-Index:

Belsil DMC 6035/Methicone Copolyol Acetate	2.00%
Water	56.00
Genapol LRO/Sodium Laureth Sulfate	35.00
Comperlan KD/Cocamide DEA	3.00
Sodium Chloride	2.00
Preservatives, fragrances	q.s.

Dissolve Belsil DMC 6035 in water, mix in Genapol LRO. Add Comperlan KD, regulate the viscosity with NaCl.

Temperature stability: at 45C over 10 weeks.

Formulation 284 AH

Shampoo

Clear, high-viscosity. Shampoo with good conditioning effect.

Material/CTFA-Index:

Hoe S 3267/Cocamidopropyl Betaine	22.50%
Water	50.00
Belsil ADM 6042 E/Amodimethicone and Emulsifier	4.00
Texapon NA/Ammonium Laureth Sulfate	22.50
Ammonium Chloride	1.00
Preservatives, fragrances	q.s.

Dissolve HOE S 3267 in water, mix in the amodimethicone and emulsifier. Add the ammonium laureth sulfate and adjust to the desired viscosity with the ammonium chloride.

Formulation 541 AH

SOURCE: Wacker Silicone: Suggested Formulations

Mild, Clear Shampoo

<u>Component:</u>	<u>%</u>
Plantaren PS 10	15.0
Lamepon S	15.0
Gluadin Almond	1.0
NaCl	2.0
Perfume oil	q.s.
Water, preservative	up to 100
pH-value: 6,5	
WAS: 15	
Viscosity mPas: 10000	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/184/2	

Pearlescent Shampoo with Protein

<u>Component:</u>	<u>%</u>
Plantaren PS 10	17.0
Nutrilan I-50	2.0
Glycerin 86%	1.0
Euperlan PK 900	3.0
Perfume oil	q.s.
NaCl	2.2
Water, preservative	up to 100
pH value: 5,5	
WAS: 10	
Viscosity mPas: 1500	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/184/40	

Pearlescent Shampoo with Protein

	<u>%</u>
Plantaren 1200	6.0
Texapon N 70	11.0
Nutrilan I-50	2.0
Euperlan PK 3000-AM	1.0
NaCl	3.0
Perfume	q.s.
Water, preservative	up to 100
pH-value: 5,5	
WAS: 11%	
Viscosity mPas: 4500	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 90/139/44	

SOURCE: Henkel KGaA: Model Formulae

Mild Conditioning Shampoo

<u>Ingredients:</u>	<u>%w/w</u>
Tetrasodium EDTA	0.1
Water	45.0
Ammonium Laureth Sulfate (30%)	18.0
Ammonium Lauryl Sulfate (30%)	25.0
Cocamidopropyl Betaine (Tego Betaine L-7)	4.0
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 8852)	0.3
Dimethicone Copolyol (Abil B 88183)	0.3
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
Cocamidopropyl Betaine (and) Glyceryl Laurate (Antil HS 60)	4.0
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Ammonium Chloride (25% solution) As needed to adjust viscosity	

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the Antil HS 60. Mix until dispersed.
4. Add the Tego Pearl N 100.
5. Adjust viscosity with the 25% solution of Ammonium Chloride

Conditioning Shampoo for Treated Hair

<u>Ingredients:</u>	<u>%w/w</u>
Tetrasodium EDTA	0.1
Water	41.5
Ammonium Laureth Sulfate (30%)	20.0
Ammonium Lauryl Sulfate (30%)	25.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 8851)	0.3
Dimethicone Copolyol (Abil B 88183)	0.3
Dimethicone Propyl PG-Betaine (Abil B 9950)	1.0
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.5
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Ammonium Chloride (25% solution) As needed to adjust viscosity	

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate. Mix until dispersed.
4. Add the pearling mixture.
5. Adjust viscosity with the 25% solution of Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Milk Powder Shampoo

	<u>%W/W</u>
Texapon SG	50.0
Comperlan KD	3.0
Milk powder	2.0
Water	45.0
Note: WAS 14%, viscous	
Formula No. T64-31	

Shampoo, with Collagen, Pearly

	<u>%W/W</u>
Texapon IES	50.0
Cutina AGS	4.0
Collagen CLR	3.0
Milk powder	3.0
Water	40.0
Note: AS 34%, WAS 30%, high viscous	
Formula No. T64-33	

Sulfur Shampoo, Pearly

	<u>%W/W</u>
Texapon EVR	60.0
Aerosil 200	3.0
Sulfur, precipitated	3.0
Water	34.0
Note: WAS 21%, high viscous	
Formula No. T64-34	

Sulfur Shampoo, Pearly

	<u>%W/W</u>
Texapon SG	20.0
Texapon MLS	20.0
Comperlan KD	4.0
Bioschwefel-Fluid	3.0
Water	53.0
Note: WAS 15%, viscous	
Formula No. T64-35	

Pearly Gloss Shampoo with Protein

	<u>%W/W</u>
I Hydagen P	5.0
Texapon EVR	15.0
II Texapon EVR	15.0
Water	64.5
Sodium chloride	0.5
Note: WAS 11%, viscous	
Preparation: Phase I is homogeneously mixed at 50-60C and cooled again before the remaining ingredients are added one after another.	
Formula No. T64-36	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Non-Silicone Conditioning Shampoo

	Wt%
Pationic 138C	8.00
PPG Masil SF 60,000	1.00
Ritapeg 150 DS	2.00
Rita EGDS	3.00
Witconate SXS	2.00
Distilled Water	46.45
Bioterger AS-40	37.50
Kathon CG	0.05

pH: 6.4

Viscosity: 24,500 cps

Foam (Minutes):	Foam	H2O
0.0	400	75
1.0	400	100
3.0	400	100

Wet Combing: slightly difficult

Dry Combing: easy, except where knots are

Stabilities:

Freeze/Thaw: no change after 3 cycles

40F: separation after 2 weeks

110F: no change after 6 weeks

Centrifuge Results: separates after 30 min. @ 5000 rpm

Description of System: with silicone/no Ritavena 5

Formula 114-2

Non-Silicone Conditioning Shampoo

	Wt%
Pationic 122A	11.00
PPG Masil SF 60,000	1.00
Ritapeg 150 DS	2.00
Rita EGDS	3.00
Distilled Water	45.45
Bioterger AS-40	37.50
Kathon CG	0.05

pH: 5.7

Viscosity: 12,000 cps

Foam (Minutes):	Foam	H2O
0.0	310	75
1.0	310	100
3.0	310	100

Wet Combing: slightly difficult

Dry Combing: easy, except where knots are

Freeze/Thaw: no change after 3 cycles

40F: no change after 6 weeks

110F: no change after 6 weeks

Centrifuge Results: separates after 20 min. @ 5000 rpm

Description of System: with silicone/no Ritavena 5

Formula 114-4

SOURCE: R.I.T.A. Corp.: Ritavena 5 Suggested Formulations

Non-Silicone Conditioning Shampoo

	<u>Wt%</u>
Pationic 122A	11.00
Ritapeg 150 DS	2.00
Rita EGDS	3.00
Propylparaben	0.05
Distilled Water	44.10
Bioterge AS-40	37.50
Methylparaben	0.15
Ritavena 5	2.00
Kathon CG	0.20
pH: 5.7	
Viscosity: 12,500 cps	
Foam (Minutes):	Foam H2O
0.0	340 75
1.0	340 100
3.0	340 100
Wet Combing: slightly difficult	
Dry Combing: easy, except where knots are	
Stabilities:	
Freeze/Thaw: no change after 3 cycles	
40F: no change after 6 weeks	
110F: separation after 24 hours	
Centrifuge Results: separates after 10 min. @ 5000 rpm	
Description of System: without silicone/with Ritavena 5	
Formula 114-42	

Non-Silicone Conditioning Shampoo

	<u>Wt%</u>
Pationic 138C	8.00
Ritapeg 150 DS	2.00
Rita EGDS	3.00
Witconate SXS	2.00
Propylparaben	0.05
Distilled Water	45.10
Bioterge AS-40	37.50
Methylparaben	0.15
Ritavena 5	2.00
Kathon CG	0.20
pH: 6.7	
Viscosity: 35,000 cps	
Foam (Minutes):	Foam H2O
0.0	370 75
1.0	360 100
3.0	360 100
Wet Combing: very difficult	
Dry combing: very easy	
Stabilities:	
Freeze/Thaw: no change after 3 cycles	
40F: no change after 6 weeks	
110F: no change after 6 weeks	
Centrifuge Results: not run	
Description of System: no silicone/with Ritavena 5	
Formula 114-43	
SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations	

Oil Shampoo in Clear Form

	<u>%W/W</u>
Texapon N25/N40	50.0
Cetiol HE	10.0
Sodium chloride	3.0
Water	37.0
Note: WAS 14%, viscous	
Formula No. T66-01	

Oil Shampoo in Clear Form

	<u>%W/W</u>
Texapon N25/N40	50.0
Aethoxal B	20.0
Comperlan KD	3.0
Water	27.0
Note: WAS 17%, low viscous	
Formula No. T66-03	

Mink Oil Shampoo, Clear

	<u>%W/W</u>
Texapon MG	50.0
Cetiol HE	10.0
Mink oil	0.5
Water	39.5
Note: WAS 14%, low viscous	
Formula No. T66-05	

Oil Shampoo, Pearly

	<u>%W/W</u>
Texapon EVR	50.0
Cetiol HE	10.0
Water	40.0
Note: WAS 18%, viscous	
Formula No. T67-02	

Oil Shampoo, Pearly

	<u>%W/W</u>
Texapon SG	40.0
Texapon IES	15.0
Sodium chloride	2.0
Water	43.0
Note: WAS 17%, viscous	
Formula No. T67-04	

Oil Shampoo with Egg, Pearly

	<u>%W/W</u>
Texapon EVR	50.0
Cetiol HE	5.0
Egg yolk, liquid, techn.	0.5
Water	44.5
Note: WAS 18%, medium viscous	
Formula No. T67-06	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Paste Shampoo
(Formula 9-0204)

	<u>% By Weight</u>
Rhodapon SB 8208S	50.0
Alkamide DS 280/S	3.0
Alkamuls EGMS	2.5
Stearic Acid TP	7.5
Sodium Hydroxide (50% Aq.)	2.1
Cheelox 100 (Dow)	0.1
Fragrance, Dye(s), Preservative	Q.S.
Water	34.8

Blending Procedure: Combine Sodium Hydroxide solution, Cheelox 100, and water and heat to 65-70C. With smooth agitation slowly blend Stearic Acid TP into system. Mix until uniform. Slowly blend Rhodapon SB 8208S into system. With smooth agitation, heat system to 70-75C. With smooth agitation, slowly blend in Alkamide DS 280/S and Alkamuls EGMS. Mix until uniform and then cool to 40-45C with smooth agitation. Add compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties:

Appearance @ 25C*: Firm, Opaque/Pearlescent Paste

% Non Volatiles: 27.5-30.5

CTFA Identification: Water, Sodium Lauryl Sulfate, Stearic Acid, Stearamide DEA, Glycol Stearate, Sodium Hydroxide, Fragrance, Preservative, Tetrasodium EDTA, Dye(s).

*Note: Final formulation consistency will be reached after standing 7-10 days.

Self Adjusting Shampoo
(Formula 82-0206M)

	<u>% By Weight</u>
Rhodapon LT-6	40.0
Alkamide DL-207/S	2.2
Mirataine TM	3.0
Methocel E4M Premium (Dow)	0.7
Cheelox 100 (Dow)	0.2
Citric Acid	Q.S. to pH 6-7
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.5-1.0
Water	53.2

Blending Procedure: Charge water into mixing vessel and warm to 35-40C. With vigorous agitation, slowly sift Methocel E4M Premium into heated water. Mix until completely dispersed. With smooth agitation, continue heating to 50-55C and blend in Rhodapon LT-6, Alkamide DL-207/S, and Mirataine TM. Mix until completely uniform. With smooth agitation, blend in Cheelox 100 and then cool to 35-40C. Adjust the formulation pH to 6-7 with Citric Acid as needed and add compatible Fragrance, Dye(s), and Preservative. Adjust the formulation viscosity to 3,000-5,000 cps with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties

Appearance @ 25C: Clear Liquid

pH: 6-7

Viscosity @ 25C: 3,000-5,000 cps

% Non Volatiles: 20-22

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Pearled Acid Balanced Geropon T-77 Shampoo
(Formula 91-1114)

	<u>% By Weight</u>
Rhodapon L-22 HNC	53.6
Geropon T-77	3.0
Alkamuls EGMS/C	1.0
Fragrance, Dye(s), Preservative	Q.S.
Ammonium Chloride	0.0-0.5
Water	Q.S.

Blending Procedure:

Charge tank with water and Rhodapon L-22 HNC, start heating and mixing. Add Geropon T-77 and Alkamuls EGMS/C and heat (65-70C) and mix until clear (Alkamuls EGMS/C melted). Cool. Add fragrance, dye and preservative at 35C. Thicken product, if desired, with ammonium chloride. Adjust pH, if desired, with citric acid.

Typical Formulation Properties

Appearance @ 25C:	Pearled Liquid
Viscosity @ 25C:	2,000-4,000 cps
pH:	6-7
% Non Volatile:	19-21

CTFA Identification:

Water, Ammonium Lauryl Sulfate, Sodium Methyl Oleoyl Taurate, Glycol Stearate, Ammonium Chloride, Fragrance, Preservative and Dye.

Clear Geropon T-77 Shampoo
Formula 92-0301

	<u>% By Weight</u>
Rhodapon LSB	50.0
Geropon T-77	2.0
Fragrance, dye, preservative	Q.S.
Sodium Chloride	1.5-2.0
Water	Q.S.

Blending Procedure:

Charge water and Rhodapon LSB into mixing tank. Add Geropon T-77, mix and heat until clear. (Heating will speed dissolution, but product can be prepared at ambient temperature.) Cool to 35C and add fragrance, dye and preservative. Add sodium chloride to thicken.

Typical Formulation Properties

Appearance at 25C:	Clear liquid
pH @ 25C:	7.2-7.8
Viscosity @ 25C:	2,000-4,000 cps
% Nonvolatile:	18-20

CTFA Identification:

Water, Sodium Lauryl Sulfate, Sodium Methyl Oleoyl Taurate, Sodium Chloride, Fragrance, Preservative, Dye.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Pearlescent Shampoo with Hydrolyzed Almond Protein

<u>Component:</u>	<u>%</u>
Plantaren 1200	8.0
Dehyton K	27.0
Gluadin Almond	2.0
Keltrol T	1.0
Perfume	q.s.
Water, preservative	up to 100
pH-value: 5,5	
WAS: 12	
Viscosity mPas: 6500	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 90/139/52	

Mild, Pearlescent Shampoo with Protein

<u>Component:</u>	<u>%</u>
Texapon K 14 S spez.	27.0
Plantaren 2000	5.0
Nutrilan I-50	2.0
Euperlan PK 3000-AM	3.0
Arlypon F	3.0
NaCl	0.5
Perfume	q.s.
Water, preservative	up to 100
Viscosity mPas: 4000	
WAS: 10	
pH-value: 6,5	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/087/57	

Pearlescent Shampoo

<u>Component:</u>	<u>%</u>
Texapon ALS	23.0
Plantaren 2000	4.0
Dehyton K	7.0
Lamesoft 156	5.0
Monomuls 90-L 12	1.0
NaCl	0.2
Perfume	q.s.
Water, preservative	up to 100
pH-value: 5,5	
WAS: 11%	
Viscosity mPas: 14900	
Hint: Kind and amount of perfume may influence the viscosity of the product.	
Formulation No.: 92/087/78	

SOURCE: Henkel KGaA: Model Formulae

Pearlized Mink Shampoo

Pearlescent formulations are the easiest way to introduce "heavy duty" hair conditioners such as unsaturated Emulan Oil of Mink into shampoos. This formula is particularly rich, containing Soya Sterol as well. The Glycol Stearate provides a pearlescence that can be dramatically enhanced by adding color.

	<u>Wt. %</u>	<u>CTFA</u>
Water	45.8	
Generol 122E5	1.0	PEG5 soya sterol
Cerasynt IP	1.5	Glycol stearate SE
Emulan, Light Fraction	1.5	Mink Oil
Standapol A	30.0	Ammonium Lauryl Sulfate
Standapol EA-2	15.0	Ammonium Laureth Sulfate
Lauramide DEA	5.0	
Tetrasodium EDTA	0.2	
Perfume, Preservative	q.s.	

Procedure:

Heat water to 55C, add to it the soya sterol, mink oil, and glycol stearate. Stir until they melt and disperse. Then add remaining ingredients (at RT) in the sequence shown.

SOURCE: Emulan, Inc.: Suggested Formulation

Low Irritation Shampoo**Ingredients:**

	<u>%</u>
H2O, Deionized	55.68
Hetaine CLA (Canolamidopropyl Betaine)	9.50
Standapol ES-2	22.50
Hetsorb L-80 (PEG-80 Sorbitan Laurate)	4.75
Plantaren 2000	7.50
Kathon CG	0.07

Specifications

pH: 6.5

Viscosity #3/12: 5000 cps

Procedure:

In a stainless steel kettle combine all ingredients while mixing until uniform.

SOURCE: Heterene, Inc.: Formula HS 93-84

Pearly Gloss Fruit Shampoo (Apple) pH-Balanced

	<u>%W/W</u>
I Texapon N70	15.0
Comperlan KD	1.0
Euperlan PK771	5.0
II Sodium chloride	2.4
Water	7.6
III Apple aroma	0.2
Perfume oil apple	0.3
Uranin AP color solution 2%	3.0
Pine needle green 5/067114 color solution 2%	1.0
Water	64.5

Note: WAS 14%, viscous, desired pH 5-6

Preparation: Phase I is pre-mixed. The sodium chloride which has been pre-dissolved in a small quantity of water is then added. While continuously stirring, the water is gradually incorporated and then the remaining ingredients are added.
Formula No. T64-45

Acidic Shampoo, Pearly

	<u>%W/W</u>
Texapon A	40.00
Comperlan KD	3.00
Euperlan PK 771	3.00
Sodium chloride	4.00
Citric acid	0.15
Water	49.85

Note: WAS 18%, viscous, desired pH 4-5

Formula No. T64-47

Anti-Dandruff Shampoo, Pearly

	<u>%W/W</u>
I Texapon N40	45.0
Comperlan KD	2.5
Euperlan PK 776	3.0
II Omadine MDS	1.0
Water	2.0
III Sodium chloride	2.0
Water	44.5

Note: WAS 16%, viscous, desired pH 6-7, light-protected packaging

Preparation: Omadine MDS is mixed to a paste with water and dissolved in the pre-mixed phase I while stirring. Then the remaining ingredients are added.
Formula No. T64-48

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Pearly Gloss Shampoo with Protein, Slightly Acidic

	<u>%W/W</u>
I Hydagen P	2.0
Texapon MLS	2.0
Water 70C	20.0
II Texapon EVR	30.0
Texapon MLS	8.0
Citric acid 10% solution	1.3
Water	35.7
Sodium chloride	1.0

Note: WAS 14%, slightly acidic, viscous

Preparation: Phase I is homogeneously mixed at 60-70C and cooled again before the remaining ingredients are added one after another.

Formula No. T64-37

Shampoo with Azulene, Pearly

	<u>%W/W</u>
Texapon SG	40.0
Texapon MLS	20.0
Comperlan KD	4.0
Azulene	0.1
Water	35.9

Note: WAS 20%, medium viscous

Formula No. T64-38

Pearly Gloss Shampoo, Softening

	<u>%W/W</u>
Texapon EVR	40.0
Texapon IES	10.0
Polyquart H81	5.0
Water	45.0

Note: WAS 20%, AS 23%, viscous

Formula No. T64-40

Special Shampoo for Dry Hair

	<u>%W/W</u>
Texapon N25/N40	10.0
Texapon SG	20.0
Comperlan KD	3.0
Comperlan KM	5.0
Solulan 98	1.0
Vitamin F, water-soluble CLR	0.5
Water	60.5

Note: WAS 13%, viscous

Formula No. T64-41

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Professional Formula
Conditioning Shampoo

<u>Ingredients:</u>	<u>%w/w</u>
Tetrasodium EDTA	0.1
Water	45.6
Ammonium Laureth Sulfate (30%)	35.0
Ammonium Lauryl Sulfate (30%)	10.0
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 8851)	0.3
Dimethicone Copolyol (Abil B 88183)	0.3
Cetyl Dimethicone Copolyol (Abil EM-90)	0.4
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.0
Ammonium Chloride (25% solution) As needed to adjust viscosity	

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Adjust viscosity with the 25% solution of Ammonium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formula

Tear Free 2:1 Shampoo

	<u>Weight, %</u>
Mackam 2C	27.0
Mackol 70NS	15.0
Liposorb P-20	4.0
Mackernium 007	2.5
Mackalene 426	2.0
Mackester EGDS	1.6
Paragon preservative	q.s.
Citric Acid	qs to pH 6.5-7.0
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add Mackernium 007 to water and blend until completely dispersed.
2. Add Mackam 2C, Liposorb P-20 and blend until clear.
3. Add Mackalene 426 and heat to 70C.
4. When the Mackalene 426 is completely dispersed, slowly add Mackol 70NS.
5. Blend until product is homogeneous.
6. Add Mackester EGDS and blend until completely dispersed.
7. Cool to 50C and adjust pH to 6.5-7.0 with citric acid.
8. Add Paragen preservative, dye and fragrance. 9. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Re-Nu Shampoo for Thinning Hair

	<u>%W/W</u>
A. Deionized Water	49.70
Monamid 150-LW (Lauramide DEA)	4.00
Stepanol WAT (TEA Lauryl Sulfate)	15.00
B. Sipon ES-2 (Sodium Laureth Sulfate)	25.00
Aqua-Tein C (Collagen Amino Acids and Acetamide MEA and Propylene Glycol)	2.00
Amphosol CA (Cocamidopropyl Betaine)	4.00
Disodium EDTA	0.30
C. Fragrance, Preservative	q.s.
Citric Acid, to pH 5.5	q.s.

Procedure:

1. Mix and heat Phase A until dissolved.
2. Add Phase B to Phase A with mixing.
3. Mix and cool to 50C. Add Phase C.

**Total surfactant solids can be reduced if desired, and Sodium Chloride added to maintain viscosity.

Properties:

A rich, mild, viscous shampoo with a specially formulated blend of gentle cleansing agents which clean thinning hair gently, but effectively while adding body and manageability. Cleans without damaging delicate or thinning hair. Aqua-Tein C is a moisture-binding complex of amino acids and Acetamide MEA which maintain the moisture content of the hair. Moist hair has better tensile strength and appears to have an increased volume and fullness. Aqua-Tein C is also an effective anti-irritant and adds to the gentleness of the formula.

SOURCE: Maybrook Inc.: Formula #HS-203

Neutralizer Shampoo

	<u>Weight, %</u>
Mackanate OM	30.0
Mackol 70NS	10.0
Mackamine CAO	6.0
Mackamine WGO	2.0
Paragon Preservative	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add surfactants to water and heat to 50C.
2. Blend until clear.
3. Adjust pH to 5.0 with citric acid.
4. Add dye, preservative, fragrance and cool.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Shampoo

<u>A</u>	Deionized Water	56.18%
	Phoenate SLES-70 (Sodium Laureth Sulfate)	23.00
	Phoenamid LD (Lauramide DEA)	3.50
	Phoeneric CAB (Cocamidopropyl Betaine)	2.00
	Pecosil SSP (Hydrolyzed Soy Protein/ DCP Copolymer)	2.00
	Citric Acid (10% Aq.)	2.54
<u>B</u>	Glycerin	4.00
	Methylparaben	0.30
	Propylparaben	0.10
<u>C</u>	Blue #1 (0.005% Aq.)	0.05
	Yellow #5 (1.0% Aq.)	0.03
<u>D</u>	Deionized Water	5.00
	Sodium Chloride	0.70
	Potassium Sorbate	0.10
	Panthenol	0.50

Procedure:

Add Phoenate SLES-70 to phase A water with adequate agitation. When the solution is clear, add the remaining phase A items in order. Combine phase B items and heat and agitate to solubilize the parabens. When the parabens are in solution, add phase B to phase A with adequate agitation. Add phase C to AB with sweep agitation. Combine phase D items under propeller agitation. When a clear solution is obtained, add phase D to ABC under sweep agitation. Sweep ABCD until uniform.
Formula 14-62-B

Conditioning Shampoo

<u>A</u>	Deionized Water	57.80%
	Sodium Laureth Sulfate (Phoenate SLES-70)	20.00
	Cocamidopropyl Betaine	1.60
	Cocamidopropyl dimethylamine Dimethicone Copolyol	2.00
	Silicone Quaternium-9 (Pecosil CAP-1240)	
	Decyl Polyglucose	8.00
	Lauramide DEA (Phoenamid LD)	2.00
	PEG-3 Distearate (Phoenate 3DSA)	2.40
	Sodium Chloride	0.80
	PEG-120 Methyl Glucose Dioleate	2.40
	Dimethicone Copolyol Phosphate (Pecosil PS-100)	2.00
<u>B</u>	Propylene Glycol (and) Diazolidinyl Urea (and)	1.00
	Methylparaben (and) Propylparaben	
	Color	q.s.
	Fragrance	q.s.
	10% Aqueous Citric Acid Solution	adjust to pH 5.0-6.0

Procedure:

Combine Phase A items, agitate and heat to 70C. When Phase A is uniform, begin cooling under slow sweep agitation to 45C. Add Phase B under continued slow sweep agitation. When AB is uniform, adjust pH to 5.0-6.0

SOURCE: Phoenix Chemical Co., Inc.: Suggested Formulations

Shampoo, Aerosol-Packed

	<u>%W/W</u>
Texapon N25/N40	50.0
Comperlan KD	3.0
Water	47.0
Note: WAS 17%	
Filling: 92 parts shampoo	
8 parts propellant 12/114 (40:60)	
Formula No. T71-01	

Shampoo Mousse

	<u>%W/W</u>
Texapon N40	40.0
Texapon MLS	20.0
Dehyton K	5.0
Water	35.0
Note: WAS 19%	
Filling: 92 parts shampoo	
8 parts propellant, Frigen 12	
Formula No. T71-02	

Shampoo in Aerosol Form

	<u>%W/W</u>
Texapon K14S special	50.0
Comperlan LS	3.0
Water	47.0
Note: WAS 17%	
Filling: 92 parts shampoo	
8 parts propellant, Frigen 12	
Formula No. T71-03	

Baby Shampoo in Aerosol Form

	<u>%W/W</u>
Texapon ASV	50.0
Dehyton G	5.0
Water	45.0
Note: WAS 16%	
Filling: 92 parts shampoo	
8 parts propellant, Frigen 12	
Formula No. T71-04	

Shampoo in Powder Form, Surfactant-Free

	<u>%W/W</u>
Dehydazol A400P	5.0
Wheat starch	39.0
Magnesium carbonate	12.5
Talc	12.5
Borax	5.0
Sodium chloride	25.0
Dry perfume	1.0
Note: no WAS, powder	
Formula No. T81-01	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, Clear, Liquid

	<u>%W/W</u>
Texapon N25/N40	40.0
Sodium chloride	4.0
Water	56.0
Note: WAS 11%, medium viscous	
Formula No. T61-01	

Shampoo, Clear, Liquid

	<u>%W/W</u>
I Sodium chloride	4.5
Water	6.5
II Texapon N70	14.0
III Water	75.0
Note: WAS 10%, medium viscous	
Preparation: The sodium chloride must be dissolved in the smallest possible amount of water in order to obtain a saturated saline solution. The solution is then stirred into the undiluted Texapon N70. The rest of the water is then gradually added. Finally, the preservative is added.	
Formula No. T61-03	

Shampoo, Clear, Liquid

	<u>%W/W</u>
Texapon MLS	50.0
Comperlan F	3.5
Water	46.5
Note: WAS 20%, medium viscous	
Formula No. T61-05	

Shampoo, Clear, Liquid

	<u>%W/W</u>
Texapon IES	40.0
Sodium chloride	4.0
Water	56.0
Note: WAS 20%, viscous	
Formula No. T61-06	

Shampoo, Clear, Liquid

	<u>%W/W</u>
Texapon NA	50.0
Comperlan KD	3.0
Sodium chloride	0.5
Water	46.5
Note: WAS 15%, high viscous	
Formula No. T61-07	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, Clear, Liquid

	<u>%W/W</u>
Texapon NT	40.0
Comperlan LS	3.0
Sodium chloride	1.0
Water	56.0
Note: WAS 17%, medium viscous	
Formula No. T61-08	

Shampoo, with Hair-Care Effect

	<u>%W/W</u>
Texapon N25/N40	40.0
Dehyton AB 30	5.0
Polyquart H81	5.0
Sodium chloride	1.5
Water	48.5
Note: AS 15%, WAS 13%, medium viscous	
Formula No. T61-10	

Shampoo for Daily Use

	<u>%W/W</u>
Texapon N25/N40	25.0
Comperlan KD	2.0
Polyquart H81	3.0
Sodium chloride	3.0
Water	67.0
Note: AS 11%, WAS 9%, viscous	
Formula No. T61-12	

Shampoo for Daily Use

	<u>%W/W</u>
Texapon K14S spec.	30.0
Comperlan LS	2.0
Sodium chloride	3.0
Water	65.0
Note: WAS 11%, viscous	
Formula No. T61-14	

Anti-dandruff Shampoo

	<u>%W/W</u>
I Texapon N25/N40	45.0
Comperlan KD	2.5
Water	10.0
II Omadine MDS	1.0
Water	2.0
III Sodium chloride	2.0
Water	37.5

Note: WAS 15%, pH 6-7, light-protected packaging
 Preparation: Texapon N25 and Comperlan KD are pre-mixed. Part of the water is then added. Omadine MDS is mixed with a small quantity of water to a paste, then stirred into above mixture. The remaining ingredients are then added.
 Formula No. T61-15

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo in Cream Form

	<u>%W/W</u>
Texapon CS paste	95.0
Comperlan KM	5.0
Note: WAS 57%, paste	
Formula No. T65-01	

Shampoo in Cream Form

	<u>%W/W</u>
I Texapon LS highly conc. needles	15.0
Siegert Stearin L2 SM	10.0
Comperlan 100	2.0
Dehydol 100 DEO	1.0
Triethanolamine	5.0
Sodium chloride	2.0
Water	65.0

Note: WAS 30%, paste

Preparation: Phase I is stirred at approx. 80C until a homogeneous mixture is obtained. It is then cooled while stirring continuously.

Formula No. L65-03

Shampoo in Cream Form

	<u>%W/W</u>
I Texapon Z highly conc. needles	15.0
Siegert Stearin L2 SM	10.0
Comperlan 100	2.0
Dehydol 100 DEO	0.5
Triethanolamine	5.0
Sodium chloride	2.0
Water	65.5

Note: WAS 30%, paste

Preparation: Phase I is stirred at approx. 80C until a homogeneous mixture is obtained. It is then cooled while stirring continuously.

Formula No. T65-04

Cream Shampoo with Egg

	<u>%W/W</u>
Texapon CS paste	93.5
Comperlan KM	5.0
Egg yolk, liquid, techn.	0.5
Water	1.0
Note: WAS 69%, paste	
Formula No. T65-07	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo Plus Conditioner**(Formula 90-0601)**

This one step shampoo and conditioner demonstrates rich lathering properties while it conditions the hair. Comprised of two protein substantive conditioning agents, this unique formula detangles snarled hair and significantly reduces comb drag.

Step A: % By Weight

Water	26.65
Jaguar C-14S	0.30

25% Citric Acid Solution	Q.S. to pH 4.0-4.5
--------------------------	--------------------

Heat water to 50C. With rapid but smooth agitation, slowly disperse Jaguar C-14S in water. Adjust pH to 4.0-4.5 with Citric Acid solution as needed. With pH adjustment, the system will thicken.

Step B:

Rhodapex ESY	30.00
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Ammonium Xylene Sulfonate (40% Aq.)	2.00
-------------------------------------	------

25% Citric Acid Solution	Q.S. to pH 5.7-6.3
--------------------------	--------------------

Slowly blend Rhodapex ESY and AXS-40 into heated water system. Mix until completely uniform. Adjust formulation to pH 5.7-6.3 with Citric Acid solution as needed. With smooth agitation, continue to heat system to 70-75C.

Step C:

Varisoft TC-90 (Sherex)	0.50
-------------------------	------

Cetyl Alcohol NF	0.40
------------------	------

Stearyl Alcohol	0.40
-----------------	------

Alkamuls EGDS	2.00
---------------	------

In a separate mixing vessel, combine Step C ingredients. Heat Step C ingredients (do not scorch) until clear and molten. With rapid but smooth agitation, slowly blend molten Step C phase into 70-75C water phase. Mix until completely uniform.

Step D:

Alkamide C-212	1.70
----------------	------

Rhodapon L-22HNC	36.00
------------------	-------

25% Citric Acid Solution	Q.S. to pH 5.7-6.3
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Slowly blend Alkamide C-212 into heated system and mix until completely uniform. Slowly blend Rhodapon L-22HNC into system. Once uniform, adjust formulation pH to 5.7-6.3 with Citric Acid as needed. With smooth agitation, cool system to 40-45C.

Step E:

Kathon CG (Rohm and Haas)	0.05
---------------------------	------

Fragrance and Dye	Q.S.
-------------------	------

Slowly blend Kathon CG and compatible Fragrance and Dye into system. Mix until uniform. Sodium Chloride may be added in trace concentrations (0.05-0.10%) to increase viscosity if needed. Ammonium Xylene Sulfonate may be added to decrease viscosity if needed.

Typical Formulation Properties

Appearance @ 25C:	Opaque/Pearlescent Liquid
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pH:	5.7-6.3
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Viscosity @ 25C (No. 4 Spindle @ 10 RPM):	3,000-5,000 cps
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SOURCE: Rhone Poulenc Surfactants & Specialties: Formula 90-0601

Shampoo with Ampholyte

	<u>%W/W</u>
Dehyton AB 30	30.0
Eumulgin O 5	15.0
Water	55.0
Note: WAS 21%, viscous	
Formula No. T61-31	

Shampoo with Ampholyte

	<u>%W/W</u>
Texapon N25/N40	30.0
Dehyton K	5.0
Comperlan KD	2.0
Sodium chloride	2.0
Water	61.0
Note: WAS 12%, high viscous	
Formula No. T61-33	

Protein-Shampoo

	<u>%W/W</u>
Texapon MLS	35.0
Comperlan OD	3.0
Hydagen P	1.0
Sodium chloride	0.3
Water	60.7
Note: WAS 14%	
Formula No. T61-36	

Shampoo for Structurally Damaged Hair

	<u>%W/W</u>
Texapon MLS	45.0
Dehyton AB 30	3.0
Comperlan F	2.0
Aminodermin Richter	0.1
Water	49.9
Note: WAS 17%	
Formula No. T61-38	

Multivitamin-Shampoo

	<u>%W/W</u>
Texapon N25	40.0
Dehyton AB 30	6.0
Comperlan LS	3.0
Solvit-Richter	3.0
Sodium chloride	0.3
Water	47.7
Note: WAS 16%	
Formula No. T61-39	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo with Ampholyte

	<u>%W/W</u>
Texapon MLS	45.0
Dehyton G	13.0
Comperlan LS	1.0
Water	41.0
Note: Viscous shampoo WAS 19%	
Formula No. T61-40	

Shampoo Clear, Liquid

	<u>%W/W</u>
Texapon K14S special	50.0
Sodium chloride	5.5
Water	44.5
Note: WAS 14%	
Formula No. T61-42	

Shampoo Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S special	25.0
Texapon SBN	25.0
Sodium chloride	3.0
Water	47.0
Note: WAS 14%	
Formula No. T61-45	

Shampoo, Clear

	<u>%W/W</u>
Texapon K14S 70 special	20.0
Sodium chloride	6.0
Water	74.0
Note: WAS 14%	
Formula No. T61-46	

Shampoo, Especially Skin Compatible

	<u>%W/W</u>
Texapon K14S 70 special	10.0
Texapon SBN	25.0
Sodium chloride	3.5
Water	61.5
Note: WAS 14%	
Formula No. T61-47	

Shampoo, with Sulfosuccinate

	<u>%W/W</u>
Texapon N25	35.0
Texapon SB3	10.0
Comperlan KD	2.0
Sodium chloride	3.0
Water	50.0
Note: WAS 16%	
Formula No. T61-48	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo with Ampholyte

	<u>%W/W</u>
Texapon EVR	50.0
Dehyton AB 30	5.0
Water	45.0
Note: WAS 20%, viscous	
Formula No. T64-17	

Shampoo with Ampholyte

	<u>%W/W</u>
Texapon N25/N40	30.0
Dehyton K	5.0
Euperlan PK 771	3.0
Comperlan KD	1.0
Sodium chloride	1.0
Water	60.0
Note: WAS 12%, viscous	
Formula No. T64-19	

Shampoo Concentrate, Pearly

	<u>%W/W</u>
Texapon Z highly conc. needles	35.0
Comperlan KD	35.0
Cutina AGS	5.0
Sodium chloride	2.6
Water	22.4
Note: WAS 65%, AS 70%, pasty consistency	
When used, the concentrate is diluted with water at a ratio of 1:10. The result is a shampoo of medium viscosity.	
Preparation: The ingredients shown in the formula are mixed together and melted at approx. 75C	
Formula No. T64-21	

Herbal Shampoo, Pearly

	<u>%W/W</u>
Texapon EVR	45.0
Hexaplant Richter	3.0
Sodium chloride	0.3
Water	51.7
Note: WAS 16%, medium viscous	
Formula No. T64-22	

Herbal Shampoo, Pearly

	<u>%W/W</u>
Texapon EVR	20.0
Texapon N25/N40	15.0
Hexaplant Richter	3.0
Water	62.0
Note: WAS 11%, viscous	
Formula No. T64-23	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo with Conditioning Effect

	<u>%W/W</u>
Texapon N25	35.0
Lamepon S	10.0
Comperlan KD	5.0
Lamequat L	1.0
Nutrilan I	1.0
Viscontran MHPC 6000	0.4
Perfume	0.2
Water	47.4

Note: Medium viscous, WAS 18%

Preparation: Viscontran MHPC is initially swollen in water and the remaining ingredients are stirred in in the order shown above.

Formula No. T61-57

Shampoo, Mild

	<u>%W/W</u>
Texapon ASV	40.0
Dehyton G-SF	5.0
Comperlan COD	2.0
Sodium chloride	3.5
Water	49.5

Note: Viscous, WAS 16%

Formula No. T61-58

Shampoo, Mild

	<u>%W/W</u>
Texapon N25	43.0
Dehyton G-SF	7.5
Sodium chloride	1.5
Water	48.0

Note: Medium viscous, WAS 15%

Formula No. T61-6

Shampoo, Mild

	<u>%W/W</u>
Texapon N25	27.0
Dehyton G-SF	6.0
Sodium chloride	2.2
Water	64.8

Note: Low viscous, WAS 10%

Formula No. T61-62

Shampoo, Mild

	<u>%W/W</u>
Texapon N25	24.0
Dehyton G-SF	8.0
Sodium chloride	1.5
Water	66.5

Note: Low viscous, WAS 10%

Formula No. T61-63

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo with Jojoba Oil Substitute

	<u>%W/W</u>
I Comperlan KD	2.5
Cetiol J600	0.6
II Texapon K 14S special	54.0
Cutina EGMS	3.0
Water	20.0
III Sodium chloride	2.0
Water	17.9

Note: WAS 21%

Preparation:

Phase I: Cetiol J600 is worked into Comperlan KD.

Phase II: Cutina EGMS is melted with the Texapon, which has been diluted with some of the water, at 75C. It is cooled to approx. 40C, being stirred continuously, and the remaining ingredients and Phase I are added.

pH setting to 6.5 with citric acid.

Formula No. T64-70

Conditioning Shampoo, Pearly

	<u>%W/W</u>
Texapon N25	35.0
Lamepon S	17.0
Lamesoft 156	5.0
Lamequat L	5.0
Sodium chloride	0.7
Perfume	0.3
Water	37.0

Note: Low viscous, WAS 16%

Preparation: The ingredients are mixed in the order shown above, with the exception of Lamesoft 156, which is added last.

Formula No. T64-71

Shampoo, Pearly

	<u>%W/W</u>
Texapon N25	43.0
Lamepon S-TR	20.0
Comperlan KD	1.5
Monomuls 90-L 12	1.0
Lamesoft 156	5.0
Perfume	0.3
Sodium chloride	1.0
Water	28.2

Note: Medium viscous, WAS 23%

Preparation: Monomuls 90-L 12 is dissolved in Texapon N25 while heating. Lamepon S-TR, Comperlan KD, perfume and water are added. Finally, the pearly gloss concentrate Lamesoft T156 is added and the viscosity is regulated with sodium chloride.

Formula No. T64-73

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, Pearly

	<u>%W/W</u>
I Texapon N25/N40	50.0
Cutina AGS	3.0
Water	20.0
II Sodium chloride	3.0
Water	24.0

Note: WAS 14%, AS 17%, medium viscous

Preparation: Cutina AGS is melted at approx. 75C in the Texapon which has been diluted with part of the water. Whilst stirring, it is cooled to approx. 40C and the remaining ingredients are added.

Formula No. T64-06

Shampoo, Pearly

	<u>%W/W</u>
Texapon Z or Texapon V highly conc. needles or Texapon LS highly conc. needles	10.0
Comperlan KD	3.0
Cutina AGS	2.0
Sodium chloride	1.0
Water	84.0

Note: WAS 12%

Preparation: The ingredients shown in the formula are mixed together and melted at approx. 75C.

Formula No. T64-08

Shampoo, Pearly

	<u>%W/W</u>
Texapon N25/N40	35.0
Euperlan PK 771	3.0
Sodium chloride	3.5
Water	58.5

Note: WAS 11%, viscous

Formula No. T64-09

Shampoo, Pearly

	<u>%W/W</u>
Texapon N25/N40	50.0
Comperlan KD	2.0
Euperlan PK 771	2.5
Sodium chloride	2.0
Water	43.5

Note: WAS 17%, viscous

Formula No. T64-10

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, Pearly

	<u>%W/W</u>
I Texapon Z highly conc. needles	10.0
Comperlan KD	3.0
Water	70.0
II Sodium chloride	1.0
Water	13.5
Euperlan PK771	2.5

Note: WAS 10-13%, medium viscous

Preparation: Phase I is mixed at approx. 60C to form a clear solution. It is stirred while cooling. The remaining ingredients are added at approx. 40C.

Formula No. T64-11

Shampoo, Pearly

	<u>%W/W</u>
Texapon N25/N40	50.0
Euperlan PK776	2.5
Comperlan KD	2.0
Sodium chloride	2.0
Water	43.5

Note: WAS 17%, medium viscous

Formula No. T64-13

Shampoo, Pearly

	<u>%W/W</u>
I Texapon Z highly conc. needles	10.0
Comperlan KD	3.0
Water	70.0
II Sodium chloride	1.0
Water	13.5
Euperlan PK 776	2.5

Note: WAS 13%, viscous

Preparation: Phase I is mixed at approx. 60C to form a clear solution. It is stirred while cooling. The remaining ingredients are added at approx. 40C.

Formula No. T64-14

Shampoo, Pearly

	<u>%W/W</u>
Texapon N25/N40	50.0
Euperlan PK789	2.5
Comperlan KD	2.0
Sodium chloride	2.0
Water	43.5

Note: WAS 16%, medium viscous

Formula No. T64-15

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, Cloudy

	<u>%W/W</u>
I Texapon N40	15.0
Comperlan KD	1.0
II Texapon SBN	30.0
Sodium chloride	2.0
Cutina HR	3.0
Water	49.0

Note: WAS 14%, AS 16%, viscous

Preparation: Mix Texapon N40 with Comperlan KD, add phase II, in which Cutina HR has already been melted at 90C and cooled under continuous stirring, and preserve at a temperature below 40C.

Formula No. T63-01

Anti-Dandruff Shampoo, Cloudy

	<u>%W/W</u>
Texapon N40	43.0
Lamepon UD	19.0
Nutrilan L	4.5
Monomuls 90-L 12	2.0
Glucamate DOE-120	2.0
Veegum HV, 2% preswelling	27.2
Zinc-pyrion 48% susp.	2.0
Perfume	0.3

Note: Viscous, WAS 23%

Preparation: Monomuls 90-L 12 and Glucamate DOE 120 are dissolved in Texapon N40 while being heated. The remaining ingredients are then added in the order shown above. The zinc-pyrion suspension and the perfume are added when the temperature is under +40C.

Formula No. T63-03

Shampoo, Pearly

	<u>%W/W</u>
Texapon SG	33.0
Comperlan KD	3.5
Water	63.5

Note: WAS 12%, viscous

Formula No. T64-02

Shampoo, Pearly

	<u>%W/W</u>
Texapon SG	20.0
Texapon N25/N40	20.0
Comperlan KD	4.0
Water	56.0

Note: WAS 14%, high viscous

Formula No. T64-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo Plus Conditioner
Plus UV Protection
Formula 93-0401

This one-step shampoo conditioner and UV protector demonstrates rich-lathering properties, while it conditions and protects the hair. Comprised of two protein-substantive conditioning agents and an ultraviolet absorber, this unique formula detangles snarled hair and significantly reduces comb drag, while protecting the hair from the harsh effects of sunlight.

<u>A. Component</u>	<u>% By Weight</u>
Water	25.65
Jaguar C-14S	0.30
25% Citric Acid Solution	Q.S. to pH 4.0-4.5
Heat water to 50C. With rapid but smooth agitation, slowly disperse Jaguar C-14S in water. Adjust pH to 4.0-4.5 with citric acid solution, as needed. With pH adjustment, the system will thicken.	
B. Rhodapex ESY	30.0
Ammonium Xylene Sulfonate (40% Aq.)	2.0
25% Citric Acid Solution	Q.S. to pH 5.7-6.3
Slowly blend Rhodapex ESY and AXS-40 into heated water system. Mix until completely uniform. Adjust formulation pH to 5.7-6.3 with citric acid solution, as needed. With smooth agitation, continue to heat system to 70-75C.	
C. Varisoft TC-90 (Sherex)	0.50
Cetyl Alcohol NF	0.40
Stearyl Alcohol	0.40
Alkamuls EGDS	2.00
Syntase 62	1.00

In a separate mixing vessel, combine "C" ingredients. Heat "C" ingredients (do not scorch) until clear and molten. With rapid but smooth agitation, slowly blend molten "C" phase into 70-75C water phase. Mix until completely uniform.

D. Alkamide C-212	1.70
Rhodapon L-22HNC	36.00
25% Citric Acid Solution	Q.S. to pH 5.7-6.3
Slowly blend Alkamide C-212 into heated system and mix until completely uniform. Slowly blend Rhodapon L-22HNC into system. Once uniform, adjust formulation pH to 5.7-6.3 with citric acid, as needed. With smooth agitation, cool system to 40-45C.	
E. Kathon CG (Rohm and Haas)	0.05
Fragrance and Dye	Q.S.

Slowly blend Kathon CG and compatible fragrance and dye into system. Mix until uniform. Sodium chloride may be added in trace concentrations (0.05-0.10%) to increase viscosity, if needed. Ammonium xylene sulfonate may be added to decrease viscosity, if needed.

Typical Formulation Properties

Appearance:	Opaque, pearlescent liquid
pH:	5.7-6.3
Viscosity @ 25C (No. 4 Spindle @ 10 rpm):	10,000-15,000 cps

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Shampoo Shower Bath Combination, Pearly

	<u>%W/W</u>
I Hydagen P	2.0
Texapon EVR	10.0
II Texapon EVR	35.0
Dehyton AB 30	3.0
Cetiol HE	2.0
Water	48.0

Note: WAS 17%, viscous

Preparation: The products of phase I are stirred at 50-60C until homogeneous. The remaining ingredients are added below 40C.

Formula No. T64-49

Lecithin Shampoo, Pearly

	<u>%W/W</u>
Texapon MLS	40.0
Euperlan PK 771	3.0
Dehyton K	5.0
Comperlan LS	3.0
Lecithin CLR water dispersible	2.0
Water	47.0

Note: WAS 15%

Formula No. T64-51

Lecithin-Egg Shampoo, Pearly

	<u>%W/W</u>
Texapon MLS	20.0
Texapon EVR	25.0
Dehyton K	5.0
Lecithin CLR (water dispersible)	1.0
Egg yolk, liquid, techn.	1.0
Sodium chloride	0.4
Water	47.6

Note: WAS 17%

Formula No. T64-52

Vitamin Shampoo, Pearly

	<u>%W/W</u>
Texapon N25	40.0
Euperlan PK 771	1.0
Comperlan OD	4.0
Vitamin F CLR (water soluble)	2.0
Sodium chloride	0.7
Water	52.3

Note: WAS 15%

Formula No. T64-53

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo, with Vitamin E

	<u>%W/W</u>
Comperlan OD	1.5
Vitamin E/Covitol 1100	0.5
Perfume	0.2
Texapon NSO	35.0
Dehyton AB 30	8.0
Sodium chloride	1.5
Water	53.3
Note: WAS 14%	
Formula No. T61-73	

Shampoo with Vitamin E

	<u>%W/W</u>
Comperlan KD	1.5
Vitamin E/Covitol 1100	0.5
Perfume	0.2
Texapon NSO	35.0
Dehyton K	8.0
Sodium chloride	2.0
Water	52.8
Note: WAS 14%	
Preparation: The ingredients are mixed together in the order shown above, without heating.	
Formula No. T61-75	

Shampoo with Ampholyte in Gel Form

	<u>%W/W</u>
Texapon N25/N40	50.0
Dehyton AB 30	20.0
Water	30.0
Note: WAS 20%, high viscous	
Formula No. T62-01	

Shampoo in Gel Form

	<u>%W/W</u>
I Texapon N70	15.0
Comperlan KD	3.0
II Sodium chloride	2.4
Water	7.0
III Water	72.6
Note: WAS 13%, high viscous	
Preparation: Phase I is prepared and mixed. Then the sodium chloride, which has been pre-dissolved in a small amount of water, is added. The rest of the water is gradually stirred in and the mixture is preserved.	
Formula No. T62-02	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shampoo with Sulfosuccinate

	<u>%W/W</u>
Texapon N25	25.0
Texapon SB 3	15.0
Comperlan KD	2.0
Sodium chloride	4.5
Water	53.5
Note: WAS 15%	
Formula No. T61-49	

Shampoo with Jojoba Oil Substitute

	<u>%W/W</u>
Texapon MLS	23.5
Texapon N25	27.0
Eumulgin R0 40	2.5
Comperlan KD	3.0
Cetiol J600	0.3
Sodium chloride	2.0
Water	41.7
Note: WAS 20%, pH set to 6.5 with citric acid.	
Formula No. T61-51	

Shampoo for Greasy Hair

	<u>%W/W</u>
Texapon N25	43.0
Lamepon S-TR	20.0
Comperlan KD	1.5
Lamepon PA-TR	5.0
Perfume	0.3
Sodium chloride	2.0
Water	28.2
Note: Viscous, WAS 21%	
Formula No. T61-52	

Shampoo for Sensitive Scalps

	<u>%W/W</u>
Texapon N25	30.0
Lamepon S-TR	30.0
Nutrilan L	6.0
Perfume	0.3
Sodium chloride	1.5
Water	32.2
Note: Low viscous, WAS 18%	
Formula No. T61-53	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Silk Neutralizing Shampoo

	%W/W
Bio-Terge AS-40 (Sodium C14-16 Olefin Sulfonate)	22.0
Amphosol CA (Cocamidopropyl Betaine)	14.0
Ammonyx CDO (Cocamidopropylamine Oxide)	5.0
Deionized Water	56.0
Cationic Collagen Polypeptides	2.5
Amino-Silk SF (Silk Amino Acids)	0.5
Preservative, Fragrance	q.s.
Citric Acid	q.s. to pH=4

Procedure:

Mix all components together except the citric acid. Adjust pH to 4 with citric acid.

Properties:

A mild, low pH shampoo which neutralizes and re-conditions at the same time. Cationic Collagen Polypeptides, a cationic high molecular weight protein, protects and smooths the hair shaft to counteract damage due to harsh processing. Amino-Silk SF adds shine and bounce to the hair.

Formula #HS-300

Enriched Protein & Honey Shampoo

	%W/W
A. Deionized Water	23.80
Quat-Pro S (Stearyltrimonium Hydroxy Ethyl Hydrolyzed Collagen)	1.00
Methylparaben	0.20
B. May-Tein C (Potassium Cocoyl Hydrolyzed Collagen)	30.00
Standapol ES-2 (Sodium Laureth Sulfate)	25.00
Collagen Hydrolyzate Cosmetic 55 (Hydrolyzed Collagen)	5.00
Honey	1.00
Lemon juice	5.00
Monateric CAB (Cocamidopropyl Betaine)	5.00
Sodium Chloride	2.50
C. Dowicil 200 (Quaternium-15)	0.20
Polysorbate 20	1.00
Fragrance	0.30
Q.S. to pH = 5.5 with Citric Acid or Potassium Hydroxide as needed.	

Procedure:

1. Mix and heat phase A until homogeneous.
2. Add phase A to phase B. Mix.
3. Pre-mix phase C and add to phase A/B. Mix.

Properties:

A viscous, but mild shampoo. Enriched with natural ingredients. Lemon juice and quaternized protein supply good manageability and an attractive sheen. May-Tein C and Quat-Pro S provide lubricity and conditioning. The Hydrolyzed Collagen coats and protects the hair as well as adding body.

Formula #HS-109

SOURCE: Maybrook Inc.: Suggested Formulations

Softening Shampoo, Pearly

	<u>%W/W</u>
I Texapon EVR	25.0
Texapon N25	25.0
Sodium chloride	0.8
Water	18.7
II Cosmedia Guar C261	0.5
Water	30.0

Note: WAS 16%, viscous

Preparation: Cosmedia Guar C261 is stirred into hot water and pre-swollen. When cold it is stirred into phase I.

Formula No. T64-55

Silken Sheen Shampoo, Softening

	<u>%W/W</u>
I Texapon SG	60.0
Comperlan KD	2.5
Water	6.7
II Cosmedia Guar C261	0.8
Water	30.0

Note: WAS 15%

Preparation: Cosmedia Guar C261 is stirred into hot water and pre-swollen. When cold it is stirred into phase I.

Formula No. T64-57

Softening Shampoo, Pearly

	<u>%W/W</u>
I Texapon N40	40.0
Comperlan KD	2.0
Euperlan PK 789	5.0
Sodium chloride	2.0
Water	20.5
II Cosmedia Guar C261	0.5
Water	30.0

Note: WAS 15%

Preparation: Cosmedia Guar C261 is stirred into hot water and pre-swollen. When cold it is stirred into phase I.

Formula No. T64-59

Softening Shampoo, Pearly

	<u>%W/W</u>
I Texapon N40	50.0
Comperlan KD	2.0
Euperlan PK 776	4.0
Sodium chloride	1.2
Water	12.0
II Cosmedia Guar C261	0.8
Water	30.0

Note: WAS 17%

Preparation: Cosmedia Guar C261 is stirred into hot water and pre-swollen. When cold it is stirred into phase I.

Formula No. T64-60

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Vege-Clean Conditioning Shampoo

	<u>%W/W</u>
A. Bioterge AS-40 (Sodium C16-18 Olefin Sulfonate)	40.00
Monamid 150-LW (Lauramide DEA)	3.00
Deionized Water	46.80
Supro-Tein S (Sodium Cocoyl Hydrolyzed Soy Protein (and) Sorbitol)	5.00
Soy-Quat C (Cocodimonium Hydroxypropyl Hydrolyzed Soy Protein)	1.50
Soy-Tein NL (Hydrolyzed Soy Protein)	1.50
Kessco PEG 6000 DS	1.00
Sodium Chloride	1.00
B. Fragrance	0.2
Preservative	q.s.
Citric Acid	q.s. to pH 6.5

Procedure:

Mix and heat Phase A to 60C. Mix until homogeneous. Mix and cool to 40C. Add Phase B.

Properties:

Vegetable-based surfactants and quaternaries give this conditioning shampoo an extra boost. An effective cleanser, this formula provides a creamy, stable foam. Conditioning and mildness are provided by the Soy-Tein NL and Supro-Tein S. Supro-Tein S is a foaming protein which gently cleans and is biodegradable. Soy-Quat C is a cationic, quaternized soy protein which adds highlights to the hair and improves wet and dry combing.

SOURCE: Maybrook Inc.: Formula #HS-201

High Foaming 2 in 1 Shampoo

	<u>Weight, %</u>
Ammonium Lauryl Sulfate (28%)	65.0
Mackalene 426	6.0
Mackanate DC-50	4.0
Mackester EGDS	1.0
Mackamide PKM	2.0
Mackernium 007	2.0
Paragon Preservative	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Combine the first five components and heat to 70C with continuous mixing.
2. Dilute the Mackernium 007 in the remaining water and slowly add to the blend.
3. Blend until product is homogeneous and cool to 50C.
4. Add Paragon preservative, fragrance and dye.
5. Adjust pH with citric acid to 5.0-6.0 and cool.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Vitamin Shampoo, Pearly

	<u>%W/W</u>
Texapon EVR	45.0
Soluvit Richter	2.0
Sodium chloride	0.4
Water	52.6
Note: WAS 16%, viscous	
Formula No. T64-25	

Pearly Gloss Shampoo with Arnica Tincture

	<u>%W/W</u>
Texapon N25/N40	20.0
Texapon EVR	20.0
Cetiol HE	10.0
Arnica Tincture	0.5
Water	49.5
Note: WAS 13%, viscous	
Formula No. T64-27	

Pearly Gloss Shampoo with Egg

	<u>%W/W</u>
Texapon EVR	45.0
Egg yolk, liquid	2.0
Sodium chloride	0.3
Water	52.7
Note: WAS 16%, viscous	
Formula No. T64-28	

Pearly Gloss Shampoo with Egg

	<u>%W/W</u>
Texapon SG	40.0
Texapon N25/N40	20.0
Egg yolk, liquid	0.7
Sodium chloride	1.5
Water	37.5
Note: WAS 14%, medium viscous	
Formula No. T64-29	

Pearly Gloss Shampoo with Egg

	<u>%W/W</u>
Texapon SG	40.0
Texapon IES	20.0
Egg yolk, liquid, techn.	0.7
Sodium chloride	1.5
Water	37.8
Note: WAS 21%, medium viscous	
Formula No. T64-30	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Wash N' Style Family Shampoo

	%W/W
A. Monamid CMA (Cocamide MEA)	5.00
Proto-Lan 8*	0.50
B. Ammonium Lauryl Sulfate	30.00
Supro-Tein V (TEA-Cocoyl-Hydrolyzed Collagen (and) Sorbitol)	10.00
C. Deionized Water	47.90
Quat-Pro S (Stearyltrimonium Hydroxyethyl Hydrolyzed Collagen)	1.00
Kera-Tein 1000 (Hydrolyzed Keratin)	5.00
Methylparaben	0.20
Kathon CG	0.10
D. Citric Acid, to pH=6.0	q.s.
Fragrance	q.s.
NaCl (as needed for desired viscosity)	q.s.
*(Lecithin (and) Butyl Stearate (and) Cocoyl Hydrolyzed Collagen (and) Oleoyl Sarcosine (and) Sesame Oil (and) Lanolin Alcohol)	

Procedure:

1. Heat Monamid until melted. Add the Proto-Lan 8 and mix.
2. Warm phase B to 65C. Add phase A to phase B. Mix.
3. Warm phase C to 60C. Add phase A/B to C. Mix.
4. Adjust pH and add fragrance. Mix.

Properties:

Ideal family shampoo. Based on efficient cleansers and state-of-the-art hair repair and conditioning ingredients. Achieves and maintains optimum hair beauty for normal, oily, and dry hair and scalp. Particularly beneficial for bleached, permed, over-processed hair, providing body, sheen, soft feel and adding to tensile strength.

SOURCE: Maybrook Inc.; Formulation #HS-110

Wheat Germ Oil & Honey Shampoo
(Formula 86-0106)

	<u>% by Weight</u>
Rhodapex NA 61	10.0
Mirataine BET-C 30	3.5
Alkamide DC-212/S	1.5
Honey	0.025
Wheat Germ Oil	0.025
Citric Acid	Q.S. to pH 6-6.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.5-2.5
Water	83.95

Blending Procedure:

1. Charge water into mixing vessel.
2. With rapid but smooth agitation, slowly blend in Rhodapex NA 61 and Mirataine BET-C 30. Mix until completely uniform.
3. In a separate container, disperse honey and wheat germ oil in Alkamide DC-212/S and mix until uniform. With smooth agitation, slowly add this blend to shampoo system. Mix until shampoo is completely clear and uniform.
4. Adjust pH of system to 6.0-6.5 with citric acid, as needed.
5. Add compatible fragrance, dye and preservative.
6. Adjust shampoo viscosity to 1,000-1,500 cps with incremental additions of sodium chloride, as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamidopropyl Betaine, Wheat Germ Oil, Honey, Citric Acid, Preservative, Fragrance, Dye.

Pearlescent Cream Shampoo
(Formula 83-0902M)

	<u>% By Weight</u>
Rhodapon SB 8208S	33.0
Mirasheen 202	10.0
Citric Acid	Q.S. to pH 5-6
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	1.5-2.5
Water	55.0

Blending Procedure:

Charge water into mixing vessel. With smooth agitation, slowly blend in Rhodapon SB 8208S and Mirasheen 202. Mix until completely uniform. Adjust formulation pH to 5-6 with citric acid as needed and then add compatible Fragrance, Dye(s), and Preservative. Adjust formulation viscosity to 2,000-4,000 cps with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties

Appearance @ 25C:	Opaque/Pearlescent Liquid
pH:	5-6
Viscosity @ 25C:	2,000-4,000 cps
% Non Volatiles:	15-17

CTFA Identification: Water, Sodium Lauryl Sulfate, Glycol Stearate, Sodium Chloride, Lauramide DEA, Cocamidopropyl Betaine, Glycerine, Fragrance, Preservative, Citric Acid, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Wig Shampoo

	<u>%W/W</u>
Texapon MLS	30.0
Dehyton AB30	5.0
Comperlan OD	3.0
Water	62.0

Note: WAS 14%, viscous
Formula No. T68-01

Wig Shampoo, Cationic

	<u>%W/W</u>
Dehyton AB30	40.0
Eumulgin C4	15.0
Dehyquart LT	5.0
Comperlan KD	2.0
Water	38.0

Note: WAS 31%, low viscous
Formula No. T68-02

Wig Shampoo, Cationic

	<u>%W/W</u>
Dehydol 100DEO	25.0
Dehyquart A	15.0
Eumulgin O 10	5.0
Water	55.0

Note: WAS 34%, low viscous
Formula No. T68-03

Wig Shampoo

	<u>%W/W</u>
Texapon N25	55.0
Comperlan KD	1.8
Nutrilan L	5.0
Perfume	0.3
Sodium Chloride	1.5
Water	36.4

Note: WAS 15%, viscous
Formula No. T68-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

2-in-1 Conditioning Shampoo

Thick, stable shampoo having good cleaning and conditioning properties for the hair.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	34.10	Diluent
Ammonium Lauryl Sulfate (28%) (1)	34.00	Surfactant
Ammonium Laureth Sulfate (27%) (2)	9.25	Surfactant
Part B:		
Carbopol 1382 (3)	0.75	Suspension Stabilizer
Cocamide DEA (4)	3.50	Foam Stabilizer
Part C:		
Dimethicone (100,000 cs) (5)	1.00	Lubricant
Olealkonium Chloride (6)	0.50	Conditioner
Part D:		
Deionized Water	15.00	Diluent
Disodium EDTA	0.10	Chelant
DMDM Hydantoin (7)	0.40	Preservative
Guar Hydroxypropyltrimonium Chloride (8)	0.20	Conditioner
NaOH (10%)	1.00	Neutralizing Agent
Part E:		
Fragrance (9)	0.20	

- (1) Standapol A (Henkel)
- (2) Standapol EA-3 (Henkel)
- (3) Carbomer (BFGoodrich)
- (4) Standamid KD (Henkel)
- (5) 200 Fluid (Dow Corning)
- (6) M-Quat JO 50 (PPG-Mazer)
- (7) Glydant (Lonza)
- (8) N-Hance (Aqualon)
- (9) Shampoo Fragrance A62120/794457 (Haarman & Reimer)

Preparation Procedure:

1. Combine Part A ingredients, slowly mix, heat to 50C.
2. Separately heat Cocamide DEA to 50, slowly mix in Carbopol, forming a paste, add to Part A with moderate speed, mixing 30 minutes.
3. Separately combine Part C ingredients, heat to 50C, slowly mix to combine with Parts A and B with moderate speed mixing.
4. Separately add guar into first three ingredients of Part D, when dispersed add NaOH, combine with Parts A, B, and C, with slow agitation for 20 minutes until 40C.
5. Add Part E and mix slow agitation for 20 minutes.

SOURCE: BF Goodrich Co.: Formula C-0039

2-in-1 Conditioning Shampoo

A synergistic mixture of Veegum HS Magnesium Aluminum Silicate and hydroxypropyl guar thickens this shampoo to maintain the mica and titanium dioxide in suspension. Vanseal CS, renowned for its mildness to the skin and eyes, enhances the quality and quantity of lather produced by this formula. It also acts as a conditioning agent, augmenting the conditioning effect of stearalkonium chloride.

<u>Ingredient:</u>	<u>% by Weight*</u>
A: Veegum HS Magnesium Aluminum Silicate	1.30
Hydroxypropyl Guar**	1.30
Deionized Water	60.35
B: Citric Acid	0.05
Ammonium Lauryl Sulfate	30.00
Vanseal CS Cocoyl Sarcosine	3.00
C: Stearalkonium Chloride, 25%	3.00
D: Mica (and) Titanium Dioxide***	1.00
Sodium Hydroxide Solution to pH 6.0	q.s.
Preservative, Dye, Fragrance	q.s.

*As Received Basis

**Jaguar HP-60

***Timeron Super Copper

Mixing Procedure:

Heat the water in part A to 50C. Add the Veegum HS slowly to the water while stirring with a propeller mixer at 1800 rpm. Mix 1 hour. Add the hydroxypropyl guar and mix 3 minutes. Deaerate. Slow the mixer to avoid air entrapment and foam generation. Add the part B ingredients in the order shown, mixing each until smooth and uniform. Heat part C to 50C and add slowly to A and B. Cool to 30C or less and add part D ingredients in the order shown, mixing each until smooth and uniform.

Formula Properties:

Viscosity: 10,000-15,000 cps (Brookfield Model LVT at 60 RPM)

pH: 5.8 to 6.2

Appearance: Smooth, uniform, pourable lotion

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 454

Section X

Shaving Products

After Shave Balm

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	90.00	Diluent
Glycerin	3.00	Humectant
Dimethicone Copolyol (1)	1.00	Humectant/ Lubricant
Polysorbate 80 (2)	0.10	Surfactant
Allantoin	0.10	Skin Conditioner
Part B:		
Cyclomethicone (3)	4.00	Lubricant
Decyl Oleate (4)	0.50	Emollient
Pemulen TR-1	0.25	Emulsifier/ Stabilizer
Part C:		
Triethanolamine, 99%	0.25	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (6)	0.80	Preservative
Fragrance	q.s.	

- (1) Dow Corning 190 Surfactant (Dow Corning)
- (2) Tween 80 (ICI Americas)
- (3) Dow Corning 245 Fluid (Dow Corning)
- (4) Ceraphyl 140 (Van Dyk)
- (5) CTFA Acrylates/C10-C30 Alkyl Acrylate Crosspolymer
(BFGoodrich)
- (6) Germaben II (Sutton Labs)

Preparation Procedure:

- 1) Combine Part A ingredients. Mix until homogeneous.
- 2) Combine Part B ingredients in a separate vessel. Mix to break-up any soft lumps of Pemulen.
- 3) With moderate agitation, add Part B to Part A. Mix for 15-30 minutes.
- 4) Add Part C. As emulsion thickens, increase rate of mixing to produce a smooth, opaque product.
- 5) Mix Part D ingredients into emulsion.

SOURCE: BF Goodrich Co.: Formula P0003

After Shave Balm

Smooth application and non-stinging emolliency are features of this translucent gel formulation.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	88.65	Diluent
Glycerin	3.00	Humectant
Dimethicone Copolyol (1)	0.75	Humectant/ Lubricant
Polysorbate 80 (2)	0.15	Particle Size Reduction
Allantoin	0.10	Skin Conditioner
Disodium EDTA	0.10	Chelating Agent
Part B:		
Cyclomethicone (3)	4.00	Lubricant
Fragrance, Noville #28819	0.75	
Decyl Oleate (4)	0.50	Emollient
Pemulen TR-1 (5)	0.20	Emulsifier
Carbopol 954 (6)	0.40	Thickener
Part C:		
Triethanolamine (99%)	0.60	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	0.80	Preservative
(1) 193 Surfactant (Dow Corning)		
(2) Protasorb 0-20 (Protemeen Chemicals), Tween 80 (ICI)		
(3) 345 Fluid (Dow Corning)		
(4) Ceraphyl 140 (Van Dyk)		
(5) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BF Goodrich)		
(6) Carbomer (BF Goodrich)		
(7) Germaben II (Sutton Labs)		

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix until homogeneous.
2. In a separate vessel, blend part B ingredients. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
3. With moderate agitation, add Part B to Part A. Mix for 10-15 minutes and then add Part C. Mix vigorously to produce a smooth, glossy product.
4. Mix Part D into emulsion.

SOURCE: BF Goodrich Co.; Formula P0011

After Shave Balm

Smooth application and non-stinging emolliency are features of this translucent gel formulation.

<u>Ingredient (CTFA)</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	88.65	Diluent
Glycerin	3.00	Humectant
Dimethicone Copolyol (1)	0.75	Humectant/ Lubricant
Polysorbate 80 (2)	0.15	Particle Size Reduction
Allantoin	0.10	Skin Conditioner
Disodium EDTA	0.10	Chelating Agent
Part B:		
Cyclomethicone (3)	4.00	Lubricant
Fragrance, Noville #28819	0.75	
Decyl Oleate (4)	0.50	Emollient
Pemulen TR-1 (5)	0.20	Emulsifier
Carbopol 5984 (6)	0.40	Thickener
Part C:		
Triethanolamine (99%)	0.60	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	0.80	Preservative
(1) 193 Surfactant (Dow Corning)		
(2) Protasorb O-20 (Protameen Chemicals), Tween 80 (ICI)		
(3) 345 Fluid (Dow Corning)		
(4) Ceraphyl 140 (Van Dyk)		
(5) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)		
(6) Carbomer (BFGoodrich)		
(7) Germaben II (Sutton Labs)		

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix until homogeneous.
2. In a separate vessel, blend Part B ingredients. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
3. With moderate agitation, add Part B to Part A. Mix for 10-15 minutes and then add Part C. Mix vigorously to produce a smooth, glossy product.
4. Mix Part D into emulsion.

SOURCE: BF Goodrich Co.: Formula P0032

After Shave Balm

Smooth application and non-stinging emolliency are features of this translucent gel formulation.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	88.65	Diluent
Glycerin	3.00	Humectant
Dimethicone Copolyol (1)	0.75	Humectant/ Lubricant
Polysorbate 80 (2)	0.15	Particle Size Reduction
Allantoin	0.10	Skin Conditioner
Disodium EDTA	0.10	Chelating Agent
Part B:		
Cyclomethicone (3)	4.00	Lubricant
Fragrance (8)	0.75	
Decyl Oleate (4)	0.50	Emollient
Pemulen TR-1 (5)	0.20	Emulsifier
Carbopol 5984 (6)	0.40	Thickener
Part C:		
Triethanolamine (99%)	0.60	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (7)	0.80	Preservative

- (1) 190 Surfactant (Dow Corning)
- (2) Protasorb O-20 (Protameen Chemicals), Tween 80 (ICI)
- (3) 345 Fluid (Dow Corning)
- (4) Ceraphyl 140 (Van Dyk)
- (5) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
- (6) Carbomer (BFGoodrich)
- (7) Germaben II (Sutton Labs)
- (8) Men's Fragrance A62119/794456 (Haarman & Reimer)

Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix until homogeneous.
2. In a separate vessel, blend Part B ingredients. Pemulen and Carbopol should be slurried in this phase. Disrupt any soft lumps of these resins.
3. With moderate agitation, add Part B to Part A. Mix for 10-15 minutes and then add Part C. Mix vigorously to produce a smooth, glossy product.
4. Mix Part D into emulsion.

SOURCE: BF Goodrich Co.: Formula P0033

After-Shave Cream

	%W/W
I Carbopol 934	1.00
Ethyl alcohol 96%	30.00
Water	26.75
II Triethanolamine	1.50
Water	5.00
III Cutina MD	3.00
Eumulgin B2	1.00
Cetiol LC	5.00
Water	26.75

Preparation:

Allow I to swell, neutralize with II, process III into a cream at 70C and add it to the gel produced.

Formula No. D12-01

After-Shave Gel

	%W/W
I Menthol	0.2
Ethyl alcohol 96%	50.0
II Water	42.6
Boric acid	0.2
III Carbopol 940	0.8
IV Triethanolamine	1.2
Cetiol HE	5.0

Preparation:

Dissolve I and add II in a dissolved state. Stirring quickly, allow III to swell in the alcoholic/aqueous solution. Stir in IV to neutralize.

Formula No. D12-02

After Shave Tonic

	%W/W
Ethanol 96%	40.0
Monomuls 90-L 12	1.0
Lamacit GML 20	10.0
Allantoin	0.2
Irgasan DP 300	0.1
Perfume	0.8
Water	47.9

Preparation:

Monomuls 90-L 12 is dissolved in Lamacit GML at 70C and the perfume is added. Ethanol and water are then added and, finally, allantoin and Irgasan DP 300 are dissolved, stirring thoroughly.

The pH is adjusted with lactic acid.

Formula No. D51-05

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Aftershave Gel

<u>Ingredients:</u>	<u>% by Weight</u>
A. Ethanol, 96% denatured	60.00
Perfume oil	2.00
Menthol	0.10
Cremophor RH 60	0.80
Uvinul D 50	0.05
B. Water, distilled	25.10
Allantoin	0.10
EDTA Acid	0.05
C. Carbomer 980	0.50
D. Water, distilled	10.00
Tris Amino	0.60

Procedure:

Part A: Dissolve perfume oil, menthol, Cremophor RH 60 and Uvinul D 50 in ethyl alcohol.

Part B: Dissolve allantoin and EDTA in water and stir part B into part A.

Part C: Gently sift Carbomer 980 into the combined Parts A and B while maintaining good agitation of the mixture. Continue stirring until the Carbomer has been completely dispersed.

Part D: Dissolve Tris Amino in the water and stir into parts A, B and C in order to neutralize the Carbomer. A highly viscous, transparent gel is obtained. The pH value of the gel should be approximately 7.0-7.5.

SOURCE: Angus Chemical Co.: Angus Product Formulary: Suggested Formulation PF-0189E

Pre-shave Lotion

Slightly yellow, clear, low viscosity.

Material/CTFA-Index:

A: Ethanol/Alcohol (Cosmetic grade)	75.00%
B: Belsil DMC 6031/Dimethicone Copolyol	4.00
Adol 66/Isostearyl Alcohol	2.50
Isopropyl Myristate	5.00
Rewolan AWS/PEG-75 Lanolin oil	2.50
C: Water	11.00

Mix B into A stirring lightly. Add C stirring lightly. Stir until a clear solution is formed.

Temperature stability: at 45C over 10 weeks.

SOURCE: Wacker Silicone: Formulation 351 AH

Shaving Cream

	<u>%W/W</u>
I Edenor K 1218	6.40
Edenor C 14 92-96%	11.20
Siegert Stearin L4	11.20
II Potassium hydroxide	7.54
Sodium hydroxide	0.39
Henkel Glycerin 86% DAB 9	6.00
Triethanolamine	1.05
III Water	38.84
IV Siegert Stearin L4	11.20
V Texapon CS paste	3.00
Eutanol G	2.00
VI Menthol	0.20
Perfume	1.00

Preparation:

Melt I at 80C on the water bath, dissolve II in III and heat to 80C. Stir this solution into I (saponification). The stirring process lasts at least 1h at a temperature of 80C. Melt IV at 80C and gradually add it to the mixture. After cooling to 50C, V is reduced to reduced to approx. 40C and also stirred. VI is added at a temperature of 30C. The lost water is finally replaced. The shaving cream is mechanically homogenized once. The process is repeated after 24 h, after which packaging takes place.

Note: Max. pH 11

Formula No. D11-01

Shaving Cream

	<u>%W/W</u>
I Edenor K8-18	10.0
Siegert Stearin L4	28.0
Henkel Glycerin 86% DAB 9	17.0
Water	23.0
II Potassium hydroxide solution 45%	15.0
Sodium hydroxide solution 45%	2.5
III Siegert Stearin L4	3.5
IV Perfume	1.0

Preparation:

Melt I at 80C on the water bath, dissolve II in III and heat to 80C. Stir this solution slowly into I (saponification). The stirring process lasts at least 0.5 h at a temperature of 80C. Melt IV at 80C and gradually add it to the mixture. After cooling to 50C, V is reduced to approx. 40C and also stirred. VI is added at a temperature of 30C. The lost water is finally replaced. The shaving cream is mechanically homogenized once. The process is repeated after 24 h, after which packaging takes place.

Note: Max. pH 11

Formula No. D11-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shaving Cream

	<u>%W/W</u>
I Edenor K 1218	9.30
Edenor C14 92-94%	2.50
Siegert Stearin L4	12.60
II Sodium hydroxide	0.21
Potassium hydroxide	7.00
Henkel Glycerin 86% DAB 9	5.00
III Water	40.09
IV Siegert Stearin L4	12.60
Comperlan HS	1.50
Polywax 1550	5.20
V Texapon CS paste	3.00
VI Perfume	1.00

Preparation:

Melt I at 80C on the water bath. Dissolve II in III and heat to 80C. Stir the solution slowly into I (saponification). The stirring process lasts at least 0.5 h at a temperature of 80C. Melt IV at 80C and gradually add it to the mixture. After cooling to 50C, V is reduced to approx. 40C and also stirred. VI is added at a temperature of 30C. The lost water is finally replaced. The shaving cream is mechanically homogenized once. The process is repeated after 24 h, after which packaging takes place.

Note: Max. pH 11

Formula D11-02

Shaving Foam, Aerosol-Packed

	<u>%W/W</u>
I Shaving cream D11-02	20.0
Texapon TH	2.0
Aethoxal B	5.0
II 1,2-propylene glycol	5.0
Water	68.0

Preparation: Mix I, add to II and then homogenize mechanically.

Filling: 92 parts above mixture

8 parts propellant Frigen 12

Note: Max. pH 11

Formula No. D71-01

Shaving Foam, Aerosol-Packed

	<u>%W/W</u>
I Shaving cream D11-02	20.0
Texapon TH	2.0
Cetiol HE	5.0
II 1,2-propylene glycol	5.0
Water	68.0

Preparation: Mix I, add II and then homogenize mechanically.

Filling: 92 parts above mixture

8 parts propellant Frigen 12

Note: Max. pH 11

Formula D71-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Shaving Lotion for Use Before Electric Shaving

	<u>%W/W</u>
I Eutanol G	3.2
Isopropanol	66.8
Perfume	0.4
II Boric acid	0.2
Water	29.4
Formula No. D51-01	

Shaving Lotion for Use Before Electric Shaving

	<u>%W/W</u>
I Myritol 318	2.00
Isopropyl Myristate	3.00
Ethyl alcohol 96%	88.00
Perfume	1.00
II Lactic acid 80%	0.05
Water	5.95
Formula No. D51-02	

Shaving Lotion for Use After Shaving

	<u>%W/W</u>
I Cetiol HE	1.00
Eumulgin O5	1.00
Menthol	0.01
Ethyl alcohol 96%	50.00
Perfume	1.00
II Allantoin	0.20
Cremogen witch hazel extract	5.00
Water	41.79
Formula No. D51-03	

Shaving Lotion for Use After Shaving

	<u>%W/W</u>
I Cetiol HE	3.0
Ethyl alcohol 96%	70.0
Menthol	0.2
Camphor	0.2
Perfume	0.5
II Henkel Glycerin 86% DAB 9	5.0
Cremogen witch hazel extract	10.0
Boric acid	0.2
Water	10.9
Formula No. D51-04	

SSOURCE: Henkel KGaA: Cosmetic Model Formulae

Section XI
Soaps and Hand Cleaners

Ajinomoto Solid Bar AI-KK

<u>Ingredients:</u>	<u>Weight%</u>
Sodium N-Cocoyl, Tallowyl-L-Glutamate (Amisoft GS-11)	42.00
Sodium cocoylisethionate	42.00
Cetyl alcohol	7.00
Titanium dioxide	0.10
EDTA disodium salt	0.10
Deionized water	8.80

Procedure:

1. Dissolve cetyl alcohol and deionized water at 80 degrees Centigrade with stirring.
2. Add titanium dioxide and EDTA disodium salt and disperse thoroughly.
3. Add small amount of GS-11 (3g per 100g of water) to the mixture to emulsify at 80 degrees C, cool with continued stirring.
4. Add the mixture from step 3 to GS-11 and Sodium cocoyl-isethionate and mingle thoroughly.
5. Mill the mixture on a roller mill and then convert into a bar through an extruder.
6. Mold the bar in a stamping machine.

Ajinomoto Clear Soap with Amisoft
Formula TP-10

<u>Ingredients:</u>	<u>Wt%</u>
Soap Material*	41.2
Amisoft HS-21	5.0
Ethyl Alcohol	17.0
Glycerin	7.0
Sugar	12.0
Water	17.8

*Typical Ratio of Soap Material:

Sodium Laurate	7.75 wt%
Sodium Myristate	5.66
Sodium Palmitate	23.47
Sodium Stearate	39.81
Sodium Oleate	23.31

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Anti-Bacterial Handsoap
(Formula 91-1007)

	<u>% By Weight</u>
Rhodacal A246LX	10.0
Rhodapon L-22HNC	25.0
Mirataine CBS	3.5
Cheelox 100 (Dow)	0.2
Propylene Glycol	1.0
Alkamide LE	0.5
Ottasept Extra (Ferro)	1.0
Citric Acid	Q.S. to pH 5.5-6.5
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	0.05-0.50
Water	58.5

Blending Procedure:

Charge water into mixing vessel and slowly blend in Rhodacal A246LX, Rhodapon L-22HNC, Mirataine CBS, and Cheelox 100. Mix until completely uniform. In a separate mixing vessel, combine Propylene Glycol, Alkamide LE and Ottasept Extra. With gentle heat, mix until uniform. With smooth agitation, slowly blend this mixture into main system. Once system is uniform, adjust pH to 5.5-6.5 with Citric Acid as needed and then blend in compatible Fragrance, Dye(s), and Preservative. Adjust the formulation viscosity to 7,000-10,000 cps with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C:	Clear, Viscous Liquid
% Non Volatiles:	15-17
pH:	5.5-6.5
Viscosity @ 25C:	7,000-10,000 cps
Active Ingredient:	Chloroxylenol

Emollient Hand Cleaner

(Formula 91-1006)

"Cold Process Formula"

	<u>% by Weight</u>
Rhodapon L-22HNC	35.0
Mirapol 550	0.5
Mirasheen 202	8.0
Fragrance, Dye(s), Preservative	Q.S.
Citric Acid	Q.S. to pH 5.5-6.5
Sodium Chloride	0.2-1.0
Water	56.0

Blending Procedure: Charge water into mixing vessel. With smooth agitation, slowly blend in Rhodapon L-22HNC and Mirapol 550. Mix until completely uniform. With smooth agitation, slowly blend in Mirasheen 202. Mix until uniform. Add compatible Fragrance, Dye(s), and Preservative. Adjust formulation pH to 5.5-6.5 with Citric Acid as needed. Adjust formulation viscosity to 4,000-6,000 cps (No. 4 spindle @ 10 RPM) with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C:	Opaque/Pearlescent Liquid
pH:	5.5-6.5
% Non Volatiles:	13-15

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Conditioning Cleansing Bar
(Formula 91-1104)

This combo bar combines the cleaning and foaming of a soap bar with the mildness and hard water compatibility of a synthetic detergent bar. Additionally, it incorporates the skin conditioning properties of quaternized guar. Use of this bar with its emollients, moisturizers and conditioners leaves the skin feeling soft and smooth. The bar has been specially formulated to give a non-alkaline pH to more nearly match the skin's natural pH.

	<u>% by Weight</u>
Step A:	
Geroon AS-200	76.0
80/20 Bradpride Soap Base (Original Bradford Soap Works)	7.0
Stearic Acid, Triple Pressed	Q.S.
Nadex 360 (National Starch)	0.2
Jaguar C-162	1.0
Titanium Dioxide	0.2
Step B:	
Water	4.2
Sodium Chloride	0.5
Step C:	
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure:

- Step A:** Blend the dry components (Geroon AS-200, Soap Base, Stearic Acid, Nadex 360, Jaguar C-162, Titanium Dioxide) in a powder mixer.
- Step B:** Dissolve the Sodium Chloride and any other water soluble components in the water. Add uniformly to Step A to avoid wet spots.
- Step C:** Finally, add the fragrance evenly to Steps A and B.
- Step D:** When the batch has been uniformly mixed, mill and/or refine until batch is homogeneous. Extrude and stamp into bars.

Typical Formulation Properties:

Appearance:	Opaque Bar
pH (5% dispersion):	6.5-7.0

CTFA Identification: Sodium Cocoyl Isethionate, Stearic Acid, Sodium Tallowate, Water, Dextrin, Sodium Cocoate and/or Sodium Palm Kernalate, Hydroxypropyl Guar Hydroxypropyltrimonium Chloride, Sodium Chloride, Titanium Dioxide, Fragrance, Preservative, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Conditioning Hand CleanserIngredients:

	<u>%w/w</u>
Phase A:	
Tetrasodium EDTA	0.10
Water	52.65
Cocamidopropyl Amine Oxide (Tegamine Oxide WS 35)	5.00
Sodium Laureth Sulfate (30%)	25.00
Sodium Lauryl Sulfate (30%)	10.00
PEG-20 Glyceryl Isostearate (Tagat 12)	0.50
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
*Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Citric Acid (25% Solution)	to pH 6.5
Phase B:	
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.50
Cocamidopropyl Betaine (Tego Betaine L-7 or F)	5.00
Phase C:	
Sodium Chloride (25% Solution)	As Needed for Viscosity

Procedure:

1. Add the ingredients in order. Mix until uniform.
2. Adjust pH with the Citric Acid.
3. Add the PEG-18 Glyceryl Oleate/Cocoate. Mix until dispersed. Viscosity will increase.
4. Add the cocamidopropyl betaine.
5. Adjust viscosity with the salt.

Note: ALES/ALS can be substituted for the SLES/SLS

*Optional: Plant extracts can be substituted for the Lactil.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Emollient Liquid Hand Soap

	<u>Weight, %</u>
Ammonium Lauryl Sulfate (30%)	40.0
Mackanate LA	20.0
Mackalene 426	6.0
Mackamide CMA	2.0
Mackernium 007	1.2
Mackester EGDS	1.0
Sodium Chloride	0.8
Paragon Preservative	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add the first seven components to water and heat to 70C.
2. Blend until completely homogeneous.
3. Cool to 50C. and add Paragon preservative, fragrance and dye.
4. Adjust ph to 5.5-6.5 with citric acid.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Cream Soap

<u>Ingredients:</u>	<u>Wt%</u>
Amiter LGS-5 (Disteareth-5 Lauroyl Glutamate)	2.0
Pyroter CPI-40 (PEG-40 Hydrogenated Castor Oil PCA Isostearate)	4.0
Emalex 6300 M-ST (PEG-150 Monostearate)	3.0
Emalex 6300 DI-ST (PEG-150 Distearate)	1.0
Ajidew N-50 (Sodium PCA)	5.0
1,3-Butylene Glycol	19.0
Cocoamide DEA	5.0
Sodium Tetradecene Sulfonate: AOS	3.0
Sodium Cocoyl Sarcosinate (30%)	2.0
Amisoft LS-11 (Sodium Lauroyl Glutamate)	36.0
Water	20.0

Specifications:

pH: 5.0
Vis: 2500 cps

This cream soap has a pearlescent appearance, soft touch and good foaming characteristics.

Formula H-046

Cream Soap

<u>Ingredients/Trade Name:</u>	<u>% Weight</u>
Sodium Lauryl Glutamate/Amisoft LS-11	15.00
Sodium Stearate	17.00
Sodium Laurate	7.00
Glycerin	24.00
Polyoxyethylene Sorbitan Monoaurate (20 E.O.)	5.00
Water	qs

Crystallization Temp: 46 degrees Centigrade
pH: 8.6 (5% aq. solution, 25 degrees Centigrade)

Formula AS-354-G

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Cream Soap
(No. H-046)

<u>Ingredients:</u>	<u>Wt%</u>
Amiter LGS-5 (Disteareth-5 Lauroyl Glutamate)	2.0
Pyroter CPI-40 (PEG-40 Hydrogenated Castor Oil PCA Isostearate)	4.0
Emalex 6300 M-ST (PEG-150 Monostearate)	3.0
Emalex 6300 DI-ST (PEG-150 Distearate)	1.0
Ajidew N-50 (Sodium PCA)	5.0
1,3-Butyleneglycol	19.0
Cocamide DEA	5.0
Sodium Tetradecene Sulfonate: AOS	3.0
Sodium Cocoyl Sarcosinate (30%)	2.0
Amisoft LS-11 (Sodium Lauroyl Glutamate)	36.0
Water	20.0

Specifications:

pH: 5.0

Viscosity: 2500 cps

This cream soap has a pearlescent appearance, soft touch and good foaming characteristics.

Bar Soap

<u>Ingredients:</u>	<u>Wt%</u>
Amisoft GS-11 (Sodium Hydrogenated Tallow Glutamate & Sodium Cocoyl Glutamate)	84.0
Water	8.8
Cetyl Alcohol	7.0
Titanium Dioxide	0.1
Disodium EDTA	0.1

Cream Soap

<u>Ingredients/Trade Name:</u>	<u>% Weight</u>
Sodium Lauryl Glutamate/Amisoft LS-11	15.00
Sodium Stearate	17.00
Sodium Laurate	7.00
Glycerin	24.00
Polyoxyethylene Sorbitan Monolaurate (20 E.O.)	5.00
Water	qs

Crystallization Temp 46, degrees Centigrade

pH: 8.6 (5% aq. solution, 25 degrees Centigrade)

Formula AS-354-G

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Emollient Hand Cleanser

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Water	47.00
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (30%)	30.00
Sodium Lauryl Sulfate (30%)	10.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
*Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
PEG-30 Glyceryl Laurate	0.25
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Citric Acid (25% Solution)	to pH 6.5
Phase B:	
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.40
Cocamidopropyl Betaine (and) Glyceryl Laurate (Tego Betaine HS)	10.00

Phase C:
Sodium Chloride (25% Solution) As Needed for Viscosity

Procedure:

1. Add the ingredients in order. Mix until uniform.
2. Adjust pH with the Citric Acid.
3. Add the PEG-18 Glyceryl Oleate/Cocoate. Mix until dispersed. Viscosity will increase.
4. Add the Tego Betaine HS.
5. Adjust viscosity with the salt.

Note: ALES/ALS can be substituted for the SLES/SLS.

*Optional - plant extracts can be substituted for the Lactil.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Clear Emollient Hand Soap

	<u>Weight, %</u>
TEA Lauryl Sulfate (40%)	35.0
Mackam 35HP	10.0
Mackalene 426	6.0
Mackstat DM	q.s.
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add components to water and heat to 40C.
2. Blend until clear.
3. Adjust pH to 5.0-6.0 with citric acid.
4. Cool and fill.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Liquid Soap
Clear, 11.2% active ingredient

Recipe:

A	Genapol LRO liquid	35.00%
	Sodium Laureth Sulfate	
B	Perfume	0.20%
	Cetiol HE	1.00%
	PEG-7 Glyceryl Cocoate	
	Water	55.30%
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genapol L-3	2.00%
	Laureth-3	
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
C	Sodium chloride	0.50%

Procedure:

I One after another the components of B are added to A.

II If necessary adjust the pH.

III Finally adjust the viscosity with C.

Formula A II/1027

Liquid Soap
With pearl lustre effect, 14.6% active ingredient

Recipe:

A	Hostapon SCID	4.00%
	Sodium Cocoyl Isethionate	
B	Water	53.90%
C	Genapol ZRO liquid	30.00%
	Sodium Laureth Sulfate	
	Perfume	0.30%
	Genapol PGL	4.00%
	Glycol Distearate (and) Cocamide MEA and PPG-4 Deceth-4	
	Dyestuff solution	q.s.
	Preservative	q.s.
	Genagen CAB	6.00%
	Cocamidopropyl Betaine	
D	Sodium chloride	1.80%

Procedure:

I Dissolve A in B at 60C.

II One after another the components of C are added to I at 35C.

III If necessary adjust the pH.

IV Finally adjust the viscosity with D.

Formula A II/1033

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Liquid Soap

Clear, slightly yellow gel.

Material/CTFA-Index:

Hoe S 3267/Cocamidopropyl Betaine	16.00%
Water	41.20
Water	37.30
Genagen CA 050	2.00
Sodium Chloride	2.00
Belsil DMC 6031/Dimethicone Copolyol	0.50
Preservatives, pigments, fragrances	q.s.

Dissolve HOE S 3267 in water, mix in the remaining components.

Temperature stability: at 45C over 10 weeks.

Formulation 230 AH

Liquid Soap

Clear, high-viscosity gel with good foaming effect.

Material/CTFA-Index:

A: Water	77.00%
Tylose H 4000 P/Hydroxyethylcellulose	1.00
B: Wacker-Belsil DMC 6038/Dimethicone Copolyol	3.00
C: Comperlan KD/Cocamide DEA	3.00
Texapon NA/Ammonium Laureth Sulfate	16.00
Preservatives, pigments, fragrances	q.s.

Mix A, add B, stir C into AB

Formula 1067 AH

SOURCE: Wacker Silicone: Suggested Formulations

Liquid Waterless Hand Cleaner

<u>Ingredients:</u>	<u>% by Weight</u>
A. Veegum	2.00
Water	73.00
B. Glycerin	4.00
Tergitol NP-10	3.00
AMP-Regular	0.50
C. Deodorized kerosene	10.00
Oleic acid	1.50
Arlacel 186	5.00
Clearlan	1.00
Preservative	q.s.

Procedure:

Slowly add Veegum to the water while agitating at maximum available shear. Continue mixing until smooth. Add B to A and heat to 50C. Add C to A/B. Mix until uniform. Add desired preservative.

Consistency: Pourable liquid

Suggested Packaging: Pump dispenser

Comments:

Veegum stabilizes and thickens this liquid emulsion. In this formulation, glycerin serves as a humectant while the lanolin helps prevent defatting of the skin.

Formulation PF-0125 suggested by R.T. Vanderbilt Co., Inc.

Liquid Soap

<u>Ingredients:</u>	<u>% by Weight</u>
Ammonium laureth sulfate, 60%	24.00
Cocamidopropyl betaine	6.00
Stearamidopropyl dimethylamine	1.50
Sodium chloride	1.30
Glycol distearate	1.00
Citric acid	0.25
Methylparaben	0.15
Propylparaben	0.05
Bronopol	0.05
Water, color, fragrance	q.s. to 100.00

Procedure:

Heat water to 70-75C. Add all ingredients except fragrance and Bronopol. Mix until homogeneous. Cool and add Bronopol and fragrance and fill.

Formulation PF-0130 from Cosmetics and Toiletries, Vol 101, July 1986

SOURCE: Angus Chemical Co.: Angus Product Formulary

Lotion Hand Cleaner with Abrasive and Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	39.55
2. Bio-Terge AS-40	25.00
3. Methylparaben	0.15
Part B:	
4. Ritasynt IP	4.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	1.00
Part C:	
7. Ritavena 5	2.00
8. Distilled Water (100C)	20.00
Part D:	
9. Walnut Shells (AD-7B Type from Agrashell, Inc.)	5.00
Part E:	
10. NaCl (25% Solution)	QS
11. Kathon CG	0.10
12. Triethanolamine (50% Solution)	0.15
13. Perfume	0.05

Compounding Procedure:

Heat Parts A and B to 165F. Combine with impeller agitation. Premix Part C in a blender for 2 minutes. Add Parts C and D to AB mixture. Mix until uniform. Cool to 120F. Add Part E. Adjust pH to 6.0 with Triethanolamine (50% Solution). Adjust viscosity with NaCl (25% Solution).

Formula 114-25

Lotion Hand Cleaner with Abrasive and Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	40.10
2. Bio-Terge AS-40	25.00
3. Methylparaben	0.15
Part B:	
4. Ritasynt IP	4.00
5. Pationic ISL	3.00
6. Ritapeg 150 DS	0.50
Part C:	
7. Ritavena 5	2.00
8. Distilled Water (100C)	20.00
Part D:	
9. Walnut Shells (AD-7B Type from Agrashell, Inc.)	5.00
Part E:	
10. NaCl (25% Solution)	QS
11. Kathon CG	0.05
12. Triethanolamine (50% Solution)	0.15
13. Perfume	0.05

Compounding Procedure:

Heat Parts A and B to 165F. Combine. Premix Part C in a blender for 2 minutes. Add Parts C and D to AB mixture. Mix until uniform. Cool to 120F. Add Part E. Adjust pH to 6.0 with Triethanolamine (50% Solution). Adjust viscosity with NaCl (25% Solution).

Formula 114-35

SOURCE: R.I.T.A. Corp.: RITAVENA 5 Suggested Formulations

Shebu Bar Soap

A Shebu beauty bar which combats dryness and leaves a luxurious after-feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
Base: Palm Coco		Soap Base
Color: Yellow	q.s.	Color
Fragrance: Alpine Floralistic	0.75%	Odor
Addit: Shebu Refined (Shea Butter)	0.75%	Emolliency
Pationic 138C (Sodium Lauroyl Lactylate)	0.50%	Mildness
Pationic ISL (Sodium Isostearoyl Lactylate)	0.50%	Moisturization
TiO ₂	0.50%	Opacifier

Ref. No.: 117-65A

Shebu Glycerine Bar Soap

For sensitive skin with pure natural glycerine and Shebu. Leaves your skin soft and clean without feeling tight or dry.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
Base: Veg. Translucent		Soap Base
Color: Gold	q.s.	Color
Fragrance: Alpine Floralistic	100%	Odor
Addit: Pationic 138C (Sodium Lauroyl Lactylate)	0.50%	Mildness
Pationic ISL (Sodium Isostearoyl Lactylate)	0.50%	Moisturization
Shebu WS (PEG-50 Shea Butter)	1.00%	Emolliency

Ref. No.: 117-65B

Soap Base Beauty Bar

A high foaming beauty bar which combats dryness and leaves a luxurious after-feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Soap Base 80/20 Tallow/Coco	94.00	Cleaning, Lather
2. Versenex 80 (Pentasodium Pentetate)	q.s.	Caking
3. Turpinal 4NL (Tetrasodium Etidronate)	q.s.	Caking
4. Fragrance Oil D-79-531	1.00	Odor
5. Rita PEO-1 (PEG-5M)	1.50	Slip, Feel
6. Pationic ISL (Na Isostearoyl Lactylate)	3.00	Mildness, Lather
7. Titanium Dioxide	0.50	Opacity

Compounding Procedure:

Pre-mix fragrance into Pationic ISL. Combine other materials until uniform. Add the Pationic ISL/fragrance mixture and continue blending until uniform. pH: 10.0-10.5
Ref. No.: H-89-P-10

SOURCE: R.I.T.A. Corp.: Shower/Bath Care

Shebu Bar Soap

A Shebu beauty bar which combats dryness and leaves a luxurious after-feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
Base: Palm Coco		Soap Base
Color: Yellow	q. s.	Color
Fragrance: Alpine Floralistic	0.75	Odor
Addit: Shebu Refined (Shea Butter)	0.75	Emolliency
Patonic 138C (Sodium Lauroyl Lactylate)	0.50	Mildness
Patonic ISL (Sodium Isostearoyl Lactylate)	0.50	Moisturization
TiO ₂	0.50	Opacifier

Ref. No. 117-65A

Shebu Glycerine Bar Soap

For sensitive skin with pure natural glycerine and Shebu. Leaves your skin soft and clean without feeling tight or dry.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
Base: Veg. Translucent		Soap Base
Color: Gold	q. s.	Color
Fragrance: Alpine Floralistic	100.00	Odor
Addit: Patonic 138C (Sodium Lauroyl Lactylate)	0.50	Mildness
Patonic ISL (Sodium Isostearoyl Lactylate)	0.50	Moisturization
Shebu WS (PEG-50 Shea Butter)	1.00	Emolliency

Ref. No. 117-65B

SOURCE: R.I.T.A. Corp.: Bath & Shower Care

Synthetic Detergent (SYNDET) Cleansing Bar

This mild, synthetic detergent bar gently cleans and provides copious, luxurious lather, leaving a smooth after-feel on the skin. Veegum F, micronized Magnesium Aluminum Silicate, reduces softening of the bar in the soap dish after use. Vanseal LS, lauroyl sarcosine, when melted, acts as a solvent for the stearic acid and sodium cocoyl isethionate. Vanlube PCX, BHT is used as an antioxidant.

<u>Ingredient:</u>	<u>% by Weight*</u>
A: Vanseal LS, Lauroyl Sarcosine	32.63
Stearic Acid	32.64
Sodium Cocoyl Isethionate	32.63
B: Veegum F, Magnesium Aluminum Silicate	2.00
Vanlube PCX, BHT	0.10
Sodium Hydroxide Solution to pH 6.5	q.s.
Preservative, Dye, Fragrance	q.s.

*As Received Basis

Mixing Procedure:

Heat Vanseal LS to 50C. Add stearic acid and stir gently until the mixture is clear. Add sodium cocoyl isethionate and mix until smooth and uniform. Maintain the temperature between 50 and 60C. Add part B ingredients in the order shown, mixing each until smooth and uniform. Pour the mixture into warm (50C) soap molds and cool to room temperature.

SOURCE; R.T. Vanderbilt Co., Inc.: Formula No. 455

Cream Hand Cleanser

	<u>Weight, %</u>
Mackanate LO-Special	78.0
Glycerine	5.0
Mackamide PKM	4.0
Mackernium 007	2.0
Mackstat DM	q.s.
Water, Fragrance qs to	100.0

Procedure:

1. Add Mackamide PKM and glycerine to Mackanate LO-Special and heat to 70C.
2. Blend until homogeneous.
3. Dissolve Mackernium 007 in remaining water and slowly add to product.
4. Blend until completely homogeneous.
5. Cool to 50C with mild agitation.
6. Add Mackstat DM, fragrance and cool with continuous agitation.

SOURCE: McIntyre Group Ltd.: Suggested Formulation

Waterless Hand Cleaner

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	62.45	Diluent
Tween 80 (1)	0.40	Surfactant
Glycerin	4.00	Humectant
Disodium EDTA	0.05	Chelating Agent
Part B:		
Odorless Mineral Spirits	30.00	Solvent
Finsolv TN (2)	1.00	Emollient
Acetulan (3)	0.50	Emollient
Pemulen TR-2 (4)	0.30	Emulsifier
Carbopol 954 (5)	0.20	Thickener
Part C:		
Triethanolamine, 99%	0.40	Neutralizing Agent
Part D:		
Germaben IIE (6)	0.70	Preservative
(1) Polysorbate 80 (ICI Americas)		
(2) C12-C15 Alcohols Benzoate (Finetex)		
(3) Cetyl Acetate (and) Acetylated Lanolin Alcohol (Amerchol)		
(4) Acrylates/C10-C30 Alkyl Acrylate Crosspolymer (BFGoodrich)		
(5) Carbomer (BFGoodrich)		
(6) Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (Sutton Labs)		

Preparation Procedure:

- 1) Prepare Part A in a vessel which will contain the entire formulation.
- 2) Prepare Part B in a separate vessel. Pemulen and Carbopol should be slurried in this phase.
- 3) Add Part B to the Part A vessel. Mix for 15-20 minutes.
- 4) Add Part C and mix vigorously to produce a smooth product.
- 5) Mix Part D into emulsion. Cease agitation and fill containers.

SOURCE: BF Goodrich Co.: Formula P0002

Section XII
Sun Care Products

After Sun Lotion

White creamy lotion. Easily spread.

Material/CTFA-Index:

A: Mineral oil, low viscosity	5.00%
Stearic Acid	5.00
Cetyl Alcohol	1.50
B: Water	67.20
Allantoin/5-Ureido-hydantoin	0.50
Triethanolamine	0.80
C: Propylene Glycol	3.00
Belsil PDM 20/Phenyl Dimethicone	2.00
D: Belsil CM 1000/Cyclomethicone(a.) Dimethiconol	15.00
Preservatives, perfume, pigments	q.s.

Heat A and B to 65C. Add A to B with stirring. Add C and stir until cool, add D at approx. 30-40C.

Temperature stability: at 45C more than 10 weeks.

Formulation 606 AH

Sun Tan Cream

Soft, white cream, well absorbed.

Material/CTFA-Index:

A: Crodawachs GP 200/Stearyl Alcohol(a.) PEG Stearate	3.80%
Teginacid/Glyceryl Stearate(a.) Ceteareth-20	5.00
Belsil PDM 1000/Phenyl Dimethicone	3.50
Eusolex 6300	2.50
Eusolex 8020	1.50
B: Water	73.70
C: Belsil CM 1000/Cyclomethicone(a.) Dimethiconol	10.00
Preservatives, perfumes, pigments	q.s.

Heat A and B to 70C. Stir into B and add C.

Temperature stability: 3 weeks at 45C.

Formulation 578 AH

Sun Tan Oil

Colourless, clear, low viscosity

Material/CTFA-Index:

A: Belsil CM 025/Cyclomethicone	10.00%
Isopropyl Myristate	10.00
Mineral oil	77.00
Parsol MCX/Octyl Methoxycinnamate	3.00
Preservatives, pigments, fragrances	q.s.

Mix A, add Parsol MCX and mix.

Temperature stability: at 45C over 10 weeks.

Formulation 197 AH

SOURCE: Wacker Silicone: Suggested Formulations

After-Sun-MilkRecipe:

A	Hostaphat KL 340 N	1.50%
	Trilaureth-4 Phosphate	
	Hostacerin DGS	4.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	3.00%
	Isopropyl palmitate	3.00%
	Cetiol SN	3.00%
	Cetearyl Isononanoate	
	Jojoba oil	3.00%
	Walnut oil	3.00%
	D-Panthenol	1.00%
	B-Carotin	q.s.
	Antioxidant	q.s.
B	Carbopol 980	0.40%
	Carbomer	
C	Allantoin	0.20%
	Aquamollin BC pdr.h.c.	0.10%
	Ethylenediamine Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Glycerine	3.00%
	NaOH (10% in water)	1.60%
	Water	67.15%
	Preservative	q.s.
D	Collagen KD	3.00%
	Ethanol	1.50%
	Perfume	0.30%

Procedure:

- I Melt A at 70C, then add B.
- II Heat C to 70C.
- III Stir II into I.
- IV Stir until cool.
- V At 35C add the components of D to IV.
- VI Homogenize if necessary.

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries:
Formula A VI/3016

After Sun Milk

<u>Ingredients:</u>	<u>Parts by Weight</u>
Part A-Oil Phase:	
Egg yolk extract (Tensami 8/09)	100.00
Refined avocado oil	20.00
Calendula extract	0.10
Tocopherol	0.10
Part B-Water Phase:	
Deionized water	SQF1000
Lecithin-xanthan gum (Tensami 1/05)	7.00
Calendula extract	20.00
270 Solarium HS	30.00
Amigel in aqueous solution at 2%	250.00
Part C:	
Isopropyl myristate	30.00
Carbomer 940 (Carbopol 940)	2.00
Part D:	
Bronopol	0.60
Myacide SP	0.50
Part E:	
Perfume	2.00

Procedure:

Prepare A and B phases (do not heat). Add phase A to phase B. While agitating, add phase C and then the ingredients of phase D one by one. Add phase E. Balance the pH around 6.5-7.0. Formulation PF-0275E suggested in Soap, Perfumery, Cosmetics; October, 1993 issue.

Moisturizing Hydrogel with B-Glucan

This product is used after exposure to the sun to regain the moisture lost by the skin. Healing and moisturizing are two of its unique properties which B-Glucan has on inflamed skin (sunburn). Bees milk places a protective barrier over the skin to prevent moisture loss.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Carbomer 940, 2%	54.00
Glycosome	3.70
APT	3.50
Ginkgo extract	2.00
Aloe vera gel	5.00
Polyquaternary spearmint extract	4.00
Firming liposome	3.00
Phenonip	0.70
Tris Amino	3.20
B. Deionized water	13.40
Methylparaben	0.40
Disodium EDTA	0.08
C. B-Glucan, 70%	0.02
D. Bees milk	7.00

Procedure:

Add A under agitation. Heat B to 80C. At 80C, add C; mix well. Cool BC to 30C, add to A under agitation. Slowly add D to ABC; mixing until homogeneous.

Formulation PF-0326 suggested by Koster Keunen

SOURCE: Angus Chemical Co.; Angus Product Formulary

Dry Touch Physical Sunscreen

This formula is not an emulsion but rather a suspension of several water-insoluble ingredients in water. Veegum Plus prevents these ingredients from settling and/or separating. The physical sunscreen used is micronized Titanium Dioxide. This formula also contains liposomes with a payload of the well-known moisturizing agents Sodium PCA and amino acids. A silicone oil dispersion is also included to enhance application properties. The formula contains no emulsifying agents.

<u>Ingredient:</u>	<u>% by wt.*</u>
A: Deionized Water	59.70
Veegum Plus (Magnesium Aluminum Silicate (and) Cellulose Gum)	1.50
Rhodigel (Xanthan Gum)	0.20
B: Glycerin (and) Titanium Dioxide**	28.60
C: Deionized Water (and) Phenyl Trimethicone (and) Cyclomethicone (and) Dimethiconol (and) Phospho- lipids (and) Phenoxyethanol (and) Methylparaben (and) Carbomer (and) Triethanolamine (and) Ethyl- paraben (and) Propylparaben (and) Butylparaben***	5.00
D: Preservative	q.s.
E: Deionized Water (and) Sodium PCA (and) Phospholipids (and) Phenoxyethanol (and) Tocopheryl Acetate (and) Xanthan Gum (and) Arginine (and) Lysine (and) Glycine (and) Methylparaben (and) Proline (and) Ethylparaben (and) Propylparaben (and) Butylparaben****	5.00

*As Received Basis

**TiO₂ Sperse GLY

***Satin Finish

****Moisturizing Liposomes

Mixing Procedure:

Weigh and dry blend the Veegum Plus and Rhodigel. Add the blend to the Part A water at room temperature, mixing with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 10 minutes at 1800 rpm. Add Parts C and D to the batch in the order shown. Mix Part C for 10 minutes at 1800 rpm before adding Part D. Mix Part D 5 minutes at the same speed. Slow the mixer to 500 rpm and add Part E. Mix 5 minutes and package.

Product Characteristics:

Viscosity: 1300-1700 cps (Brookfield Model LVT, #3 @ 60 rpm)
pH: 7.5-7.8

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 484

High SPF Sunscreen Cream

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	73.37	Diluent
Glycerin	2.50	Humectant
Disodium EDTA	0.03	Chelating Agent
Part B:		
Octyl Methoxy Cinnamate	7.50	UVB Absorber
Octyl Salicylate	5.00	UVB Absorber
Oxybenzone	5.00	UVA Absorber
C12-C15 Alcohols Benzoate (1)	4.00	Emollient/Solvent
Sorbitan Oleate	0.30	Surfactant
Pemulen TR-1 (2)	0.30	Emulsifier
Carbopol 980 (3)	0.50	Thickener
Part C:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (4)	0.80	Preservative
Part D:		
Triethanolamine (99%)	0.70	Neutralizing Agent

(1) Finsolv TN (Finetex)

(2) Acrylates/C10-C30 Alkyl Acrylate Crosspolymer (BFGoodrich)

(3) Carbomer (BFGoodrich)

(4) Germaben IIE (Sutton)

Preparation:

1. Combine Part A ingredients. Mix until homogeneous.
2. Combine first five Part B ingredients in a separate vessel. Mix until oxybenzone has dissolved. Warming will hasten dissolution.
3. Add Pemulen TR-1 and Carbopol 980 to Part B vessel. Mix to break-up any soft agglomerates of powder.
4. With moderate agitation, add Part B to Part A. Mix for 30-40 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C.
5. Add Part D and mix vigorously until a smooth, lustrous product is obtained.

Formula 700-213-8C

SOURCE: BFGoodrich Co.: Waterproof Sunscreen Emulsions

Low Solids Highly Emollient Suntan Lotion

Lipid layer related attributes from Ritaderm and low viscosity rheology from Acritamer gives a lubricious, low solids, broad spectrum UV sunscreen.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	76.10	----
2. Acritamer 941 (Carbomer 941)	0.10	Rheology, Stabilizer
3. Rita IPM (Isopropyl Myristate)	5.00	Emollient
4. Ritaderm (R.I.T.A. Blend)	5.00	Moisturizing
5. Ritalan (Lanolin Oil)	1.00	Emollient
6. Ritacetyl (Acetylated Lanolin)	2.50	Emollient
7. Rita CA (Cetyl Alcohol)	0.70	Emulsifier
8. Rita GMS (Glyceryl Monostearate)	1.50	Emulsifier
9. Rita Stearic Acid	2.00	Emulsifier
10. Mineral Oil	2.00	Emollient
11. Octyl Dimethyl PABA	2.50	Sunscreen
12. Triethanolamine (50%)	1.60	Neutralizer
13. Fragrance	q.s.	Odor

Compounding Procedure:

Disperse 2 into 1 and hydrate 15 minutes. Heat to 165F. Separately combine items 3-11 and heat to 165F. Mix until uniform. Combine phases with mixing. Neutralize with 12. Cool with mixing to 120F. Add preservative and fragrance. Cool and package.

Ref. No. 118-13

Sun CareDIN Standard Reference(USFDA Tentative Final Monograph)

Reference standard used in FDA Monograph as standard.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	83.90	----
2. Acritamer 934 (Carbomer 934)	0.10	Stabilizer, Rheology
3. Glycerine	3.40	Emollient
4. Methylparaben	0.10	Preservative
5. Propylene Glycol	1.00	Emollient
6. Mineral Oil	5.00	Emollient
7. Rita Stearic Acid	1.50	Emulsifier
8. Rita Cetearyl Alcohol	0.40	Emulsifier
9. Propylparaben	0.10	Preservative
10. P-Methoxy-Cinnamic Acid-2-Ethyl-hexyl Ester	2.70	Sunscreen
11. Triethanolamine (99% Soln.)	1.80	Neutralizer

Compounding Procedure:

Disperse 2 into 1 and hydrate 15 minutes with mixing. Add 3-5. Heat to 165F. Separately combine 6-10 and heat to 165F. Mix well. Combine into aqueous phase. Neutralize with mixing and cool.

Ref. No. 118-66

SOURCE: R.I.T.A. Corp.: Sun Care Manual

Nourishing UVB Gel Sunscreen

Basic gelled formulation with aqueous UVB sunscreens. Skin nourishment and anti-irritancy.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Acritamer 940 (Carbomer 940)	1.00	Gelling Agent
2. Distilled/Deionized Water	74.90	----
3. Ritapan D (d-Panthenol)	0.20	Conditioner
4. DEA Methoxy Cinnamate	3.00	Sunscreen
5. SD Alcohol (Ethanol @ 95%)	10.00	Solvent/ Solubilizer
6. Ritachol (Mineral Oil and Lanolin Alcohol)	8.00	Emollient
7. Pationic ISL (Sodium Isostearoyl Lactylate)	0.50	Solubilizer
8. Preservative	q.s.	Preservative
9. Fragrance	q.s.	Odor
10. NaOH (18% Soln.)	2.40	Neutralizer

Compounding Procedure:

Prepare Carbomer gel by dispersing item 1 into item 2 with agitation. Neutralize with item 10. Separately combine items 3, 4 and 5 and mix until dissolved and uniform. Add to Carbomer gel with low shear mixing, then add item 6. Solubilize fragrance (9) with (7), add to Carbomer gel. Preserve and package. Ref. No. 118-152

Bain de Soleil Type Orange Gelee'

Broad spectrum UV protection in a non-greasy waterproof gel type formula based on Ritaplast. Product has high body gloss.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritaplast - 50W	68.00	Film Former
2. Rita IPM (Isopropyl Myristate)	28.00	Emollient
3. Propylparaben	0.08	Preservative
4. Menthyl Anthranilate	2.92	Sunscreen
5. Ritaphenone-3 (Benzophenone-3)	1.00	Sunscreen

Compounding Procedure:

Dissolve item 3 into a portion of item 1. Dilute item 2 into remaining item 1. Add likewise items 4 and 5 with mild stirring. Add blend 3/1, until uniform, and package.

Ref. No. 118-146

SOURCE: R.I.T.A. Corp.: Sun Care Manual

O/W-Sun-Screen-Milk
Manufacturing at room temperature

Recipe:

A	Hostaphat KL 340 N	3.00%
	Trilaureth-4 Phosphate	
	Mineral oil, high viscosity	10.00%
	Isopropyl palmitate	5.00%
B	Neo-Heliopan E 1000	8.50%
	Isoamyl p-Methoxycinnamate	
	Neo-Heliopan BB	8.50%
	Benzophenone-3	
C	Carbopol 980	0.50%
	Carbomer	
D	Glycerine	3.00%
	NaOH (10% in water)	1.65%
	Water	66.65%
	Preservative	q.s.
E	Perfume	0.30%

Procedure:

I Add the solution of B to A, then add C.

II Stir E into I, then add E.

III Homogenize if necessary.

Formula A VI/7007

O/W-Sun-Screen-Milk

Recipe:

A	Hostacerin DGL	1.00%
	Polyglyceryl-2 PEG-10 Laurate	
	Hostacerin DGS	4.00%
	Polyglyceryl-2 PEG-4 Stearate	
	Mineral oil, high viscosity	6.00%
	Avocado oil	1.00%
	Neo-Heliopan E 1000	9.00%
	Isoamyl p-Methoxycinnamate	
	Neo-Heliopan BB	1.00%
	Benzophenone-3	
	Antioxydant	q.s.
B	PNC 400	0.30%
	Polyacrylic Acid-Sodium Salt	
C	Aquamollin BC pdr.h.c.	0.10%
	Ethylene Tetraacetic Acid-Sodium Salt	
	Citric acid (10% in water)	0.25%
	Water	77.05%
	Preservative	q.s.
D	Perfume	0.30%

Procedure:

I Melt A at 70C, then add B. II Heat C to 70C.

III Stir II into I. IV Stir until cool.

V At 35C add D to IV. VI Homogenize if necessary.

Formula A VI/7200

SOURCE: Hoechst: Guide Formulations for Cosmetics & Toiletries

Sprayable Sunscreen

This light sunscreen applies quickly and spreads easily. It gives an approximate waterproof SPF of 15.

<u>Ingredient (CTFA):</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	79.20	Diluent
Glycerin	3.00	Humectant
Triethanolamine, 99%	0.12	Neutralizing Agent
Part B:		
Octyl Methoxy Cinnamate	7.00	UVB Absorber
Octyl Salicylate	3.00	UVB Absorber
Oxybenzone	2.00	UVA Absorber
C12-15 Alcohols Benzoate (1)	4.00	Emollient/Solvent
Oleth-10 (2)	0.08	P.S. Reduction
Sorbitan Oleate (3)	0.05	P.S. Reduction
Dimethicone, 100 cs.	0.50	Lubricant
Pemulen TR-2 (4)	0.15	Emulsifier/ Stabilizer
Part C:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (5)	0.80	Preservative
Disodium EDTA	0.10	Chelating Agent/ Viscosity Adjustment

- (1) Finsolv TN (Finetex)
 (2) Procol OA-10 (Protameen Chemicals), Brij 96 (ICI)
 (3) Protachem SMO (Protameen Chemicals), Span 80 (ICI)
 (4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
 (5) Germaben IIE (Sutton Laboratories)

Preparation:

1. Combine Part A ingredients in a vessel which will contain the entire formulation.
2. In a separate vessel, combine all Part B ingredients except dimethicone and Pemulen. Heat to 45-50C to hasten dissolution of oxybenzone. Discontinue heating and add Pemulen. Mix to obtain a smooth dispersion. Add dimethicone.
3. Add Part B to Part A with rapid agitation. Continue mixing to obtain a smooth emulsion.
4. Add Part C. Disodium EDTA should be added incrementally such that a Brookfield viscosity of 500-1000 cps is achieved (Model RVT @ 20 RPM, #2 spindle).

Sprayer: Calmar Mark II

SOURCE: BF Goodrich Co.: Formula P0012

Sprayable Sunscreen (SPF8)

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	84.20	Diluent
Glycerin	2.00	Humectant
Hydrogenated Starch Hydrolysate (70% Solution)	1.50	Humectant
Part B:		
Octyl Methoxy Cinnamate	4.50	UVB Absorber
Menthyl Anthranilate (1)	3.50	UVA Absorber
C12-C15 Alcohols Benzoate (2)	3.00	Emollient
Pemulen TR-2 (3)	0.15	Emulsifier
Sorbitan Oleate	0.10	Surfactant
Part C:		
Triethanolamine (99%)	0.12	Neutralizing Agent
Part D:		
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben (4)	0.90	Preservative
Disodium EDTA	0.03	Chelating Agent
(1) Sunarome UVA (Felton)		
(2) Finsolv TN (Finetex)		
(3) Acrylates/C10-C30 Alkyl Acrylate Crosspolymer (BF Goodrich)		
(4) Germaben IIE (Sutton)		

Preparation:

1. Combine Part A ingredients. Mix until homogeneous.
2. Combine Part B ingredients in a separate vessel. Mix well to ensure blending of oils and break-up of soft powder lumps.
3. With mixing, add Part B to Part A. Mix 20-40 minutes or until a smooth dispersion is apparent.
4. Add triethanolamine (Part C) to the emulsion. Mix vigorously to thicken and reduce oil droplet particle size.
5. When emulsion is smooth and opaque, add Part D. Mix for 5-10 minutes. Part D ingredients will dissolve and thin the emulsion to a sprayable viscosity.

Formula 700-213-6C

SOURCE: BF Goodrich Co.: Waterproof Sunscreen Emulsions

Sprayable Sunscreen

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	69.90
Propylene Glycol	5.00
AMP-95	0.15
Germaben II-E	0.70
Part B:	
Finsolv TN	5.00
Butyl Stearate	3.00
Sorbitan Oleate	0.20
Polysorbate 80	0.10
Pemulen TR-2	0.20
Part C:	
Tioveil OP	15.00
Capmul 10G-10-0	0.50
Part D:	
Disodium EDTA	0.10
Sodium Chloride	0.15

Combine Part A ingredients in the mixing vessel at room temperature. Separately combine Part B ingredients, dispersing Pemulen completely. Add Part B to Part A with rapid agitation. Separately combine Part C, then slowly add to the Part A/B emulsion with moderate agitation. Add Part D with moderate agitation to lower lotion viscosity.

Waterproof Sunscreen (SPF 12)

This smooth lotion contains no "chemical" absorbers and delivers uniform, non-chalky protection. Pemulen TR-1 ensures high stability and allows easy spreading of the lotion.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized water	67.80
Propylene Glycol	5.00
Benece1 MP943PR	0.10
AMP-95	0.25
Disodium EDTA	0.05
Germaben II-E	0.30
Part B:	
Finsolv TN	3.00
Ceraphyl 424	4.00
Butyl Stearate	3.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol 2984	0.20
Part C:	
Tioveil OP	15.00
Capmul 10G-10-0	0.20

Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C. In a separate vessel, combine Part B ingredients. Heat to 50C. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion. Using moderate agitation, slowly add Part C to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: Angus Chemical Co.; Angus Product Formulary; Formula PF-0242E/Formula PF-0243E suggested by BF Goodrich

Sprayable Sunscreen Based on TiO2

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	69.90	Diluent
Propylene Glycol	5.00	Humectant
Aminomethyl Propanol	0.15	Neutralizer
Propylene Glycol and Diazolidinyl Urea and Methylparaben and Propylparaben (1)	0.70	Preservative
Part B:		
Mineral Oil (2)	5.00	Emollient
Butyl Stearate (3)	3.00	Emollient
Sorbitan Oleate	0.20	P.S. Reduction
Polysorbate 80	0.10	P.S. Reduction
Pemulen TR-2 (4)	0.20	Emulsifier
Part C:		
Octyl Palmitate (and) Titanium Dioxide (5)	15.00	Active
Polyglyceryl-10 Decaoleate (6)	0.50	Dispersant
Part D:		
Disodium EDTA	0.10	Chelating Agent
Sodium Chloride	0.08	Viscosity Reducing Agent

(1) Germaben II-E (Sutton)

(2) Drakeol 19 (Penreco)

(3) (Amerchol)

(4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)

(5) Tioveil OP (Tioxide Chemicals)

(6) Capmul 10G-10-0 (Karlshamns)

Preparation Procedure:

1. Combine Part A ingredients in the mixing vessel at room temperature.
2. Separately combine Part B ingredients, dispersing Pemulen completely.
3. Add Part B to Part A with rapid agitation.
4. Separately combine Part C, then slowly add to the Part A/B emulsion with moderate agitation.
5. Rapidly agitate (2000 rpm) with a marine-type blade for 20 minutes.
6. Add Part D with moderate agitation to lower lotion viscosity.

SOURCE: BF Goodrich Co.; Formula P0040

Sun Block Lotion
(Formula 92-0511)

	<u>% By Weight</u>
<u>Part A:</u>	
D.I. Water	70.40
Glycerin	4.65
Veegum F	1.50
Rhodigel EZ	0.15
<u>Part B:</u>	
Mirasil DM300	2.95
Cetyl Alcohol NF	3.10
Dermalcare GMS/SE	3.00
Isopropyl Myristate	3.25
<u>Part C:</u>	
Octyl Dimethyl PABA	7.00
Syntase 62	3.00
<u>Part D:</u>	
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure Step 1 (Part A):

Charge water into mixing vessel and add glycerin with mixing. Preblend Veegum F and Rhodigel EZ and, with good agitation, slowly sift this blend into the water/glycerin solution. Mix until smooth with no particles apparent, then begin heating to 70C.

Step 2 (Part B):

Charge Part B components into a vessel and heat with gentle mixing to 70-75C, being sure all components are melted.

Step 3:

When both parts are at 70C, add Part B to Part A, with good mixing, and mix fifteen minutes at 70C. After emulsion is homogeneous, begin cooling with moderate agitation.

Step 4 (Part C):

Premix the two components of Part C, heating very gently if necessary, to obtain a clear solution.

Step 5:

When product reaches 55C, add Part C and continue to cool, with agitation.

Step 6:

At 40C, add remainder of components and cool, with agitation, to 25C.

Typical Formulation Properties

Appearance at 25C	Lt. yellow/beige lotion
pH (10%)	7.3
Viscosity at 25C (RVT #5 @ 20 rpm)	14,000 cps

CTFA Identification

Water, glycerin, isopropyl myristate, cetyl alcohol, glyceryl stearate SE, dimethicone, magnesium aluminum silicate, xanthan gum.

Active ingredients: Padimate O, Oxybenzone

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formula 92-0511

Suncare Product with Titanium Dioxide

<u>Ingredients:</u>	<u>% by Weight</u>
A. Crodamol PMP	2.00
Crodamol W	3.00
Fluilan	2.00
Crodacol S-95	0.25
Crill 3	0.75
Crodarom Nuto O	2.50
Crodarom Rhatania O	2.50
B. Deionized water	72.55
Carbomer 2984	0.20
Acrylates/C10-30 Alkyl Acetate Cross Polymer	0.20
Crodesta F-160	1.50
Glycerin	5.00
Na2EDTA	0.05
C. AMP-95	0.25
Water (and) Titanium Dioxide	6.25
D. Propylene Glycol (and) Diazolidinyl Urea (and)	
Methyl Paraben (and) Propyl Paraben	1.00

Dissolve the Na2EDTA of part B in deionized water. Disperse Carbomer 2984 and Pemulen TR-1 into the water of Part B. Disperse Crodesta F-160 in glycerin, then add to the Carbomer/Pemulen dispersion with good mixing. Heat Part B to 75-80C. Combine ingredients of Part A with good mixing and heat to 75-80C. Add Part A to Part B with good mixing. Neutralize with the AMP-95 of Part C and stir until uniform. Slowly add Tioveil AQ with continuing stirring. Cool to 40C and add Part D. Cool to desired fill temperature. Formulation PF-0321 suggested by Croda

Titanium Dioxide Based Waterproof Sunscreen

This smooth lotion contains no "chemical" absorbers and delivers uniform, non-chalky protection. Pemulen TR-1 ensures high stability and allows easy spreading of the lotion. SPF=12.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	67.80
Propylene Glycol	5.00
Hydroxypropyl Methylcellulose	0.10
AMP-95	0.25
Disodium EDTA	0.05
Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	0.30
B. C12-15 Alcohols Benzoate	3.00
Butyl Stearate	3.00
Myristyl Myristate	4.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol 2984	0.20
C. Octyl Palmitate (and) Titanium Dioxide	15.00
Polyglyceryl-10 Decaoleate	1.00

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C. 2. In a separate vessel, combine Part B ingredients. Heat to 50C. 3. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion. 4. Using moderate agitation, slowly add Part C to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: Angus Chemical Co.; Formula PF-0323 from B.F.Goodrich

Sun Protection Gel, Approx. SPF8

An effective sun protection gel especially for sensitive and allergic skin.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Water	60.60
Part B:	
Carbomer 980 (Carbopol 980)	1.20
Part C:	
Ethanol, 98% denatured	5.00
Benzophenone-4 (Uvinul MS 40)	3.00
Part D:	
2-Phenylbenzimidazol-5-sulfonic acid (Eusolex 232)	3.00
Tris(hydroxymethyl)aminomethane (Tris Amino)	4.00
Water	20.00
Tetrasodium EDTA (Trilon B liquid)	0.30
Imidazolidinyl urea (and) triethylene glycol (and) methylparaben (and) propylparaben (and) dehydroacetic acid (Neo-Dracoco Liquid)	0.40
Aloe vera gel concentrate, 10/1	0.50
d-Panthenol	0.50
Part E:	
Fragrance	0.20
Bisabolol (Dragosantol)	0.10
Emulsifier	1.20

Procedure:

Dissolve B in A using an ultra-turrax stirrer. Add C. Blend D and E; add to ABC. The pH-value is 6.8. The pH should not be over 7 or product could have a strong yellow color. Formulation PF-0271E suggested by Dragoco

Waterproof Aerosol Sunscreen (SPF10)

<u>Ingredients:</u>	<u>% by Weight</u>
SD Alcohol 40	43.65
AMP-95	0.35
Dermacryl	2.00
Deionized water	9.00
Octyl Methoxycinnamate	7.50
Menthyl Anthranilate	4.00
Cyclomethicone	3.00
Tocopheryl Acetate	0.50
Dimethyl Ether	30.00

Procedure:

Combine SD alcohol 40 with AMP-95. With good agitation, slowly sift in Dermacryl-79. Mix until complete. Add rest except Dimethyl ether. Continue mixing until complete. Filter, fill and charge with dimethyl ether.

Formulation PF-0318 suggested by National Starch and Chemical

SOURCE: Angus Chemical Co.: Angus Product Formulary

Sunscreen Containing
Emollient Cream

<u>A</u> :	Deionized Water	37.00%
	Pecosil WDS-200 (Dimethicone Copolyol Phosphate)	3.00
	Carbomer 934 (2% Aq.)	25.00
	Propylene Glycol	5.00
	Triethanolamine (99%)	1.00
<u>B</u> :	Octyl Methoxycinnamate	7.50
	Pelemol GS (Glyceryl Stearate)	2.00
	Meadowfoam Seed Oil	4.00
	Pelemol 2022 (Octyldodecyl Behenate)	10.00
	Macademia Nut Oil	2.00
	Cetearyl Alcohol	2.00
	Pelemol BB (Behenyl Behenate)	0.50
<u>C</u> :	Propylene Glycol (and) Diazolidinyl Urea (and)	1.00
	Methylparaben (and) Propylparaben	

Procedure:

Heat phase A to 70-75C. Heat phase B to 70-75C. Agitate both phase A and B until uniform. Under homogenization add phase B to phase A. When uniform, change to prop. agitation and cool to 45C. Add phase C to AB, and continue prop. agitation to 35C.

Formula 14-109-A

Sunscreen Lotion

<u>A</u>	Deionized Water	37.30%
	Pecosil WDS-100 (Dimethicone Copolyol Phosphate)	3.00
	Carbomer 934 (2% Aq.)	25.00
	Propylene Glycol	5.00
	Triethanolamine (99%)	0.70
<u>B</u>	Octyl Methoxycinnamate	7.50
	Pelemol GS (Glyceryl Stearate)	2.00
	Meadowfoam Seed Oil	4.00
	Pelemol ISL (Isostearyl Lactate)	10.00
	Macademia Nut Oil	2.00
	Cetearyl Alcohol	2.00
	Pelemol BB (Behenyl Behenate)	0.50
<u>C</u>	Propylene Glycol (and) Diazolidinyl Urea (and)	1.00
	Methylparaben (and) Propylparaben	

Procedure:

1. Heat phase A to 70-75C. 2. Heat phase B to 70-75C. 3. After both phases are uniform, homogenize phase B into phase A. 4. Switch to sweep agitation and cool AB to 45C. 5. Add phase C to AB, and continue sweep agitation to 35C.

Formula 14-107-A

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Sunscreen Cream

<u>Ingredient:</u>	Approximate S.P.F.			
	3	4	6	8
		<u>%W/W</u>		
1 Cutina MD	7.0	7.0	7.0	7.0
2 Sipol 16-18 C50	2.0	2.0	2.0	2.0
3 Eumulgin B2	3.0	3.0	3.0	3.0
4 Eutanol G	3.0	3.0	3.0	3.0
5 Cetiol SN	7.0	7.0	7.0	7.0
6 Cetiol SB45	5.0	5.0	5.0	5.0
7 Eusolex 6300	0.75	-	0.37	0.75
8 Eusolex 232	-	0.75	0.37	0.75
9 Sodium Hydroxide	-	0.208	0.10	0.208
10 Hygroplex HHG CLR	4.0	4.0	4.0	4.0
11 Preservative		q.s.		
12 Water to		100.0		

These formulations give non-greasy, soft consistency, moisturising O/W creams with effective UV Protection. The first seven components are heated together to 85C. Component nine is added to the water and this mixture is also heated to 85C at which point component eight is stirred in and neutralized. The oil phase is then mixed into the water phase and dispersed. Component ten can be incorporated whilst the temperature is still high. Mixing should continue down to about 35C.
Formula TS 269

After-Sun Lotion

<u>Ingredient:</u>	<u>%W/W</u>
1 Cutina MD	3.5
2 Stenol 16-25	1.5
3 Cetiol MM	4.0
4 Eumulgin B2	1.5
5 Eutanol G	5.0
6 Myritol 318	5.0
7 Irgasan DP300	0.1
8 Zinc Carbonate-Basic	5.0
9 Nutrilan L	10.0
10 Repair Complex CLR	3.0
11 Preservative	q.s.
12 Water to	100.0

This formulation gives a pale brown, high viscosity, medium weight O/W lotion which has a soothing, astringent effect on skin.

The first seven components are heated together to 85C. Component eight is then dispersed in the hot molten oil. The water is also heated to 85C. The oil phase is then mixed into the water phase and dispersed.

Mixing should continue down to about 35C at which point the remaining ingredients can be incorporated.
Formula TS 285

SOURCE: Henkel KGaA: Skin Care Project Formulations

Sun Screen Cream O/W

	<u>%W/W</u>
I Cutina MD	16.0
Eumulgin B1	3.0
Eutanol G	10.0
Myritol 318	5.0
Carrot oil CLR	3.0
Parsol MCX	2.0
II Eusolex 161, water-soluble	2.0
Water	59.0
Formula No. E11-01	

Sun Screen Cream W/O

	<u>%W/W</u>
I Dehymuls K	30.0
Cetiol V	15.0
Parsol MCX	3.0
II Water	52.0
Formula No. E11-02	

Sun Screen Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Novata AB	4.0
Cetiol V	8.0
Vegetable oil	8.0
Vaseline, white	10.0
Parsol MCX	3.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	55.7
Formula No. E11-03	

Sun Screen Cream W/O

	<u>%W/W</u>
I Dehymuls F	8.0
Novata AB	4.0
Cetiol V	5.0
Vegetable oil	5.0
Vaseline, white	10.0
Paraffin oil, low viscous	6.0
Parsol MCX	3.0
II Henkel Glycerin 86% DAB 9	3.0
Magnesium sulfate-7-hydrate	0.3
Water	55.7
Formula No. E 11-04	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Sun Screen Emulsion O/W, Liquid

	<u>%W/W</u>
I Cutina MD	5.0
Lanette O	2.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Rilanit GMO	0.5
Eutanol G	8.0
Paraffin oil, high viscous	4.0
Cetiol J600	6.0
Parsol 1789	2.0
Parsol MCX	4.0
II Henkel Glycerin 86% DAB 9	5.0
Water	60.5
Formula No. E21-02	

Sun Screen Emulsion O/W, Liquid

	<u>%W/W</u>
I Cutina CBS	9.0
Eumulgin B1	1.5
Eumulgin B2	1.5
Rilanit GMO	0.5
Eutanol G	8.0
Paraffin oil, high viscous	4.0
Cetiol J600	6.0
Parsol 1789	2.0
Parsol MCX	4.0
II Henkel Glycerin 86% DAB 9	5.0
Water	58.5
Formula No. E21-03	

Sun Screen Emulsion O/W, Liquid

	<u>%W/W</u>
Cutina MD	5.0
Lanette O	2.0
Eumulgin B2	2.0
Cutina E24	2.0
Rilanit GMO	0.5
Eutanol G	8.0
Paraffin oil, high viscous	4.0
Cetiol J600	6.0
Parsol 1789	2.0
Parsol MCX	4.0
Henkel Glycerin 86% DAB 9	5.0
Water	59.5
Formula No. E21-04	
SOURCE: Henkel KGaA: Cosmetic Model Formulae	

Sun Screen Emulsion O/W with Repellent, Liquid

	<u>%W/W</u>
I Cutina MD	3.0
Siegert Stearin L2 SM	2.0
Eumulgin B1	3.0
Cetiol V	10.0
Myritol 318	4.0
Paraffin oil, high viscous	4.0
Repellent 790	10.0
II Eusolex 161, water-soluble	2.0
Triethanolamine	0.2
Veegum solution 4%	40.0
Water	21.8

Formula No. E23-01

Sun Screen Oil

	<u>%W/W</u>
Eutanol G	50.0
Myritol 318	26.0
Carrot oil CLR	2.0
Paraffin oil, high viscous	20.0
Parsol MCX	2.0

Formula E31-01

Sun Screen Oil

	<u>%W/W</u>
Cetiol LC	20.0
Myritol 318	40.0
Eutanol G	38.0
Parsol MCX	2.0

Formula No. E31-02

Sun Screen Oil with Repellent

	<u>%W/W</u>
Eutanol G	30.0
Myritol 318	27.0
Paraffin oil, high viscous	20.0
Parsol MCX	3.0
Repellent 790	10.0
Ethyl alcohol 96%	10.0

Formula No. E31-03

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Sunscreen Lotion w/UV-Titan M212

<u>Ingredients:</u>	<u>% Qty</u>
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<u>UV-Titan Premix 7-95-A:</u>	
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UV-Titan M212	40.00
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Pecosil WDS-100	60.00
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Premix should be mixed using a high shear mixer/impeller, i.e., Silverson for 5 minutes at 4000 rpm.

Phase A:

D.I. Water	64.25
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Glucam E-20	2.50
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Glucamate SSE-20	0.75
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UV-Titan Premix	12.50
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Phase B:

OHlan	3.00
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Glucate SS	4.00
------------	------

Ritachol	5.00
----------	------

Pelox P3M	5.00
-----------	------

Witconol APM	3.00
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Phase C:

Germaben II	1.00
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Fragrance	0.25
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Procedure:

Heat Phase A to 72C. Heat Phase B to 75C, add B to A, mix well, pass through colloid mill for 5 minutes or until completely recirculated, begin cooling to room temperature and check sample for dispersion. Adjust pH to 5.5-6.0 with Phosphoric Acid 10% Sol'n.

Sunscreen Lotion w/UV-Titan M262

<u>Ingredients:</u>	<u>%Qty.</u>
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<u>UV-Titan 7-95-B:</u>	
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UV-Titan M262	40.00
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Pecosil PS-100	60.00
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Premix should be mixed using a high shear mixer/impeller, i.e., Silverson for 5 minutes at 4000 rpm.

Phase A:

D.I. Water	64.25
------------	-------

Glucam E-20	2.50
-------------	------

Glucamate SSE-20	0.75
------------------	------

Phase B:

OHlan	3.00
-------	------

Glucate SS	4.00
------------	------

Ritachol	5.00
----------	------

Pelox P3M	5.00
-----------	------

Witconol APM	3.00
--------------	------

UV-Titan Premix	12.50
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Phase C:

Germaben II	1.00
-------------	------

Fragrance	0.25
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Procedure:

Heat Phase A to 72C. Heat Phase B to 75C, add B to A, mix well, pass through colloid mill for 5 minutes or until completely recirculated, begin cooling to room temperature and check sample for dispersion. Adjust pH to 5.5 to 6.0 with Phosphoric Acid 10% Sol'n.

SOURCE: Phoenix Chemical, Inc./Presperse, Inc.:7-97-A/7-97-B

Sun Screen Stick with Total Light Protection (Sun Blocker)

	<u>Parts</u>
Cutina LM	70.0
Cetiol J600	7.0
Eutanol G	8.0
Parsol 1789	1.0
Parsol MCX	5.0
Titanium dioxide	6.0
Talcum	7.0
Skin colored pigments	2.0
Formula No. E41-03	

Lipstick with Light Protection

	<u>Parts</u>
Cutina LM	81.0
Cetiol 868	10.0
Cetiol J600	5.0
Eusolex 8021	4.0
Formula No. E41-04	

Lipstick with Light Protection

	<u>Parts</u>
Cutina LM	80.0
Cetiol 868	8.0
Cetiol J600	4.0
Eusolex 8021	8.0
Formula No. E41-05	

Sun Screen Spray Aerosol-Packed

	<u>%W/W</u>
Eutanol G	55.0
Vegetable oil	20.0
Paraffin oil, high viscous	23.0
Parsol MCX	2.0
Filling: 50 parts solution	
50 parts propellant 12/114 (40:60)	
Formula No. E71-01	

Sun Screen Spray Low-Fat Aerosol-Packed

	<u>%W/W</u>
Eutanol G	25.0
Parsol MCX	2.0
Isopropyl alcohol	73.0
Filling: 50 parts solution	
50 parts propellant 12/114 (40:60)	
Formula No. E71-03	

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Sun Shield Day Cream

A light, pleasant cream. Applies easily and is quickly absorbed into the skin. Offers medium sun-protection while keeping the skin soft and moisturized. Ideal as a skin conditioner for men who enjoy out-of-doors activities.

	<u>Wt. %</u>
A. Mink Oil (Emulan, Light Fraction)	5.00
Glyceryl Stearate (and) PEG 100 Stearate (ICI, Arlancel 165)	4.00
Cetyl Ricinoleate (Cas Chem, Nature Chem CR)	1.00
Stearic Acid TP	2.00
Cetyl Alcohol	0.50
Octyl Dimethyl PABA (Van Dyk, Escalol 507)	3.00
Propyl Paraben	0.15
B. Methyl Paraben	0.20
Triethanolamine 99%	0.50
PEG-8 (UCC, Carbowax 400)	5.00
Quaternium 26 (Van Dyk, Ceraphyl 65)	1.00
Water	77.65

Procedure:

Add 75C Phase B to 75C Phase A via propellor agitation. Cool to 45C before adding Phase C.

PABA Free Sunscreen Lotion

A low irritation, non-greasy lotion for sensitive skins. Has effective sun protection (SPF about 10) and thus protects against photo-aging. May be used as an under make-up moisturizer.

	<u>Wt. %</u>
A. Water	65.8
Carbomer 941 (Goodrich, Carbopol 941)	0.2
Propylene Glycol USP	2.0
Disodium Cocamido MIPA Sulfosuccinate (Witco, Emcol 4161L)	0.5
B. Cyclomethicone (Dow Corning 345 Fluid)	10.0
Mink Oil (Emulan, Light Fraction)	5.0
Octyl Methoxycinnamate (Van Dyk, Escalol 557)	7.6
Menthyl Anthranilate (Felton, Sunarome UVA)	3.5
Cetearyl Alcohol (and) Ceteareth-20 (Amerchol, Promulgen D)	3.0
Phenyltrimethicone (Dow Corning, 556 Fluid)	1.0
C. Triethanolamine 99%	0.2
D. Germaben II (Sutton)	1.0
Perfume	0.2

Procedure:

Add 75C Phase B to 75C Phase A, then add Phase C and stir-cool to 45C before adding Phase D ingredients.

SOURCE: Emulan, Inc.: Suggested Formulations

Sun Tan Cream

Creamy soft. Easily spread, quickly absorbed and leaves a silky soft feeling on the skin.

Material/CTFA-Index:

A: Belsil DM 350/Dimethicone	2.00%
Isopropyl Myristate	9.00
Stearyl Alcohol	9.50
Cetyl Alcohol	0.50
Stearic Acid	4.00
 Parsol MCX/Octyl Methoxycinnamate	 1.50
B: Triethanolamine	1.20
Carbopol 934 (1%ige Lsg.)/Carbomer 934	5.00
Water	67.30
Preservatives, pigments, fragrances	q.s.

Heat A and B each to 70C, add Parsol MCX to A. Mix B into A whilst stirring quickly.

Temperature stability: at 45C over 10 weeks.

Formulation 130 AH

Sun Tan Cream

Creamy soft.

Material/CTFA-Index:

A: Belsil DM 350/Dimethicone	3.00%
Cetyl Alcohol	2.00
Stearic Acid	4.00
 Parsol MCX/Octyl Methoxycinnamate	 2.00
B: Glycerine	2.00
Triethanolamine	0.90
Wasser dest./Water	86.10
Preservatives, pigments, fragrances	q.s.

Heat A and B to 80C, mix A into B, cool whilst stirring, at approx. 45C add Parsol MCX, stir cold.

Formulation 133 AH

SOURCE: Wacker Silicone: Suggested Formulations

Sun Tan Cream

Firm cream.

Material/CTFA-Index:

A: Crodawax GP 200/Stearyl Alcohol (and) PEG-Stearate	5.00%
Lamecreme KSM/Glyceryl Stearate se	6.00
Belsil DM 35/Dimethicone	5.00
Eusolex 6300	3.00
B: Water	81.00
Preservatives, pigments, fragrances	q.s.

Melt A at 70C, heat the water to 70C. Work A into B.
Formulation 199 AH

Sun Tan Cream

Creamy soft.

Material/CTFA-Index:

A: Belsil DM 100/Dimethicone	3.00%
Cetyl Alcohol	2.00
Stearic Acid	4.00
Eusolex 6300	3.00
B: Glycerine	2.00
Triethanolamine	0.90
Water	85.10
Preservatives, pigments, fragrances	q.s.

Heat A and B each to 80C. Work B into A whilst stirring quickly, cool whilst stirring.
Temperature stability: at 45C over 10 weeks.
Formulation 198 AH

Sun Tan Cream

Creamy soft.

Material/CTFA-Index:

A: Belsil DM 350/Dimethicone	3.00%
Cetyl Alcohol	2.00
Stearic Acid	4.00
B: Parsol MCX/Octyl Methoxycinnamate	2.00
Belsil BNP/Boron Nitride	1.00
C: Glycerine	2.00
Triethanolamine	0.90
Wasser dest./Water	85.10
Preservatives, fragrances, perfumes	q.s.

Heat A and C to 80C, stir A into C, cool whilst stirring.
Add B at approx. 45C, stir cold.
Temperature stability: at 45C over 10 weeks.
Formulation 133/2 AH

SOURCE: Wacker Silicone: Suggested Formulations

Sun Tan Lotion W/OMaterial/CTFA-Index:

A: Hostacerin WO/Polyglyceryl-2-Sesquioostearate (and) Beeswax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	12.00%
Belsil CM 040/Cyclomethicone	25.00
Belsil PDM 20/Phenyl Dimethicone	6.00
Belsil DM 350/Dimethicone	3.00
Isopropyl Myristate	3.50
B: Water	47.50
C: Parsol MCX/Octyl Methoxycinnamate	3.00
Preservatives, pigments, fragrances	q.s.

Mix A, heat the water to 60C and stir into A. Leave to cool somewhat, add Parsol MCX.

Formulation 260 AH

Sun Tan LotionMaterial/CTFA-Index:

A: Teginacid/Glyceryl Stearate (and) Ceteareth-20	6.00%
Isopropyl Myristate	1.00
Belsil DM 350/Dimethicone	1.00
Mineral Oil, low viscosity	4.00
Lanette O/Cetearyl Alcohol	1.00
Belsil CM 1000/Cyclomethicone (and) Dimethiconol	10.00
Parsol MCX/Octyl Methoxycinnamate	3.00
B: Water	71.50
Glycerine	1.50
C: Belsil BNP/Boron Nitride	1.00
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 65-70C, stir B into A, stir C into AB.

Temperature stability: at 45C over 10 weeks.

Formulation 913 AH

SOURCE: Wacker Silicone: Suggested Formulations

Suntan Lotion

Highly moisturizing skin care that affords natural skin protection from Shebu, as well as UV suncreening with ODP.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	77.40	----
2. Acritamer 934 (Carbomer 934)	0.20	Stabilizer, Rheology
3. Glycerine	4.00	Emollient
4. Xanthan Gum	0.10	Stabilizer, Thickener
5. Supersat (Hydrogenated Lanolin)	0.50	Film Former
6. Shebu Refined (Shea Butter)	2.00	Emollient
7. Rita GMS (Glyceryl Stearate)	1.00	Emulsifier
8. Mineral Oil	7.00	Emollient
9. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00	Emulsifier, Humectant
10. Rita Stearic Acid	2.00	Emulsifier
11. Octyl Dimethyl PABA	2.00	Sunscreen
12. Triethanolamine (50% Soln.)	1.80	Neutralizer
13. Fragrance	q.s.	Odor
14. Preservative	q.s.	Preservative

Compounding Procedure:

Disperse 2 into 1, hydrate 15 minutes. Add 4 to 3 and disperse into 1, 2. Heat to 165F. Separately combine 5-11, heat to 165F, mix well and combine both phases. Neutralize with TEA (12). Cool with mixing to 120F and add 13 & 14. Cool to 90F. Package.
Ref. No. 118-70

USFDA Standard SPF 4.11Sunscreen Lotion

Reference: Federal Register 21 CFR 352 et.al.

Used as the standard to which SPF determination studies may be referenced.

<u>Ingredients:</u>	<u>%W/W</u>	<u>R.I.T.A. Products</u>
1. Lanolin Ex Deo. USP	5.00	(Lanolin USP)
2. Homomenthyl Salicylate	8.00	
3. White Petrolatum USP	2.50	
4. Stearic Acid	4.00	(Rita Stearic Acid)
5. Propylparaben	0.05	
6. Methylparaben	0.10	
7. Na2 EDTA	0.05	
8. Distilled/Deionized Water	74.30	
9. Triethanolamine @ 99%	1.00	
10. Propylene Glycol	5.00	

SOURCE: R.I.T.A. Corp.: Sun Care Manual

Suntan Lotion with UV Protection

Excellent feel and delivery of UV protection with this Acritamer/stearate emulsion. Reduced irritancy.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	73.10	----
2. Acritamer 941 (Carbomer 941)	0.10	Stabilizer, Rheology
3. Propylene Glycol	3.00	Emollient
4. Rita IPM (Isopropyl Myristate)	5.00	Emollient
5. Ritaderm (R.I.T.A. Blend)	5.00	Stabilizer, Emollient
6. Ritacetyl (Acetylated Lanolin)	2.50	Film Former
7. Ritalan (Lanolin Oil)	1.00	Emollient
8. Rita CA (Cetyl Alcohol)	0.70	Thickener, Opacifier
9. Rita GMS (Glyceryl Monostearate)	1.50	Emulsifier
10. Rita Stearic Acid	2.00	Emulsifier
11. Mineral Oil	2.00	Emollient
12. Octyl Dimethyl PABA	2.50	Sunscreen
13. Triethanolamine (50% Soln.)	1.60	Neutralizer
14. Fragrance	q.s.	Odor
15. Preservative	q.s.	Preservative

Compounding Procedure:

Disperse 2 into 1, hydrate 15 minutes. Add 3, heat to 165F. Separately combine 4-13 and heat to 165F, mix well. Combine phases at 165F, cool with mixing to 120F. Add 14 and 15, cool to 90F. Package.
Ref. No. 118-79

Coppertone Type Self Tanner

Efficacious self tanning emulsion with excellent rub out and smooth feel.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	81.00	----
2. Ritaloe 200M (Aloe Vera Gel)	1.00	Conditioner
3. Ritapro 300 (cetearyl Alcohol and Cetareth-20)	10.00	Emulsifier
4. Ritalan C (Isopropyl Palmitate and Lanolin Oil)	2.00	Emollient
5. Dimethicone	0.75	Lubricant
6. Dihydroxy Acetone	5.00	Tanning Agent
7. Germaben II	0.25	Preservative
8. Patlac LA (Lactic Acid 88%)	q.s.	pH Adjustment

Compounding Procedure:

Dissolve 2 into 1, heat to 165F. Separately combine 3,4 and 5 and heat to 165F. Combine phases with mixing, cool to 125F and adjust pH with 8 to 5.0(+0.5). Add 6 and preserve. Cool to package.

Ref. No. 118-134

SOURCE: R.I.T.A. Corp.: Sun Care Manual

Tanning Oil with Shebu

Highly emollient oil delivers minimal sun protection. Allows moisturization and permits tanning.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Ritalan C (Isopropyl Palmitate and Lanolin Oil)	7.00	Emollient
2. Mineral Oil	84.85	Base Emollient
3. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00	Emollient
4. Ritacetyl (Acetylated Lanolin)	1.75	Emollient
5. Shebu Refined (Shea Butter)	2.00	Emollient
6. Ritaphenone-3 (Benzophenone-3)	2.00	Sunscreen
7. Preservative	0.10	Preservative
8. Anti-Oxidant	q.s.	Anti-Oxidant
9. Fragrance	0.30	Odor

Compounding Procedure:

Combine all ingredients and gently warm with mixing until homogeneous (150F). Cool to 120F. Add fragrance, cool and package.

Ref. No. 118-8

Moisturizing Suntan Oil
Coppertone Type

Coppertone type, high moisturization allows deep tanning with minimal sunscreen.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Mineral Oil	92.41	Emollient
2. Lanolin USP	1.00	Emollient
3. Cocobutter	1.00	Emollient
4. Coconut Oil	1.00	Emollient
5. Simchin Refined (Jojoba Oil)	1.00	Emollient
6. Sweet Almond Oil	1.00	Emollient
7. Benzoic Acid	0.09	Preservative
8. Vitamin E (Tocopheryl Acetate)	1.00	Anti-Oxidant
9. Ritaphenone 3 (Benzophenone-3)	1.00	Sunscreen
10. BHT	0.50	Anti-Oxidant
11. Fragrance	q.s.	Odor
12. Dye	q.s.	Color

Compounding Procedure:

Combine all ingredients (1-10) and warm to 150F. Cool to 120F and add Fragrance and Dye. Cool and package.

Ref. No. 118-136

SOURCE: R.I.T.A. Corp.: Sun Care Manual

TiO₂ Oil/Water Sunscreen Lotion

Increased efficacy of TiO₂. Unique emulsification. High SPF is estimated.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Rita IPM (Isopropyl Myristate)	4.00	Emollient
2. Mineral Oil	6.50	Lubricant
3. Simchin (Jojoba Oil - Refined)	2.50	Emollient
4. Rita SA (Stearyl Alcohol)	1.00	Thickener
5. Petrolatum	2.00	Lubricant
6. Tioveil TG (TiO ₂ Dispersed)	5.00	Sunscreen
7. Grilloten LSE 87K (Sucrose Cocoate)	0.10	Emulsifier
8. Grilloten PSE 141G (Sucrose Stearate)	6.00	Emulsifier
9. Glycerol	4.00	Emollient
10. Natural Extract DP (Trimethyl Glycine)	0.20	Anti-Irritant
11. Ritapan DL (dl-Panthenol)	0.80	Conditioner
12. Distilled/Deionized Water	62.90	----
13. Tioveil AQ-G (TiO ₂ Dispersed)	5.00	Sunscreen
14. Preservative	q.s.	Preservative
15. Fragrance	q.s.	Odor

Compounding Procedure:

Heat (1-6) and (7-12) separately to 80C. Add (1-6) to (7-12) with mixing. Add 13 while still warm (80C). Cool to 25C with mixing. Add preservative and fragrance at approximately 35C. Ref. No. 118-128

TiO₂ Sunscreen

Smooth, non-whitening lotion using titanium dioxide as an active UV sunscreen.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	64.95	----
2. Acritamer 940 (Carbomer 940)	0.30	Stabilizer, Rheology
3. Propylene Glycol	2.00	Emollient
4. Tetrasodium EDTA	0.10	Chelator
5. Mineral Oil	7.50	Emollient
6. Rita IPM (Isopropyl Myristate)	5.00	Emollient
7. Rita Stearic Acid	3.00	Emollient
8. Ritachol 5000 (R.I.T.A. Blend)	1.50	Emulsifier
9. Silicone Oil	2.00	Lubricant
10. TEA (50% Soln.)	0.75	Neutralizer
11. Tioveil AQ (TiO ₂ Dispersed)	12.50	Neutralizer
12. Fragrance	0.20	Odor
13. Preservative	0.20	Preservative

Compounding Procedure:

Disperse 2 into 1 and hydrate 15 minutes. Add 3 and 4. Heat to 165F. Separately combine 5-10, heat to 165F and mix well. Combine phases with mixing and add 11. Continue mixing and cooling to 120F. Add 12 and 13. Cool and package. Ref. No. 118-118

SOURCE: R.I.T.A. Corp.; Sun Care Manual

Titanium Dioxide Based Waterproof Sunscreen
(SPF 12*)

This smooth lotion contains no "chemical" absorbers and delivers uniform, non-chalky protection. Pemulen TR-1 ensures high stability and allows easy spreading of the lotion.

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	67.80	Diluent
Propylene Glycol	5.00	Humectant
Hydroxypropyl Methylcellulose (1)	0.10	Spreading aid
Aminomethyl Propanol (2)	0.25	Neutralizer
Disodium EDTA	0.05	Chelating Agent
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (3)	0.30	Preservative
Part B:		
C12-15 Alcohols Benzoate (4)	3.00	Emollient
Butyl Stearate (5)	3.00	Emollient
Myristyl Myristate (6)	4.00	Emollient
Sorbitan Oleate	0.10	P.S. Reduction
Pemulen TR-1 (7)	0.20	Emulsifier
Carbopol 2984 (8)	0.20	Thickener
Part C:		
Octyl Palmitate (and) Titanium Dioxide (9)	15.00	Active
Polyglyceryl-10 Decaoleate (10)	1.00	Dispersant

*Clinical testing conducted by Product Safety Labs (FDA 21 CFR Part 352, Federal Register, August 25, 1978).

- (1) Benece1 MP943R (Aqualon)
- (2) AMP-95 (Angus Chemical)
- (3) Germaben II-E (Sutton)
- (4) Finsolv TN (Finetex)
- (5) (Amerchol)
- (6) Ceraphyl 424 (Van Dyk)
- (7) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
- (8) Carbomer (BFGoodrich)
- (9) Tioveil OP (Tioxide Chemicals)
- (10) Capmul 10G-10-0 (Karlshamns)

Preparation Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C
2. In a separate vessel, combine Part B ingredients. Heat to 50C.
3. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion.
4. Using moderate agitation, slowly add Part C to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: BFGoodrich Co.; Formula P0030

Titanium Dioxide Based Waterproof Sunscreen
With Pemulen TR-1 & Carbopol Ultrez 10
Estimate SPF-18

This smooth lotion contains no "chemical" absorbers and delivers uniform, non-chalky, water-proof protection. Pemulen TR-1 ensures high stability and allows easy spreading of the lotion.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	67.10
Disodium EDTA	0.05
Hydroxypropyl Methylcellulose	0.10
AMP-95	0.25
Propylene Glycol	5.00
B. C12-15 Alcohols Benzoate	3.00
Butyl Stearate	3.00
Myristyl Myristate	4.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol Ultrez 10	0.20
C. Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	1.00
D. Octyl Palmitate (and) Titanium Dioxide	15.00
Polyglyceryl-10 Decaoleate	1.00

Properties:

pH: 6.2-6.8

Viscosity* (cPs): 32,000-38,000

Color, odor, appearance: White, thick, creamy emulsion

*Brookfield RVT @ 20rpm, 25C, #6 spindle

Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C.
2. In a separate vessel, combine first four Part B ingredients. After mixture is uniform, disperse resins. Mix until uniform.
3. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion.
4. Combine Part D ingredients and mix well.
5. Add Part C to batch.
6. Using moderate agitation, slowly add Part D to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: Angus Chemical Co.: Angus Product Formulary:
 Formulation PF-0345 suggested by B.F. Goodrich

Transparent Sun-Block Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Monomuls 90-0 18	2.0
2 Lameform TGI	4.0
3 Cetiol A	10.0
4 Sipo1 1618 C50	1.0
5 Beeswax	3.0
6 Zinc stearate	2.0
7 Tioveil TG	10.0
8 Magnesium sulphate	1.0
9 Glycerine	3.0
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives quite a heavy W/O cream with good emollience and high UV Protection (SPF approx. 12).

The first seven components are melted together at about 85C. Components 8 and 9 are dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C. The product must then be homogenised using, for example, a Triple Roll Mill.
Formula TS 475

Transparent Sunblock Cream

<u>Ingredient:</u>	<u>%W/W</u>
1 Dehymuls FCE	2.0
2 Lameform TGI	4.0
3 Sipo1 16-18 C50	1.0
4 Cetiol A	10.0
5 Beeswax	3.0
6 Zinc Stearate	2.0
7 Tioveil TG	10.0
8 Magnesium Sulphate	1.0
9 Glycerine	3.0
10 Preservative	q.s.
11 Water	to 100.0

The first seven components are melted together at about 85C. Components 8 & 9 are dissolved in the water and this mixture is heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C. The product should then be homogenised by, for example, a Triple Roll Mill.
Formula TS 488

SOURCE: Henkel KGaA: Skin Care Project Formulations

Waterproof Sunscreen (SPF 12)

This smooth lotion contains no "chemical" absorbers and delivers uniform, non-chalky protection. Pemulen TR-1 ensures high stability and allows easy spreading of the lotion.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized water	67.80
Propylene Glycol	5.00
Benece1 MP943PR	0.10
AMP-95	0.25
Disodium EDTA	0.05
Germaben II-E	0.30
Part B:	
Finsolv TN	3.00
Ceraphyl 424	4.00
Butyl Stearate	3.00
Sorbitan Oleate	0.10
Pemulen TR-1	0.20
Carbopol 2984	0.20
Part C:	
Octyl Palmitate (and) Titanium Dioxide OP	15.00
Capmul 10G-10-0	0.20

Procedure:

Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C. In a separate vessel, combine Part B ingredients. Heat to 50C. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion. Using moderate agitation, slowly add Part C to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: Angus Chemical Co.; Angus Product Formulary: Formulation PF-0243E suggested by B.F. Goodrich

Sun Tan Cream

Creamy soft.

Material/CTFA-Index:

A: Cetyl Alcohol	2.00%
Stearic Acid	4.00
Eusolex 4360/Benzophenone-3	1.50
Eusolex 8020	1.50
B: Glycerine	2.00
Triethanolamine	0.90
Water	78.10
C: Belsil CM 1000/Cyclomethicone(a.)Dimethiconol	10.00
Preservatives, perfume, pigments	q.s.

Heat A and B to 80C. Stir B into A. Stir until cool.
Temperature stability: at 45C more than 9 weeks.

SOURCE: Wacker Silicone: Formulation 740 AH

Waterproof Sunscreen Lotion (SPF 15)

<u>Ingredient:</u>	<u>Weight%</u>
Part A:	
Deionized Water	72.75
Hydroxypropyl Methylcellulose (1) (1% solution)	10.00
Quaternium-15 (2)	0.15
Disodium EDTA	0.05
Part B:	
Octyl Methoxy Cinnamate	7.00
Octyl Salicylate	3.00
Oxybenzone	2.00
C12-15 Alcohols Benzoate (3)	4.00
Pemulen TR-1 (4)	0.25
Carbopol 954 (5)	0.20
Methylparaben	0.15
Propylparaben	0.05
Part C:	
Triethanolamine (99%)	0.40

Procedure:

- 1) Combine Part A ingredients. Mix until homogeneous.
- 2) Combine first four part B ingredients in a separate vessel. Mix until oxybenzone has dissolved. Warming will hasten dissolution.
- 3) Disperse last four Part B ingredients in Part B vessel. Mix to break-up lumps.
- 4) With moderate agitation, add Part B to Part A. Mix for 20-40 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C (triethanolamine) and mix vigorously until a smooth, lustrous product is obtained.

- (1) Methocel E4M (Dow)
- (2) Dowicil 200 (Dow)
- (3) Finsolv TN (Finetex)
- (4) Acrylates/C10-30 Alkyl Acrylate Crosspolymer (BFGoodrich)
- (5) Carbomer (BFGoodrich)

SOURCE: BF Goodrich Co.: Formula P0006

Waterproof Sunscreen Lotion (SPF 15)

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Deionized Water	72.75	Diluent
Hydroxypropyl Methylcellulose (1) (1.0% Solution)	10.00	Aqueous Smooth- ing Aid
Quaternium-15 (2)	0.15	Preservative
Disodium EDTA	0.05	Chelating Agent
Part B:		
Octyl Methoxy Cinnamate	7.00	UVB Absorber
Octyl Salicylate	3.00	UVB Absorber
Oxybenzone	2.00	UVA Absorber
C12-C15 Alcohols Benzoate (3)	4.00	Emollient/Sol- vent
Pemulen TR-1 (4)	0.25	Emulsifier
Carbopol 2984 (5)	0.20	Thickener
Methyl Paraben	0.15	Preservative
Propyl Paraben	0.05	Preservative
Part C:		
Triethanolamine (99%)	0.40	Neutralizing Agent

(1) Methocel E4M (Dow)

(2) Dowicil 200 (Dow)

(3) Finsolv TN (Finetex)

(4) Acrylates/C10-C30 Alkyl Acrylate Crosspolymer (BFGoodrich)

(5) Carbomer (BFGoodrich)

Preparation:

1. Combine Part A ingredients. Mix until homogeneous.
2. Combine first four Part B ingredients in a separate vessel. Mix until oxybenzone has been dissolved. Warming will hasten dissolution.
3. Disperse last four B ingredients in Part B vessel. Mix to break-up lumps.
4. With vigorous agitation, add Part B to Part A. Mix for 20-40 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C (triethanolamine) and mix until a smooth, lustrous product is obtained.

Formula 700-202-49F

SOURCE: BF Goodrich Co.: Waterproof Sunscreen Emulsions

Waterproof Sunscreen with Ultrafine TiO₂

Easy-to-blend o/w cream yields a nontacky, waterproof, oil-proof finish. Hydrophobic/lipophobic treatment on the TiO₂ for easier dispersion also prevents it from destabilizing the emulsion.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	60.80
Propylene glycol	5.00
Benece1	0.10
AMP-95	0.25
Versene	0.05
Germaben IIE	0.30
B. Ceraphyl 424	4.00
Acrylates/C10-30 alkyl acrylate crosspolymer	0.20
Carbomer 2984	0.20
Sorbitan oleate	0.10
C. PF-10 STT-65C-S	10.00
Caprol 10G-10-0	1.00
C12-15 alkyl benzoate	15.00
Butyl stearate	3.00

Procedure:

Mix A; heat to 50C. Mix B, heat to 50C. Grind C, add to B and mix well. Add BC at 50C to A at 50C while homomixing. Sweep to 40C.

Formulation PF-0325 suggested by Kobo

ZnO/TiO₂ Sunscreen Lotion, SPF-15

Light-textured, water-resistant sunscreen utilizes a dispersion of surface-treated titanium dioxide and zinc oxide. Although the projected SPF of this treated inorganic sunblock formula is 15, "in vivo" testing SPF 17+.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Demineralized water	50.20
B. Dermacryl LT	1.00
C. AMP-95	q.s.
D. Xanthan gum	0.30
Propylene glycol	2.00
E. 79790 Dispersion UF TiO ₂ and Z-Cote HP-1	30.00
DC200 Fluid	0.50
Cetearyl alcohol	1.50
Lipomulse 165	1.50
Brookswax P	2.00
F. Polysorbate-20	5.00
Fragrance	q.s.
G. Germaben II	1.00
Brookosome 50	5.00

Procedure:

Disperse B in A; heat to 80C. Adjust pH to 8.0 with C. Add D to ABC; mix 30 minutes. Combine E; heat to 85C. Add E to ABCD; mix and cool to 40C. Premix F; add to batch. Homogenize until uniform. Cool to room temperature; add G.

Formulation PF-0324 suggested by Cardre

SOURCE: Angus Chemical Co.; Angus Product Formulary

Water Resistant Sunscreen

<u>Ingredient:</u>	<u>%W/W</u>
1 Dehymuls HRE7	7.0
2 Cetiol SN	10.0
3 Eutanol G	6.0
4 Microcrystalline wax	1.0
5 Zinc stearate	1.0
6 Parsol MCX	6.0
7 Parsol 1789	1.0
8 Glycerine	5.0
9 Magnesium sulphate	0.5
10 Preservative	q.s.
11 Water	to 100.0

This formulation gives a water resistant W/O sun screen lotion.

The first seven components are melted together at about 85C. Components 8 & 9 are dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C
Formula TS 463

Water Resistant Sunscreen

<u>Ingredient:</u>	<u>%W/W</u>
1 Dehymuls HRE7	7.0
2 Cetiol SN	10.0
3 Tioveil MOTG	6.0
4 Microcrystalline wax	1.0
5 Zinc stearate	1.0
6 Glycerine	5.0
7 Magnesium sulphate	0.5
8 Preservative	q.s.
9 Water	to 100.0

This formulation gives a water resistant W/O sun screen cream. On application, the Tioveil shows white on the skin, but is easily rubbed in.

The first five components are melted together at about 85C. Components 6 & 7 are dissolved in the water and this mixture is then heated to the same temperature as the oil phase. The water phase is then added to the oil phase and dispersed. Mixing should continue down to about 35C.
Formula TS 474

SOURCE: Henkel KGaA: Skin Care Project Formulations

Water Resistant Sunscreen Lotion

	<u>Wt. %</u>
A. Stearic Acid, TP	3.50
Dimethicone (and) Trimethylsiloxysilate (Dow Corning, 593 Fluid)	10.00
Octyl Dimethyl PABA (Van Dyk, Escalol 507)	5.00
C12-15 Alcohols Benzoate (Finetex, Finsolv TN)	1.00
Cetyl Ricinoleate (Cas Chem, Nature Chem CR)	0.80
Glyceryl Stearate (Van Dyk, Cerasynt SD)	1.50
Mink Oil (Emulan, Heavy Fraction)	5.00
Propyl Paraben	0.15
B. Sorbitol, 70% (ICI, Sorbo)	5.00
Triethanolamine, 99%	1.00
Methyl Paraben	0.25
Water	66.80

Procedure:

Add 75C Phase B to 75C Phase A via propellor agitation.

Sunblock

A water resistant sun protective lotion. Screens out UV-A and UV-B. Effective sunblock. SPF approximately 15.

	<u>Wt. %</u>
A. Soya Sterol (Generol 122, Henkel)	1.30
Isopropyl Lanolate (Amerlate P, Amerchol)	1.50
Mink Oil (Emulan Light)	21.00
Glyceryl Stearate (and) Stearyl Alcohol (and) Sodium Lauryl Sulfate (Cerasynt WM, Van Dyk)	3.00
Stearic Acid XXX (Emersol 132, Emery)	3.60
Cetyl Alcohol	0.50
Ethyl Dihydroxypropyl PABA (and) Propylene Glycol (Amerscreen P-80/20, Amerchol)	6.00
Benzophenone-3 (Escalol 567, Van Dyk)	3.00
Propyl Paraben	0.10
B. Propylene Glycol USP	3.00
Triethanolamine, 99%	0.75
Water	32.05
Methyl Paraben	0.20
C. Microcrystalline Cellulose (Avicel RC 591, FMC)	3.50
Water	20.00
DMDM Hydantoin (Glydant, Lonza)	0.30
Perfume	0.20

Procedure:

Melt Phase A ingredients to 80C. Add 80C Phase B via high shear propellor. Stir cool to 30C. Add Phase C.

SOURCE: Emulan, Inc.: Suggested Formulations

W/O SPF20 Sunscreen with Eldew

<u>Ingredients/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Stearic Acid Triple Pressed	4.00
Cetyl Alcohol	1.00
DEA-Cetyl Phosphate/Amphisol	2.00
Dimethicone (and) Trimethylsiloxysilicate/Dow Corning 593	5.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	6.00
Octyl Salicylate/Uvinul 0-18	5.00
Octyldodecyl Neopentanoate/Elfac I-205	5.00
Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben/Nipastat	0.20
Di (chloesteryl, behenyl, octyldodecyl) N-Lauroyl-L-Glutamic Acid ester/Eldew CL-301	5.00
Part B:	
Deionized Water	57.75
Sodium Carbomer/PNC 400	0.25
Part C:	
Diazolidinyl Urea/Germall II	0.30
Deionized Water	1.00

Combine Part A and heat to 75 degrees Centigrade with mixing. Heat deionized water of Part B to 75 degrees C. Disperse PNC 400 into the water with high shear mixing until uniform gel is formed. Add part A to part B with mixing. Hold at 75 degrees for 15 minutes. Cool to 40 degrees C and add premixed part C with continuous mixing. Cool to 30 degrees C.

Appearance: White, smooth, shiny cream

pH: 6.00 to 6.50

Viscosity: 60,000-80,000 cps (RVT #6 @ 10 rpm @ 25 degrees C)

Sunscreen Lip Balm with Eldew

<u>Ingredient/Trade Name:</u>	<u>% by Weight</u>
Part A:	
Carnauba Wax #1 Yellow	4.00
Ozokerite Wax JH1680	4.00
Synthetic Beeswax JH-1508	10.00
Propylparaben	0.15
Cholesteryl/Behenyl/Octyldodecyl Lauroyl Glutamate/Eldew CL-301	10.00
Part B:	
Castor Oil	26.55
PPG-3 Hydrogenated Castor Oil/Hetester HCP	15.00
Glyceryl Triacetyl Hydroxystearate/Hetester HCA	15.00
Octyl Methoxycinnamate/Parsol MCX	7.50
Benzophenone-3/Uvinul M-40	5.00
Octyl Salicylate/Uvinul 0-18	2.00
Tocopheryl Acetate/Vitamin E Acetate	0.60
Part C:	
Bisabolol (Synthetic)	0.20

Heat Part A ingredients to 80 degrees Centigrade. Mix until all solids are completely dissolved. Add Part B ingredients. Mix until uniform. Cool to 65 degrees Centigrade. Add Part C. Mix well. Fill.

SOURCE: Ajinomoto USA, Inc.: Suggested Formulations

Section XIII
Miscellaneous

Cleanser, Clear, Liquid

	<u>%W/W</u>
Dehyton AB30	30.0
Viscontran HEC 30 000 PR-2% solution	69.0
Perfume, water-soluble	1.0

Note: WAS 6%, high viscous
Formula No. L610-01

Cleanser, Disinfecting, Transparent, In Gel Form

	<u>%W/W</u>
Texapon N70	30.0
Dehyton AB30	20.0
Bactericide	0.5
Water	49.5

Note: WAS 27%
Formula No. L610-03

Footbath, Fungicide, Liquid

	<u>%W/W</u>
Dehyton AB30	30.0
Fungicide DA	2.0
Perfume	1.0
Water	67.0

Note: WAS 9%
Formula No. L610-05

Washing Cream for Tube Filling

	<u>%W/W</u>
Texapon N40	50.00
Comperlan 100	3.00
Cutina AGS	5.00
Hydagen P	2.00
Citric acid	0.05
Perfume	1.00
Water	38.95

Note: WAS 17%
Formula No. L610-07

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Clear Golden Hydrogel

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water (Distilled)	86.98
EDTA Disodium	0.10
Cellosize PCG-10	1.50
B. Dow Corning 193	3.00
C. Suttocide A	0.70
Pronalen Fruit Acids AHA-20	4.00
AMP-95	0.60
Extrapone Bamboo Timiron Sungold	3.00
Sparkle MP-29	0.02
Perf. Rain Forest	0.10

Note: Maintain pH close to 5.50 (not over), correct with AMP, if necessary.

Description:

Product is mild due to action of Dow Corning 193 which provides smmoth feel on the skin.

Procedure:

1. Put water in the tank, add EDTA, mix and start heating.
2. Sprinkle Cellosize on top and heat the mixture up to 75C.
3. Then start cooling the mixture and add DC 193.
4. Gel will be formed on cooling.
5. When temperature is below 50C, add Suttocide and mix and after that add AHA slowly.
6. The addition of AHA will break the gel and then addition of AMP-95 will help to reform it.
7. Premix pigment with plant extract and add slowly, and after that perfume.
8. Stop mixing at 25C, take sample for QA and when approved pack the product.

Formulation PF-0309 suggested by Dow Corning

Glycerol Gel Base

Other ingredients may be incorporated as desired.

<u>Ingredients:</u>	<u>% by Weight</u>
Water, deionized	9.00
Stabileze 06	0.50
AMP-95	0.50
Glycerine	89.70
Additives	q.s.
Germall II	0.30

Procedure:

Disperse Stabileze in water with stirring for 10 minutes. Heat the dispersion to 70-80C for 15 to 20 minutes, until thickening occurs. Start cooling. Add AMP with stirring. Mix until uniform. Add glycerine slowly over 10 minutes with stirring. Stir until uniform gel is obtained. Add remaining ingredients, mixing thoroughly after each addition.

Formulation PF-0244E suggested by ISP

SOURCE: Angus Chemical Co.: Angus Product Formulary

Dentifrice Gel

Dentifrice gel with anti-caries active sodium monofluorophosphate (Sodium MFP).

<u>Ingredient:</u>	<u>Weight%</u>	<u>Function</u>
Part A:		
Glycerin	22.00	Humectant
Carbopol 1382 (1)	0.50	Gelling Agent
Part B:		
Deionized Water	24.43	Diluent
Tetrasodium Pyrophosphate	0.25	Chelant
Sodium Saccharine	0.20	Sweetener
Sodium Benzoate	0.50	Preservative
Sodium MFP	0.76	Active
Part C:		
Sodium Hydroxide (50%)	0.40	Neutralizer
Part D:		
Dicalcium Phosphate, Dihydrate	48.76	Abrasive
Part E:		
Sodium Lauryl Sulfate (2)	1.20	Surfactant
Flavor	1.00	

(1) Carbomer (BFGoodrich)

(2) Texapol LS 100F (Henkel)

Preparation Procedure:

1. In a stainless steel vacuum mixer tank at ambient temperature and pressure, slowly add Carbopol to glycerin with rapid agitation.
2. In separate vessel combine Part B with moderate agitation until a clear solution is formed, then combine with Part A with moderate agitation.
3. Add Part C to Parts A and B with moderate agitation.
4. Add Part D with slow mixing until powder is wetted.
5. Turn on vacuum and mix at moderate speed 30 minutes, introduce Part E. Mix 5-7 minutes at very slow speed.

SOURCE: BFGoodrich Co.: Formula C-0037

Denture Cleanser in Powder Form

	%W/W
I Texapon K12	0.50
Sodium tripolyphosphate	54.45
Sodium carbonate	15.00
Sodium perborate	10.00
Sodium chloride	1.00
Borax, in fine powder form	15.00
Chloramine T	3.00
II Phenolphthalein	0.05
III Peppermint oil P17	1.00

Preparation:

Pass I through a sieve with a mesh size of 0.5 mm. Finely grind II with part of I and add it to the whole amount of I. Wet this mixture with III and mix it in a mixing drum.
Formula No. K81-01

Denture Cleaner in Tablet Form

	%W/W
I Texapon K12	0.5
Potassium persulfate	30.0
Sodium perborate	30.0
Sodium carbonate	37.0
Potassium hexacyanoferrate II	2.0
II Peppermint oil P17	0.5

Preparation:

Pass I through a sieve with a mesh size of 0.5 mm and wet with II. The substances are well mixed in a mixing drum and then compressed to form tablets.
Formula No. K81-05

Denture-Cleaning Tablets

	%W/W
I Sodium tripolyphosphate	38.5
Colorant	0.1
II Potassium persulfate	16.0
Texapon K12	0.5
Sodium perborate	29.9
Sodium bicarbonate	7.0
Chloramine T	0.5
III Peppermint oil P17	0.5

Preparation:

Grind I, mix with II and pass through a sieve with a mesh size of 0.5 mm. Wet with III and mix well in a mixing drum. The mixture is then compressed to form tablets.

Formula No. K81-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Detackification of Carbomer Gel

	<u>Weight%</u>
<u>A</u> Deionized Water	90.30
Carbomer 940	0.80
Potassium Sorbate	0.10
<u>B</u> Deionized Water	2.00
Triethanolamine (99%)	0.80
<u>C</u> Pelemol G7A (Glycereth-7 Triacetate)	5.00
<u>D</u> Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Lab Procedure:

Disperse Carbomer in phase A water. When a uniform dispersion is obtained add Potassium Sorbate with adequate agitation. Add phase B to phase A under sweep agitation. When a uniform gel is obtained, add phase C to AB under slow sweep agitation. Continue slow sweep agitation and add phase D to ABC.

*The addition of Pelemol G7A to a Carbomer gel will, in many cases, completely eliminate the gel's transitional tackiness on dry-down.

Formula 14-42-A

Detackification of Carbomer Gel

	<u>Weight%</u>
<u>A</u> Deionized Water	90.30
Carbomer 940	0.80
Potassium Sorbate	0.10
<u>B</u> Deionized Water	2.00
Triethanolamine (99%)	0.80
<u>C</u> Glycerin	5.00
<u>D</u> Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Lab Procedure:

Disperse Carbomer in phase A water. When a uniform dispersion is obtained add Potassium Sorbate with adequate agitation. Add phase B to phase A under sweep agitation. When a uniform gel is obtained, add phase C to AB under slow speed agitation. Continue slow sweep agitation and add phase D to ABC.

*The addition of Pelemol G7A to a Carbomer gel will, in many cases, completely eliminate the gel's transitional tackiness on dry-down.

Formula 14-42-B

SOURCE: Phoenix Chemical, Inc.: Suggested Formulations

Liposome Gel

A soothing gel combining the benefits of vitamins A, C and E in a synergistic and effective liposome system.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	87.40	----
2. Acritamer 940 (Carbomer 940)	0.50	Gelling Agent
3. Xanthan Gum	0.10	Gelling Agent
4. 1,3-Butylene Glycol	5.00	Solubilizer
5. Dimethicone Copolyol	0.10	Conditioning
6. Shebu WS (Shea Butter)	1.00	Conditioning
7. TEA @ 99%	0.40	pH Adjuster
8. Promois ECP (Collagen)	0.20	Biological Additive
9. Glydant	0.20	Preservative
10. Fragrance	0.10	Odor
11. Rovisome ACE (Vitamin Blend)	5.00	Liposome

Compounding Procedure:

Disperse item 2 in water. Add items 3 and mix until dissolved. Add items 4, 5 and 6 separately. Add TEA until batch thickens. Add items 8, 9, 10 and 11. The pH of a gel is 5.5.
Ref. No. 119-6

Liposome Gel

A soothing gel combining the benefits of Hyaluronic Acid delivered deep in the skin via Rovisome.

<u>Ingredients:</u>	<u>%W/W</u>	<u>Function</u>
1. Distilled/Deionized Water	86.87	----
2. Acritamer 940 (Carbomer 940)	0.70	Viscosity
3. Tetrasodium EDTA	0.10	Stability
4. 1,3-Butylene Glycol	4.00	Solubilizer
5. Methylidibromo Glutaronitrile and Phenoxyethanol	0.30	Preservative
6. Sodium Hydroxide @ 10%	q.s.	pH Adjuster
7. Rovisome HA (Alcohol and Lecithin and Hyaluronic Acid)	8.00	Moisturization
8. FD&C Blue No. 1 Solution @ 10%	0.03	Color

Compounding Procedure:

Disperse Acritamer in water with slow agitation. Add items 3-5 with continuous agitation. Adjust pH with item 6 to 6.2-7.0. Then add Rovisome and dyes.
Ref. No. 119-120

SOURCE: R.I.T.A. Corp.: Skin Care Formulary

Mouth-Wash Gargle, Foaming

	<u>%W/W</u>
I Texapon K12	1.8
Cremogen camomile spec.	0.5
Cremogen witch hazel extract	5.0
Arnica tincture	5.0
II Water	75.5
III Menthol	0.2
Thymol	0.5
Peppermint oil P17, water-soluble	1.5
IV 96% ethyl alcohol	10.0

Preparation:

Dissolve I in II, dissolve III in IV and mix both solutions.
Formula No. K 51-01

Mouth-Wash Gargle, Emulsifying

	<u>%W/W</u>
I Cetiol HE	4.0
Water	13.0
II Henkel Glycerin 86% DAB 9	18.0
III Mouth-wash aroma	10.0
96% ethyl alcohol	55.0

Preparation:

Mix the phases in the order given above.
Formula No. K51-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Oil-Liposome-Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Dissolve:	
Water, demineralized	52.80
Panthenol	1.00
Add:	
Ethanol DAB 9	13.30
Add gradually and homogenize approximately 20 minutes:	
Carbopol 940	0.80
Add gradually and homogenize approximately 15 minutes:	
Jojoba Oil	5.00
Titanium dioxide	0.50
For neutralization add gradually and homogenize approximately 15 minutes:	
Tris Amino	1.30
Water, Demineralized	5.00
Add and homogenize:	
Natipide II (20% Phospholipids)	20.00
Cont. 1% Vitamin E-acetate, 1% Vitamin C-palmitate	
Add and homogenize:	
Perfume oil/Sarag 607,423D	0.30

This formulation is preserved by 16 weight percent ethanol.

Formulation PF-0248E suggested by RPR Nattermann
Phospholipid GmbH

Vitamin-Liposome-Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Dissolve:	
Water, demineralized	54.60
Ethanol DAB 9	13.30
Add gradually and homogenize approximately 20 minutes:	
Carbopol 940	0.80
Mix, add gradually and homogenize approximately 20 minutes:	
Carrot Oil	1.25
Macademia Oil	3.75
For neutralization, add gradually and homogenize approximately 15 minutes:	
Tris Amino	1.00
Water, demineralized	5.00
Add and homogenize:	
Natipide II (20% Phospholipids)	20.00
Cont. 1% Vitamin E-acetate, 1% Vitamin C-palmitate	
Add and homogenize with:	
Perfume oil/Diamela 15,544RB	0.30

This formulation is preserved by 16 weight percent ethanol.
Formulation PF-0247E suggested By RPR Nattermann Phospho-
lipid GmbH

SOURCE: Angus Chemical Co.: Angus Product Formulary

Personal Hygiene Cleansers
Cleaner, Disinfectant, Clear

	%W/W
Texapon MLS	60.0
Bactericide	0.5
1,2-propylene glycol	5.0
Water	34.5

Note: WAS 20%, low viscous
Formula No. L611-01

Cleanser, Disinfectant, Clear

	%W/W
Texapon SBN	60.0
Bactericide	0.5
1,2-propylene glycol	3.0
Sodium chloride	2.0
Water	34.5

Note: WAS 18%, low viscous
Formula No. L611-03

Cleanser, Bactericide, Clear, Liquid

	%W/W
Dehyton AB30	15.0
Dehyquart SP	0.1
Viscontran HEC 30 000 PR-2% solution	60.0
Perfume	0.2
Water	24.7

Note: WAS 4.5%, medium viscous
Formula No. L611-05

Cleanser, Disinfecting, Aerosol-Packed

	%W/W
Texapon ASV	50.0
Comperlan OD	4.0
Bactericide	0.5
Ethyl alcohol 96%	2.5
Water	43.0

Filling: 90 parts solution
10 parts propellant 12/114 (40:60)

Note: WAS 19%
Formula No. 611-06

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Personal Hygiene Cleansing Emulsions
(Cleansers in Emulsion Form for Personal Hygiene)
Cleansing Lotion, Disinfecting, Pearly

	<u>%W/W</u>
Texapon N40	60.0
Comperlan KD	7.0
Cutina AGS	7.0
Paraffin oil, high viscous	10.0
Bactericide	0.5
Polyglycol 400	10.0
Water	5.5

Note: WAS 24%, medium viscous

Preparation: The substances are heated to 60-70C and then stirred whilst cooling.

Formula No. L612-01

Cleansing Lotion, Disinfecting, Pearly

	<u>%W/W</u>
Texapon EVR	40.0
Texapon N40	40.0
Bactericide	0.5
1,2-propylene glycol	5.0
Water	14.5

Note: WAS 26%, medium viscous

Formula No. L612-02

Personal Hygiene Spray

	<u>%W/W</u>
Eutanol G	1.0
Cetyl trimethyl ammonium bromide	0.1
Ethyl alcohol 96%	2.0
Perfume	0.5
Propellant 12/114 (40:60)	96.4

Note: It is advisable to use a bath oil perfume which has been tested for its compatibility with the mucous membranes and stability in aerosol cans.

Formula No. L71-01

Personal Hygiene Spray(Dry Spray)

	<u>Parts</u>
Hydagen DEO	1.50 g
Myritol 318	1.95 g
Frigen 12 propellant	96.55 g

Formula No. L71-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Quick Emulsifying Base-A

<u>Ingredients:</u>	<u>%w/w</u>
Dimethicone Copolyol (Abil B 8852)	10.0
PEG-25 Glyceryl Trioleate (Tagat T0)	18.0
Avocado Oil	20.0
Calendula Oil	10.0
Caprylic/Capric Triglycerides (Tegosoft CT)	42.0
Color, Fragrance	Q.S.

Quick Emulsifying Base-B

<u>Ingredients:</u>	<u>%w/w</u>
Dimethicone Copolyol (Abil B 8852)	10.0
PEG-25 Glyceryl Trioleate (Tagat T0)	13.0
Avocado Oil	20.0
Mineral Oil	50.0
Isopropyl Myristate (Tegosoft M)	7.0
Color, Fragrance	Q.S.

Quick Emulsifying Base-C

<u>Ingredients:</u>	<u>%w/w</u>
Dimethicone Copolyol (Abil B 8852)	10.0
PEG-25 Glyceryl Trioleate (Tagat T0)	10.0
Avocado Oil	15.0
Mineral Oil	25.0
Isopropyl Myristate (Tegosoft M)	30.0
Caprylic/Capric Triglycerides (Tegosoft CT)	10.0
Color, Fragrance	Q.S.

Procedure:

Add the ingredients in order, mixing well between additions. Bases are clear with a honey-like viscosity.

Uses:

Blooming bath oils, instant lotions for after bath. After sun emollient lotions.

When these formulas are added to water or to wet skin, emollient and non-sticky emulsions are formed.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Shampoo Concentrate for Dogs and Cats
(Formula 92-0604)

	<u>% by Weight</u>
Rhodapex NA 61	33.0
Alkamide DC-212/S	20.0
Mirataine BET C30	26.0
Sodium Chloride	4.0
Deionized Water	17.0
Citric Acid	q.s. pH to 8.0+-0.2
Fragrance, dye, preservative	q.s.

Blending Procedure: In the main manufacturing vessel, blend the Rhodapex NA 61 and the NaCl and begin heating to 50-55C. At that temperature, add the Alkamide DC-212/S and the Mirataine BET C30 and mix until the batch is homogeneous and clear. Let batch cool to 40-45C and add water, fragrance, dye and preservative. Continue to let batch cool to room temperature.

Note: The viscosity of the letdown at different ratios can be adjusted by the amount of NaCl added to the formula.

Formulation Product: This product can be diluted from 3:1 to 15:1

Flea & Tick Shampoo for Dogs

	<u>% by Weight</u>
SD40 Alcohol	2.00
Pyrocide 5192 (McLaughlin Gormley King Co.)	0.44
Rhodapex MA 360	10.00
Fragrance, Dye, Preservative	q.s.
Water	87.56

Blending Procedure:

Combine SD40 alcohol and Pyrocide and mix until uniform and clear. Add alcohol/Pyrocide blend to Rhodapex MA 360, and mix until uniform. With smooth agitation, slowly add mixture to water. Add fragrance, dye and preservative.

Active Ingredients:

Pyrethrins:	0.040%
Piperonylbutoxide, tech:*	0.080%
N-octyl bicyclheptene dicarboximide:	0.032%
Petroleum distillates:	0.189%

* Equivalent to 0.064% (butylcarbityl) (6-propylpiperonyl) ether and 0.016% related compounds.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulas

Skin Conditioning Body Shampoo
(cold process)

<u>Ingredients:</u>	<u>%w/w</u>
Tetrasodium EDTA	0.10
Water	40.75
Ammonium Laureth Sulfate-2 m. E.O.	25.00
Ammonium Lauryl Sulfate	20.00
Cocamidopropyl Betaine (Tego Betaine F 50)	5.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Dimethicone Copolyol (Abil B 8852)	0.50
Water (and) Ethoxydiglycol (and) Propylene Glycol (and) Butylene Glycol (and) Matricaria Extract (and) Sage Extract (and) Yarrow Extract (and) Balm Mint Extract (and) Rosemary Extract (and) Restharrow Extract (and) Coltsfoot Extract (and) Wild Thyme Extract (and) Horsetail Extract (and) Fructose (and) Althea Extract (Extrapone 3 Special 2/789490 Dragoco)	0.15
Citric Acid (25% solution)	to pH 6
Preservatives	Q.S.
Fragrance	Q.S.
Cocamidopropyl Betaine (and) Glyceryl Laurate (Antil HS-60)	5.00
Ammonium Chloride (25% solution)	as needed

Procedure:

Add ingredients in order, mixing between additions. Adjust pH.
Adjust viscosity.

Body Building Conditioner

<u>Ingredients:</u>	<u>%w/w</u>
Water	90.10
Glyceryl Stearate S.E. (Tegin)	3.00
Glycol Stearate (EGMS-VA)	1.00
Cetyl Alcohol	2.00
Propylene Glycol	3.00
Quaternium-80 (Abil Quat 3272)	0.50
Dimethicone Copolyol (Abil B 8852)	0.40
Color, Preservatives, Fragrance	Q.S.

Procedure:

1. Heat the water to 70-75C. Disperse the Tegin, EGMS-VA, and Cetyl Alcohol. Mix well.
 2. Begin cooling. Cool to 45-50C while mixing. Mix the Propylene Glycol and the Abil Quat 3272 together and add to the batch. Mix.
 3. Switch to sweep mixer. Cool to 40-45C. Add the Abil B 8852, Color, Preservatives, and Fragrance. Mix.
 4. Continue cooling. Fill.
- Formula GCC 16-11

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Tooth Gel, Foaming, Transparent

	<u>%W/W</u>
I Water	6.0
Sodium hydroxide (10% solution)	0.2
II Dehydazol A400P	0.6
III Henkel Glycerin 86% DAB 9	66.0
IV Sident 12 DS	18.0
Aerosil 200	2.0
V Eumulgin SML 20	0.4
Eumulgin SMS 20	0.8
Toothpaste aroma	1.0
VI Texapon K12	1.0
Water	4.0

Preparation:

Sodium chloride is dissolved in water. Dehydazol A400P and glycerin are added and allowed to swell. Sident 12 DS and Aerosil 200 are added and stirred in until a homogeneous paste is created. The tooth paste aroma is solubilized in the emulsifier Eumulgin SML 20/SMS 20 in a separate vessel, and then added to the mixture. Texapon K12 and the water are stirred in carefully (to prevent foam formation). De-aeration takes place in a strong vacuum.

Formula No. K11-10

Tooth Gel, Foaming Transparent

	<u>%W/W</u>
I Water	6.0
Sodium hydroxide	0.2
II Dehydazol A400P	0.6
III Sorbitol (70%)	68.0
IV Sident 12 DS	16.0
Aerosil 200	2.0
V Eumulgin SML 20	0.4
Eumulgin SMS 20	0.8
Toothpaste aroma	1.0
VI Texapon K12	1.0
Water	3.5
Coloring agent E 131 1%	0.5

Preparation:

Dissolve the sodium hydroxide in water. Add sorbitol and allow to swell with Dehydazol A400P, stirring slowly. When swelling is complete (any lumps must be destroyed) add Sident 12 DS and Aerosil 200 and stir you have a homogeneous paste. The aroma is solubilized in Eumulgin SML 20/SMS 20 in a separate vessel before being added to the paste. The coloring agent and the Texapon K12 are dissolved in water and stirred in carefully (keep foam formation to a minimum). De-aerate for max. 1/2 hour in a strong vacuum. (Vacuum <650 Pa.)

Formula No. K11-11

SOURCE: Henkel KGaA: Cosmetic Model Formulae

ToothpasteMaterial/CTFA-Index:

Tylose CB 200/Sodium Carboxymethyl Cellulose	1.20%
Water	31.80
HDK N 20 P/Silica	2.00
Glycerine	10.00
Sorbitol 70%ig/Sorbitol	10.00
Calcium Carbonate	40.00
Texapon K 1296/Sodium Lauryl Sulfate	5.00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Add HDK and disperse well, mix in glycerine and Sorbitol. Stir in calcium carbonate. Add Texapon K 1296 carefully; avoid strong foaming. Evacuate the finished formulation for a short period.
Formulation 250 AH

Toothpaste, TransparentMaterial/CTFA-Index:

Tylose CB 200/Sodium Carboxymethyl Cellulose	0.50%
Water	19.00
Polyethylenglykol 400/PEG-8	4.30
Sorbitol 70%ig/Sorbitol	17.00
Glycerine	50.00
HDK N20P/Silica	5.70
Texapon K 1296/Sodium Lauryl Sulfate	2.50
Preservatives, flavours, pigments	q.s.

Add Tylose and HDK to the water whilst string. Stir in PEG-8. Add Texapon K1296 carefully; avoid strong foaming. Evacuate the finished formulation for a short period.
Formulation 252 AH

ToothpasteMaterial/CTFA-Index

A: Water	37.60%
Tylose CB 200/Sodium Carboxymethyl Cellulose	1.30
B: HDK N 20P/Silica	3.20
C: Glycerine	15.00
D: Dentphos K/Dicalcium Phosphate Dihydrate	35.00
E: Medialan LD/Sodium Lauroyl Sarcosinate	6.60
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK and disperse well. Add C. Stir in D thoroughly. Mix in E slowly (avoid strong foaming).
Formulation 271 AH

SOURCE: Wacker Silicone: Suggested Formulations

ToothpasteMaterial/CTFA-Index:

A: Water	43.14%
Tylose CB 200/Sodium Carboxymethyl Cellulose	1.00
HDK N 20P/Silica	3.00
B: Glycerine	8.00
C: Dentphos K/Dicalcium Phosphate Dihydrate	21.00
Phoskadent pyro/Tetrasodium Pyrophosphate	0.50
Sodium Chloride	15.00
D: Medialan LD/Sodium Lauroyl Sarcosinate	6.00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK and disperse well. Add B. Stir in C thoroughly. Mix in D slowly (avoid strong foaming).

Formulation 270 AH

ToothpasteMaterial/CTFA-Index:

A: Water	32.20%
Tylose CB 200/Sodium Carboxymethyl Cellulose	1.00
B: HDK N20P/Silica	1.50
C: Glycerine	7.00
Sorbitol 70%ig	15.00
D: Calcium Carbonate	38.00
Hostapon KTW neu/Sodium Cocoyl Laurate	4.00
Preservatives, flavours, pigments	q.s.

Disperse Tylose well in water and let swell. Mix in HDK N20P and disperse well. Add C. Stir in D thoroughly.

Temperature stability: at 45C over 10 weeks.

Formulation 272 AH

SOURCE: Wacker Silicone: Suggested Formulations

Toothpaste, Foaming

	<u>%W/W</u>
I Chalk	32.0
Paraffin oil	2.0
Henkel Glycerin 86% DAB 9	20.0
Toothpaste aroma	1.0
II Texamid 578	1.5
Water	36.0
III 1% Saccharin solution	2.5
IV Texapon K12	1.0
Water	4.0

Formula preserved with 0.5-1% sodium benzoate

Preparation:

Mix I to a paste, swell II, mix with III and add to I. Dissolve IV, heating slightly if necessary and carefully stir it into I. If the finished paste has a smooth structure, it is rolled once and then stirred in a vacuum kneader until an airfree paste is obtained.

Formula No. K11-01

Toothpaste, Foaming

	<u>%W/W</u>
I Dicalcium phosphate	47.5
Henkel Glycerin 86% DAB 9	30.0
Toothpaste aroma	1.0
II Dehydazol A400P	1.2
Water	12.7
III 1% Saccharin solution	2.5
IV Texapon K12	1.0
Water	4.1

Formula preserved with 0.5-1% sodium benzoate

Preparation:

Mix I to a paste, swell II, mix with III and add to I. Dissolve IV, heating slightly and slowly stir it into the mixture. If the finished paste has a smooth structure, it is rolled and then stirred in a vacuum kneader until an airfree paste is obtained.

Formula No. K11-02

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Toothpaste, Foaming, with Aerosil 200

	<u>%W/W</u>
I Chalk	30.0
Aerosil 200	2.0
Henkel Glycerin 86% DAB 9	20.0
Paraffin oil	2.0
II Toothpaste aroma	1.0
Menthol	0.2
III Dehydazol A400P	1.0
Water	30.0
IV 1% Saccharin solution	2.5
V Texapon K12	1.8
Water	9.5

Preparation:

Mix I to a paste, dissolve II and add to I. Swell III, mix with IV and add to I. Dissolve V, heating slightly, and carefully stir it into the mixture. If the finished paste has a smooth structure, it is rolled and then stirred in a vacuum kneader until an airfree toothpaste is obtained.

Formula No. K11-03

Toothpaste, Foaming, with Aerosil 200

	<u>%W/W</u>
I Chalk	30.0
Aerosil 200	3.5
Henkel Glycerin 86% DAB 9	20.0
Toothpaste aroma	1.0
II 1% Saccharin solution	5.0
III Dehydazol A400P	1.0
Water	30.0
IV Texapon K12	1.0
Water	8.5

Procedure:

Mix I to a paste, swell III, mix with II and add to I. Dissolve IV, heating slightly, and carefully stir it into the mixture. If the finished paste has a smooth structure, the paste is rolled once and then de-aerated in a vacuum kneader.

Formula No. K11-04

SOURCE: Henkel KGaA: Cosmetic Model Formulae

Water-Resistant Sport Tint

Veegum Ultra, and Rhodigel provide emulsion stabilization, viscosity enhancement, and pigment suspension in this luxurious, water-resistant, cold processed, liquid makeup. A dual sunscreen system (octyl methoxycinnamate and titanium dioxide) provides protection from UV radiation for the active sportswoman.

<u>Ingredient:</u>	<u>% by Wt.*</u>
A: Veegum Ultra (Magnesium Aluminum Silicate)	1.60
Rhodigel (Xanthan Gum)	0.40
Deionized Water	70.40
Propylene Glycol	5.00
B: Iron Oxides	0.67
Manganese Violet	0.10
Talc	4.27
Titanium Dioxide	6.96
C: Isocetyl Alcohol	3.00
Octyl Methoxycinnamate	3.00
Mineral Oil (and) Lanolin Alcohol**	2.00
Oleth-3 Phosphate***	2.20
D: PVP****	0.40
Preservative, Fragrance	q.s.

* As Received Basis

** Ritachol, R.I.T.A. Corp.

*** Crodafos N-3 Neutral

**** PVP K-90

Procedure:

Dry blend Veegum Ultra and Rhodigel and add to the water while mixing with a high speed disperser at 1700 rpm for 25 minutes. Adjust mixer to 850 rpm and add the propylene glycol. Blend B ingredients thoroughly and grind if necessary. Slowly add B to A until all is added, mixing until smooth and uniform. Mix together C ingredients with a propeller stirrer. Add C to (A and B) and mix until homogeneous. Add D ingredients in order, mixing until smooth and uniform.

Product Characteristics:

Viscosity: 1800-2400 cps*****

pH: 6.1+0.2

*****Measured after 28 days aging at room temperature using Brookfield Viscometer, Model LV, Spindle #4 at 60 rpm.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 453

Section XIV
Trade-Named
Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV-20	Phenyl trimethicone	Goldschmidt
Abil AV-20HS	Phenyl trimethicone	Goldschmidt
Abil B 8851	Dimethicone copolyol	Goldschmidt
Abil B 8852	Dimethicone copolyol	Goldschmidt
Abil B 9950	Dimethicone propyl PG-betaine	Goldschmidt
Abil B 88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil Quat 3272	Quaternium-80	Goldschmidt
Abil S 201	Dimethicone/sodium poly PG-propyl dimethicone thio-sulfate copolymer	Goldschmidt
Abil Wax 2440	Behenoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801	Cetyl dimethicone	Goldschmidt
Abil Wax 9810	C24-28 alkyl methicone	Goldschmidt
Abil Wax 9814	Cetyl dimethicone	Goldschmidt
Acetulan	Cetyl acetate (and) acetylated lanolin alcohol	Amerchol
Acritamer 934	Carbomer 934	Rita
Acritamer 940	Carbomer 940	Rita
Acritamer 941	Carbomer 941	Rita
Acuscrub 50		Allied-
Acylglutamate CT-12	2-Alkyl-N-carboxymethyl-N-hydroxyethylimidazolinium betaine	Ajinomoto
Acylglutamate HS-11	Surfactant	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Acudyne 255		
Adol 66	Isostearyl alcohol	Sherex
Advantage CP Resin	Copolymer	ISP
Advantage V Resin	VA/butyl maleate/isobornyl acrylate copolymer	ISP
Aethoxal B	PPG-5 Laureth-5	
Ajidew N-50	Sodium PCA	Ajinomoto
Ajidew T-50	Sodium PCA	Ajinomoto
Alcolec S	Lecithin	Amer Lecith
Alkamide C-212		Rhone
Alkamide DC-207/S, DC-212/S, DC-207/S, DC-280/S, LE		Rhone
Alkamuls EGDS, EGMS, EGMS/C, GMS, GMS-165, LVL, MM/M, SPS, SS		Rhone
Aloe Vera Gel Decolorized 1X		Terry
Alpine 165-049	Fragrance	
Amerchol H-9	Sterol emulsifier & stabilizer	Amerchol
Amerchol L-101	Mineral oil (and) lanolin alcohol	Amerchol
Amerlate W	Isopropyl lanolate	Amerchol
Amerlate LFA	Lanolin fatty acids	Amerchol
Amerlate P	Isopropyl lanolate	Amerchol
Ameroxol OE-20	Oleth-20	Amerchol
Amerscreen P-80/20	Ethyl dihydroxypropyl PABA (and) propylene glycol	Amerchol
Amersil DMC-357	Dimethicone copolyol	Amerchol
Amihope LL	Lauroyl lysine	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amino-Collagen 25	Collagen amino acids	Maybrook
Amino-Silk SF	Silk amino acids	Maybrook
Amisoft CS-11	Sodium cocoyl glutamate	Ajinomoto
Amisoft CT-12	TEA cocoyl glutamate	Ajinomoto
Amisoft GS-11	Sodium N-cocoyl, Tallow-L-Glutamate	Ajinomoto
Amisoft HS-11	Sodium hydrogenated tallow glutamate	Ajinomoto
Amisoft LS-11	Sodium lauroyl glutamate	Ajinomoto
AMiter L-GOD/L-GOD2	Diocylododecyl lauroyl glutamate	Ajinomoto
Amiter LGS-2/LGS-5	Disteareth-5 lauroyl glutamate	Ajinomoto
Ammonyx CDO	Cocamidopropyl oxide	Stepan
Ammonyx KP	Amino oxide	Stepan
Ammonyx 4	Stearalkonium chloride	Stepan
AMP-95	Aminomethyl propanol (95%)	Angus
AMP-Regular	Aminomethyl propanol	Angus
Amphisol	DEA-Cetyl phosphate	Givaudan
Amphomer	Copolymer	Nat Starch
Amphomer LV-71	Copolymer	Nat Starch
Amphomer 28-4910	Copolymer	Nat Starch
Amphocerin E	Mixture of fatty alcohol and wax esters	Henkel
Amphocerin K	Mixture of fatty alcohol, wax esters and mineral fats	Henkel
Amphosol CA	Cocamidopropyl betaine	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Antifoam AF Emulsion	Dimethicone	DowCorn
Antil HS-60	Cocamidopropyl betaine (and) glyceryl laurate	Goldschmidt
Antil 141B	PEG-55 propylene glycol oleate	Goldschmidt
Antil 171	PEG-18 glyceryl oleate/cocoate	Goldschmidt
Antil 208	Acrylates/copolymer/glycol	Goldschmidt
Aquamollin BC	EDTA-sodium salt	Hoechst
Aqua-Tein C	Amino acids/acetamide MEA/ propylene glycol	Maybrook
Aqua-Tein S	Acetamide MEA/MEA-hydrolyzed silk/propylene glycol	Maybrook
Arlacel C		ICI
Arlacel 60	Sorbitan stearate	ICI
Arlacel 80	Sorbitan oleate	ICI
Arlacel 165	Glyceryl stearate/PEG-100 stearate	ICI
Arlacel 186	Glyceryl oleate/propylene glycol	ICI
Arlacel 989	PEG-7 hydrogenated castor oil	ICI
Arlamol E & EP	PPG-15 stearyl ether	
Armeen DM-18D	Dimethyl stearamine	Akzo
Arosurf TA-100	Distearyl dimonium chloride	Sherex
Arosurf 66-E2	Surfactant	Sherex
Avicel RC 591	Microcrystalline cellulose	FMC

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Barquat CT-429	Cetrimonium chloride	Lonza
Belsil ADM 6041 E	Amodimethicone/emulsifier	Wacker
Belsil ADM 6042 E	Amodimethicone/emulsifier	Wacker
Belsil ADM 6056 E	Dimethicone/amodimethicone/ nonoxynol-4/nonoxynol-14	Wacker
Belsil ADM 6057 E	Amodimethicone/tallowtrimonium chloride/nonoxynol-10	Wacker
Belsil BNP	Boron nitride	Wacker
Belsil CM 020/CM 025/ CM 030/CM 040	Cyclomethicone	Wacker
Belsil CM 1000	Cyclomethicone/Dimethiconol	Wacker
Belsil DM 0.65/DM 35/ DM 100/DM 350	Dimethicone	Wacker
Belsil DM 6600 E	Dimethicone/Trideceth-10	Wacker
Belsil DM 10000	Dimethicone	Wacker
Belsil DMC 6031	Dimethicone copolyol	Wacker
Belsil DMC 6032	Dimethicone copolyol acetate	Wacker
Belsil DMC 6033	Dimethicone copolyol acetate	Wacker
Belsil DMC 6035	Methicone copolyol acetate	Wacker
Belsil DMC 6038	Dimethicone copolyol	Wacker
Belsil PDM 20/PDM 200 PDM 1000	Phenyl dimethicone	Wacker
Belsil SDM 6022	Dimethicone/stearoxy dimethyl- silane/stearoxy dimethyldisiloxane	Wacker
Belsil SM 6018	Stearyl methicone	Wacker
Belsil 350	Dimethicone	Wacker
Benece1 MP943PR	Hydroxypropyl methylcellulose	Aqualon

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Bentone EW & 38	Gelling & suspending agent	Rheox
Bernel Ester DOM	Diocetyl maleate	Bernel
Bienwachs 8100	Beeswax	Henkel
Biocare SA	Albumen/hyaluronic acid/dextran sulfate	
Biomim Se/P/C	Selenium polypeptides	Brooks
Bioterge AS-40	Sodium C16-18 olefin sulfonate	Stepan
Brij 96	Oleth-10	ICI
Britol 7	Mineral oil	Sonneborn
Bronidex L & L5	5-bromo-5-nitro-1,3-dioxane	Henkel
Bronopol	Bactericide	Angus
Brookswax D	Cetearyl alcohol/ceteareth-20	Brooks
Burst RSD-10	Dimethicone silylate	HydroLabs
C33-134 Cosmetic Black Iron oxide		Sun
C43-1810 Cosmetic Blue Ultramarines		Sun
C47-5175 Cosmetic White Titanium dioxide		Sun
CAE	PCA ethyl cocoyl arginate	Ajinomoto
Camilol	Alpha-bisabolol	Maybrook
Capmul 10G-10-0	Polglyceryl-10 decaoleate	Capital
Captex 300	Capric/caprylic triglycerides	Capital
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Carbopol 954	Carbomer 954	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carbopol 1382	Carbomer 1382	Goodrich
Carbopol 2984	Carbomer 2984	Goodrich
Carbopol 5984	Carbomer 5984	Goodrich
Carbowax 200		UnionCarb
Carbowax 400	PEG-8	UnionCarb
Carnation	Mineral oil	Sonneborn
Carsamide SAL-7	Lauramide DEA	
Carsonol ALS	Ammonium lauryl sulfate	
Carsoquat CT 429	Cetrimonium chloride	Lonza
Cashmir K-11	Mica/silicon dioxide	
C-Base	Mineral oil/PEG-30 lanolin/ cetyl alcohol	Maybrook
Cegesoft C24	2-Ethylhexyl palmitate	Henkel
Cegesoft 17	Myristyl lactate	Henkel
Cellosize QP	Hydroxyethyl cellulose	UnionCarb
Cellosize 30,000H	Hydroxyethyl cellulose	UnionCarb
Celquat H-100 & L-200	Polyquaternium-4	Nat Starch
Ceraphyl 60	Quaternium-22	Van Dyk
Ceraphyl 65	Quaternium-26	Van Dyk
Ceraphyl 140	Decyl oleate	Van Dyk
Ceraphyl 424	Myristyl myristate	Van Dyk

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ceraphyl 847	Octyldodecyl stearoyl stearate	Van Dyk
Cerasynt GMS	Glyceryl stearate	Van Dyk
Cerasynt IP	Glycol stearate SE	Van Dyk
Cerasynt SD	Glyceryl stearate, pure	Van Dyk
Cerasynt WM	Glyceryl stearate/stearyl alcohol/sodium lauryl sulfate	Van Dyk
Cetal	Cetyl alcohol	Amerchol
Cetiol	Oleyl oleate	Henkel
Cetiol A	Hexyl laurate	Henkel
Cetiol B	Dibutyl adipate	Henkel
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Oleyl erucate	Henkel
Cetiol LC	Coco-caprylate/caprate	Henkel
Cetiol MM	Myristyl myristate	Henkel
Cetiol R	Soya polyol	Henkel
Cetiol S	Diethylcyclohexane	Henkel
Cetiol SB45	Shea butter	Henkel
Cetiol SN	Cetearyl alcohol isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Isooctyl stearate	Henkel
Chel CD	Cyclohexane diamine tetra-acetic acid	Ciba-Geigy
Citroflex-2	Triethyl citrate	Morflex
Clearlan	Lanolin	Henkel
CMC 7HSSF	Cellulose gum	Aqualon

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
CMC 7LF/CMC 7MF	Cellulose gum	Aqualon
Co-Ge11 A-2/B270		
Collagen Hydrolyzate Cosmetic N-55		Maybrook
Collagen Hydrolyzate Cosmetic 50		Maybrook
Collagen KD		GfN
Collagen Native Extra 1%		Maybrook
Comperlan COD	Cocamide DEA	Henkel
Comperlan F	Linoleamide DEA	Henkel
Comperlan HS	Stearamide MEA	Henkel
Comperlan KD	Cocamide DEA	Henkel
Comperlan KM	Cocamide MEA	Henkel
Comperlan LD	Lauramide DEA	Henkel
Comperlan LM	Lauramide MEA	Henkel
Comperlan LMD	Lauramide DEA	Henkel
Comperlan LP	Lauramide MIPA	Henkel
Comperlan LS	Cocamide DEA/Laureth-2	Henkel
Comperlan OD	Oleamide DEA	Henkel
Comperlan UDM	X Undecylenamide MEA	Henkel
Comperlan VOD	Soyamide DEA	Henkel
Comperlan 100	Cocamide MEA	Henkel
Cosmedia Guar C261	Guar hydroxypropyl trimonium chloride	Henkel
Cosmedia Guar U	Guar gum	Henkel
Cosmedia Polymer HSP 1180	Polyacrylamidomethylpropane sulfonic acid	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cosmowax K	Stearyl alcohol/ceteareth-20	Croda
Cremophor A25	Surfactant	BASF
Cremophor RD 40	Surfactant	BASF
Cremophor RH 40	PEG-40 Hydrogenated castor oil	BASF
Cremophor RH 60	PEG-60 Hydrogenated castor oil	BASF
Crodafos N-3 Neutral	DEA-Oleth-3 phosphate	Croda
Crodafos SG	PPG-5-ceteth 10	Croda
Crodamol PMP	PPG-2-myristyl ether propionate	Croda
Crodamol PTC	Pentaerythrityl tetracaprate	Croda
Crodawax GP 200	Stearylalcohol/PEG Stearate	Croda
Crodesta SL 40	Sucrose cocoate	Croda
Cropeptide W		Croda
Crotein ADW	AMP Isostearyl hydrolyzed wheat protein	Croda
Crotein Q	Steartrimonium hydroxyethyl hydrolyzed collagen	Croda
Crotein SPO	Hydrolyzed animal protein	Croda
Crovol A-70	PEG-60 almond glycerides	Croda
Crovol M40	Corn oil PEG-20 complex	Croda
Cutina AGS	Glycol distearate	Henkel
Cutina BW	Partial glycerides/esters of long chain fatty acids	Henkel
Cutina CBS	Mixture	Henkel
Cutina CP/CP-A	Cetyl palmitate	Henkel
Cutina E24	PEG-20-glyceryl stearate	Henkel
Cutina EGMS	Glycol stearate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cutina GMS	Glyceryl stearate	Henkel
Cutina HR	Hydrogenated castor oil	Henkel
Cutina KD16	Glyceryl stearate SE	Henkel
Cutina LE	Glyceryl stearate/sodium cetearyl sulfate	Henkel
Cutina LM	Mixture of fatty alcohols, waxes, oils	Henkel
Cutina MD/MD-A	Glyceryl stearate	Henkel
Cutina TS	PEG-3-distearate	Henkel
Darvan No. 1	Sodium polynaphthalene sul- fonate	Vanderbilt
DC3225C	Cyclomethicone/dimethicone copolyol	DowCorning
Dehydazol-types	Cellulose gum	Henkel
Dehydol LS2 Deo	Laureth-2	Henkel
Dehydol LS3 Deo	Laureth-3	Henkel
Dehydol LS4 Deo	Laureth-4	Henkel
Dehymuls E	Mixed ester emulsifier	Henkel
Dehymuls F	Mixture of fatty acid esters, fatty acid salts & additives	Henkel
Dehymuls HRE-7		Henkel
Dehymuls K	Mixture	Henkel
Dehymuls LS	Mixture	Henkel
Dehymuls SML	Sorbitan monolaurate	Henkel
Dehymuls SMO	Sorbitan monooleate	Henkel
Dehymuls SMS	Sorbitan monostearate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dehymuls SSO	Sorbitan sesquioleate	Henkel
Dehyquart A	Cetrimonium chloride	Henkel
Dehyquart C cryst.	Laurylpyridinium chloride	Henkel
Dehyquart DAM	Distearyltrimonium chloride	Henkel
Dehyquart E	Hydroxycetyl hydroxyethyl dimonium chloride	Henkel
Dehyquart LDB	Lauralkonium chloride	Henkel
Dehyquart LT	Lauryl trimethyl ammonium chloride	Henkel
Dehyquart SP	Quaternium-52	Henkel
Dehyton AB30	Coco-betaine	Henkel
Dehyton G	Cocoamphodiacetate	Henkel
Dehyton G-SF	Cocoamphodipropionate	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Dentphos K	Dicalcium phosphate dihydrate	
Dermalcare DV-4232, GMS/SE, NI		
Dermasome E	Lecithin/tocopheryl acetate	ChemMark
Dermasome SOD	Lecithin/superoxide dimutase	ChemMark
Desaron	Desamido collagen/hyaluronic acid	GfN
Diahold A-503	AMP-Acrylates copolymer	Sandoz
Dimethicone Copolyol Resin Modifier		UnionCarb
Dimethicone 350		GE Sil
Dimethicone Copolyol Surfactant		UnionCarb
DME	Dimethyl ester	duPont
Dow 225 Fluid	Dimethicone	DowCorn

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dowanol DPM	PPG-2 Methyl ether	Dow
Dowanol EPh	Phenoxyethanol	Dow
Dow Corning Q2-3225C, Q2-5220	Cyclomethicone/dimethicone copolymer	DowCorn
Dow Corning 190/193	Dimethicone copolymer	DowCorn
Dow Corning 200 Fluid	Dimethicone	DowCorn
Dow Corning 245 Fluid 345 Fluid/344 Fluid	Cyclomethicone	DowCorn
Dow Corning 556 Fluid	Phenyltrimethicone	DowCorn
Dow Corning 593	Dimethicone/trimethylsiloxy- silicate	DowCorn
Dow Corning 929	Emulsion	DowCorn
DC-1932 Surfactant		DowCorn
Dowicil 200	Quaternium-15	Dow
D-Panthenol 50P	Panthenol/propylene glycol	BASF
Drakeol 7/9/10/19	Mineral oil	Penreco
DV-3284	Sodium isethionate	
Dymel A	Dimethyl ether	duPont
Eastman AQ Treated Pigment-Red, Yellow, Black, White		Eastman
Eastman AQ 38S Polymer/AQ 55S Polymer		Eastman
Eastman Vitamin E6-81	Vitamin E acetate	Eastman
Eastman Vitamin E TPGS (20%)		Eastman
Egalia No. 72075	Perfume	
EGMS-VA	Glycol stearate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Elastin CLR	Hydrolyzed animal elastin	Henkel
Eldew CL-301	Cholesteryl/Behenyl/octyl-dodecyl/lauroyl glutamate	Ajinomoto
Elefac I-205	Octyldodecyl neopentanoate	Bernel
Emalex CC-168	Cetyl octanoate	Nihon
Emalex GIWS330	POE (30) glyceryl triisostearate	Ajinomoto
Emalex GMS-7CAE	Glyceryl monostearate	Nihon
Emalex GMS-45RT	Glyceryl monostearate (HLB5)	Nihon
Emalex S.T.G.-R	Hydrogenated oil	Nihon
Emalex 6300-DI ST	PEG-150 Distearate	Nihon
Emalex 6300 M-ST	PEG-150 monostearate	Nihon
Emcol CC-9	Surfactant	Witco
Emcol 4161L	Disodium cocamido MIPA-sulfosuccinate	Witco
Emersol 132	Stearic acid XXX	Henkel
Emersol 871	Isostearic acid	Henkel
Emeressence 1160	Phenoxyethanol	Henkel
Emulgade 1000 Ni	Cetearyl alcohol/ceteareth-20	Henkel
Emulgade A	Cetearyl alcohol/laureth-10	Henkel
Emulgade CL/CL Spec	Mixture	Henkel
Emulgade F	Mixture	Henkel
Emulgade F Special	Cetearyl alcohol/PEG-40 Castor oil	Henkel
Emulgade K	Mixture	Henkel
Emulgade SE, B3		Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emulgator E2149	Stearyl alcohol/steareth-7	Goldschmidt
Emulgator E2155	Stearyl alcohol/steareth-7/ steareth-10	Goldschmidt
Epolene N-34	Polyethylene wax	Eastman
Escalol 507	Octyl dimethyl PABA	Van Dyk
Escalol 567	Benzophenone-3	Van Dyk
Ethanol DEB 100		
Ethomeeen C-25	PEG-15 cocamine	Akzo
Eumulgin B1	Ceteareth-12	Henkel
Eumulgin B2	Ceteareth-20	Henkel
Eumulgin B3	Ceteareth-30	Henkel
Eumulgin C4	PEG-5-Cocamide	Henkel
Eumulgin HRE 40	PEG-40 hydrogenated castor oil	Henkel
Eumulgin HRE 60	PEG-60 hydrogenated castor oil	Henkel
Eumulgin L	PPG-2-ceteareth-9	Henkel
Eumulgin M8	Oleth-10/oleth-5	Henkel
Eumulgin O5	Oleth-5	Henkel
Eumulgin O10	Oleth-10	Henkel
Eumulgin R040	PEG-40 castor oil	Henkel
Eumulgin SML 20	Polysorbate 20	Henkel
Eumulgin SMO 20	Polysorbate 80	Henkel
Eumulgin SMS 20	Polysorbate 60	Henkel
Eumulgin 286	Nonoxynol-10	Henkel
Euperlan MPK 850	Mixture	Henkel
Euperlan PK 771	Pearly gloss concentrate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Euperlan PK 776/ PK 789/PK 810/PK 900/PK 3000	Pearly gloss concentrate	Henkel
European Elastin-30	Hydrolyzed elastin	Maybrook
Eusolex 4360	Benzophenone-3	EM Indust
Eusolex 6300	Methylbenzylidene camphor	EM Indust
Eusolex 8020		EM Indust
Eutanol G, G16	Octyl dodecanol	Henkel
Eutanol G318		Henkel
Extrapone 3 Special 2/789490	Dragoco Complex	Goldschmidt
Extrapon 5 Special		Goldschmidt
Finsolv SB	Isostearyl benzoate	Finetex
Finsolv TN	C12-15 alkyl benzoate	Finetex
Fitoderm	Squalane	Centerchem
Flexan 130	Sodium polystyrene sulfate	Nat Starch
Forlanit E	Hydroxycetyl phosphate	Henkel
Gafquat HS-100	Polyquaternium-28	ISP
Gafquat 734/755	Cationic copolymer	ISP
Gafquat 755N	Poyquaternium-11	ISP
Gantrez A-425		ISP
Gantrez ES-225	Ethyl ester of PVM/MA	ISP
Gantrez ES425	PVM/MA copolymer	ISP

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Gantrez V-215 Resin	Monoethyl ester	ISP
Gantrez V-225 Resin	Ethyl ester of PVM/MA copolymer	ISP
Gantrez V-425 Resin	Butyl ester of PVM/MA copolymer	ISP
Gantrez XL-80	PVM/MA decadiene crosspolymer	ISP
Geahlene	Complex	
Gelamide 250F	Polyacrylamide (milled)	Am Cyan
Gelco	Gelatin	Maybrook
Gelita Sol C	Hydrolyzed collagen	Dt. gel
Genagen CA-050	PEG-5 cocamide	Hoechst
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genamin CTAC	Cetrimonium chloride	Hoechst
Genamin DSAC	Distearyldimonium chloride	Hoechst
Genapol AMG	Magnesium-PEG-3 Cocamidofulfate	Hoechst
Genapol CRT 40	DEA lauryl sulphate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO liquid	Sodium laureth sulfate	Hoechst
Genapol PGL	Glycol distearate/Cocamide MEA/ PPG-4-Deceth-4	Hoechst
Genapol PGM liquid	Sodium laureth sulfate/glycol distearate/cocamide MEA	Hoechst
Genapol PMS	Glycol distearate	Hoechst
Genapol SBE	Disodium laureth sulfosuccinate	Hoechst
Genapol TS powder	PEG-3 distearate	Hoechst
Genapol TSM	PEG-3 distearate/sodium laureth sulfate	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Genapol UD-030	Undeceth-3	Hoechst
Genapol ZRO liquid	Sodium laureth sulfate	Hoechst
Genapol 122	Soya sterol	Henkel
Generol 122E5	PEG5 soya sterol	Henkel
Generol 122E10	PEG-10-soya sterol	Henkel
Generol 122E16	PEG-16-soya sterol	Henkel
Generol 122E25	PEG-25-soya sterol	Henkel
Germaben II/IIE	Bactericide/fungicide	Sutton
Germall II	Diazolidinyl urea	Sutton
Germall 115	Imidazolidinyl urea	Sutton
Geropon AC-78/NP & AS-200 & SBR-3 & T-77		
Glucam E-20	Methyl gluceth-20	Amerchol
Glucamate DOE 120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesqui- stearate	Amerchol
Glucate DO	Methyl glucose dioleate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glydant	DMDM hydantoin	Lonza
Grillocose PS	Methyl glucose sesquistearate	Rita
Grilloten LSE 65K	Sucrose cocoate	Rita
Grilloten LSE 87K	Sucrose cocoate	Rita
Grilloten PSE 141G	Sucrose cocoate	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hamp-ene Na2	Disodium EDTA	WRGrace
Hamp-ene 220	Tetrasodium EDTA	WRGrace
Hamposyl L-30	Fatty acid sarcosinate	WRGrace
HD-Eutanol	Oleyl alcohol	Henkel
HDK H15/HDK H20/ HDK N20/HDK N20P	Silica	Wacker
Hest CSO	Cetearyl octanoate	Heterene
Hest E.G.D.S.	EGDS	Heterene
Hest G-7-TO	Glycereth-7 trioctanoate	Heterene
Hest GC-7	PEG-7 Glyceryl cocoate	Heterene
Hest IS-2-0	Isosteareth-2 octanoate	Heterene
Hest L-2-0	Laureth-2 octanoate	Heterene
Hest MS	Myristyl stearate	Heterene
Hetaine CLA	Canolamidopropyl betaine	Heterene
Hetamide MA	Acetamide MEA	Heterene
Hetamide RC	Cocamide DEA	Heterene
Hetan SS	Sorbitan stearate	Heterene
Hetester HCA	Glyceryl triacetyl hydroxy- stearate	Heterene
Hetester HCP	PPG-3 hydrogenated castor oil	Heterene
Hetester PHA	Propylene glycol isoceteth-3 acetate	Heterene
Hetester PMA	Propylene glycol myristyl ether acetate	Heterene
Hetlan AC	Acetylated lanolin	Heterene
Hetol CA	Cetyl alcohol	Heterene

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hetol CS	Cetearyl alcohol	Heterene
Hetoxmate SA-40	PEG-40 stearate	Heterene
Hetoxamate SA-100	PEG-100 stearate	Heterene
Hetoxamate 100S	PEG-100 stearate	Heterene
Hetoxide G-7	Glycereth-7	Heterene
Hetoxide G-26	Glycereth-26	Heterene
Hetoxol D	Cetearyl alcohol/ceteareth-20	Heterene
Hetoxol G	Stearyl alcohol/ceteareth-20	Heterene
Hetoxol L-2	Laureth-12	Heterene
Hetoxol L-4	Laureth-4	Heterene
Hetoxol P	Emulsifying wax	Heterene
Hetsorb L-20	Polysorbate 20	Heterene
Hetsorb L-80	PEG-80 sorbitan laurate	Heterene
Hi-Care 1000		
Hoe S3267	Cocamidopropyl betaine	
Hostacerin CG	Blend	Hoechst
Hostacerin DGI	Polyglyceryl-2 sesquiiso- stearate	Hoechst
Hostacerin DGL	Polyglyceryl-2 PEG-4 laurate	Hoechst
Hostacerin DGMS	Polyglyceryl-2-stearate	Hoechst
Hostacerin DGS	Polyglyceryl-2 PEG-4 stearate	Hoechst
Hostacerin KW340N	Triceteareth-4 phosphate	Hoechst
Hostacerin LSE	Sucrose laurate	Hoechst
Hostacerin PN 73	Acrylamide/sodium acrylate	Hoechst
Hostacerin WO	Mixture	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hostacerin WOL	Blend	Hoechst
Hostaphat KL340N	Trilaureth-4 phosphate	Hoechst
Hostaphat KW340N	Triceteareth-4 phosphate	Hoechst
Hostapon CT paste	Sodium methyl cocoyl taurate	Hoechst
Hostapon KTW	Sodium lauroyl taurate	Hoechst
Hostapon KTW neu	Sodium cocoyl laurate	Hoechst
Hostapon KCG	Sodium cocoyl glutamate	Hoechst
Hostapon LEC	Laureth-3 carboxylic acid	Hoechst
Hostapon SCHC	Sodium cocoyl hydrolyzed collagen	Hoechst
Hostapon SCI	Sodium cocoyl isethionate	Hoechst
Hostapon SCI D	Sodium cocoyl isethionate	Hoechst
Hostapur SAS 60	Sodium C14-17 sec. alkyl sulfonate	Hoechst
Hydagen CAT		Henkel
Hydagen DEO	Triethyl citrate/BHT	Henkel
Hydagen P	Diethylene tricaseinamide	Henkel
Hydrotriticum QL/2000	Hydrolyzed whole wheat protein	
Hygroderm	"Moisturizing"-Factor	Novarome
Hystar CG	Hydrogenated starch hydrolysate	Lonza
Hystrene 7018	Fatty acids	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Igepal CO-630	Nonionic surfactant	Rhone-Poul
Incroquat Behenyl TMS	Behentrimonium methosulfate/ cetearyl alcohol	Croda
Isolan GI34	Polyglyceryl-4 isostearate	Goldschmidt
Ivarlan AWS	PPG-12 PEG-65 lanolin oil	Brooks
#IY-67 Fragrance		Novarome
Jaguar C13S/14S/ C14 COS/C17/C162/HP-8/HP-60	Guar gum	Hi-Tek
Kathon CG	Fungicide	Rohm&Haas
Kaydol	Mineral oil	Sonneborn
Keltrol/CG-T/G-T/ RD/T	Xanthan gum	Kelco
Kera-Quat WRP	Keratin	Maybrook
Kera-Tein AA	Keratin amino acids	Maybrook
Kera-Tein 1000/1000SD	Hydrolyzed keratin	Maybrook
Kera-Tein 1000 AS	Ethyl ester of hydrolyzed keratin	Maybrook
Kessco GMS-SE	Glyceryl stearate SE	Stepan
Kessco PEG 6000 DS	PEG-150 distearate	Stepan
Klucel G	Hydroxypropylcellulose	Aqualon
Kristine K/19718	Perfume	Robertet

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lactil	Blend	Goldschmidt
Lamacit GML-20	PEG-20 glyceryl laurate	Henkel
Lamecreme KS/KSM	Glyceryl stearate	Henkel
Lamecreme LPM	Base for o/w-type creams, s/e	Henkel
Lamepon PA-TR	TEA-abietoyl-hydrolyzed protein	Henkel
Lamepon S	Potassium coco-hydrolyzed animal protein	Henkel
Lamepon ST40/S-TR	TEA-Coco-hydrolyzed animal protein	Henkel
Lamepon UD	Potassium undecylenoyl hydrolyzed animal protein	Henkel
Lamequat L	Cationized collagen hydrolyzate	Henkel
Lamesoft LMG	Glyceryl laurate (and) TEA-coco-hydrolyzed animal protein	Henkel
Lamesoft 156	Hydrogenated tallow glycerides/TEA-Coco-hydrolyzed animal protein	Henkel
Lanepene	Complex	
Laneto AWS	PPG-12, PPG-50 lanolin	Rita
Laneto-50	PEG-75 lanolin	Rita
Lanette E	Sodium cetearyl sulfate	Henkel
Lanette N	Cetearyl alcohol/sodium cetearyl sulfate	Henkel
Lanette O	Cetearyl alcohol	Henkel
Lanette SX/W	Cetearyl alcohol/sodium lauryl sulfate	Henkel
Lanette 14	Myristyl alcohol	Henkel
Lanette 16	Cetyl alcohol	Henkel
Lanette 18	Stearyl alcohol	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lanette 22	Behenyl alcohol	Henkel
Lanolin USP		Rita
Lanolin X-TRA DEO		Rita
Lantrol	Liquid lanolin	Henkel
Lantrol AWS 1692	PPG-12 PEG-65 lanolin oil	Henkel
Lantrol 1673	Lanolin oil	Henkel
Lemon Passion Fruit Complex		Centerchem
Lexate CRC	Stearamidopropyl dimethyl/ glycol stearate/ceteth-2	Inolex
Lexemul EGMS	Glycol stearate	Inolex
Lexemul 55/55G/55SE	Glyceryl stearate	Inolex
Lexemul 561	Glyceryl stearate/PEG-100 stearate	Inolex
Lexemul EGMS	Glycol stearate	Inolex
Lexgard M	Methyl paraben	Inolex
Lexgard P	Propyl paraben	Inolex
Lexol IPM	Isopropyl myristate	Inolex
Lexorez 100	Glycerin/diethylene glycol/ adipate crosspolymer	Inolex
Lipocol SC-4	Cetareth-4	Lipo
Lipo GMS 450	Glyceryl stearate	Lipo
Lipo IPP	Isopropyl palmitate	Lipo
Liponate GC	Caprylic/capric triglyceride	Lipo
Liponic EG-1	Glycereth-26	Lipo
Lipopeg 6000DS	PEG-150 Distearate	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipo-Peptide AME-30	Acetamide MEA/Lauroyl hydrolyzed collagen/glycerin	Maybrook
Liposorb P-20	Sorbitan ester	Lipo
Lipowax D	Cetearyl alcohol/ceteareth-20	Lipo
Light Mask 169-119	Fragrance	
#LK-40 Fragrance		Novarome
Locron L/P	Aluminum chlorohydrate	
Lovocryl 47	OAC-2	Nat Starch
Lunacera M	Microcrystalline wax	HB Fuller
Luviflex VBM 35	PVP/acrylates copolymer	BASF
Luvimer 100P	Acrylates copolymer	BASF
Luviquat FC370/ Mono CP	Polyquaternium	BASF
Luviset CAP	Vinyl acetate/crotonic acid/ vinyl propionate copolymer	Sherex
Luvisko1 VA37E/VA37I	Polvinylpyrrolidone	BASF
Luvisko1 VA64/VA73W/ VAP343E	PVP/VA copolymer	BASF
Mackalene 116/316/326 426/716	Amine salt surfactant	McIntyre
Mackam CET	Amphoteric surfactant	McIntyre
Mackam J	Cocamidopropyl betaine	McIntyre
Mackam WGB	Amphoteric surfactant	McIntyre
Mackam 2C	Disodium cocamphodiacetate	McIntyre
Mackam 35/35HP	Amphoteric surfactant	McIntyre

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackamide CMA/LLM/PKM	Alkanolamide surfactant	McIntyre
Mackamine CAO/WGO	Amine oxide surfactant	McIntyre
Mackamine DC-50/EL/ LA/LO-Special/OD-35/OM/OP/WGD	Sulfosuccinate surfactant	McIntyre
Mackernium 007	Quaternary ammonium salt	McIntyre
Mackester EGDS/EGMS	Ester	McIntyre
Mackine 301/601		McIntyre
Mackol 70NS		McIntyre
Mackpro Conditioner		McIntyre
Mackpro WLW		McIntyre
Mackstat DM		McIntyre
Magnabrite HV	Magnesium aluminum silicate	Am Colloid
Marine-Dew/PC-100	Partially deacetylated chitin	Ajinomoto
Mayphos 0L3N	DEA-Oleth-3 Phosphate	Maybrook
May Tein	Sodium/TEA Lauryl hydrolyzed keratin	Maybrook
Maytein C	Potassium cocoyl hydrolyzed collagen	Maybrook
Maytein CT	TEA-cocoyl hydrolyzed collagen	Maybrook
Maytein SY	TEA-cocoyl hydrolyzed soy protein	Maybrook
Maywax D	Cetearyl alcohol/ceteareth-20	Maybrook
Maywax P	Emulsifying wax, NF	Maybrook
Medialan LD	Sodium lauroyl sarcosinate	
Men's Fragrance A62119/794456		Haarman&
Merquat 280	Polymer	Calgon
Merquat 550	Polyquaternium-7	Calgon

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Methocel E4M/40-202	Hydroxypropyl methylcellulose	Dow
Methyl Gluceth-20		Amerchol
Micro Ace P-2	Talc	
Mink Oil, Heavy Fraction/Light Fraction		Emulan
Miracare CT-100/MPC/SCS/XL		Rhone
Miranol C2M conc.	Disodium cocoamphodiacetate	Rhone
Miranol C2M Conc. NP	Cocoamphodiacetate	Rhone
Miranol C2M-SF Conc.	Surfactant	Rhone
Miranol DM Conc.(45%)	Surfactant	Rhone
Miranol MHT	Lauroamphoglycinate/trideceth sulfate	Rhone
Miranol Ultra C-32, Mirapol A-15, 133, 550	Surface active agent	Rhone
Mirasheen 202		Rhone
Mirataine BET-C-30, BET-O-30, CBC, CBS, COB, TM	Surfactant	Rhone
Moisturizing Liposome Complex		
Monamate CPA-40	Disodium cocamido MIPA-sulfosuccinate	Mona
Monamate OPA-30	Disodium oleamido PEG-2 sulfosuccinate	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 150 ADD		Mona
Monamid 150LW, 716	Lauramide DEA	Mona
Monaquat P-TC	Cocamidopropyl PG-dimonium chloride	Mona
Monomuls 90-L 12	Glyceryl laurate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monomuls 90-0 18		Henkel
Monateric CAB	Cocamidopropyl betaine	Mona
Monateric ISA-35	Sodium Isostearoamphopropionate	Mona
Monateric 1188M		Mona
M-Quat JO-50	Olealkonium chloride	PPG
Mulgofen ON-870		Rhone
Myvatex Texture Lite, Myvatex 60	Emulsifier	
Myverol 18-06	Hydrogenated soy glyceride	Eastman
Myritol 318	Caprylic/capric triglyceride	Henkel
Nadex 360		Nat Starch
Nasuna B	PVP/Va copolymer	Henkel
Natrosol 250 HHR/ 250 HHX/250 HR	Hydroxyethyl cellulose	Aqualon
Nature Chem CR	Cetyl ricinoleate	CasChem
Nature Chem OHS	Octyl hydroxystearate	CasChem
Natural Extract DP	Trimethyl glycine	Rita
Nature's Herbal #165-050	Fragrance	
Neobee M-5	Caprylic/capric triglyceride	Stepan
Neo-Heliopan AV	Octyl methoxycinnamate	Haarman
Neo-Heliopan BB	Benzophenone-3	Haarman
Neo-Heliopan E1000	Isoamyl p-methoxycinnamate	Haarman
Neo-PC1 Water Soluble	Trideceth-9/PEG-3 octanoate	Dragoco
N-Hance	Guar hydroxypropyl trimonium chloride	Aqualon

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nikkol MYS-55	PEG-55 stearate	Nikko
Nikkol TL-10	Polysorbate 20	Nikko
Nikkol WCB		Nikko
Nipastat	Microbiocide	Nipa
Novarome Tuberosa MG-02		
Novata Types	Cocoglycerides	Henkel
Noville #24093/ #27986/#28819/#31337/#31563/#84504	Fragrance	Noville
Nutrilan H/I/I-50/L	Protein partial hydrolyzate, sodium salt	Henkel
Octopirox	Piroctone olamine	Hoechst
OHLan	Hydrogenated lanolin	Amerchol
Olamín K	Prep of hydrogen peroxide fixatives for cold waves	Henkel
Omadine	Zinc pyrithione, 48%	Olin
Orgasol 2002D Extra Natural Cos:	Nylon-12	Atochem
Ottasept Extra	Bactericide, fungicide	Ferro
Ozokerite Wax JH1680		Ross
Ozokerite Wax #871 Beaded		Ross
Panthenol		Tri-K
Paragon II	Preservative	McIntyre
Parso1 MCX	Octyl methoxycinnamate	Givaudan
Pationic ISL	Na Isostearoyl lactylate	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pationic SSL	Sodium stearoyl lactylate	Rita
Pationic 138C	Sodium lauroyl lactylate	Rita
Patlac IL	Isostearyl lactylate	Rita
Patlac LA	Lactic acid-88%	Rita
Patlac NAL	Sodium lactate	Rita
Peach Floral 92F/3235	Fragrance	FragResourc
Pecogel H-12	PVP/Polycarbamyl polyglycol ester	Phoenix
Pecosil CAP-1240	Silicone quaternium-9	Phoenix
Pecosil RS-100	Dimethicone copolyol phosphate	Phoenix
Pecosil SMQ-40	Silicone quaternium-5	Phoenix
Pecosil SPB-1240	Silicone quaternium-6	Phoenix
Pecosil SSP	Hydrolyzed soy protein/DCP copolymer	Phoenix
Pecosil SWP-83/ SWPQ-40	Hydrolyzed wheat protein/ Dimethicone copolyol phosphate	Phoenix
Pecosil WDS-100/ WDS-200	Dimethicone copolyol phosphate	Phoenix
PEG-75 Lanolin		Henkel
Pelan AC	Cetyl acetate/acetylated lanolin alcohol	Phoenix
Pelemol BB	Behenyl behenate	Phoenix
Pelemol DIA	Diisopropyl adipate	Phoenix
Pelemol EE	Eicosyl erucate	Phoenix
Pelemol GMS	Glyceryl stearate	Phoenix
Pelemol GS	Glyceryl stearate	Phoenix
Pelemol GTB	Glyceryl tribehenate	Phoenix

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pelemol G7A	Glycereth-7 triacetate	Phoenix
Pelemol ICB	Isoceteth behenate	Phoenix
Pelemol ISB	Isostearyl behenate	Phoenix
Pelemol ISL	Isostearyl lactate	Phoenix
Pelemol OP	Octyl palmitate	Phoenix
Pelemol OPG	Octyl pelargonate	Phoenix
Pelemol SPO	Cetyl/stearyl octanoate	Phoenix
Pelemol 89	Octyl Isononanoate	Phoenix
Pelemol 2022	Octyldodecyl behenate	Phoenix
Pelox P3M		Phoenix
Pemulen TR-1/TR-2	Acrylates/C10-30 alkyl acrylate crosspolymer	BFGoodrich
Permethyl 101A/102A	Isoeicosane/Isoostahexacontane	Presperse
Permulgin 3510	Beeswax/vaseline	KosterKeun
Permulgin 4200	Microcrystalline wax	KosterKeun
Phoenonip	Phenoxyethanol/etc.	Nipa
Phoenamid CD	Cocamide DEA	Phoenix
Phoenamide LD	Lauramide DEA	Phoenix
Phoenate SLES-70	Sodium laureth sulfate	Phoenix
Phoenate 3DSA	PEG-3 distearate	Phoenix
Phoenate 200 DL	PEG-4 dilaurate	Phoenix
Phoenatric CAB	Cocamidopropyl betaine	Phoenix
Phenoxide STA-2	Steareth-2	Phoenix
Phenoxide STA-100	Steareth-100	Phoenix
Phenoxol T	Cetearyl alcohol/ceteareth-20	Phoenix

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Phospholipid EFA	Linolamidopropyl PG-dimonium chloride phosphate	Mona
Phospholipid SV		Mona
Phytelene Complex EGX-243/EGX-244	Complex chemical	
Plantaren 2000		Henkel
Plantaren PS 10/2000/2000 VP		Henkel
PNC 400	Sodium carbomer	3V
Polawax	Emulsifying wax, NF	Croda
Polycare 133		
Polydiol 400		Henkel
Polymer JR30M		UnionCarb
Polymer JR400/LR400	Polyquaternium-10	Amerchol
Polyox WSR-3000	PEG-14M	UnionCarb
Polyquart H81	PEG-15 Coco polyamine	Henkel
Polyquta 3000	Polyquaternium-10	Rita
Polyviol W25/140	Polyvinyl alcohol	
Polawax	Emulsifying wax NF	Croda
PPG-10 Cetyl Ether		Croda
PPG-10 Methyl Glucose Ether		Amerchol
Prisorine GTIS	Glycerol triisostearate	Unichema
Procetyl 10	PPG-10 cetyl ether	Croda
Procol OA-10	Oleth-10	Protameen
Prodew 100	Sorbitol/sodium lactate/etc.	Ajinomoto
Prodew 300	Sodium lactate/sodium PCA/etc.	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Product SE-100	Glyceryl stearate/PEG-100 stearate	Heterene
Promois ECP	Collagen	Rita
Promulgen D	Cetearyl alcohol/ceteareth-20	Amerchol
Promulgen G	Stearyl alcohol/ceteareth-20	Amerchol
Propal	Isopropyl palmitate	Amerchol
Prosolal S9		Dragoco
Protachem SMO	Sorbitan oleate	Protameen
Protasorb L-20	Polysorbate 20	Protameen
Protasorb O-20	Polysorbate 80	Protameen
Pro-Tein ES-20	Ethyl ester of hydrolyzed collagen	Maybrook
Proto-Lan 4R	Cocoyl hydrolyzed collagen/etc.	Maybrook
Proto-Lan 8	Lecithin/etc.	Maybrook
Proto-Lan 30	Propylene glycol/etc.	Maybrook
Pur-Cellin Liquid/Solid		Dragoco
PVP K-60/PVP K-90/PVP K-30		ISP
PVP/VA E335/E535/E735	PVP/VA Copolymer	ISP
Pyocide 5192	Insecticide concentrate	MGK
Pyroter CPI-40	PEG-40 hydrogenated castor oil PCA isostearate	Ajinomoto
Pyroter GPI-25		Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Quat-Pro E	Triethonium hydrolyzed collagen ethosulfate	Maybrook
Quat-Pro S/S30	Stearyltrimonium hydroxy ethyl hydrolyzed collagen	Maybrook
Red & Blue Nuggets	Mineral oil in gelatin micro-capsules	RT Dodge
Resyn 26-1314		Nat Starch
Resyn 28-2913		Nat Starch
Resyn 28-2930		Nat Starch
Rewolan AWS	PEG-75 Lanolin oil	
Rhodacal A-246L		Rhone
Rhodacal A246LX		Rhone
Rhodacal DDB-40		Rhone
Rhodafac RS 610		Rhone
Rhodapex ESY		Rhone
Rhodapex MA360		Rhone
Rhodapex NA61		Rhone
Rhodapon ESY		Rhone
Rhodapon L-22 HNC		Rhone
Rhodapon LSB		Rhone
Rhodapon LT-6		Rhone
Rhodapon SB 82085		Rhone
Rhodaquat M242B/99		Rhone
Rhodaquat M270C/18		Rhone

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rhodaquat 7LVF		Rhone
Rhodigel	Xanthan gum	
Rhodigel EZ	Xanthan gum	
Rilanit GMO	Glyceryl oleate	Henkel
Rilanit GMRO	Glyceryl ricinoleate	Henkel
Rita CA	Cetyl alcohol	Rita
Rita Cetearyl Alcohol		Rita
Ritachol	Mineral oil/lanolin alcohol	Rita
Ritachol 2000/5000	R.I.T.A. blend	Rita
Ritaderm	R.I.T.A. blend	Rita
Rita EGDS	Glycol distearate	Rita
Rita GMS	Glycerol monostearate	Rita
Rita IPM	Isopropyl myristate	Rita
Ritalan	Lanolin oil	Rita
Ritalan C	Isopropyl palmitate/lanolin oil	Rita
Ritaloe 200M	Aloe vera gel	Rita
Ritamide C	Cocamide DEA	Rita
Ritapan D	d-panthenol	Rita
Ritapan DL	dl-panthenol	Rita
Rita PEO-1	PEG-5M	Rita
Rita PEO-2	PEG-9M polyethylene oxide	Rita
Ritapeg 150 DS	PEG-150 distearate	Rita
Ritaphenone-3	Benzophenone-3	Rita
Ritaplast/50W	Mineral oil/polyethylene	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ritapro 100/165	R.I.T.A. blend	Rita
Ritapro 300	Cetearyl alcohol/ceteareth-20	Rita
Rita SA	Stearyl alcohol	Rita
Ritasynt IP	R.I.T.A. blend	Rita
Ritavena 5	Hydrolyzed oat flour	Rita
Ritawax ALA	R.I.T.A. blend	Rita
Ritawax 15	Laneth-15	Rita
Robane	Squalane, NF	
Rovisone ACE	Vitamin blend	Rita
Sandopan LS-24		
Satin Finish	Complex	
SF 18 (350) Silicone Fluid; Dimethicone		Dow Corn
Shampoo Fragrance A62120/794457		Haarman
Shebu Refined	Shea butter	Rita
Shebu WS	PEG-50 shea butter	Rita
Shellac Wax MHP105 DO		MHPShellac
Shellsol D70	Petroleum distillates	Shell
Silbione 70047 V300/70646/71634		
Silicone SF-1173		GE Silicone
Silicone 566 Fluid		DowCorn
Silk Pro-Tein	Hydrolyzed silk	Maybrook
Silwax WD-F/WS-L		Siltech
Simchin Refined	Jojoba oil	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sipon ES-2	Sodium laureth sulfate	Rhone
Sipon ESY	Sodium laureth-1 sulfate	Rhone
Solulan L-575/75	PEG-75 lanolin	Amerchol
Solulan 98	Polysorbate 80/cetyl acetate/ acetylated lanolin alcohol	Amerchol
Sorbo	Sorbitol, 70%	ICI
Soy-Quat C	Cocodimonium hydroxypropyl hydrolyzed soy protein	Maybrook
Soy-Tein NL	Hydrolyzed soy protein	Maybrook
Span 80	Sorbitan oleate	ICI
Spheron P-1500	Silica	
Standamid KD	Cocamide DEA	Henkel
Standamul 1616	Cetyl palmitate	Henkel
Standapol A	Ammonium lauryl sulfate	Henkel
Standapol EA-2	Ammonium laureth sulfate	Henkel
Standapol EA-3	Ammonium laureth sulfate (27%)	Henkel
Standapol ES-2	Sodium laureth-2 sulfate	Henkel
Standapol ES-3	Sodium laureth-3 sulfate	Henkel
Standapol T	TEA lauryl sulfate	Henkel
Standapol WAQ Spec.	Sodium lauryl sulfate	Henkel
Stearal	Stearyl alcohol	Amerchol
Stepanhold Extra	Hairspray resin	Stepan
Stepanhold R-1	Hairspray resin	Stepan
Stepanol AM	Ammonium lauryl sulfate	Stepan
Stepanol WAT	TEA lauryl sulfate	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ster-O-Pro	Oat flour	QO
Sufadone LP-300		ISP
Sulfopan 101/ 101 spec./103	Sodium lauryl sulfate	Henkel
Sunarome UVA	Menthyl anthranilate	Felton
Sunburst 94F/2197		Fragrance
Sunflower Fragrance 12294		Chemia
Super Sat AWS-4	PEG-24 hydrogenated lanolin	Rita
Super Solan Flaked		Croda
Supro-Tein S	Sodium cocoyl hydrolyzed soy protein/sorbitol	Maybrook
Supro-Tein V	TEA-cocoyl-hydrolyzed collagen/ sorbitol	Maybrook
Suttocide A	Sodium hydroxymethyl glycinate	Sutton
Syncrowax HR-C	Glyceryl tribehenate	Croda
Syntase 230	UV absorber	Neville
Synthetic Beeswax JH-1508		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tagat I2	PEG-20 glyceryl isostearate	Goldschmidt
Tagat L	PEG-30 glyceryl laurate	Goldschmidt
Tagat S	PEG-30 glyceryl stearate	Goldschmidt
Tagat T0	PEG-25 glyceryl trioate	Goldschmidt
Tefose 2561	PEG-6 stearate/glyceryl stearate/ceteth-20	Gattefosse
Tegamine Oxide WS35	Cocamidopropyl amine oxide	Goldschmidt
Tegin	Glyceryl stearate SE	Goldschmidt
Teginacid	Glyceryl stearate/ceteareth-20	Goldschmidt
Teginacid H	Glyceryl stearate/ceteth-20	Goldschmidt
Tego Betaine F/F50	Cocamidopropyl betaine	Goldschmidt
Tego Betaine HS	Cocamidopropyl betaine/glyceryl laurate	Goldschmidt
Tego Betaine L-7	Cocamidopropyl betaine	Goldschmidt
Tego Pearl B-48	Cocamidopropyl betaine/etc.	Goldschmidt
Tego Pearl N100	Glycol distearate/steareth-4	Goldschmidt
Tegosoft CT	Caprylic/capric triglycerides	Goldschmidt
Tegosoft EE	Octyl octanoate	Goldschmidt
Tegosoft GC	PEG-7 glyceryl cocoate	Goldschmidt
Tegosoft M	Isopropyl myristate	Goldschmidt
Tegosoft OP	Octyl palmitate	Goldschmidt
Tegosoft OS	Octyl stearate	Goldschmidt
Tegosoft P	Isopropyl palmitate	Goldschmidt
Tegosoft SH	Stearyl heptanoate	Goldschmidt
Tegosoft 189	Isooctadecyl isononanoate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tergitol NP-10	Surfactant	UnionCarb
Texamid types	Sodium alginates	Henkel
Texapol LS 100F	Sodium lauryl sulfate	Henkel
Texapon A/ALS	Ammonium lauryl sulfate	Henkel
Texapon ASV ASV 70 Special	Mixture of special fatty alcohol ether sulfates	Henkel
Texapon CS Paste	Mixture of fatty alcohol sulfates	Henkel
Texapon EVR	Sodium lauryl ether sulfate with special additives	Henkel
Texapon IES	MIPA-laureth sulfate/cocamide DEA	Henkel
Texapon K12 granules K12 needles/K12 powder	Sodium lauryl sulfate (C12)	Henkel
Texapon K14S spec.	Sodium lauryl myristyl ether sulfate	Henkel
Texapon K1296	Sodium lauryl sulfate, pure	Henkel
Texapon LS needles	Sodium lauryl sulfate	Henkel
Texapon M	Monoethanolamine lauryl ether sulfate	Henkel
Texapon MG	Magnesium lauryl ether sulfate	Henkel
Texapon MGS	Magnesium lauryl sulfate	Henkel
Texapon MLS	Monoethanol ammonium lauryl sulfate	Henkel
Texapon NA	Ammonium laureth sulfate	Henkel
Texapon N25/N40	Sodium laureth sulfate	Henkel
Texapon N70/N70LS N103/NSO	Sodium lauryl ether sulfate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Texapon NT	TEA-laureth sulfate	Henkel
Texapon OT needles	Sodium lauryl sulfate	Henkel
Texapon SB3	Disodium laureth sulfosuccinate	Henkel
Texapon SBN	Sodium laureth sulfate/disodium laureth sulfosuccinate	Henkel
Texapon SG	Sodium lauryl ether sulfate with special additives	Henkel
Texapon T42/TH	TEA lauryl sulfate	Henkel
Texapon V	Sodium lauryl sulfate	Henkel
Texapon WW99	MIPA-laureth sulfate/cocamide DEA	Henkel
Texapon Z	Sodium lauryl sulfate	Henkel
Timeron MP-1001/SI	Titanium dioxide/mica	
Timeron Super Copper Super Gold/Super Red/Pearl White	Mica/Titanium dioxide	
Tioveil AQ/AQ-G	TiO ₂ dispersed	Tioxide
Tioveil OP	Octyl palmitate/titanium dioxide	Tioxide
Tioveil TG	TiO ₂ dispersed	Tioxide
TL-10	PEG-20 sorbitan monolaurate	
Trideceth-9/PEG-40	Hydrogenated Castor Oil	Dragoco
Tris Amino	Tris (hydroxymethyl) amino-methane	Angus
Triton A-100/X-100	Surfactant	Rohm
Triton Z-100	Octoxynol-9	Rohm
Turpinal SL	Etidronic acid	Henkel
Turpinal 4NL	Tetrasodium etidronate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tween 20	Polysorbate 20	ICI
Tween 60	Polysorbate 60	ICI
Tween 80	Polysorbate 80	ICI
Tylose CB 200/H4000P	Sodium carboxymethyl cellulose	Hoechst
#U-9257 Fragrance		ShawMudge
Ultrahold Strong	Copolymer	BASF
Ultrahold 8	Acrylate/acrylamide copolymer	BASF
Unicide 4-13	Imidazolidinyl urea	
Uniphen P-23	Complex	
Unipherol U-14	Complex	
Unistab S-69	Trimethyldodecatrienol	
Unitrienol T-27	Farnesyl acetate/farnesol/ panthenyl triacetate	
UV-Titan M212/M262		Presperse
Uvinul M-40	Benzophenone-3	BASF
Uvinul MS-40	Benzophenone-4	BASF
Uvinul O-18	Octyl salicylate	BASF
Vanclay	Kaolin	Vanderbilt
Vanlube PCX	BHT	Vanderbilt
Vanseal CS	Cocoyl sarcosine	Vanderbilt
Vanseal LS	Lauroyl sarcosine	Vanderbilt
Varion CADG	Cocamidopropyl betaine	Sherex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varionic LI-67	PEG-78 glyceryl cocoate	Sherex
Varisoft TC-90	Concentrate	Sherex
Veegum/F/HS/HV/K/ Plus/Ultra	Magnesium aluminum silicate	Vanderbilt
Vegetol LP	Propylene glycol/yeast extract	Gattefosse
Velvetex BA-35	Cocamidopropyl betaine	
Versene-EDTA/100	Chelating agent	Dow
Versenex 80	Pentasodium pentetate	Dow
Vigilan AWS		Fanning
Viscosontran HEC Types	Hydroxyethylcellulose/ highly purified	Henkel
Visconstran MC Types	Methyl cellulose, highly purified	Henkel
Viscontran MHPC Types	Methyl hydroxypropyl cellulose, highly purified	Henkel
Vitamin E	Tocopherol acetate	Rita
Wheat-Tein NL	Hydrolyzed wheat protein	Maybrook
Wickenol 161/163		CasChem
Wickenol 171	Octyl hydroxystearate	CasChem
Witcamide 511C	Oleamide DEA	Witco
Witcamide 6519	Lauramide DEA	Witco
Witconol APM	Nonionic surfactant	Witco
Zinc Omadine	Zinc pyrithione (48%)	Olin
Zincum N29		Henkel
80/20 Bradpride Soap Base		Bradford

Section XV
Suppliers' Addresses

Ajinomoto USA, Inc.
Glenpoint Ctr, W
500 Frank W. Burr Blvd.
Teaneck, NJ 07645
(201)-907-3244

Akzo Chemicals, Inc.
300 S. Riverside Plaza
Chicago, IL 60606
(312)-906-7500/(800)-257-8292

Allied-Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-355-2000/(800)-526-0717

Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000

American Colloid Co.
1500 W. Shure Rd.
Arlington Heights, IL 60004
(708)-392-4600

American Lecithin Co.
33 Turner Rd.
P.O. Box 1908
Danbury, CT 06813
(203)-790-2700

Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(708)-215-8600/(800)-323-6209

Aqualon
1313 N. Market St.
Wilmington, DE 19899
(302)-594-5000/(800)-345-8104

Atotech North America
900 Milk St.
Cartaret, NJ 07008
(908)-541-4414

BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072

Bernel Chemical Co., Inc.
174 Grand Ave.
Englewood, NJ 07631
(201)-569-8934

Brooks Industries, Inc.
70 Tyler Place
South Plainfield, NJ 07080
(908)-561-5200

Calgon Chemical Corp.
P.O. Box 717
Pittsburgh, PA 15230
(412)-787-6700/(800)-422-7266

Capital City Products Co.
525 W. First Ave.
Columbus, OH 43216
(614)-299-3131/(800)-848-1340

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem, Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Chemia Corp.
631 Leffingwell Ave.
St. Louis, MO 63122
(800)-726-1976

ChemMark Development
70 Tyler Pl.
South Plainfield, NJ 07080
(908)-412-6192

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

Croda, Inc.
7 Century Dr.
Parsippany, NJ 07054
(201)-644-4900

R.T. Dodge Co.
55 Westpark Rd.
Dayton, OH 45459
(513)-439-4497

Dow Chemical USA
2020 Dow Center
Midland, MI 48674
(800)-258-CHEM

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000

Dragoco, Inc.
10 Garden Drive
Totowa, NJ 07512
(201)-256-3850

duPont
1007 Market St.
Wilmington, DE 19898
(800)-441-7515

Eastman Chemical
P.O.Box 431
Kingsport, TN 37662
(615)-229-4006/(800)-EASTMAN

Emulan, Inc.
P.O. Box 582
Kenosha, WI 53141
(414)-654-0734

EM Industries, Inc.
5 Skyline Drive
Hawthorne, NY 10532
(914)-592-4660

Fanning Corp.
2450 W. Hubbard St.
Chicago, IL 60612
(312)-563-1234

Felton Worldwide
599 Johnson Ave.
Brooklyn, NY 11237

Ferro Corp.
7050 Krick Rd.
Walton Hills, OH 44146
(216)-641-8580

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

FMC Corp.
1735 Market St.
Philadelphia, PA 19103
(215)-299-6000

Fragrance Resources, Inc.
275 Clark St.
Keyport, NJ 07735
(908)-264-6767

H.B. Fuller Co.
3530 N. Lexington Ave.
St. Paul, MN 55126
(612)-481-1816/(800)-468-6358

Gattefosse Corp.
189 Kinderkamack Rd.
Westwood, NJ 07675
(201)-573-1700

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Givaudan-Roure Corp.
100 Delawanna Ave.
Clifton, NJ 07015
(201)-365-8000

Goldschmidt Chemical Corp.
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-445-1809

B.F. Goodrich Co.
9911 E. Randolph Rd.
Hopewell, VA 23860
(216)-447-5000/(800)-331-1144

W.R. Grace & Co.
55 Hayden Ave.
Lexington, MA 02173
(617)-861-6600/(800)-354-5414

Haarman & Reimer Corp.
60 Diamond Rd.
Springfield, NJ 07091
(201)-912-5707/(800)-432-1559

Henkel Corp.
11501 Northlake Dr.
Cincinnati, OH 45299
(513)-530-7300/(800)-543-7370

Heterene Chemical Co., Inc.
295 Vreeland
P.O.Box 247
Paterson, NJ 07543
(201)-278-2000

Hi-Tek Polymers, Inc.
9808 Bluegrass Pkwy
Jeffersontown, KY 40299
(502)-499-4011/(800)-626-2613

Hoechst Celanese Corp.
3340 W. Norfolk Rd.
Portsmouth, VA 23703
(804)-483-7530/(800)-526-4960

Hydrolabs, Inc.
27 E 33 St.
Paterson, NJ 07514
(201)-345-5100

ICI Americas Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897
(302)-575-3034/(800)-822-8215

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148
(215)-271-0800/(800)-521-9891

International Specialty Products
1361 Alps Rd.
Wayne, NJ 07470
(201)-628-3000/(800)-848-7659

Kelco Div.
Merck & Co., Inc.
8355 Aero Drive
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Koster Keunen, Inc.
P.O. Box 447
90 Bourne Blvd.
Sayville, NY 11782
(516)-589-0456

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504
(201)-345-8600

Lonza, Inc.
17-17 Rte. 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-777-1875

Maybrook, Inc.
570 Broadway
P.O. Box 68
Lawrence, MA 01841
(508)-682-1853

McIntyre Group Ltd.
1000 Governors Hwy
University Park, IL 60466
(708)-534-6200

McLaughlin Gormley King Co.
8810-10th Ave. N
Minneapolis, MN 55427
(612)-544-0341

Mona Industries, Inc.
76 E. 24 St.
P.O. Box 425
Paterson, NJ 07544
(201)-345-8220

Morflex, Inc.
2110 High Point Rd.
Greensboro, NC 27403
(919)-292-1781

Penreco
138 Petrolia St.
Karns City, PA 16041
(412)-283-5600/(800)-245-3952

Phoenix Chemical, Inc.
322 Courtyard Dr.
Somerville, NJ 08876
(908)-707-0232

PPG Industries
3938 Porett Drive
Gurnee, IL 60031
(708)-244-3410/(800)-CHEM-PPG

Presperse Inc.
610 Hadley Rd.
P.O. Box 735
South Plainfield, NJ 07080
(908)-756-2023

Protameen Chemicals, Inc.
375 Minnisink Rd.
Totowa, NJ 07511
(201)-256-4374

QO Chemicals
P.O. Box 2500
West Lafayette, IN 47906
(317)-497-6300/(800)-621-9521

National Starch & Chemical Co.
10 Finderne Ave.
Bridgewater, NJ 08807
(908)-685-5000/(800)-532-1115

Neville Chemical Co.
2800 Neville Rd.
Pittsburgh, PA 15225
(412)-331-4200

Nipa Laboratories, Inc.
104 Hagley Bldg.
Concord Plaza
3411 Silverside Rd.
Wilmington, DE 19810
(302)-478-1522

Novarome Inc.
30 Stewart Pl.
Fairfield, NJ 07004
(201)-575-4550

Noville
1312 Fifth St.
North Bergen, NJ 07047
(201)-867-9080

Rheox, Inc.
P.O. Box 700
Hightstown, NJ 08520
(609)-443-2320

Rhone-Poulenc
Surfactants & Specialties
Prospect Plains Rd.
Cranbury, NJ 08512
(609)-860-3025

RITA Corp.
1725 Kilkenny
Woodstock, IL 60098
(815)-337-2500/(800)-426-7759

Robertet Inc.
125 Bauer Drive
Oakland, NJ 07436
(201)-337-7100

Frank B. Ross Co., Inc.
P.O. Box 4085
Jersey City, NJ 07304
(201)-433-4512

Sandoz Chemicals Corp.
4000 Monroe Rd.
Charlotte, NC 28205
(704)-331-7234/(800)-631-8077

Shaw Mudge & Co.
P.O. Box 1375
Stamford, CT 06904
(203)-327-3132

Sonneborn Division
Witco Corp.
520 Madison Ave.
New York, NY 10022
(212)-605-3981

Stepan Co.
22 W. Frontage Rd.
Northfield, IL 60093
(708)-446-7500

Sun Chemical Corp.
411 Sun Ave.
Cincinnati, OH 45232
(513)-681-5950/(800)-343-2583

Sutton Laboratories, Inc.
116 Summit Ave.
Chatham, NJ 07928
(201)-635-1551

Terry Laboratories, Inc.
390 N. Wickham Rd.
P.O. Box 566
Melbourne, FL 32935
(407)-259-1630/(800)-367-2563

Tioxide Specialties, Ltd.
Billingham, Cleveland TS23 1PS
United Kingdom
0642-370300

Tri-K Industries, Inc.
P.O. Box 312
27 Bland St.
Emerson, NJ 07630
(201)-261-2800/(800)-526-0372

3V Inc.
1500 Harbor Blvd.
Weehawkan, NJ 07087
(201)-865-3600

Unichema North America
4650 S. Racine Ave.
Chicago, IL 60609
(312)-376-9000/(800)-833-2864

Union Carbide Chemicals & Plastic
39 Old Ridgebury Rd.
Danbury, CT 06817
(203)-794-5300

R.T.Vanderbilt Co., Inc.
30 Winfield St.
P.O. Box 5150
Norwalk, CT 06856
(203)-853-1400

Van Dyk
Main & William Sts.
Belleville, NJ 07109
(201)-450-3264

Witco Corp.
5777 Frantz Rd.
P.O. Box 646
Dublin, OH 43017
(614)-764-6500/(800)-366-6500

COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 6

by

Ernest W. Flick



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Westwood, New Jersey, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN 0-8155-1412-3

Printed in the United States

Published in the United States of America by

Noyes Publications

369 Fairview Avenue

Westwood, New Jersey 07675

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data

(Revised for vol. 6)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55 1989 668'.55 89-39099

ISBN 0-8155-1218-X (v. 1)

ISBN 0-8155-1306-2 (v. 2)

ISBN 0-8155-1367-4 (v. 3)

ISBN 0-8155-1383-6 (v. 4)

ISBN 0-8155-1395-X (v. 5)

ISBN 0-8155-1412-3 (v. 6)

To
Ryan Eric Taylor

Preface

This book contains 652 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 6 of the Second Edition of this work; Volume 1 was published in 1989, Volume 2 in 1992, Volume 3 in early 1995, Volume 4 in late 1995 and Volume 5 in 1996. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances. The 1996 market for cosmetic raw materials is estimated at \$2 billion.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 12 sections, with the number of formulations indicated in ().

- I. Antiperspirants and Deodorants (2)
- II. Baby Products (18)
- III. Bath and Shower Products (59)
- IV. Beauty Aids (120)
- V. Creams (84)
- VI. Hair Care Products (106)
- VII. Lotions (58)
- VIII. Shampoos (78)
- IX. Shaving Products (6)
- X. Soaps and Hand Cleaners (53)
- XI. Sun Care Products (60)
- XII. Miscellaneous (8)

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

XIII. Trade-Named Raw Materials. Each raw material is listed with a brief chemical description and the name of the raw material supplier.

XIV. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade-Named Raw Materials section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

September 1997

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instruction, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I

**Antiperspirants and
Deodorants**

Solid Antiperspirant

Formulating Design and Advantages:

Illustrated in this formula is the gelling properties of Hexanediol Behenyl Beeswax in a silicone oil, producing an opaque stick which is creamy and spreads evenly.

<u>Formula:</u>	<u>Wt%</u>
Hexanediol Behenyl Beeswax (Koster Keunen)	12.0
Deodorized Orange Wax (Koster Keunen)	6.0
Kester Wax 82 (Koster Keunen)	8.0
Silicone Oil 556 (Dow)	36.0
Cetyl Stearyl Alcohol (P&G)	18.0
Aluminum Chlorohydrate (Reheis)	20.0

Procedure:

Melt and homogenize at 75C, cool and pour into container at 55C.

Adaptation of Formula and Its Influence on the Product:

Irgason DP-300 can be added to change this product to a deodorant/antiperspirant. Fragrances are easily added.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Anti Perspirant Stick

<u>Ingredient:</u>	<u>Wt%</u>
Volatile Silicone	44.50
Stearyl Alcohol	23.00
Oils of Aloha Kukui Nut Oil	5.00
Arlacel 165	2.00
Silica	0.50
Aluminum Chlorohydrate	25.00

Manufacturing Procedure:

Combine ingredients at 75C.

Stearyl alcohol is the hardening agent that make the stick.

The Silica serves as a stabilizer and the Oils of Aloha Kukui Nut oil serves two functions-reduces tackiness and reduces whitening on the skin.

SOURCE: Oils of Aloha: Suggested Formulation

Section II

Baby Products

Baby Conditioner
(Formula 86-0404M)

	<u>% by Weight</u>
Rhodaquat D261C/75	2.20
Cetyl Alcohol NF	1.70
Alkamuls PSML-80	0.15
Cellose QP 52,000 H	1.70
Citric Acid	Q.S. to pH 3.5-4.5
Fragrance, Dye(s), Preservative	0.10
Water	94.15

Blending Procedure:

Dissolve Citric Acid in water and heat to 30-35C. With vigorous agitation, lightly sift Cellose QP 52,000H into water. With smooth agitation, continue to heat system to 70-75C. With smooth agitation, slowly blend Rhodaquat D261C/75, Cetyl Alcohol NF, and Alkamuls PSML-80 into heated water system. Mix until completely uniform. With smooth agitation, cool system to 40C and blend in compatible Fragrance, Dye(s), and Preservative.

Typical Formulation Properties:

Appearance @ 25C: Viscous, Opaque Liquid
 Viscosity @ 25C: 16,000+ cps (No, 4 spindle @ 10 RPM)
 pH: 3.5-4.5
 % Non Volatiles: 5-6

Spray-On Detangler for Children
(Formula 88-708M)

	<u>% by Weight</u>
Rhodaquat D261C/75	1.0
Silicone 344 Fluid (Dow Corning)	0.5
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	98.5

Blending Procedure:

Heat water to 70C. With rapid but smooth agitation, slowly blend in Rhodaquat D261C/75 and mix until uniform. With smooth agitation, cool system to 40-45C and blend in Silicone 344 Fluid. Once system is uniform, adjust formulation pH to 3.5-4.5 with Citric Acid as needed and add compatible Fragrance, Dye(s), and Preservative.

Use Directions: Dispense via pump or aerosol spray.

Typical Formulation Properties:

Appearance @ 25C: Thin Liquid
 pH: 3.5-4.5

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Baby Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Propylene Glycol Stearate	9.00
Stearic Acid	2.00
Carnation Mineral Oil (Witco)	8.00
Acetylated Lanolin Alcohol	1.00
Lanolin Oil	1.00
Cetyl Alcohol	0.50
Propylparaben	0.10
B:	
Tech-0 11-070 Ster-0-Pro (Beacon CMP)	2.00
C:	
Propylene Glycol	1.50
Triethanolamine (85%)	0.90
Methylparaben	0.20
Imidazolidinyl Urea	0.20

Procedure:

Weigh A and heat with stirring to 75C. In a separate container weigh B and mix until dispersed. Add C and heat to 75C with stirring. With both phases at 75C add B to A with good agitation, mix 10 minutes at this temperature, then cool with mixing to room temperature.

Conditioning Baby Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Carnation Mineral Oil (Witco)	10.00
Stearic Acid	5.00
Cetyl Alcohol	1.50
Propylparaben	0.15
Silicone 220 Fluid	4.00
Tech-0 11-075 Concentrated Oat Protein (Beacon CMP)	2.00
B:	
Deionized Water	71.00
Triethanolamine 99%	3.00
Methylparaben	0.15
DMDM Hydantoin	0.20
Propylene Glycol	3.00

Procedure:

Into a beaker, weigh A. Heat with mixing to 75C. In another beaker, weigh B and heat to 75C. With both phases at 75C, add A to B and mix well for 10 minutes, then mix and cool to room temperature.

SOURCE: Witco Corp.: Suggested Formulations

Baby Lotion

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 AEC Octyl Palmitate	2.000g
2 Dervacid 3155	3.000g
3 Cocoa Butter, Refined	1.000g
4 Lasemul 92 AE	2.500g
5 Lipovol PAL	3.000g
Aqueous Phase:	
6 Water; Pure	81.095g
7 Xanthan Gum	0.350g
8 Glycerine BP	1.000g
9 Triethanolamine 99%	0.700g
Preservative Mix:	
10 Nipastat	0.250g
11 Propylene Glycol USP	5.000g
Cooling Cycle:	
12 P. Cocoa butter AA 6780	0.100g
13 C.S. D&C Red 33; 1% Soln	0.005g

Mixing Instructions:

Weigh the items of the Oil Phase into a jacketed vessel and heat to 70/75C with occasional stirring. Meter out the water into the mixing vessel and start heating.

Disperse the Xanthan Gum and heat to 70/75C with continuous mixing.

Add the other items of the Aqueous Phase while heating and mix briefly with the Silverson to smooth the mixture. Remember to pre-mix the Propylene Glycol & Nipastat to aid solubility.

Add the Oils to the water with careful Silverson mixing and mix while cooling. When cool adjust pH, add perfume, match colour to Master Sample and give a final brief mix with the Silverson.

pH: 7.20-8.00 Viscosity 3/12r: 45-65 SG: 0.985-0.995
Project: JW 2434/Formula Ref.: 974*0

Baby Oil

<u>Stage Material:</u>	<u>Quantity</u>
1 Light Mineral Oil	80.000g
2 AEC Octyl Palmitate	10.000g
3 Lipovol PAL	5.000g
4 Isopropyl Myristate (IPM)	5.000g

Project: JW 2434/Formula: 975*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

Baby Shampoo

	<u>% by Weight</u>
Steol CS-130	30.0
Amphosol CA	20.0
Polysorbate 20	5.0
Kessco PEG 6000 DS	2.0
Sodium Hydroxide (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
D.I. Water	Q.S. to 100.0

Mixing Procedure:

Add the Steol CS-130 and Kessco PEG 6000 DS to D.I. Water. Heat to 60C and mix until the PEG 6000 DS is completely dispersed. Add the Polysorbate 20 and Amphosol CA. Blend well and cool to 30C. Adjust pH to 6.5-7.0 with sodium hydroxide. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Baby Shampoo

	<u>% by Weight</u>
Stepan-Mild SL3	19.0
Steol CS-330	17.5
Amphosol CG	16.5
Kessco PEG 6000 DS	2.0
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
D.I. Water	Q.S. to 100.0

Mixing Procedure:

Add the first three components to D.I. Water with mixing and heat to 50-60C. Add PEG 6000 DS and mix until all solids have melted. Cool to 35C and adjust pH to 6.0-7.0 with citric acid. Add fragrance, dye and preservative, if desired. Adjust to desired viscosity with sodium chloride.

Baby Shampoo

	<u>% by Weight</u>
Stepan-Mild BSB*	40.0
Distilled Water	Q.S.
Sodium Chloride	Q.S. to 100.0
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.

Mixing Procedure:

Combine first two ingredients with mixing. Adjust to desired pH (6.5-7.5) with citric acid. Adjust to desired viscosity with sodium chloride. Add remaining ingredients while mixing.

SOURCE: Stepan Co.: Suggested Formulations

Baby Shampoo
(Formula 91-1004)

	% by Weight
Miracare MS-1	50.00
Fragrance and Dye(s)	Q.S.
Benzyl Alcohol	0.15
Dowicil 200 (Dow)	0.15
Citric Acid	Q.S. to pH 6.8-7.2
Water	49.70

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MS-1. Mix until completely uniform. With smooth agitation, slowly blend in compatible Fragrance and Dye(s). Mix until uniform. Slowly blend in Benzyl Alcohol, Dowicil 200, and Citric Acid as needed to adjust formulation pH to 6.8-7.2.

Typical Properties:

Appearance @ 25C: Clear Liquid

% Non-Volatiles: 19-21

pH: 6.8-7.2

Viscosity @ 25C: 800-2,000 cps

CTFA Identification:

Water, PEG-80 Sorbitan Laurate, Sodium Trideceth Sulfate, Disodium Lauroamphodiacetate, PEG-150 Distearate, Cocamidopropyl Hydroxysultaine, Sodium Laureth-13 Carboxylate, Citric Acid, Fragrance, Benzyl Alcohol, Quaternium-15, Dye(s).

Note: While the suggested Miracare MS-1 Baby Shampoo has been proven to be essentially non-irritating to the eyes, the addition of untested Fragrances, Dyes, and other additives can adversely affect the irritation potential of the resulting formula.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care: Formula 91-1004

Baby Shampoo
(Formula 91-1003)

	<u>% by Weight</u>
Miracare BC-10	38.5
Fragrance and Dye(s)	Q.S.
Dowicil 200 (Dow)	Q.S.
Citric Acid	Q.S. to pH 6.5-7.5
Sodium Chloride	0.5-1.5
Water	60.0

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare BC-10. Mix until completely uniform. With smooth agitation, slowly blend in compatible Fragrance, Dye(s) and Dowicil 200 preservative. Mix until completely uniform. Adjust the pH of the system to 6.5 to 7.5 with Citric Acid as needed. Adjust formulation viscosity to 1,000-2,000 cps with incremental addition of Sodium Chloride as needed.

Typical Properties:

Appearance @ 25C: Clear Liquid

% Non Volatiles: 17-18

pH: 6.5-7.5

Viscosity @ 25C: 1,200-2,000 cps

CTFA Identification:

Water, PEG-80 Sorbitan Laurate, Cocamidopropyl Betaine, Sodium Trideceth Sulfate, Sodium Chloride, Lauroamphoglycinate, PEG-150 Distearate, Sodium Laureth-13 Carboxylate, Fragrance, Citric Acid, Quaternium-15, Tetrasodium EDTA, Dye(s).

Note: While the suggested Miracare BC-10 Baby Shampoo has been proven to be essentially non-irritating to the eyes, the addition of untested Fragrances, Dyes and other additives can adversely affect the irritation potential of the resulting formula.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Diaper Rash Lotion

	<u>% by Weight</u>
Cetearyl alcohol (and) cetareth-20	8.00
Dimethicone	20.00
PPG-2 myristyl ether propionate	5.00
Carnation	4.00
Stearic acid	10.00
Aloe vera	1.00
Propylene glycol (and) diazolidinyl urea (and) propylparaben	1.00
Sodium citrate	3.00
Nonoxynyl hydroxyethylcellulose	
Water	q.s. 100.00

SOURCE: Witco Corp.: Suggested Formulation

Baby Skin Wash

<u>Ingredients:</u>	<u>Weight%</u>
Water	52.40
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (28% 2M. E.O.)	18.00
Sodium Trideceth Sulfate	15.00
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.75
Citric Acid (25% Solution)	to pH 6.5
Dimethicone Copolyol (Abil B 8852)	0.25
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Lauryl Glucoside (and) Cocamidopropyl Betaine (Tego Glucosid L 55)	12.50
Sodium Chloride (25% solution)	Q.S.

Procedure:

1. Heat water to 40-50C.
2. Combine ingredients in order - mixing well between additions.
3. Adjust pH and viscosity.

Diaper Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>Weight%</u>
<u>Phase A:</u>	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	4.5
Dimethicone (500 cs)	3.0
Cetyl Dimethicone (Abil Wax 9801)	1.5
Octyl Stearate (Tegosoft OS)	5.0
Mineral Oil	4.0
Polyglyceryl-4 Isostearate (Isolan GI-34)	0.5
Hydrogenated Castor Oil	0.8
Synthetic Wax	1.2
<u>Phase B:</u>	
Water	76.9
Sodium Chloride	0.6
Preservatives	Q.S.
<u>Phase C:</u>	
Fragrance	Q.S.

Procedure:

1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.
3. Cool to 35C with sweep mixer. Add fragrance.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Baby Wash
(Formula 91-1113)

This ultra-mild skin cleanser formula is ideally suited for babies, children and anyone with sensitive skin. It gently cleans the skin and imparts an elegant, soft afterfeel. It can also be used as a mild bubble bath that is safe for children.

	<u>% By Weight</u>
Miranol BT	25.0
Geropon SBFA-30	10.0
Jaguar C-162	0.3
Citric Acid	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Water	64.7

Blending Procedure:

With vigorous agitation, disperse Jaguar C-162 in water. With smooth agitation, adjust formulation pH to 5-6 with Citric Acid as needed. With smooth agitation, blend in Miranol BT and Geropon SBFA-30. Mix until completely uniform. Adjust formulation pH to 6-7 with Citric Acid as needed and add compatible Fragrance, Dye(s) and Preservative.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid
 Viscosity @ 25C: 50-300 cps
 pH: 6-7
 % Non Volatiles: 13-14

Foam Bath for Children
(Formula 87-0508R)

	<u>% by Weight</u>
Rhodapex ES	6.2
Geropon SBFA-30	14.5
Cellosize QP 30,000 H	1.2
Citric Acid	QS to pH 6.5-7.0
Versene 100 (Dow)	0.1
Fragrance, Dye, Preservative	QS
Water	78.0

Blending Procedure:

Warm water to 50-55C and slowly blend in Rhodapex ES. With rapid but smooth agitation, slowly sift Cellosize QP 30,000 H into water and mix until completely dispersed. Cool to 40-45C with moderate agitation and add Geropon SBFA-30 and Versene 100. Adjust pH of system to 6.5-7.0 with Citric Acid as needed and then add compatible Fragrance, Dye, and Preservative.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Economy Baby Lotion
(Formula 87-0901M)

Water Phase:	<u>% by Weight</u>
A) Methylparaben	0.15
Propylene Glycol	2.50
B) D.I. Water	90.97
C) Carbopol 934 (Goodrich)	0.15
D) Sodium Hydroxide (50% Aq. Solution)	0.13

Oil Phase:	
Dermalcare NI	1.50
Alkamuls MM/M	1.50
Alkamuls GMS	1.00
Stearic Acid TP	2.00
Propylparaben	0.10

Blending Procedure:**Water Phase:**

- A) Disperse Methylparaben in Propylene Glycol. With mixing, heat system until Methylparaben has completely dissolved in Propylene Glycol.
- B) Slowly blend Propylene Glycol mix into Deionized Water. Heat water system to 45-50C.
- C) With rapid but smooth agitation, slowly disperse Carbopol 934 into heated water base. Continue to heat system to 75-80C.
- D) Slowly blend Sodium Hydroxide solution into heated water base. The system should immediately thicken and clear.

Oil Phase:

In a separate mixing vessel combine Oil Phase ingredients and, with gentle heat, warm Oil Phase to 70-75C (avoid scorching). With rapid but smooth agitation, slowly blend heated Oil Phase into heated Water Phase. Once system is uniform, cool to 40-45C with moderate agitation and blend in compatible Fragrance and Dye(s).

Typical Properties:

Appearance (after standing 72 hrs.): Viscous, Smooth Lotion
pH (10% Aq.): 6.5-7.5

CTFA Identification:

Water, Propylene Glycol, Sodium Stearate, Myristyl Myristate, Cetearyl Alcohol and Cetareth-20, Glyceryl Stearate, Carbomer 934, Methylparaben, Propylparaben, Fragrance, Dyes.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation
for Personal Care: Formulation 87-0901M

Shampoo-Baby

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Water	51.30
Cocoamphohydroxy Sultaine	12.00
Calfoam ES-303	20.00
Part B:	
PEG-60 Almond Glyceride	15.00
PEG-150 Pentaerythrityl Tetrastearate	0.50
Part C:	
Germaben II, Fragrance	9.50

Comments about this formula:

1. First mix part A until clear.
2. Melt PEG-60 Almond Glyceride and then mix with PEG-150 Pentaerythrityl Tetrastearate at about 50C.
3. Add part B into part A and stir until uniform.
4. Add fragrance and preservative as needed.
5. Adjust pH if needed.

SOURCE: Pilot Chemical Co.: Formulation SHM-015-01

Baby Shampoo with Olive Oil

<u>Ingredients:</u>	<u>Weight%</u>
Ampholyt JB 130K (Cocamidopropyl Betaine)	15.00
Marlinat CM 100/80 (Laureth-11 Carboxylic Acid)	15.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
Olive Oil	1.00
Antil 141 Liquid (Propylene Glycol (and) PEG-55 Propylene Glycol Oleate)	4.00
Preservative	q.s.
Fragrance	q.s.
Water	up to 100.00

Preparation:

All ingredients are mixed together, heated to 40 degrees C., and stirred until homogeneous.

SOURCE: Huls America Inc.: Formulation 3.5E

Section III

Bath and Shower Products

After Bath Moisturizing Lotion

A mild, smooth, white lotion that boosts contraction and reorganization of collagen fibers with Raffermine to reinforce firmness and elasticity of the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	88.97
2. Propylene Glycol	2.50
3. Methylparaben	0.15
4. Acritamer 941 (Carbomer)	0.15
5. Ritapro 300 (Cetearyl Alcohol and Ceteareth-20)	1.50
6. Rita IPM (Isopropyl Myristate)	1.50
7. Rita GMS (Glyceryl Stearate)	1.00
8. Stearic Acid	2.00
9. Propylparaben	0.10
10. NaOH (50% Solution)	0.13
11. Raffermine (Hydrolyzed Soy Flour)	2.00

Compounding Procedure:

Combine items 1-3 and begin mixing. Slowly add item 4 while mixing. Heat to 75C. Combine items 5-9 and heat to 75C. Add item 10 to water. Add oil to water while mixing. Cool to 40C and add item 11.

Ref. No. 120-208A

3-Phase Bath Oil

An appealing tri-layer bath oil which moisturizes the skin and contains Simchin for a luxurious feel.

<u>Ingredients:</u>	<u>%W/W</u>
1. Mineral Oil 7NF	26.40
2. Simchin Natural (Jojoba Oil)	6.60
3. Diethylphthalate	32.00
4. Fragrance-"Blue Mint"	1.00
5. Methylparaben	q.s.
6. Glycerine	22.67
7. Distilled/Deionized Water	9.07
8. NaCl	2.26
9. Glydant	q.s.

Compounding Procedure:

Dissolve Simchin in mineral oil. Dissolve methylparaben and fragrance in diethylphthalate. Dissolve NaCl and Glydant in water and mix with glycerine. Mix all three phases together.

Ref. No. 121-102

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Bath and Body Wash

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-303	60.10
Sodium Chloride	1.10
Water	5.30
Caltaine C-35	5.00
Calamide C	8.80
Decyl Polyglucose	19.70

Comments about this formula:
 Add ingredients in order listed.
 Formulation GEL-002-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-302	42.70
Caltaine C-35	4.05
Calamide F	2.55
Salt	0.75
Water (Fragrance, Dye, Citric Acid)	49.95

Comments about this formula:
 Viscosity is 90,000 cPs.
 Total solids 16.25%
 Formulation GEL-003-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Gel	50
Sodium Chloride	1.0-2.0
Water	Q.S.
Fragrance, Dye, Preservative	0.5

Comments about this formula:
 Add the Sodium Chloride to thicken the formulation.
 Thickens to 90,000 cPs.
 Formulation GEL-004-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Bath Oil

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Cyclomethicone	15.00
A	Phenyl Trimethicone	5.00
A	Mineral Oil	48.80
A	C12-15 Alcohols Benzoate	15.00
A	Fragrance	5.00
A	Oils of Aloha Kuikui Nut Oil	5.00
A	Oils of Aloha Macadamia Nut Oil	5.00
A	Vitamin E	0.20
A	Aloe Oil	1.00

Manufacturing Procedure: Phase A:

Mix all ingredients at room temperature.

A floating bath oil that follows you out of the tub and keeps you feeling silky. The Oils of Aloha Macadamia and Kukui Nut Oil counteracts the excessive hydration from the bath. The high level of fragrance gives a nice bouquet.

SOURCE: Oils of Aloha: Suggested Formulation

Bath and Shower Gel

<u>A:</u>	<u>Wt%</u>
Laureth-7	4.00
Sodium Laureth Sulfate (Phoenate SLES-70)	50.00
Cocamide DEA (Phoenamid CD)	6.00
Disodium Laureth Sulfosuccinate	2.50
Silicone Quaternium-5 (Pecosil SMQ-40)	5.00
Deionized Water	31.48
Disodium EDTA	0.02

<u>B:</u>	<u>Wt%</u>
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Color	q. s.
Fragrance	q. s.

Procedure:

Add Phase A items in order with slow sweep agitation. Heat if necessary to affect deaeration. When Phase A is below 45C, add Phase B with slow sweep agitation.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Body Shampoo
(Formula 92-0214)

	% by Weight
Alkamide DC 212/S	6.0
Geropon TC-42	15.0
Alkamuls 6000 DS	0.5
Water	Q.S.
Citric Acid	Q.S.
Fragrance, dye(s), preservative	Q.S.

Blending Procedure:

Charge tank with water, Alkamide DC 212/S, Geropon TC-42 and Alkamuls 6000 DS, and mix while heating to 65C. Cool to 35C. Adjust pH to 7.5 by addition of citric acid. Add fragrance, dye(s) and preservative.

Typical Formulation Properties:

Appearance @ 25C: Clear, slightly viscous liquid

Viscosity @ 25C: 1,000-1,500 cps

pH: 7.5

Solids: 11-11.5%

CTFA Identification:

Water, Cocamide DEA, Sodium Methyl Cocoyl Taurate, PEG-150 Distearate, Citric Acid.

Economy Bubble Bath
(Formula 91-1008)

	% by Weight
Miracare MPC	20.0
Citric Acid (to pH 5.5-6.5)	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	1.0-2.0
Water	78.5

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MPC. Mix until completely uniform. Adjust formulation pH to 5.5-6.5 with Citric Acid as needed. Add compatible Fragrance, Dye(s), and Preservative. Adjust formulation viscosity to desired consistency with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid

Viscosity @ 25C: 3,000-4,000 cps

pH: 5.5-6.5

% Non Volatiles: 8-10

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Sodium Chloride, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulations for Personal Care

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	50.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.1-0.7
Water	49.6

Comments About this Formula:**Blending Procedure:**

With smooth agitation, slowly blend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 15,000-20,000 cps (No. 4 Spindle @ 10rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

Viscosity @ 25C: 15,000-20,000 cps

pH: 6.0-7.0

% Non Volatiles: 17-19

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide

DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance,

Preservative, Citric Acid, Dye(s)

Formulation #GEL-001-01

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
Calfoam ES-302	42.70
Caltaine C-35	4.05
Calamide F	2.55
Salt	0.75
Water (Fragrance, Dye, Citric Acid)	49.95

Comments About this Formula:

Viscosity is 90,000 cPs.

Total solids 16.25%

Formulation #GEL-003-01

Bath & Shower Gel

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Gel	80.0
Sodium Chloride	1.0-2.0
Water	9.5
Fragrance, Dye, Preservative	9.5

Comments About this Formula:

Add the Sodium Chloride to to thicken the formulation.

Thickens to 90,000 cPs.

Formulation #GEL-004-01

SOURCE: Pilot Chemical Co.: Formulary

Bubble Bath-Children's

<u>Ingredients:</u>	<u>% Wt.</u>
Water	39.45
Calfoam ES-303	40.00
Calsoft T-60	14.00
Calamide C	5.00
Citric Acid	0.15
Disodium EDTA	1.00
Preservative	0.05
Perfume, Color	0.10

Comments About this Formula:

1. Add the first three ingredients and stir; the blend becomes quite viscous when the amide is added.
2. Add Citric Acid to adjust the pH to 6.
Formulation #BUB-001-01

Bubble Bath-Liquid

<u>Ingredients:</u>	<u>% Wt.</u>
Water	48.50
NaCl	1.00
Calfoam ES-303	40.00
Calamide LL	5.00
PEG 7 Glyceryl Cocoate	2.50
Cocamidopropylamine Oxide	3.00
Perfume, Dye(s), Preservatives	9.50

Comments About this Formula:

1. Mix the ingredients in order listed.
2. Adjust the amount of salt as needed to control the viscosity.
3. The blend of amide and amine oxide provides a high level of detergency with minimum irritation potential not possible in a strictly high amide blend.
Formulation #BUB-002-01

Bubble Bath, Emollient

<u>Ingredients:</u>	<u>%Wt.</u>
Water	31.70
Calfoam ES-302	60.00
PEG 7 Glyceryl Cocoate	5.00
Calamide LL	3.00
Perfume, Dye(s), Preservative	0.30

Comments About this Formula:

1. Mix all the ingredients in order listed.
2. The product is clear.
Formulation #BUB-003-01

SOURCE: Pilot Chemical Co.: Formulary

Bubble Bath - Economy Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	15.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	85.00

Comments about this formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dyes(s).

Formulation BUB-004-01

Bubble Bath - Moisturizing Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	37.00
Glycerine	1.50
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.2-0.8
Water	61.00

Comments about this formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear and glycerine into water. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 5,000-8,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Glycerine, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation BUB-005-01

SOURCE: Pilot Chemical Co.; Suggested Formulations

Bubble Bath - Premium Foam Bath

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	25.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	75.00

Comments about this formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamido propyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation BUB-006-01

Bath and Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	50.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.10-0.70
Water	49.60

Comments about this formula:**Blending Procedure:**

With smooth agitation, slowly blend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 15,000-20,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid
 Viscosity @ 25C: 15,000-20,000 cps
 pH: 6.0-7.0
 % Non Volatiles: 17-19

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation No. GEL-001-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Clear Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Steol CS-330	57.7
Ninol 30-LL	3.5
Amphosol CG	5.0
Tween 20	0.30
Versene 100	0.20
Glycerin	0.5
Preservative, Fragrance, Dye	Q.S.

Mixing Procedure:

Combine all ingredients with mixing.
Adjust pH to ~6.7

Clear Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Bio-Terge AS-40	37.50
Ninol 55-LL	4.0
Steol CS-330	28.50
Kessco PEG 6000DS	1.0
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first five ingredients in a container and heat to 165F with mixing. Keep temperature constant until all solid particles have melted. With mixing, cool to 110F, add preservative, fragrance and dye.

Adjust pH to 6.0-6.5 with 50% citric acid.

Adjust viscosity with sodium chloride.

Foaming Bath Powder

	<u>% by Weight</u>
Stepanol ME-Dry	19.00
Sodium Bicarbonate	21.00
Sodium Sesquicarbonate	44.85
Lathanol LAL	11.00
Propyl Paraben	0.15
PPG-12-PEG-50 Lanolin	3.00
Fragrance	1.00

Mixing Procedure:

Combine first five ingredients in a container with lid and mix until uniform. Mix following two ingredients in separate container until uniform. Slowly combine all ingredients while mixing. Store in sealed containers.

SOURCE: Stepan Co.; Suggested Formulations

Creamy Shower Gel

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Cocoyl Isethionate	2.37
Water	52.28
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (28% 2M. E.O.)	25.00
Sodium Lauryl Sulfate (28%)	10.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
DATEM (Amilan GST 40)	2.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Cocamidopropyl Betaine (Tego Betaine F50)	5.00
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	2.00
Preservatives	Q.S.
Sodium Chloride: Adjust to desired viscosity	
Citric Acid (10%): Adjust to pH 5.5-6.0 if needed	
<u>Procedure:</u>	
1. Dissolve Sodium Cocoyl Isethionate in warm water at 60C.	
2. Add Sodium Lauryl Sulfate, Sodium Laureth Sulfate.	
3. Cool to 40C.	
4. Add remaining ingredients in order as listed, stirring between each addition.	
5. Cool to 30-35C. Add Tego Pearl N 100 and preservatives.	
6. Adjust pH and viscosity.	

Skin Conditioning Body Shampoo
(cold process)

<u>Ingredients:</u>	<u>Weight%</u>
Tetrasodium EDTA	0.10
Water	44.25
Ammonium Laureth Sulfate - (28% 2M. E.O.)	25.00
Ammonium Lauryl Sulfate (28%)	20.00
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.50
Cocamidopropyl Betaine (Tego Betaine F 50)	5.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Dimethicone Copolyol (Abil B 8852)	0.50
Water (and) Ethoxydiglycol (and) Propylene Glycol (and) Butylene Glycol (and) Matricaria Extract (and) Sage Extract (and) Yarrow Extract (and) Balm Mint Extract (and) Rosemary Extract (and) Restharrow Extract (and) Coltsfoot Extract (and) Wild Thyme Extract (and) Horsetail Extract (and) Fructose (and) Althea Extract (Extrapone 3 Special 2/789490 Dragoco)	0.15
Citric Acid (25% solution)	to pH 6
Preservatives	Q.S.
Fragrance	Q.S.
Ammonium Chloride (25% solution)	as needed
<u>Procedure:</u>	
Add ingredients in order, mixing between additions. Adjust pH. Adjust viscosity.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Deodorizing Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S to 100.0
Stepan-Mild LSB	60.00
Stepanol WAT	25.00
Ninol 96-SL	4.00
Propylene Glycol	1.5
Irgasan DP-300	0.5
Kessco PEG 400 ML	2.0
Hydrolyzed Collagen	0.5
Preservative, Dye, Fragrance	Q.S.
Sodium Hydroxide (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first four ingredients in a container and heat to 165F with mixing. When uniform, cool to 110F. Meanwhile, in a separate container, combine items 5 and 6 mixing until item 6 is dissolved. Add to main mixture. While mixing, add remaining items.

Adjust pH to 6.0-6.5 with 50% sodium hydroxide.

Adjust viscosity with sodium chloride.

Deodorizing Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepan-Mild LSB	60.00
Stapanol WAT	25.00
Ninol 96-SL	4.00
Propylene Glycol	1.5
Irgasan DP-300	0.5
Kessco PEG 400 ML	2.0
Hydrolyzed Collagen	0.5
Preservative, Dye, Fragrance	Q.S.
Sodium Hydroxide (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first four ingredients in a container and heat to 165F with mixing. When uniform, cool to 110F. Meanwhile in a separate container, combine Propylene Glycol and Irgasan DP-300, and mix until Irgasan DP-300 is dissolved. Add to main mixture. While mixing, add remaining items.

Adjust pH to 6.0-6.5 with 50% sodium hydroxide.

Adjust viscosity with sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

Economy Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	15.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	85.00

Comments About this Formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamido propyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-004-001

Moisturizing Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	37.00
Glycerine	1.5
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	0.2-0.8
Water	61.00

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear and glycerine into water. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 5,000-8,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Glycerine, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-005-01

SOURCE: Pilot Chemical Co.: Formulary

Hand and Bath Gel

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	50.15
Tetrasodium EDTA	0.10
Sodium Isethionate	3.00
Sodium Lauryl Sulfate (30%)	15.00
Disodium Laureth-3 Sulfosuccinate	10.00
Dimethicone Copolyol (Abil B 8851)	0.75
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Polyglyceryl-4 Isostearate (Isolan GI 34)	0.50
Glycerin	3.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.00
Cocoamidopropyl Betaine (Tego Betaine F 50)	11.75
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	2.50
Sodium Chloride	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Add the Cocamidopropyl Betaine.
5. Adjust viscosity with the 25% solution of Sodium Chloride.

Creamy "2 in 1" Body Wash

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Glycol Distearate (Tegin EGS)	2.50
Myristic Acid	4.00
Jojoba Oil	5.00
Sodium Laureth Sulfate (28% 2M. E.O.)	45.00
Water	10.00
Phase B:	
Water	19.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.00
Phase C:	
Propylene Glycol (and) PEG-55 Propylene Glycol Oleate (Antil 141L)	2.50
Fragrance, Preservative, etc.	Q.S.
Phase D:	
Cocamidopropyl Betaine (Tego Betaine F 50)	10.00

Procedure:

1. Heat Phase A to approximately 70C while mixing (above the melting point of Tegin EGS).
2. Heat the ingredients of Phase B to the same temperature as Phase A.
3. Stir Phase B into Phase A. Cool to 40C.
4. Add Phase C. Mix well. Avoid air entrapment.
5. Add Phase D with stirring. Avoid air entrapment.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Luxury Shower Gelee

A clear, viscous, rich-lathering shampoo for hair and body which cleanses gently, and leaves a soft, smooth afterfeel.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	41.6
	TEA Lauryl Sulfate (Stepanol WAT)	15.6
	Na4EDTA	0.2
	Imidazolidinyl Urea (Germa11 115)	0.2
	Methyl Paraben	0.2
	Cocamidopropyl Amine Oxide (Mazox CAPA)	10.4
	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	13.0
	Ammonium Laureth Sulfate (Alfonic 1412-A)	13.0
B	Cocamide MEA (Monamid CMA)	2.3
	Cocamide DEA (Mazamide JT-128)	2.6
	Fragrance	0.5
C	Citric Acid	0.4

pH: 6.3-6.8

Viscosity: 7500-10,000 cps (Brookfield #3 @ 6 rpm)

Appearance: Clear, viscous liquid

Procedure:

Mix part A ingredients in main vessel until clear and uniform. In a side vessel, premix part B, warming to 40C to dissolve the cocamide MEA. Add B to A, mixing until clear and uniform. Adjust pH.

Formulation F-105

Combo Bar

Modification of an example in US Patent #5,041,233

<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
Tallow/Coco Soap (85/15)	55.6
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	29.3
Water	10.3
Sodium Isethionate (Witconate NIS)	2.0
Sodium Chloride	0.4
Fragrance	1.0
TiO2	1.0
Na3HEDTA	0.2
BHT	0.2

Formulation M104

SOURCE: PPG Industries, Inc.: Suggested Formulations

Mild Body Shampoo

This pearlized formula flash-foams to a voluminous, lacy lather and leaves skin feeling soft and smooth, not dry and tight.

<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
Deionized Water	52.6
Sodium Cocoyl Isethionate (Jordapon CI-UP)	7.9
Sodium C12-15 Pareth-15 Sulfonate (Avanel S-150 CG)	4.2
Ammonium Lauryl Sulfate (Stepanol AM)	10.1
Ammonium Laureth Sulfate (Alfonic 1412-A)	7.5
Glycol Stearate (Mapeg EGMS)	0.7
Tetrasodium EDTA	0.2
Methyl Paraben	0.2
Imidazolidinyl Urea (Germall 115)	0.2
Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	15.1
Soyamide DEA (Mazamide SS-10)	1.2
Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 6600 cps (Brookfield #2 @ 3rpm)

Appearance: Clear, pale straw-colored liquid

Procedure:

Mix the first eight ingredients together, heating to 65C until all solids are dissolved. Add the last four ingredients in order, mixing until uniform. Adjust pH with citric acid or triethanolamine, if necessary.

SOURCE: PPG Industries, Inc.: Formulation F-204

Hand Cleaning Cream with Solvent

	<u>Wt%</u>
Part A:	
Zusolat 1005/85	10.5
Shellsol T	34.5
Paraffin oil	9.0
Aerosil 200	1.0
Part B:	
Oxypon 2145	2.5
Extrakt 52	15.0
Water, perfume, preservative	27.5

Mix part A and part B separately.

Finally add part B to part A whilst stirring.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/2

Mild Body Shampoo

This high-viscosity shower gelee is suitable for packaging in tubes. It flashes into a dense, rich, soft-feeling lather which rinses easily and leaves a smooth afterfeel on the skin.

<u>Part:</u>	<u>Ingredient(Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	52.6
	Polyquaternium-10 (Ucare Polymer JR-125)	0.3
B	Ammonium Lauryl Sulfate (Stepanol AM)	10.1
	Sodium C12-15 Pareth-15 Sulfonate (Avel S-150 CG)	4.2
	Ammonium Laureth Sulfate (Alfonic 1412-A)	7.5
	Sodium Cocoyl Isethionate (Jordapon CI-UP)	7.9
	Na4EDTA	0.2
	Methyl Paraben	0.2
	Imidazolidinyl Urea (Germa11 115)	0.2
C	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	15.1
	Soyamide DEA (Mazamide SS-10)	1.2
	Fragrance	0.5
	Citric Acid	Q.S.

pH: 6.3-6.8

Viscosity: 19,900 cps (Brookfield #3 @ 3rpm)

Appearance: Clear, viscous yellow liquid

Procedure:

Disperse the polyquaternium-10 in the part A water with good propellor agitation. Continue mixing for at least 20 minutes while heating to 40C. Add the part B ingredients in order, maintaining the 40C temperature until all solids are dissolved. Add the Mafo CSB-50, the Mazamide SS-10, and the fragrance in order, then adjust the pH.

SOURCE: PPG Industries, Inc.: Formulation F-107

Hand Washing Paste

	<u>Wt%</u>
Sulfetal TC 50	4.0
Purton SFD	1.0
Carboxymethyl cellulose	1.5
Soft soap	12.0
Quartz sand	60.0
China clay	6.0
Sodium tripolyphosphate	1.0
q.s. to make 100%: water, perfume, preservative	

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B22/2

Moisturizing Body Wash

	<u>% by Weight</u>
Steol CS-230	30.00
Stepanol AM-V	25.00
Stepanol WA-Extra	23.00
Ninol 30-LL	4.5
EDTA	0.2
Stepan TAB-2	5.0
Silicone DC200	1.0
Avocado Oil	0.5
Maprosyl 30	10.0
Hydrolyzed Corn Protein	0.5
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first five ingredients in a container and heat to 165-170F with mixing. In a separate container, heat Stepan TAB-2, Silicone DC200, and Avocado Oil to 165-170F with mixing. When melted, add to first five ingredients. Mix thoroughly. Cool to 110F, then add the remaining ingredients (Maprosyl 30, Hydrolyzed corn protein, preservative, dye, and fragrance) with mixing.

Adjust pH to 5.0-6.2 with 50% citric acid.

Adjust viscosity with sodium chloride.

Pearlescent Body Wash

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Bio-Terge AS-40	37.50
Kessco EGMS	1.00
Ninol 55-LL	4.00
Steol CS-330	28.50
Kessco PEG 6000DS	1.00
Preservative, Dye, Fragrance	Q.S.
Citric Acid (50%)	Q.S.
Sodium Chloride	Q.S.

Mixing Procedure:

Combine first six ingredients in a container and heat to 165F with mixing. Keep temperature constant for one half hour. With mixing, cool to 110F, add preservative, fragrance and dye.

Adjust pH to 6.0-6.5 with 50% citric acid.

Adjust viscosity with sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

Pearlescent Shower Gel

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Deionized Water	65.50
A	Sodium Lauryl Sulfate	20.00
A	Ammonium Laureth Sulfate	8.00
A	Cocamid DEA	5.00
A	Glycol Stearate	1.50
A	Preservative	QS
A	Oils of Aloha Kukui Nut Oil	0.50
B	Sodium Chloride	1.00
B	Perfume	0.25

Manufacturing Procedure:

Phase A:

Combine all ingredients except preservative and perfume at 60C. Cool to 40C.

Phase B.

Add preservative and perfume. Package.

Here the function of the Kukui Nut Oil is to replenish the oils lost on the hair so that it does not get overly dry. Using too much Oil would cut down on foaming.

After Bath Talc

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Talc	92.50
B	Perfume Oil	5.00
B	PPG-20 Methyl Glucose Ether	1.50
B	Oils of Aloha Macadamia Nut Oil	1.00

Manufacturing Procedure:

Combine Phase B and when uniform blend into talc.

Here the Oils of Aloha Macadamia Nut Oil helps the talc spread and cuts down on the dry feeling of the skin. Leaves a nice smooth feel.

SOURCE: Oils of Aloha: Suggested FormulationsSpreading Bath Oil

<u>Formula:</u>	<u>% by Weight</u>
Adol 66	7.00
Carnation Mineral Oil (Witco)	45.00
Isopropyl Myristate	45.00
Arosurf 66-PE 12	1.00
Fragrance	2.00

Procedure:

Mix cold in order listed.

SOURCE: Witco Corp.: Suggested Formulation

Pearlized Shower Gel

A pearlized body shampoo with Pationic ISL for moisture, Ritataine for mildness, and Polyquta 400 for skin conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium C14-16 Olefin Sulfonate	37.50
2. Propylene Glycol	5.00
3. Rita EGMS (Glycol Stearate)	2.00
4. Rita EGDS (Glycol Distearate)	2.00
5. Pationic ISL (Sodium Isosteatoyl Lactylate)	3.00
6. Ritataine (Cocamidopropyl Betaine)	5.00
7. Ritamide C (Cocamide DEA)	3.00
8. Polyquta 400 (Polyquaternium-10)	1.00
9. Ritaloe 200M (Aloe Vera Gel)	0.50
10. Distilled/Deionized Water	40.80
11. Glydant	0.20

Compounding Procedure:

Dissolve items 8 and 9 in item 10. Combine with items 1 and 2 and heat to 70C. Add items 3-7 and mix until uniform. Allow to cool. Add item 11.

Ref. No. 121-145

Shower Gel

A shower gel containing Polyquta 400 for viscosity and conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	42.60
2. Sodium Lauryl Sulfate	25.00
3. Ammonium Lauryl Sulfate	25.00
4. Cocamidopropyl Betaine	3.00
5. Lauramide DEA	3.00
6. Polyquta 400 (Polyquaternium-10)	1.00
7. Citric Acid 50%	0.20
8. Glydant	0.20

Compounding Procedure:

Heat water to 70C and add Polyquta 400. Mix until dissolved. Add items 2-5 while stirring. Allow to cool. Add items 7-8.

Ref. No. 121-108A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Premium Foam Bath

<u>Ingredients:</u>	<u>%Wt.</u>
CalBlend Clear	25.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	75.00

Comments About this Formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear into water and mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 1,000-3,000 cps with the incremental addition of sodium chloride as needed.

CTFA Identification:

Water, Sodium Laureth Sulfate, Sodium Chloride, Cocamide DEA, Cocamido propyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #BUB-006-01

Bath Body Wash

<u>Ingredients:</u>	<u>%Wt.</u>
Calfoam ES-303	60.10
Sodium Chloride	1.10
Water	5.30
Caltaine C-35	5.00
Calamide C	8.80
Decyl Polyglucose	19.70

Formulation #GEL-002-01

SOURCE: Pilot Chemical Co.: Formulary

Rona/Shampoo/Shower Gel

Use of titanated mica pearl pigments in shampoo formulations creates iridescent effects which cannot be achieved with conventional stearate pearling agents. Rona's Timiron Super Colors, which derive their effect from light interference, reflect single colors across the visible spectrum. Timiron Super Gold produces a gold luster, Timiron Super Red a red reflectance, and so on. Combinations of the Super Colors and water-soluble dyes will result in unique "two-color" effects, whose appearance varies with the angle of viewing.

Rona has developed a system for suspending mica pigments in detergent formulations. An increase in viscosity alone will not prevent settling; a thixotropic gel is needed. The combination of Veegum HV (Mg Al Silicate) and Klucel G (hydroxypropyl-cellulose) yields a gel network that is compatible with many detergent systems: the Veegum provides the suspension properties, while the Klucel acts as a protective colloid to prevent agglomeration of the Veegum.

The detergent systems containing the Veegum/Klucel combination can be manufactured via cold process. The pre-homogenization step to swell the Veegum can be accelerated with heat. Because Veegum is sensitive to salts, lack of agglomeration of the Veegum with the desired detergent level and salt content should be insured before proceeding with formulation.

Pearlized Bath Salts

<u>Phase #:</u>		<u>Wt%</u>
1	Bath Crystals	99.00
1	Pearl pigment (e.g. Colorona Magenta)	1.00
2	Luviskol VA641	0.40
2	Isopropanol	3.60
2	Fragrance	q.s.

Procedure:

Combine phase 1 with gentle tumbling agitation. Combine phase 2. When homogeneous, spray onto phase 1 with continuous tumbling agitation. Evaporate solvent via vacuum or tray drying.

SOURCE: Rona/EM Industries, Inc.: Formulation SD123

Shebu Shower Gelee

A bath gelee with a smooth unique feel from Pationic ISL and Shebu is a skin conditioner.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth Sulfate (ES-3)	53.00
2. Ritamide C (Cocamide DEA)	4.00
3. Shebu WS (PEG-50 Shea Butter)	3.00
4. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
5. Glydant Plus	0.20
6. Distilled/Deionized Water	36.20
7. Fragrance	0.10
8. Ritapeg 150 DS (PEG-150 Distearate)	0.50

Compounding Procedure:

Heat ingredients 1-6 to 65C with agitation. Cool to 43C and add perfume. Adjust viscosity with Sodium Chloride and pH with lactic acid.

Ref. No. 121-80A

Shebu Shower Gelee

A bath gelee with a smooth unique feel. Shebu is a skin conditioner.

<u>Ingredients:</u>	<u>W/W</u>
1. Sodium Laureth Sulfate (ES-3)	53.00
2. Ritamide C (Cocamide DEA)	4.00
3. Shebu WS (PEG-50 Shea Butter)	3.00
4. Glydant Plus	0.20
5. Distilled/Deionized Water	39.20
6. Fragrance	0.10
7. Ritapeg 150 DS (PEG-150 Distearate)	0.50

Compounding Procedure:

Heat ingredients 1-6 to 65C with agitation. Cool to 43C and add perfume. Adjust viscosity with Sodium Chloride and pH with lactic acid.

Ref. No. 121-80B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shower Gel with Mbaruti Oil

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	52.245g
2 EDTA, Disodium Salt	0.200g
3 Germaben 11-E	0.750g
4 Sodium Laureth Sulfate (SLES)	37.000g
5 Gafquat 734	0.200g
6 Mbaruti Oil (Mexican Poppy Oil)	0.100g
7 Fragrance	0.300g
Stage B:	
8 D-Panthenol 75%	0.200g
9 Cocamide CDE	2.000g
10 Empigen BB	1.000g
Stage D:	
11 Tego Pearl S33	3.000g
12 Phosphoric Acid	0.045g
13 C.S. D&C Yellow No. 6; 1% Soln	0.140g
14 C.S. FD&C Blue No. 1; 1% Soln	0.700g
15 Sodium Chloride (salt)	2.750g

Mixing Instructions:

Meter out the water and add each item in turn, mixing well after each addition.

Adjust the pH with phosphoric (or Citric) acid and colour match before finally adjusting the viscosity by adding Sodium Chloride.

Project JW 2422/Formula Ref. 936* 1

Shower Gel

<u>Stage Material:</u>	<u>Quantity</u>
H.E. Ginseng	0.000g
Pre-Mix 1:	
1 Fragrance	0.500g
2 Empigen BB	5.000g
3 Irgasan DP300	0.100g
Stage A:	
4 Water; Pure	44.550g
5 Sodium Laureth Sulfate (SLES)	45.000g
Stage B:	
6 Empilan E 2502	1.200g
7 Citric Acid BP	0.250g
8 Sodium Chloride (salt)	2.200g
9 H.E. Chamomile	1.000g
10 Colours as required	0.200g

Mixing Instructions: Make in order.

Project JW 0263/Formula Ref.: 782*0

SOURCE: A&E Connock: Suggested Formulations

Shower Gel with Softigen 767

<u>Ingredients:</u>	<u>Weight%</u>
A. Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5.00
Marlinat 242/28 (Sodium Laureth Sulfate)	38.00
Ampholyt JB 130/K (Cocamidopropyl Betaine)	10.00
Elfacos GT 282 S (Hydrogenated Talloweth-60 Myristyl Glycol)	6.00
Color	q.s.
Preservative	q.s.
Water, up to	100.00
Fragrance	q.s.

Preparation:

All the materials in (A) are mixed together, heated up to about 60 degrees C, and stirred during cooling to about 30 degrees C. The perfume is then added.

Formulation 5.4S

Shower Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
A) Marlinat 242/28 (Sodium Laureth Sulfate)	41.00
Ampholyt JB 130K (Cocamidopropyl Betaine)	13.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	2.00
Dehyquart LT (Laurtrimonium Chloride)	1.50
Panthenol	1.00
Preservative	q.s.
Sodium Chloride	1.00
Water	Up to 100.00
B) Fragrance Limobain A.116.830	0.50

Preparation:

(A) is mixed together and melted at about 50 degrees C.

(B) is added at about 35 degrees C.

Formulation 5.4T

SOURCE: Huils America Inc.: Suggested Formulations

Skin Conditioning Bath Gelee with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water (100C)	10.00
2. Ritavena 5	2.00
Part B:	
3. Sodium Laureth Sulfate	53.00
4. Distilled Water	21.15
5. Monamid 150 ADD	4.00
6. Ritawax 15	3.00
7. Pationic ISL	3.00
8. Ritapeg 150 DS	0.50
9. Methylparaben	0.15
Part C:	
10. Fragrance	1.00
11. Kathon CG	0.50
12. Sodium Chloride (25% Solution)	+ -1.00
13. Patlac LA (44% Solution)	+ -0.70

Compounding Procedure:

Heat Part B to 165F with mixing. Premix Part A in a blender for 2 minutes. Add to Part B. Mix until uniform. Cool to 120F. Add Part C. Adjust pH to 6.0-6.5 using Patlac LA (44% Solution). Adjust viscosity with Sodium Chloride (25% Solution).

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 111-203

Dispersible Bath Oil

<u>Formula:</u>	<u>Wt%</u>
Crovol PK-40	9.00
Procetyl 10	16.00
Alcohol SD-40	10.00
Carnation Mineral Oil	64.00
Fragrance	q.s.

Procedure:

Straight blend all ingredients until clear.

Floating Bath-Oil Bar

<u>Formula:</u>	<u>Wt%</u>
Witconol APM	69.0
Carnation Mineral Oil	10.0
Propylene Glycol	10.0
Sodium Stearate (Witco)	8.0
Water	3.0
Color, Perfume	q.s.

procedure:

Disperse sodium stearate C-1 in Witconol APM. Add Carnation mineral oil, propylene glycol and water. Heat to 80 to 85C. Stir until clear. Cool with stirring to 77C and add color and perfume. Pour into molds at 73C.

SOURCE: Witco Corp.: Suggested Formulations

Washing Lotion

With a bacteriostatic effect, clear, 9.9% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox	0.20
B Genapol AMG	25.00
C Fragrance	0.30
Glucamate DOE 120	1.00
Dyestuff solution	q.s.
Preservative	q.s.
D Allantoin	0.20
E Water	63.30
F Genagen CAB	10.00

Procedure:

- 1 Dissolve A in B.
- 2 Stir the components of C one after another into 1.
- 3 Dissolve D in E while heating slightly.
- 4 Add 3 to 1.
- 5 If necessary adjust the pH.
- 6 Adjust the viscosity with F.

Formula A II/4022

Washing Lotion

Clear, 10.5% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon KCG	30.00
B Fragrance	0.30
C Water	55.20
Glucamate DOE 120	3.00
Magnesium chloride	1.50
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB	10.00

Procedure:

- 1 Dissolve B in A.
- 2 Stir the components of C one after another into 1.
- 3 If necessary adjust the pH.

Formula A II/4021

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

2 in 1 Shower Gel and Body Lotion
24.5% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Emulsogen LP	2.00
Genapol L-3	3.00
Cetiol HE	2.00
Soybean oil	3.00
Isopropyl palmitate	3.00
 B Prifac 2942	 4.00
 C Hostapon SCI	 2.50
Genapol LRO liquid	25.00
Genapol AMG	15.00
Fragrance	1.00
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB	6.00
 D Polymer JR 400	 0.50
Allantoin	0.30
 E Water	 32.70

Procedure:

1. Dissolve B in A while heating gently.
2. Stir the components of C in succession into 1, which should still be warm.
3. Dissolve the components of D in E while heating gently.
4. Stir 3 into 2.
5. Homogenize.

Formula A I/8065

Creamy Bath Oil
Clear, low viscosity

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat KL 340 N	2.00
Emulsogen LP	2.00
Mineral oil, high viscosity	53.00
Soybean oil	10.00
Isopropyl palmitate	30.00
Fragrance	3.00
Dyestuff solution	q.s.

Procedure:

Mix together all the components in any sequence at room temperature.

Formula A XV/1010

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Section IV

Beauty Aids

Aloe Vera Cream Scrub

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	65.95
Aloe Vera Gel	1.00
B:	
Propylene Glycol	2.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Glyceryl Stearate SE	5.00
Carnation Mineral Oil (Witco)	5.00
Safflower Oil	1.00
Sesame Oil	1.00
Squalane	1.00
Dioctyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (Wickhen)	1.00
Stearic Acid	2.50
Cetyl Alcohol	0.50
Methocel 40-100	0.50
D:	
Deionized Water	1.00
Triethanolamine	1.00
E:	
Color	q.s.
F:	
Perfume Oil	0.10
G:	
Deionized Water	1.00
Dowicil 200 Antimicrobial	0.10
H:	
Polyethylene 9A	10.00

Procedure:

Melt water into vessel, add aloe vera, mix and begin heating to 80C. In separate vessel, prepare B by heating propylene glycol; add parabens and when dissolved add to A. Combine with batch and mix for 5 mins. Add D and begin to cool. Add E, then F when batch is below 45C. Add G and sprinkle in H.

Moisture Stick Base

<u>Formula:</u>	<u>% by Weight</u>
Blandol Mineral Oil (Witco)	50
Rosswax 26-1152	28
Rosswax 15-1182	2
Rosswax 1824	10
Amerlate P	10

Procedure:

Melt ingredients in a kettle at 170F under agitation. When mixed thoroughly, pour into molds.

SOURCE: Witco Corp.: Suggested Formulations

Aloe Vera Moisturizer

Excellent feel, containing Ritaloe for skin conditioning and Clariskin for preventing and attenuating age spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00
2. Lanolin USP X-Tra Deo	0.50
3. Mineral Oil (Britol 9NF)	8.00
4. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	2.00
5. Stearic Acid	4.00
6. Ritasil (Isopropyl Lanolate)	1.00
7. Ritaceti (Cetyl Esters)	1.00
8. Rita GMS (Glyceryl Stearate)	4.00
9. Triethanolamine 50%	1.00
10. Glycerine	2.00
11. Propylene Glycol	2.00
12. Methyl Parahydroxy Benzoate	0.30
13. Propyl Parahydroxy Benzoate	0.10
14. Ritaloe 200M (Aloe Vera Gel)	1.00
15. Sorbitol 70%	2.00
16. Clariskin (Yeast Extract)	5.00
17. Perfume	q.s.
18. Distilled/Deionized Water	64.10

Compounding Procedure:

Mix items 1-8 and heat to 80C. Combine items 9-15 and 18, and heat to 80C. Slowly add water phase to oil phase with agitation. Cool with gentle agitation to 45C. Add item 16-17 and cool to 40C.

Ref. No. 122-83B

Liposome Gel

A soothing gel combining the benefits of vitamins A, C and E in a synergistic and effective liposome system with hydrolyzed soy protein.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shea Butter)	1.00
7. TEA @ 99%	0.40
8. Promois WS (Hydrolyzed Soy Protein)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Rovisome ACE (Vitamin Blend)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4,5 and 6 separately. Add TEA until batch thickens. Add items 8,9,10 and 11. The pH of a gel is 5.5.

Ref. No. 121-95

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Wrinkle Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shebu Butter)	1.00
7. TEA @ 99%	0.40
8. Promois ECP (Collagen)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Tensine (Wheat Protein)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4,5 and 6 separately. Add TEA until batch thickens. Add items 8,9,10 and 11. The pH of a gel is 5.5.

Ref. No. 122-103A

Facial Firming Gel

An oil-free formulation that rehydrates the skin and protects against skin relaxation and wrinkles with vital proteins.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	60.50
2. Acritamer 940 (Carbomer)	0.80
3. Distilled/Deionized Water	27.90
4. Propylene Glycol	5.00
5. Disodium EDTA	0.20
6. Triethanolamine (99%)	q.s.
7. Tensine (Wheat Protein)	5.00
8. Reductine (Oat Protein)	1.00
9. BioCare SA (Albumen and Hyaluric Acid and Dextran Sulfate)	0.10
10. Glydant	0.50
11. Blue Dye	q.s.

Compounding Procedure:

Slowly disperse Acritamer into water with rapid agitation. Mix until well dispersed. Add items 3-5. With slow mixing add item 6. Add items 7-10 and mix.

Ref. No. 122-95

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Biorepair Skin Gel

This white gel with emollients has a good penetration with a non-oily afterfeel. Hyasol-BT delivers moisture to the skin. Repair function is provided by Fitobroside (lipid barrier) and Immucell (activation of cell respiration).

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	70.40
2	Glycerin	5.00
3	Hamamelis Extract	5.00
4	D-Panthenol 50P	1.00
5	Phenonip	0.30
6	Carbopol 1342	0.60
7	Natrosol 250 HR	0.30
8	Luviskol K90	0.10
9	B) Sodium Hydroxide 18% Solution	2.70
10	C) Isopropyl Myristate	3.00
11	Bisabolol	0.50
12	Antarox CO 630	2.00
13	D) Fitobroside	3.00
14	Immucell	3.00
15	Hyasol-BT	3.00
16	Fragrance	0.10

Procedure:

Dissolve items 2-8 in water (1). Neutralize with phase B). Mix phase C and incorporate in the resulting gel. A white gel is obtained. Finally add items 13-16 one after another. Application No. D 009.A/04.93

Anti-Aging Leave On Mask

This refreshing quick mask accelerates skin cell turnover (Immucell) and strengthens the weakened lipid barrier (Lactomide)

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	76.90
2	Glycerin	5.00
3	Phenonip	0.30
4	Imidazolidinyl Urea	0.20
5	Ultrez 10	0.30
6	Triethanolamine	0.30
7	Abil B 8843	2.00
8	Amerchol L 101	5.00
9	Immucell	5.00
10	Lactomide	5.00

Procedure:

Dissolve items 2-5 in water (1). Neutralize with Triethanolamine (6) to pH 5.5-6.0. Finally incorporate items 7-10 under stirring one after another. Application No. D 031.C/01.96

Blusher

	<u>Wt%</u>
Syncrowax ERL-C	12.10
Syncrowax HR-C	1.90
Ceraphyl 368	38.40
Myritol 318	3.00
Emerest 2452	0.50
Methyl Paraben	0.20
Propyl Paraben	0.10
Supra Talc	18.55
Biron ESQ	15.00
Mica M-RP	8.25
Color grind - 50% 19-012 (D&C Red #6 Ba Lake) in Myritol 318	2.00

Manufacturing Procedure:

The color grind was prepared in advance on a three roller mill. Combine the waxes, grind and oils. Heat to 80-85C until homogeneous. Add the talc, mica and BiOCl. Agitate with a high speed mixer until no agglomerates remain. Stir in the pearl pigment with moderate agitation. Pour at 70C.

Formulation AN2-33-2

Starlight Body Freshener

<u>Phase #:</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	Deionized water	31.55
1	Glycerine	5.00
1	SD 40 Alcohol	20.00
1	Timiron Starlight Color	0.10
2	1% Carbopol 941 solution	40.00
3	Triethanolamine 99%	0.60
3	Deionized water	2.00
4	Solulan 98	0.50
4	Fragrance	0.25
5	Certified dye(s)	qs

Procedure:

Combine phase #1 with propeller agitation. When homogeneous, add the remaining phases in order.

Formulation EM2-27

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

**Body Emulsion, Type O/W, with MPC - Milk Peptide Complex
and Calendula Oil CLR**

<u>Ingredients:</u>	<u>Weight%</u>
a) Eumulgin VL 75	4.50
Lanette O	2.00
Monomuls 60-35 C	1.00
Cetiol LC	4.00
Cetiol B	5.00
Cetiol PGL	1.00
Calendula Oil CLR	3.00
Phenonip	0.30
b) Water, distilled	65.85
Phenonip	0.30
Carbopol 980	0.30
Glycerin	2.00
c) KOH, 20% solution	0.75
d) Water, distilled	9.38
Na3-Citrate x 2H2O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Heat to approx. 70C and stir into a).
 Continue stirring until cooled to approx. 50C;
- c) Stir in. Continue stirring until cooled to approx. 30C;
- d) Stir in.
 Perfume, homogenize

Ceramide Complex CLR (P)

Ceramide Complex CLR (P) contains 2% lipids in lamellar, liquid crystalline form. The plant derived lipid mixture consists of at least 10% sphingolipids (ceramides, glycosceramides = cerebrosides).

Eye Gel with Ceramide Complex CLR (P)

<u>Ingredients:</u>	<u>Weight%</u>
a) Hispagel 200	20.00
Keltrol, 1% aqueous solution	30.00
Water, distilled	35.70
Phenonip	0.30
Cetiol J 600	4.00
b) Ceramide Complex CLR (P)	10.00

Manufacture:

- Mix a) at room temperature in the order given;
- Add b) to a) with slow stirring. Perfume.

**SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulations**

Clear Facial Cleansing Gel

A clear, mild foaming facial cleanser suitable for a tube or pump packaging. The Jordapon ACI-30 provides excellent foaming, gentle cleansing, and a soft, smooth afterfeel on the skin.

<u>Part:</u>	<u>Ingredient(Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	51.40
	Hydroxypropyl Methylcellulose (Methocel 40-100)	0.20
	Triethanolamine	0.05
	Na4EDTA	0.10
	Citric Acid, 50%	0.05
	Imidazolidinyl Urea (Germall 115)	0.15
B	Deionized Water	20.00
	TEA Lauryl Sulfate (Stepanol WAT)	3.50
	Methyl Paraben	0.15
	PEG-150 Distearate (Mapeg 6000DS)	0.50
C	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	16.80
	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	4.00
	Soyamide DEA (Mazamide SS-10)	1.50
	Cocamide DEA (Mazamide JT-128)	1.50
D	Fragrance	0.10
	Citric Acid, 50%	Q.S.

pH: 6.3-6.8

Viscosity: 18,900 cps (Brookfield #3 @ 3 rpm)

Appearance: Clear, viscous yellow liquid

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water, stirring for about ten minutes. Add the Na4EDTA and the triethanolamine; continue mixing for about 20 minutes to ensure complete hydration. Add the remaining part A ingredients and continue mixing at room temperature. In a separate vessel, premix the part B ingredients, heating to 65C to dissolve the Mapeg 6000DS. Add part B to part A with good agitation. Add the part C ingredients in order, mixing until clear and uniform. Add the fragrance and adjust the pH.

SOURCE: PPG industries, Inc.: Formulation K-103

Conditioning Skin Mousse

<u>Formula:</u>	<u>% by Weight</u>
A:	
Celquat L-200	0.50
Distilled Water	89.10
Propylene Glycol	2.00
Triethanolamine	0.50
Preservative	q.s.
B:	
Carnation Mineral Oil (Witco)	2.00
Acetulan	0.50
Amerchol L-101	1.50
Emerest 2407	0.75
Cetyl Alcohol	0.25
Stearic Acid XXX	1.00
Crodanol IPM	2.00
C:	
Fragrance	q.s.

Procedure:

Dissolve Celquat L-200 in water, add remaining ingredients of A while mixing. Heat to 75C. Prepare B and heat to 75C. When each is uniform, add B to A. Cool. Add C when 35C. Fill.

Silky Blush

<u>Formula:</u>	<u>% by Weight</u>
Pigment	30.00
SF1214 Silicone Fluid	27.00
Orgasol 2002	25.00
Crodamol PMP	7.00
White Fonoline Petrolatum (Witco)	5.60
Crosilk Powder (Croda)	5.00
Magnesium Stearate-D (Witco)	0.40

Procedure:

Blend pigment powders and add SF1214. Use high shear to wet powders evenly. Add Crodamol PMP and continue high shear. Add White Fonoline Petrolatum and press into suitable mold. This is a silky pressed blush that can be smoothed on with a brush or by hand.

SOURCE: Witco Corp.: Suggested Formulations

Cooling Facial Balm

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	2.0
Octyl Palmitate (Tegosoft OP)	2.5
Cetearyl Isononanoate (Tegosoft CI)	1.0
Phase B:	
Propylene Glycol	1.8
Water	72.6
Phase C:	
Octyl Stearate (Tegosoft OS)	3.5
Carbomer ETD 2050	0.2
Ethanol	10.0
Cyclomethicone	4.0
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance (suitable for facial product)	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B or B to A without stirring.
4. Stir.
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize.
6. Cool to 35-40C with stirring.
7. Add Ethanol and Cyclomethicone.
8. Add Phase D/E. Stir.
9. Mix until viscosity is correct.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Cream Eye Shadow

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Stearic Acid	3.00
Glyceryl Stearate	2.00
Cetearyl Alcohol and Ceteareth-20 (Promulgen D)	1.00
Candelilla Wax	1.00
Myristyl Myristate	1.00
Dimethicone (DC 200 Fluid, 350 cstk)	0.50
Propylparaben	0.10
B: Deionized Water	34.30
Ultramarines (C43-1810 Cosmetic Blue)	6.00
Titanium Dioxide (C47-5175 Cosmetic White)	1.50
C: Mica (and) Titanium Dioxide (Timica Pearl White)	5.00
D: Deionized Water	30.00
PVP (PVP K-60)	4.00
E: Propylene Glycol	5.00
Hydroxy Propyl Methyl Cellulose (Methocel 40-202)	0.20
Veegum, Magnesium Aluminum Silicate	0.50
F: Deionized Water	2.00
Triethanolamine, 99%	1.20
Phenoxyethanol (Dowanol EPh)	0.50
EDTA (Versene 100)	0.10
Simethicone (Antifoam AF Emulsion)	0.05
G: Deionized Water	1.00
Quaternium-15 (Dowicil 200)	0.05

Procedure:

Weigh the Part B and Part D water into a beaker. Add Veegum and mix for 20 min. using a homogenizer at 5000 rpm. Disperse the Methocel in Propylene Glycol, add to the batch and mix for 10 min. at 5000 rpm. Weigh and mix together Part F, add them to the batch and mix for 5 min. Add the remaining Part B and mix for 5 min. Add the PVP and mix 2 min. Heat the batch to 80C, mix and heat Part A to 80C. Add Part A to the batch and mix for 10 min. at 5000 rpm. Transfer the batch to a propeller mixer and begin cooling. At 60C add Part C and continue cooling and mixing slowly. At 45C mix Part G ingredients and add them to the batch. Continue mixing while cooling to room temperature.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formula from Dow Chemical Co.

Creamy Lipstick (Summer Mauve)

<u>Formula:</u>	<u>% by Weight</u>
A:	
Ozokerite	7.4
Polyethylene Wax	6.2
White Protopet 1S Petrolatum (Witco)	10.3
Maleated Soybean Oil	2.0
Diisopropyl Adipate	3.1
C12-15 Alkyl Lactate	7.2
Tridecyl Neopentanoate	7.2
Myristyl Lactate	10.0
Isocetyl Stearoyl Stearate	11.0
Hydrogenated Polybutene	6.2
Isopropylparaben (and) Isobutylparaben (and) Butylparaben	0.4
B:	
D&C Red #7 Calcium Lake	1.2
Titanium Dioxide	6.8
Iron Oxide (Cosmetic Red)	0.5
Iron Oxide (Cosmetic Yellow)	0.5
C:	
Mica	5.0
Bismuth Oxychloride	5.0
Mica (and) Bismuth Oxychloride (and) Carmine	10.0

Procedure:

Heat A to 95C until clear. Cool to 85C. Add B. Mix 30 minutes.
Cool to 80C. Add C. Mix 30 minutes and fill.

Petrolatum Stick/Lip Balm

<u>Formula:</u>	<u>% by Weight</u>
White Protopet 1S Petrolatum (Witco)	85.0
Syncrowax HGCL	12.0
Syncrowax ERLC	3.0

Procedure:

Combine the White Protopet 1S Petrolatum and the waxes. Mix while heating to 80C. Cool to 65-70C and pour. Chill the molds to 40C prior to pouring.

SOURCE: Witco Corp.: Suggested Formulations

Enriched Emollient Liquid Makeup

The combination of Veegum and Cellulose Gum in this formula provides synergistic rheological effects including thickening and stabilization of the emulsion and suspension of the pigments. The unusually high concentration of several emollients provides an enriched liquid makeup that spreads smoothly and easily and covers well without tacky afterfeel.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.70
Cellulose Gum (CMC-7MF)	0.25
Deionized Water	42.28
Triethanolamine, 99%	0.75
Glycereth-26 (Liponic EG-1)	10.50
Methylparaben	0.30
 B: Titanium Dioxide	 10.00
Talc	3.15
Iron Oxides	1.97
 C: Isopropyl Isostearate	 10.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Soy Glyceride (Myverol 18-06)	2.10
Stearic Acid	1.60
Dioctyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (Wickenol 161 (1.1% by wt) & Wickenol 163 (1.0% by wt)	2.10
Vanseal CS, Cocoyl Sarcosine	1.00
Lithium Stearate	0.10
Propylparaben	0.10
Butylparaben	0.10

Procedure:

Heat the water to 70 to 75C. Add the Veegum and mix at maximum available shear until smooth. Slowly mix in remaining Part A ingredients. Mix Part B ingredients thoroughly into A until uniform. Maintain temperature at 70 to 75C. Heat Part C to 70 to 75C and add to Parts A+B. Mix while cooling.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 433

Exfoliant Scrub

<u>Material:</u>	<u>%w/w</u>
Water, Pure	68.500
Glycerine BP	5.000
Light Mineral Oil	5.000
Polyethylene Spheres	5.000
AEC Isocetyl Stearate	5.000
GMS s/e, Acid Stable ES0	3.000
Volpo CS20	3.000
AEC Cetyl Palmitate	2.000
AEC Decyl Oleate	1.000
Carbopol 940	0.800
Triethanolamine 99%	0.500
Phenonip	0.500
Superhartolan	0.500
Fragrance	0.200

Foermula Ref.: 1051*0

Exfoliating Foot Scrub

<u>Material:</u>	<u>%w/w</u>
Water; Pure	44.810
Sodium Laureth Sulfate (SLES)	40.000
AEC Corn Cob Granules	5.000
Veegum Regular	4.000
Cocamidopropyl Betaine	3.000
Cocamide CDE	2.000
E.O. Peppermint	0.200
Bronidox L/15	0.200
EDTA, Disodium Salt	0.200
C.S. FD&C Yellow No. 5; 1% Soln	0.170
E.O. Tea Tree	0.150
C.S. FD&C Blue No. 1; 1% Soln	0.135
Myacide SP	0.100
Lactic Acid, Natural	0.035

Formula Ref.: 1202*0

SOURCE: A&E Connock Ltd.: Suggested Formulations

Exfoliant Scrub

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Light Mineral Oil	5.000g
2 AEC Isocetyl Stearate	5.000g
3 GMS s/e, Acid Stable ES0	3.000g
4 Volpo CS20	3.000g
5 AEC Decyl Oleate	1.000g
6 AEC Cetyl Palmitate	2.000g
7 Superhartolan	0.500g
Aqueous Phase:	
8 Water, Pure	68.500g
9 Glycerine BP	5.000g
10 Carbopol 940	0.800g
11 Triethanolamine 99%	0.500g
12 Phenonip	0.500g
Cooling Cycle:	
13 Polyethylene Spheres	5.000g
14 Fragrance	0.200g

Mixing Instructions:

The Oil Phase is added to the Aqueous at 70C with mixing. Mixing is continued while cooling, and the gently exfoliating Polyethylene Spheres added below 40C. Do not homogenise or use high shear mixing after the addition of the Polyethylene Spheres.

The high ester content base will soften skin and assist the gentle exfoliating action of the Polyethylene Spheres. The spheres are available in a variety of colours making it possible to formulate very interesting products.

SOURCE: A & E Connock Ltd.: Project JW 2461/Formula Ref.: 1051*0

Foaming Facial Cleanser

A rich pearlescent lotion with rapid flash foaming and gentle cleansing, which leaves the skin soft and smooth.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt.%</u>
A	Deionized Water	38.7
	Propylene Glycol	10.0
	Sodium Isethionate, 56% (Witconate NIS)	9.0
	TEA Lauryl Sulfate (Stepanol WAT)	2.5
	Cocamidopropyl Amine Oxide (Mazox CAPA)	16.0
B	Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	19.3
	Sodium Tallowate (and) Sodium Cocoate (Bradpride Chip)	2.5
	Stearic Acid (Hystrene 5016)	2.0
pH: 6.3-6.8 Viscosity: 2.4 x 10 ⁶ cps Firm white paste		

Procedure:

Blend the part A ingredients in the main vessel, heating to 80-85C. Add the part B ingredients in order, maintaining temperature. Mix at temperature until all solids are dissolved, about 30 minutes. Stir-cool to 40-45C and adjust pH if necessary.

SOURCE: PPG Industries, Inc.: Formula K-104

Exfoliating Foot Scrub

<u>Stage Material:</u>	<u>Quantity</u>
Pre-Mix 1	
1 E.O. Tea Tree	0.150g
2 E.O. Peppermint	0.200g
3 Cocamidopropyl Betaine	3.000g
Stage A:	
4 Water; Pure	44.810g
5 Myacide SP	0.100g
6 EDTA, Disodium Salt	0.200g
7 Bronidox L/15	0.200g
8 Veegum Regular	0.400g
Stage B:	
9 Sodium Laureth Sulphate (SLES)	40.000g
Stage C:	
10 AEC Corn Cob Granules	5.000g
11 Cocamide CDE	2.000g
12 C.S. FD&C Yellow No. 5; 1% Soln	0.170g
13 C.S. FD&C Blue No. 1; 1% Soln	0.135g
14 Lactic Acid; Natural	0.035g

Mixing Instructions:

This Foot Scrub has a cleansing and gentle exfoliating action. The Tea Tree oil is a natural fungicide, the peppermint oil has a natural cooling action and the Corn Cob Granules exfoliate rough and dead skin.

1. Meter out the water and start heating. Add Myacide/EDTA/Bronidox.
2. Continue heating & disperse the Veegum; heat to 60/65C to obtain a smooth paste, switch off heat.
3. While mixing very carefully to avoid foaming slowly & carefully add Sodium Laureth Sulfate. This brings the temperature down to approx. 45C. Continue mixing until a smooth paste (about 30 mins.).
4. Separately mix together Tea Tree/Peppermint Oil and Cocamidopropyl Betaine and add to main mix.
5. While still liquid stir in the AEC Corn Cob Granules followed by Cocamide DEA which will thicken the product.
6. Match colour, adjust pH to 7.5-8.5, stir until product thickens to avoid Corn Cob Granules floating to the surface.

SOURCE: A & E Connock Ltd.; Project JW2566/Formula Ref. 1202*0

Extra Light W/O Emulsion

<u>Ingredients:</u>	<u>Weight%</u>
<u>Oil Phase:</u>	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Dimethicone (350 cs)	1.0
Beeswax	0.2
Hydrogenated Castor Oil	0.2
Cyclomethicone	9.0
Octyl Stearate (Tegosoft OS)	4.0
Isopropyl Palmitate (Tegosoft P)	3.0
Isopropyl Myristate (Tegosoft M)	4.0
<u>Water Phase:</u>	
Water	72.8
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, maintain temperature of 50-60C.
2. Mix the water and sodium chloride. Heat to 50-60C.
3. With lightnin' mixing, stream the water phase into the oil phase.
4. With sweep agitation, cool to 35C.
5. Add color, fragrance and preservatives.
6. Homogenize with a roto-stator homogenizer.

Pearlescent Eye Shadow

<u>Ingredients:</u>	<u>Weight%</u>
<u>Phase A:</u>	
Talc	44.40
Silica	4.00
Kaolin	14.00
Mica	8.00
Iron Oxides	18.00
Ultramarine Blue	4.00
Methylparaben	0.25
Propylparaben	0.15
<u>Phase B:</u>	
Caprylic/Capric Triglycerides (Tegosoft CT)	4.20
Behenoxy Dimethicone (Abil Wax 2440)	1.00
Phenyl Trimethicone (Abil AV 20)	0.25
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	1.75
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A in a blender. Mix until uniform.
2. Combine the ingredients of Phase B. Warm if necessary to disperse the Abil Wax 2440. Mix. Add to A. Reblend.
3. Press into godets.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Eye Mascara**Formulating Design and Advantages:**

This mascara provides a quick drying initial effect. The product is silky to the lashes and smudge proof.

	Wt%
Oil Phase:	
Siliconyl Beeswax (Koster Keunen)	7.50
PEG Carnauba (Koster Keunen)	7.50
Glycerol Monostearate (Witco)	2.75
Orange Wax (Koster Keunen)	2.00
Stearic Acid (Koster Keunen)	1.00
Paraffin 150/155 (Koster Keunen)	1.50
Microcrystalline W445 (Witco)	1.50
Propyl Paraben (Sutton)	0.30
Water Phase:	
Water (Deionized)	58.45
Sodium Borate (Borax)	1.20
Propylene Glycol (BASF)	1.00
Carbopol 2% Solution (B.F. Goodrich)	1.00
Alcohol Phase:	
Alcohol SDA 30 (Quantum)	10.00
Purified Black Oxide (Clarke)	4.00

Procedure:

Heat the oil phase and water phase to 75C. Add the oil phase to the water phase. Cool to 40C and add the premixed alcohol phase. Cool.

Adaptation of Formula and Its Influence on the Product:

A variety of pigments can be substituted to suit the product's needs. Viscosity can be altered by reducing solids and increasing water phase.

Powder Formula**Formulating Design and Advantages:**

Binder systems utilizing the silicone oil/Cera Albalate 103 gel produces a dry non-oily skin feel. These type of products also have high structural integrity and can withsatnd five drops from one to two feet.

	Wt%
Binder:	
Silicone Oil 345 (Dow)	60.0
Hexanediol Behenyl Beeswax (Koster Keunen)	40.0
Pressed Powder:	
Cosmetic Tan C33-130 (Sun Chemical)	13.0
Talc (Whittaker C&D)	47.0
Binder (Koster Keunen)	40.0

Procedure:

Homogenize and press in container at 1000 psi for 15-20 seconds.

Adaptation of Formula and Its Influence on the Product:

Other oils and/or waxes can be substituted into the binder system. In the final product, pigments and concentration of binder can easily be altered to produce varying degrees of creaminess and firmness of the powder.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Eye Shadow

<u>Phase#:</u>		<u>Wt%</u>
1	Talc 141	q.s.
1	Lithium stearate	2.50
1	Kaolin 2457	5.00
1	Microcel E	0.50
1	Methyl Paraben	0.20
1	Propyl Paraben	0.10
1	Biron ESQ (BiOCl)	see below
1	Conventional Pigments	see below
2	Pearlescent Pigment	see below
3	Amerchol L-101	11.00
3	Super Hartolan	1.00
3	White Petrolatum	1.00

Procedure:

Combine phase #1. Pulverize with a hammer mill, passing twice through a 0.027" herring bone screen. Add phase #2 with gentle agitation. Combine phase #3. Heat to 70C. Spray onto batch while agitating bulk. Pass entire batch through a jump gap.

Combinations:P3-83-1:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	5.00
1 Red Iron Oxide (7054)	2.00
1 Yellow Iron Oxide (7055)	3.00
2 Colorona Chameleon	60.00

P3-83-3:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.75
1 Red Iron Oxide (7054)	3.00
1 Yellow Iron Oxide (7055)	6.25
2 Colorona Copper	60.00

P3-83-5:

1 Biron ESQ	0.20
1 Birona Carmine	14.00
2 Colorona Bordeaux	60.00

P3-83-7:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Manganese Violet (7101)	2.00
2 Colorona Magenta	55.00

P3-83-9:

1 Biron ESQ	2.60
1 Black Iron Oxide (7133)	0.50
1 Birona Iron Blue	2.00
2 Colorona Dark Blue	55.00

P3-83-2:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	1.00
1 Red Iron Oxide (7054)	5.40
1 Yellow Iron Oxide (7055)	3.60
2 Colorona Sienna	60.00

P3-83-4:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Yellow Iron Oxide (7055)	9.50
2 Colorona Bronze	60.00

P3-83-6:

1 Biron ESQ	0.20
1 Birona Iron Blue	14.00
2 Colorona Bordeaux	60.00

P3-83-8:

1 Biron ESQ	3.00
1 Black Iron Oxide (7133)	0.50
1 Chromium Hydrate	2.00
2 Dichrona BG	55.00

SOURCE: Rona/EM Industries, Inc.: Formulation P3-83

Facial Cleanser with Pemulen TR-2 Polymer Emulsifier
and Carbopol Ultrez 10 Polymer

This cleansing formulation is light, non-greasy and water-rinsable. It provides thorough cleansing without drying the skin.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	89.55
Miranol Ultra	1.00
Dowicil 200	0.10
Methylparaben	0.10
Propylparaben	0.05
Part B:	
Finsolv SB	4.00
Berneel Ester DOM	2.00
Caprylic/Capric Triglyceride	1.00
Wickenol 171	1.00
Pemulen TR-2	0.20
Carbopol Ultrez 10	0.60
Part C:	
AMP-95	0.40

Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Mix to dissolve Dowicil 200.
2. Combine Part B ingredients in a separate vessel. Mix to disperse any soft lumps of Pemulen and Carbopol polymer.
3. With moderate agitation, add the Part B slurry to Part A. Mix for 10-20 minutes to allow polymers to swell.
4. Add Part C and mix vigorously to produce a smooth, white cream.

Properties:

pH: 5.6-6.0

Viscosity* (cPs) at 25C: 28,000-35,000

*Brookfield RVT @ 20 rpm, #6 spindle

SOURCE: Angus Chemical Co.: Product Formulary: Formulation
PF-0368 suggested by B.F.Goodrich (U0006)

Facial Scrub

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Carbomer 940 (2%)	15.00
A	Deionized Water	57.75
A	Propylene Glycol	2.50
A	Aloe Vera Gel	0.25
B	Cyclomethicone	5.00
B	Oils of Aloha Macadamia Nut Oil	2.50
B	Stearic Acid XXX	3.50
B	Promulgen D	1.00
B	Isopropyl Myristate	10.00
C	Triethanolamine 99%	1.00
D	Polyethylene AC-9A	1.50
E	Preservative	QS

Manufacturing Procedure:

Phase A: Disperse Carbopol into water while heating to 75C. Add Propylene Glycol and Aloe Vera Gel.

Phase B: Heat oil phase to 75C and add to water phase.

Phase C: Add Triethanolamine to oil/water mixture and cool to 40C.

Phase D/E: Add Polyethylene AC-9A. Add preservative.

Carbomer 940 is the suspending agent. This scrub is designed for people with oily skin and needs to have a drying effect. Uses two very dry emollients-cyclomethicone and isopropyl myristate. They leave a dry feeling skin. The Oils of Aloha Macadamia Nut Oil leaves the skin with a fresh, moist afterfeel. Kukui Nut Oil would also work very well in this formula.

SOURCE: Oils of Aloha: Suggested Formulation

Facial Cleansing Gel

<u>A:</u>	<u>Wt%</u>
Deionized Water	60.90
Sodium PCA	0.10
Carbomer 940 (2% Aq.)	25.00
TEA-Lauryl Sulfate	2.00
Cocamide DEA (Phoenamid CD)	2.50
Silicone Quaternium-6 (Pecosil SPB-1240)	2.00
PEG-3 Distearate (Phoenate 3DSA)	1.50
Propylene Glycol	5.00
<u>B:</u>	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Color	q.s.
Fragrance	q.s.

Procedure:

Combine Phase A items, agitate and heat to 70C. When Phase A is uniform, begin cooling under slow sweep agitation to 45C.

Add Phase B with continued slow sweep agitation. Slowly sweep AB until uniform.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Gel with MPC-Liposomes**MPC-Milk Peptide Complex:**

MPC contains natural polypeptides from milk, in activated form. A protective environment exclusively comprised of milk components such as lactalbumin, lactoglobulin, lactoferrin, lactose and lactate provides for product stability and maintenance of bioactivity. Bioactivity is standardized in every batch of MPC to a representative concentration range (EC50). In vitro bioassays in cell cultures and in vivo tests on epithelial tissue and on human skin give proof of the bioactivity and cosmetic benefits of MPC.

	<u>Wt%</u>
a) Hispagel 200	20.00
Water, distilled	20.70
Keltrol, 1% solution	30.00
Cetiol J 600	4.00
Phenonip	0.30
b) MPC-Liposomes (2% MPC)	25.00

Manufacture:

Mix a) at room temperature;
Slowly add b) to a) and combine.
Perfume.

SOURCE: Chemisches Laboratium Dr. Kurt Richter GmbH: Formula

Body Moisturiser with Wild Borage OilMaterial:

	<u>%w/w</u>
Water; Pure	76.560
Propylene Glycol USP	5.000
AEC Decyl Oleate	4.000
Cocoa Butter, Refined	3.000
Tego Care 450	3.000
AEC Diisostearyl Trimethylolpropane Siloxy Silicate	2.000
GMS NSE	2.000
Sodium PCA	1.500
Cetearyl Alcohol	1.000
Wild Borage Oil	1.000
Nipaguard BPX	0.500
Fragrance	0.300
Xanthan Gum	0.125
Lactic Acid; Natural	0.015

SOURCE: A & E Connock Ltd.: Formula Ref.: 1052*0

Hand and Body Moisturizer

<u>Formula:</u>	<u>% by Weight</u>
A:	
Benol Mineral Oil (Witco)	7.00
Estol EHP 1543	2.00
Pristerine 4904	3.50
Estol 1462	3.00
Myrj 52	1.00
Abil B8852	1.00
Lanolin Oil	0.20
B:	
Deionized Water	79.60
Triethanolamine	1.30
Pricerine 9083	2.00
Dermacryl-79	1.00
C:	
Carbopol 934	0.20
D:	
Germaben II-E	1.00
E:	
Fragrance Q4696 (Quest)	0.20

Procedure:

Combine A ingredients and heat to 80C. In separate vessel, mix water, Pricerine and TEA. While maintaining good agitation, slowly add Dermacryl. Heat to 50C and add C slowly. When each portion is uniform, add A to B/C and mix 15 mins.; cool to 40C. Add D and E and cool to room temp.

Liquid Makeup

<u>Formula:</u>	<u>% by Weight</u>
A:	
Gelwhite GP	1.2
Keltrol Xanthan Gum	0.2
Propylene Glycol	3.0
Triethanolamine	1.0
Water	58.4
B:	
Iron Oxides	1.2
Talc	3.0
Titanium Dioxide	6.0
C:	
Carnation Mineral Oil (Witco)	10.0
Isopropyl Palmitate	5.0
Nimlesterol D Mineral Oil	5.0
Oleic Acid	6.0
Preservatives	q.s.

Procedure:

Slowly add Gelwhite CP to the water while agitating at maximum shear. Add Keltrol slowly and mix at moderate speed until smooth. Add propylene glycol and TEA while mixing with medium shear. Blend B and grind in mortar with a portion of A until well mixed. Combine with remainder of A and heat to 60C. Combine C and heat to 65C. Add C to A/B; continue slow mixing until temp. drops to 30C. Add preservatives.

SOURCE: Witco Corp.: Suggested Formulations

Lipcare
Emollient Lipstick

	<u>%w/w</u>
Phase A:	
Anhydrous lanolin P95	14.00
Argonol 50	5.00
Mineral oil	40.00
Beeswax	5.00
Cetyl alcohol	6.00
Ozokerite	2.00
Candelilla wax	8.00
Preservative	qs

Phase B:	
Colour pigments in castor oil:	
Titanium dioxide	5.00
D&C red 6	1.00
Timica pearl white	4.00

Phase C:	
Fragrance or flavour	qs

Heat together A until clear, add B and mix well. Adjust to 60C, then add C. Pour into moulds.

*A glossy lipstick with good spreadability.

Medicated Lip Balm

	<u>%w/w</u>
Beeswax USP	10.00
Paraffin wax 130/135	10.00
Finsolv TN	54.00
AC Polyethylene 617	6.00
Camphor	20.00

Combine the first four ingredients and heat to 90-95C while mixing. Continue mixing and cool to 80-85C. Add the camphor and mix until completely dissolved. Cool once more, to 40-45C. Pour into moulds.

*A solid white stick that rubs easily onto the lips. It imparts a non-greasy, emollient feel to chapped lips.

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Lipcare
Lip Pomade

Phase A:	<u>%w/w</u>
Anhydrous Lanolin P95	10.00
Lanesta S	18.00
Petroleum jelly	12.00
Mineral oil	38.00
Ozokerite	5.00
Iropropyl myristate	10.00
Paraffin wax	7.00

Phase B:	
Fragrance or flavour	qs

Heat phase A until clear. Cool to 45C then add B. Fill warm.

*This gives a 'butter-like' product, which liquefies on contact with the skin, making application easy and giving emollient protection.

Lip Gloss

Phase A:	<u>%w/w</u>
Argonol 50	8.10
Argonol ACE 5	3.00
Carnauba wax	3.60
Ozokerite	7.00
Candelilla wax	6.00
Castor oil	to 100.00

Phase B:	
Colour dispersed in castor oil	qs

Phase C:	
Fragrance or flavour	qs

Heat together A until clear, then add B, stirring well until fully dispersed. Cool to 50C and add C. Fill warm.

*A soft, smooth gloss that protects, smoothes and gives a light colour.

SOURCE: Allied-Signal Inc.; Suggested Formulations

Lip Salve with Glycyrrhetic Acid

	<u>%w/w</u>
PEG-45/dodecyl glycol copolymer	25.00
Beeswax	5.00
Jojoba oil	2.50
Hydrogenated lanolin	5.00
Cocoa butter	10.00
Castor oil	25.00
Antioxidants	0.05
Glycamil	qs
Glycyrrhetic acid	0.50
Zinc oxide	10.00
Titanium dioxide	1.00
Flavour	qs

Melt the first seven ingredients, then add Glycamil and the glycyrrhetic acid. Disperse the ZnO and TiO₂ in the melted ingredients. Finally, add the flavour, mixing until room temperature.

Lip Salve Sunscreen

	<u>%w/w</u>
Candelilla wax	21.00
White beeswax	15.00
Eutanol G	10.65
Lipex 205 canola oil	10.25
Cetyl alcohol	10.00
Lipex 102 shea butter	8.50
Citmol 316 TM	6.50
Lipex 106 Illipe' butter	6.00
Parsol MCX	5.00
Lipex 104	4.00
Lipex 203 mango kernal oil	2.50
Benzophenone-3	0.50
Propyl paraben	0.10

Heat together all the ingredients until clear. Pour into containers at 60C and cool.

Lip Fix

	<u>%w/w</u>
Ethanol	70.00
Deionised water	10.00
Gantrez ES-425	20.00

Simple mix.

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Lipstick

<u>Phase #:</u>		<u>Wt%</u>
1	Castor Oil	7.00
1	C19-011 D&C Red#7 Ca Lake	1.50
1	C19-022 D&C Red#6 Ba Lake	1.50
2	Castor Oil	33.70
2	Candelilla	5.70
2	Carnauba	1.80
2	Ozokerite #77W	1.50
2	Microcrystalline Wax #214	3.00
2	Caprylic/Capric Triglyceride	16.00
2	Mineral Oil/90cs	2.00
2	Octyl Dodecyl Stearoyl Stearate	5.00
2	Octyl Dodecanol	5.00
2	Hydroxylated Lanolin	1.00
2	Methyl Paraben	0.20
2	Propyl Paraben	0.10
3	Pearlescent Pigment	15.00

Procedure:

Combine phase #1. Stir with a high intensity mixer until homogeneous. Pass across a three roll mill until agglomerates are reduced to less than 25 um. Combine phase #2. Heat to 80-85C with Lightnin' mixer agitation, stirring until clear. Add phase #1. Add pearlescent pigment (phase #3), maintaining agitation until dispersed. Pour into ambient temperature molds at 72-74C.

Rona Pearl Pigment Combinations:

AN2-55-1: Timiron Super Red
 AN2-55-2: Timiron Super Blue
 AN2-55-3: Timiron Super Gold
 AN2-55-4: Timiron MP-1001
 AN2-55-5: Timiron MP-1500
 AN2-55-6: Colorona Red Gold
 AN2-55-7: Colorona Red Brown

Wax Melting Points:

Candelilla: 68.5-72.5C
 Carnauba: 83C minimum
 Ozokerite #77W: 73.3-79.4C
 Microcrystalline Wax #214: 71.1-76.7C

SOURCE: Rona/EM Industries, Inc.: Formulation AN2-55

Lip Stick

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 840 (Propylene Glycol/Dicaprylate/Dicaprate)	10.00
Softisan 649*	4.00
Beeswax	9.00
Mineral Oil	2.00
Castor Oil	60.00
Carnaubawax	5.00
Timiron Silk Red	9.00
Sicoret Rot F 12150	1.00
Antioxidantien	q.s.
B. Fragrance	q.s.

*Bis-Diglyceryl Polyacyladipate-2

Preparation:

A is melted and stirred until homogeneous.

At 50C B is added and the mass is poured into molds at ca. 40C

Formulation HUK LST

Lip Care Stick with Sunscreen

<u>Ingredients:</u>	<u>Weight%</u>
A. Softisan 100	40.00
Softisan 649*	14.00
Dynacerin 660 (Oleyl Erucate)	12.00
Beeswax	15.00
Carnaubawax	2.00
Neo Heliopan E 1000	2.00
Castor Oil	15.00
B. Fragrance	q.s.

* Bis-Diglyceryl Polyacyladipate-2

Preparation:

A is melted and stirred until homogeneous.

At 50C B is added and the mass is poured into molds at ca. 40C.

Formulation HUK LCST

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Lipstick, Glossy

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol Gel B (Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate)	14.00
Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	8.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	6.00
Softisan 645 (Bis-Diglyceryl Polyacryladipate-1)	22.00
Polyisobutene	19.00
Lanolin Wax	10.00
Na-Stearate	1.00
Candelilla Wax	8.00
Beeswax	7.00
B) Timiron Starlight Red (Mica (and) Titanium Dioxide)	5.00

Preparation:

(A) is melted and stirred until homogeneous up to 75 degrees C. At about 50 degrees C. (B) is added, and then the mixture is poured into molds.

Formulation 2.20

Lip Stick

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 840 (Propylene Glycol Dicaprylate/ Dicaprate)	10.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-2)	4.00
Beeswax	9.00
Mineral Oil	2.00
Castor Oil	60.00
Carnauba Wax	5.00
Timiron Silk Red (Mica (and) Titanium Dioxide)	10.00
Antioxidants	q.s.
B) Fragrance Tendresse 75418 B	q.s.

Preparation:

(A) is melted and stirred until homogeneous. At 50 degrees C, (B) is added and the mass is poured into molds.

Formulation 2.2P

SOURCE: Huls America Inc.: Suggested Formulations

Lipstick "Soft and Moist" (Modified)

<u>Materials:</u>	<u>% by Weight</u>
1. Ozokerite White 170	4.0
2. Castorwax	2.0
3. Candelilla Wax, Light Refined	8.0
4. Lexol PG 855	31.3
5. Castor Oil	24.0
6. Propylparaben	0.1
7. Tenox 4	0.1
8. Bentone Gel CAO Rheological Additive	10.0
9. Pigment Concentrate*	20.0
10. Perfume	0.5

*Pigment Concentrate:

Castor Oil	30.00
Color No. 3106 D&C Red No. 6	70.00

Manufacturing Directions:

1. Weigh items 1 through 7 into a stainless steam jacketed kettle. Heat to 85C until melted clear.
2. Bring temperature down to 80C. Add and mix in item 8 using a homomixer at medium speed. Mix for 10 minutes at 80C.
3. Add and mix item 9 for 5 minutes or until dispersed.
4. Continue mixing at medium speed and lower temperature to 70C and add item 10. Remove heat and stir slowly until congealed, or pour into trays.
5. When casting, melt and pour molten mass into mold at 75C, with slow agitation (avoid air entrapment).

Note: For a shiny polished surface on the lipstick, the sticks should be surface flamed.

Pigment Concentrate Preparation:

1. Weigh dry powder into the castor oil using a slow speed Hobart type mixer and mix until uniform.
2. Give this concentrate two passes over a 3 roll mill at room temperature.

SOURCE: Rheox Inc.: Suggested Formulation

Lipstick Base

	<u>Wt%-1</u>	<u>Wt%-2</u>
A-C 617	8	7
Acetylated Lanolin	16	16
2-Ethyl Hexyl Stearate	6	7
Ozokerite	20	20
Mineral Oil (75 SS)	50	50

Procedure:

Weigh out all ingredients. Heat mixture slightly above their cloud points with mild agitation. (Blends 1 & 2 have cloud points of 80 & 79C respectively). Once blend is clear the mixture can be cooled and packaged.

SOURCE: Allied-Signal Inc.: Suggested Formulations

Lipstick with A-C 400, No. 162

	<u>%w/w</u>
1. TiO ₂ in Castor Oil (40% pigment)	1.8
2. Red 6 in Castor Oil (25% pigment)	14.3
3. Red 7 in Castor Oil (25% pigment)	10.8
4. Castor Oil (extra)	3.3
5. Polybutene H-100	9.3
6. A-C 400A	4.7
7. Eutanol G	23.3
8. Refined Lanolin	9.3
9. Candelilla	13.0
10. Polyglyceryl di-isostearate (Emerest 2452)	10.2

Procedure:

The pigment castor oil blends are predispersed. Weigh all ingredients together, heat and mix to 93C. Cool to 85C and pour the mixture into the molds.

NOTE: This stick was flamed. Without flaming it would not be as glossy. To make it more matte, reduce polybutene to 5%, and increase No. 7 by 2%, No. 8 by 0.5%, No. 9 by 1%, and No. 10 by 1.5%. Preservative and anti-oxidant as minor amounts should not be a problem.

Lip Gloss

	<u>%w/w</u>
1. 2-ethyl hexyl stearate	51.175
2. Castor oil	15
3. A-C 400	20
4. Lanolin alcohol	5
5. Oleyl alcohol	8
6. Perfume	0.75
7. Brown umber shade 1985	0.025
8. Brown red shade 1654	0.05
9. Preservative	q.s.

Procedure:

- A. Disperse pigment in 0.225% castor oil.
- B. Mix the remaining 1,2,3,4,5 and heat to 85-90C with stirring until the polyethylene has completely dissolved. Add pigment mixture to it.
- C. Mix slowly, add perfume at 50-55C and de-aerate. Pour into molds or containers and allow to cool to room temperature.

SOURCE: Allied-Signal Inc.: Suggested Formulations

Liquid Make-Up**Formulating Design and Advantages:**

This make-up covers nicely yet it is very light on the skin and leaves a smooth and silky after-feel. It will also reduce transepidermal water loss.

Oil Phase:	Wt%
Hexanediol Behenyl Beeswax (Koster Keunen)	0.50
Octyl Palmitate (Lexol)	2.00
Silicone Oil 556 (Dow Corning)	4.00
Isopropyl Palmitate (Lexol)	2.00
Isostearic Acid (Unichema)	1.50
Oyster Nut Oil (Koster Keunen)	1.00
Propyl Paraben (Sutton)	0.30

Water Phase:	
Deionized Water	59.60
Xanthan Gum (Kelco)	0.40
Cellulose Gum (Aqualon)	0.30
Triethanolamine (Dow Corning)	0.70
Glycerin (Unichema)	2.00
Propylene Glycol (BASF)	2.00
Polysorbate 60 (BASF)	0.60
Methyl Paraben (Sutton)	0.30

Pigment Phase:	
Optatint Titanium Dioxide (Colorcon)	13.00
Deodorized Orange Wax (Koster Keunen)	2.00
Siliconyl Beeswax (Koster Keunen)	2.30
PEG Carnauba (Koster Keunen)	2.30
Brown Iron Oxide (Clark Colors)	2.20
Yellow Iron Oxide (Clark Colors)	1.00

Procedure:

Heat pigment phase until melted, stirring to break up any globules. Let cool. Reheat and melt again stirring globules. Add to the preheated oil phase at 75C. Add the oil phase to the 75C heated water phase under vigorous agitation. Cool.

Adaptation of Formula and Its Influence on the Product:

Small amounts of sunscreen may be added to replace the oils. The oil may be reduced to give an even lighter feel. Replacement of Oyster Nut Oil with Polyethylene Glycol Distearate will make this formula an oil free product.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Liquid Makeup

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	48.83
B: Veegum, Magnesium Aluminum Silicate	0.50
Cellulose Gum (CMC 7H3SF)	0.15
C: Propylene Glycol	5.00
Lecithin	1.00
Methylparaben	0.20
D: Titanium Dioxide	9.00
Mica (and) Silicon Dioxide (Cashmir K-11)	2.00
Talc (Micro Ace P-2)	2.00
Iron Oxides	1.40
Silica (Spheron P-1500)	0.50
E: Cetyl Alcohol	1.00
Glyceryl Stearate (Lipo GMS 450)	0.80
Isopropyl Palmitate (Lipo IPP)	4.00
Stearic Acid	0.80
Caprylic/Capric Triglyceride (Liponate GC)	6.00
Isoeicosane (Permethyl 102A)	12.50
Isostearic Acid (Emerol 871)	2.40
F: Triethanolamine, 99%	1.62
Propylparaben	0.10
Imidazolidinyl Urea (Germall 115)	0.20

Procedure:

Dry blend Part B ingredients. Add Part B to Part A while mixing with a homogenizer for 20 minutes at 5000 rpm. Begin heating to 75C. Add the Part C and Part D ingredients in the order shown mixing each for 3 minutes. Check to make sure the pigments are uniformly dispersed. In a separate vessel mix and heat the Part E ingredients to 75C. When both phases are at 75C, add the Part E to Parts A+B+C+D. Mix for 15-20 minutes. Begin cooling with slow speed mixing. At 50C add the Part F ingredients in the order shown. Continue cooling to room temperature while mixing at slow speed.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation from Presperse, Inc.

Luxurious Makeup

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum	1.20
Water	37.90
Magnesium Sulfate	0.40
B:	
Talc	5.50
Kaolin	1.50
Titanium Dioxide	5.00
Iron Oxides	3.00
C:	
Carnation Mineral Oil (Witco)	15.00
Polysynlane (Polyester)	8.00
Ritachol	8.00
Lanapene (Lanaetex)	7.00
70% Sorbitol Solution	5.00
Witcamide 511 (Witco)	1.50
Preservatives	q.s.

Procedure:

Add Veegum to water slowly, agitating continually until smooth. Grind B and add to A, mixing until uniform. Add A and B to C and mix until smooth and uniform.

Cleansing Milk

<u>Formula:</u>	<u>% by Weight</u>
Lanolin Anhydrous	5.0
Propylene Glycol Monostearate	3.0
Polysynlane (Polyester)	38.0
I.P.M.	4.0
Paraffin Wax	4.0
Beeswax	16.0
Potassium Hydroxide	0.7
Carnation Mineral Oil	3.0
Perfume and Preservatives	q.s.
Water to	100.0

SOURCE: Witco Corp.: Suggested Formulations

Makeup Foundation

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	46.50
B: Veegum Ultra, Magnesium Aluminum Silicate	0.80
Xanthan Gum	0.30
C: Nylon-12 (Orgasol 2002 D Extra Natural Cos)	1.20
Sodium PCA (Ajidew N-50)	1.00
D: Deionized Water	10.00
Propylene Glycol	7.00
Iron Oxides (and) Talc	2.55
Titanium Dioxide	5.60
E: Glyceryl Stearate (Cerasynt GMS)	2.00
Stearic Acid	2.00
DEA-Cetyl Phosphate (Amphisol)	2.00
Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben (Nipastat)	0.25
Isostearyl Neopentanoate	3.00
Mineral Oil (and) Hydrogenated Butylene/Ethylene/ Styrene Copolymer (and) Hydrogenated Ethylene/ Propylene/Styrene Copolymer (Geahlene)	15.00
Phenoxyethanol (Emeressence 1160)	0.70
Tocopherol Acetate	0.10

Dry blend the Part B ingredients and add them to Part A while mixing with a homogenizer at 5000 rpm for 20 minutes. Add the Part C ingredients in order and mix each for 3 minutes. In a separate container homogenize the Part D ingredients until smooth. Add Part D to Parts A+B+C and mix 10 minutes while heating to 80C. Heat the Part E ingredients to 80C and mix until the solids are dissolved. Add Part E to the main batch and mix for 30 minutes. Continue mixing at slow speed while cooling to 35C. *As received basis

Lash-Conditioning Mascara

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.50
B: Deionized Water	30.78
C: PVP (PVP K-30)	0.22
Hydrolyzed Keratin (Kera-Tein 1000 SD)	1.00
Keratin Amino Acids (Kera-Tein AA)	0.50
Propylene Glycol	5.00
D: Petrolatum	3.00
Petroleum Distillates	32.00
Carnauba Wax	5.00
Synthetic Beeswax	5.00
Candelilla Wax	3.00
Paraffin	2.50
Oleamide DEA	5.00
E: Iron Oxide (C33-134 Cosmetic Black)	5.50
F: Preservative	q.s.

Add Part A to Part B and mix with a homogenizer for 20 minutes at 5000 rpm. Add Part C ingredients in the order shown mixing each 3 minutes before adding the next ingredient. Heat Parts A+B+C to 75C. Mix and heat Part D ingredients to 80C. Add Part D to Parts A+B+C and mix 10 minutes. Add Part E and mix 10 minutes. Begin cooling while mixing slowly. At 40C add Part F. Mix & cool.

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas: Penreco & Maybrook

Make-up Remover

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Sodium Borate	0.60
Neobee M-5 Cosmetic	40.00
Mineral Oil	2.00
Beeswax USP	10.00
Lanolin	1.00
Drewhol 10-10-0	2.50
DMDM Hydantoin	0.25

Mixing Procedure:

Prepare water phase by adding together D.I. Water and Sodium Borate. Start mixing. When there are no crystals, start heating to 160-165F. Prepare oil phase by combining Neobee M-5 Cosmetic, Mineral Oil, Beeswax USP, Lanolin, and Drewhol 10-10-0. Heat to 165-170F. Add water phase into oil phase with good agitation. Emulsify for 25-30 minutes at 165-170F. Cool to 110F. Add DMDM Hydantoin. With mixing, cool to room temperature.

AHA Facial Cleanser

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	2.5
EDTA	0.2
Bio-Terge AS-40	30.0
Amphosol CG	20.0
Avanel S-150	6.5
Salicylic Acid	1.0

Mixing Procedure:

Add water, Glycerin, EDTA, Bio-Terge AS-40, and Amphosol CG and mix well. Into a separate vessel, premix Avanel S-150 and Salicylic Acid, making sure all crystals are dissolved. Add premix to the batch. Mix well. Check pH (4.0) and adjust viscosity, if necessary.

SOURCE: Stepan Co.: Suggested Formulations

Mascara Remover

A smooth lubricating cleanser for the removal of mascara.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Lipovol MOS-70*	82.45
1	Liponate NPGC-2	15.00
1	Uniphen P-23	0.30
2	Liposorb L-20	1.25
2	Liponic EG-1	1.00

*Patent #4,659,573

Room Temperature Procedure:

1. Add Sequence #1 in order of addition while mixing at medium speed with overhead mixer.
2. Premix Sequence #2 and add to Sequence #1 with overhead mixer at medium speed.

SOURCE: Lipo Chemicals Inc.: Formula No. 900

Pressed Powder Eyeshadow

<u>Formula:</u>	<u>% by Weight</u>
A:	
Talc	25.00
Zinc Stearate	3.00
Iron Oxide (Black)	4.00
Antimicrobial	q.s.
Mearlmica SVA (Mearl)	15.00
Gemstone Moonstone G004	35.00
B:	
Antioxidant	q.s.
Carnation Mineral Oil (Witco)	8.00
C:	
Gemstone Moonstone G004	q.s.

Procedure:

Thoroughly blend and disperse A. Add B into support vessel. Heat and mix until uniform. Spray B into A and continue blending. Pulverize and return to blender. Add C and mix until uniform.

SOURCE: Witco Corp.: Suggested Formulation

Medicated Lip Balm

	<u>%w/w</u>
Beeswax	10.00
Paraffin wax	10.00
AC 617	6.00
Finsolv TN	54.00
C12-15 Alkyl Benzoate	

Combine & heat to 95C. Cool to 80C - add.

Camphor	20.00
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Pour into room temp molds.

Lip Stick Base

	<u>%w/w</u>
Castor Oil	25.0
Polybutene H100	10.0
AC 400 A	5.0
Refined Lanolin	10.0
Candelilla	14.0
Eutanol G (Octyl Dodecanol)	25.0
Polyglyceryl Di-isostearate	11.0

Procedure:

Blend all ingredients and heat to 92-95C. Hold, to be sure that the polyethylene is homogeneous with the blend.

Lipstick Base

	<u>%w/w</u>
1. A-C Polyethylene 617A	8.0
2. Acetylated Lanolin	16.0
3. 2-Ethylhexyl Stearate	6.0
4. Ozokerite 64W	20.0
5. Mineral Oil, 70 ss.	50.0

Procedure:

Weigh all ingredients and heat to 100C, with agitation. When well mixed, cool to 85C and pour into molds.

Ref: 4676-48-8

SOURCE: Allied-Signal, Inc.: Suggested Formulations

Men's Active Wrinkle Smoother

This soft cream, which contains UV-filters, is absorbed instantly and is suitable for men's skin. The combination of Dismutin-BT and Lactomide exerts protecting, skin-firming and anti-inflammatory activity.

<u>Item</u>	<u>Ingredients</u>	<u>Weight%</u>
1	A) Arlatone 985	5.00
2	Brij 721	3.00
3	Arlamol HD	10.00
4	Parсол 1789	1.00
5	Parсол MCX	2.00
6	344 Silicon Fluid	1.00
7	B) Deionized Water	67.90
8	Phenonip	0.50
9	Atlas G-2330	3.00
10	Elhibin	3.00
11	Lactomide	3.00
12	C) Dismutin-BT	0.30
13	Fragrance: Vulcano 0/242294	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add items 12 and 13, one after another.

Application No. A 035.0/02.96

Skin Tightening Gel

This clear, solid gel exhibits immediate skin tightening properties and smoothes the fine wrinkles on the skin. An ideal fresh-up for an evening after a tiring day.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Deionized Water	87.95
2	Phenonip	0.30
3	Imidazolidinyl Urea	0.20
4	Glucam E 10	5.00
5	Carbopol 940	0.75
6	B) Triethanolamine	0.80
7	C) Pentacare-HP	5.00

Procedure:

Dissolve items 2-4 in water (1).

Under vigorous stirring incorporate item 5.

Neutralize with item 6.

Finally add item 7. A clear, solid gel is obtained.

Application No. D 032.0/06.93

SOURCE: Pentapharm Ltd: Suggested Formulations

Moisturizing Gel

This moisturizing gel leaves a non-tacky moisturizing film on the skin. The Hypan functions as a moisturizing film former and helps provide an elegant feel.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	73.90
1	Uniphen P-23	0.30
1	Methylparaben	0.20
1	Hampene Na2T	0.05
1	Panthenol	0.50
1	Glycerine	1.50
1	Hexylene Glycol	1.00
2	Liponic EG-1	0.50
2	Hypan SA 100H	0.15
3	Carbopol ETD 2001 (2% sol'n)	17.50
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.65
5	Dow Corning 344 Fluid	1.50
6	Deionized Water	1.00
6	Unicide U-13	0.25

Procedure:

1. Premix and heat Sequence #1 to 80C with overhead mixer at medium speed with propeller blade.
2. Premix into slurry, Sequence #2 and add to Sequence #1 at 80C with overhead mixer at medium speed.
3. Heat Sequence #3 to 70C and add to batch bringing temperature back to 80C on overhead mixer.
4. Mix Sequence #4 and add to batch at 80C with overhead mixer at medium/high speed.
5. Cool batch to 55C and add Sequence #5 on overhead mixer with propeller blade.
6. Cool batch to 35C and add premixed Sequence #6.
7. Cool to 25C.

SOURCE: Lipo Chemicals Inc.; Formula No. 839

Moisturizing Lip Balm

<u>Formula:</u>	<u>% by Weight</u>
Candelilla Wax	7.00
Carnauba Wax	2.00
Microcrystalline Wax (Witco)	1.00
Synthetic Beeswax	1.50
PEG-75 Cocoa Butter	5.00
Clearlan Lanolin	7.00
Acetate Ester	10.00
Lanolin Oil	5.00
Methyl Paraben	0.30
Propyl Paraben	0.25
BHA	0.05
Castor Oil	60.70

Procedure:

Combine all ingredients and heat with stirring to 75-80C. Maintain the temperature at 80C with stirring until the mixture is clear and molten. Pour into sticks at 75-80C. This product is designed to impart a soft, moisturized feel to lips and to provide a light glossy effect. It can be worn alone or over lip color for shine.

Lipstick

<u>Formula:</u>	<u>% by Weight</u>
Lexemul 515	42.00
Castor Oil	36.80
Carnation Mineral Oil (Witco)	8.00
Pigment	5.00
White Protopet 1S (Witco)	4.00
Carnauba Wax	4.00
Lexgard P	0.20

Procedure:

Melt ingredients together and mix until homogeneous. Pour into molds and cool. Lexemul 515 contributes to this formula's softness and spreadability.

SOURCE: Witco Corp.: Suggested Formulations

MPC - Milk Peptide Complex

MPC contains natural polypeptides from milk, in activated form. A protective environment exclusively comprised of milk components such as lactalbumin, lactoglobulin, lactoferrin, lactose and lactate provides for product stability and maintenance of bioactivity. Bioactivity is standardized in every batch of MPC to a representative concentration range (EC50). In vitro bioassays in cell cultures and in vivo tests on epithelial tissue and on human skin give proof of the bioactivity and cosmetic benefits of MPC.

**Anti Cellulite Emulsion, Type O/W
with MPC - Milk Peptide Complex**

<u>Ingredients:</u>	<u>Weight%</u>
a) Emulgade 1000 NI	4.00
Lanette 16	1.00
Myritol 318	10.00
Phenonip	0.30
b) Water, distilled	50.00
Carbopol 934	0.40
c) Water, distilled	23.60
Phenonip	0.30
Triethanolamine	0.40
d) Water, distilled	9.36
Na3-Citrate, anhydrous	0.14
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Melt and bring to approx. 70C and add to a) with stirring; Continue stirring until cooled to approx. 30C;
- c) Dissolve and add to ab);
- d) Dissolve at room temperature and add to abc) with stirring. Perfume, homogenize.

**SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulation**

Night Cream Moisturizer

An elegant, glossy, white, moisture-retaining cream that repairs the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	61.65
2. Acritamer 940 (Carbomer)	0.40
3. Ritaloe 1X (Aloe Vera Gel)	0.20
4. Disodium Oleamido PEG-2 Sulfosuccinate	2.00
5. Propylene Glycol	2.00
6. Hydrogenated Polyisobutene	5.00
7. Dimethicone	2.00
8. Ritapro-165 (Glyceryl Stearate and PEG-100 Stearate)	5.00
9. Mineral Oil	4.00
10. Rita IPP (Isoopropyl Palmitate)	6.00
11. Tocopheryl Acetate	0.25
12. Tocopheryl Linoleate	0.10
13. Rita IPM (Isopropyl Myristate)	0.50
14. Rita Cetearyl Alcohol 70/30	1.50
15. Triethanolamine (99%)	0.40
16. Corn Starch	1.00
17. Germaben II	1.00
18. Raffermine (Hydrolyzed Soy Flour)	3.00
19. Reductine (Oat Protein)	4.00

Compounding Procedure:

Slowly disperse item 2 in item 1. Mix until dissolved. Add items 3-5 and heat to 75C. Combine items 6-14 and heat to 75C. Add to water and mix. Add item 15. Cool to 40C and add items 16-19.

Ref. No. 122-10C

Skin Nutrient Gel

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	87.40
2. Acritamer 940 (Carbomer 940)	0.50
3. Xanthan Gum	0.10
4. 1,3 Butylene Glycol	5.00
5. Ritasil 190 (Dimethicone Copolyol)	0.10
6. Shebu WS (Shea Butter)	1.00
7. TEA @ 99%	0.40
8. Promois ECP (Collagen)	0.20
9. Glydant	0.20
10. Fragrance	0.10
11. Rita HA C-1-C (Sodium Hyaluronate)	5.00

Compounding Procedure:

Disperse item 2 in water. Add item 3 and mix until dissolved. Add items 4, 5 and 6 separately. Add TEA until batch thickens. Add items 8,9,10 and 11. The pH of a gel is 5.5

Ref. No. 122-103B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Nonionic Liquid Makeup

Veegum provides a liquid makeup with uniform, shear coverage. Veegum stabilizes the emulsion while inhibiting pigment settling. The 5:1 Veegum/xanthan gum ratio provides optimum viscosity and flowability. The blend of oil phase ingredients is designed to give emollience without an oily or greasy feel. A nonionic emulsifying system gives maximum stability to the formula at pH 5.5-6.0. The formula is designed specifically for oily skin.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.15
Deionized Water	67.10
Glycerin	4.00
Citric Acid	0.30
B: Talc	5.00
Titanium Dioxide	5.00
Iron Oxides	3.70
C: Mineral Oil (and) Lanolin Alcohol (Ritachol)	5.00
Myristyl Myristate (Crodamol MM)	2.50
Hydrogenated Polyisobutene (Polysynlane)	2.00
Oleyl Alcohol	2.00
Stearyl Alcohol (and) Cetareth-20 (Cosmowax K)	2.00
Polysorbate 85 (Tween 85)	0.50
D: Preservative	q.s.

Procedure:

Blend Veegum and Rhodigel. Slowly add to the water, while agitating at maximum available shear. Continue mixing until smooth. Add the glycerin and citric acid. Mix until smooth. Mix Part B (grind if necessary) until homogeneous. Add Part B to Part A and mix until uniform. Heat Parts A+B to 60-65C. Heat Part C to 60-65C. Add Part C to Parts A+B and mix while cooling. At 40C, add Part D and mix until uniform.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 349

Oil Free Make-Up with Hypan SR150H

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	48.14
1	Hypan SR150H	0.01
1	Methylparaben	0.25
1	Propylene Glycol	4.60
1	Triethanolamine, 99%	0.90
2	Titanium Dioxide #3328	8.00
2	Iron Oxide Yellow	0.80
2	Iron Oxide Red	0.40
2	Iron Oxide Black	0.10
2	Orgasol 2002D Nat Cos	1.00
3	Deionized Water	20.00
4	Lipovol MOS-70*	10.00
4	Liponate TDTM	1.00
4	Lipo GMS-450	1.00
4	Lipo Stearic Acid	2.50
4	Propylparaben	0.20
5	Deionized Water	1.00
5	Unicide U-13	0.10

*Patent #4,659,573

Procedure:

1. Into main kettle, combine Sequence #1 ingredients under Lightnin' mixing and heat to 60-70C.
2. In auxiliary kettle, combine Sequence #2 ingredients and add to Sequence #1 slowly under Lightnin' mixing.
3. Pass combined Sequences #1 and #2 through colloid mill and recirculate until pigments are evenly dispersed.
4. Rinse colloid mill using Sequence #3 ingredient and add to Sequences #1 and #2 under Lightnin' mixing. Heat combined batch to 76C.
5. In auxiliary kettle combine Sequence #4 under Lightnin' mixing and heat to 82C.
6. At proper temperature add Sequence #4 ingredients to batch under sweep mixing, maintaining temperature until emulsification is complete. Begin cooling to 35C, switching to slow sweep mixing as batch thickens.
7. At 35C add premixed Sequence #5 ingredients to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 875

Oil Moisturizer

	<u>Wt%</u>
Mineral Oil	24.75
Lanolin X-tra Deo	5.00
Octyl Dimethyl PABA	0.50
Beeswax	3.00
Ritavena 5	1.50
Borax	0.25
DL Panthenol	0.10
Sorbitan Monooleate	0.80
Color	0.06
Kathon CG	0.20
Distilled Water	63.84

pH: 7.1

Viscosity: 8500 cps

Stabilities:

4F: Separation after 1 cycle

40F: No change after 6 weeks

110F: No change after 6 weeks

Centrifuge Results: After 20 minutes at 5000 RPM

Slight separation

Description of System: Without petrolatum with Ritavena
5 (1.5%)

Formulation 114-34

Oil Moisturizer with Ritavena 5

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Mineral Oil	24.75
2. Lanolin, X-tra Deo	5.00
3. Octyl Dimethyl PABA	0.50
4. Beeswax	3.00
Part B:	
5. Ritavena 5	1.50
6. Distilled Water (100C)	10.00
Part C:	
7. Distilled Water	53.60
8. Borax (99.5% Pure)	0.25
9. Ritapan DL	0.10
10. Sorbitan Monooleath	0.80
Part D:	
11. Fragrance	0.30
12. Kathon CG	0.20

Compounding Procedure:

Heat Parts A and C to 165F. Pour Part A into Part C. Mix while maintaining 165F for 10 minutes. Premix Part B in a blender for 2 minutes. Add Part B to mixture. Mix until uniform. Cool to 120F. Add Part D. Mix.

Formulation 114-34

SOURCE: R.I.T.A. Corp.: Ritavena 5: Suggested Formulations

O/W-Skin Milk

Manufacturing at room temperature possible

Recipe:

	<u>Wt%</u>
A Hostaphat KML	3.00
Mineral oil, low viscosity	12.00
Almond oil	5.00
Isopropyl palmitate	5.00
Antioxidant	q. s.
B Carbopol 980	0.40
C Caustic soda solution (10%)	2.70
Aquamollin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Water	71.25
Preservative	q. s.
D Fragrance	0.30

Procedure:

- 1 Stir B into A, then add C and stir well.
- 2 Stir D into 1.
- 3 Homogenize the emulsion.

Formula A VI/1150

O/W-Skin Milk

Manufacturing at room temperature possible

Recipe:

	<u>Wt%</u>
A Hostaphat KL 340 N	1.50
Hostacerin DGI	2.00
Mineral oil, low viscosity	8.00
Isopropyl palmitate	6.00
Cetiol 868	5.00
B Carbopol 980	0.40
C Caustic soda solution (10%)	1.60
Water	75.20
Preservative	q. s.
D Fragrance	0.30

Procedure:

- 1 Mix A and B, then add C and stir well.
- 2 Add D to 1 while stirring.
- 3 Finally homogenize the emulsion.

Formula A VI/1118

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

O/W-Skin Milk

"Contains no ethylene oxide", manufacturing at room temperature possible

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGI	2.00
	Mineral oil, low viscosity	3.00
	Isopropyl palmitate	4.00
	Squalane	2.00
	Eutanol G	4.00
	Walnut oil	3.00
	Antioxidant	q. s.
B	Carbopol 980	0.50
C	Hostapon KCG	0.80
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.50
	Caustic soda solution (10%)	1.80
	PEG 400	3.00
	Hoechst Potassium Sorbate	0.25
	Germa11 II	0.25
	Water	74.40
D	Fragrance	0.30

Procedure:

- 1 Stir B into A, then add C and stir well.
- 2 Add D to 1.
- 3 Finally homogenize the emulsion.
Formula A VI/1253

O/W-Skin Milk

"contains no ethylene oxide"

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGMS	2.00
	Mineral oil, high viscosity	8.00
	Isopropyl palmitate	5.00
	Cetiol 868	4.00
B	Carbopol 980	0.30
C	Hostapon KCG	0.60
	Caustic soda solution (10%)	1.20
	Glycerin	4.00
	Water	74.60
	Preservative	q. s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
- 2 Heat C to ca. 70C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add D to 3.
- 5 Finally homogenize the emulsion.
Formula A VI/1252

SOURCE: Hoechst: Guide Recipes to the Cosmetic Industry

Petroleum Oil/Petroleum Wax Free Lipstick**Formulating Design and Advantages:**

This lipstick is a creamy stick that does not use any petroleum oils or waxes in the formula, nor does it use any synthetic raw materials that have petroleum products in it.

Oil Phase I:	Wt%
Hydroxy Polyester (Koster Keunen)	3.7
Rice Bran Oil (Koster Keunen)	5.0
Octyl Palmitate (Inolex)	9.0
Castor Oil (Alnor)	38.0
PEG Carnauba (Koster Keunen)	1.3
Titanium Dioxide Powder (Whittaker C&D)	2.0
Silicone Oil 556 (Dow Corning)	10.0
D&C Red #30 (Clarke)	3.0
Oil Phase II:	
K80-D22 (Koster Keunen)	5.0
Synthetic Candelilla (Koster Keunen)	9.0
Hexanediol Behenyl Beeswax (Koster Keunen)	7.0
Deodorized Orange Wax (Koster Keunen)	4.0

Procedure:

Mix Phase I, heat to 75C breaking up any small agglomerates. Cool. Repeat two more times. Reheat to 75C and add Phase II that has been heated to 75C. Cool to 65C and pour into molds.

Adaptation of Formula and Its Influence on the Product:

Various oil substitutions can be made to suit formula.

Lip Gloss with Sun Protection**Formulating Design and Advantages:**

This product protects the lips from the sun, with the help of the PEG Carnauba and Deodorized Orange Wax while adding moisture and color to the lips.

Formula:	Wt%
1. PEG Carnauba (Koster Keunen)	5.0
2. Deodorized Orange Wax (Koster Keunen)	5.0
3. White Petroleum (Witco)	26.1
4. Shea Butter (Koster Keunen)	5.0
5. Jojoba Oil (Jojoba Growers)	2.0
6. Hexanediol Behenyl Beeswax (Koster Keunen)	10.5
7. Caprylic/Capric Triglyceride (Inolex)	45.0
8. Gamma Orzanol (Koster Keunen)	0.6
9. Pigments	0.8

Procedure:

Combine 9, 1, 2, heat till dispersed. Add the rest of the ingredients to the batch, except the gamma orzanol which should be added last, after everything has been dispersed.

Adaptation of Formula and Its Influence on the Product:

To make the product with greater gloss it would normally require more petroleum. To make the product softer less wax should be used.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Pressed Powder Blush

<u>Formula:</u>	<u>% by Weight</u>
A:	
Talc	50.30
Zinc Stearate	7.00
Shinju 100T (Mearl)	11.00
Mearlite GBU (Mearl)	6.50
Timica Sparkle 110P (Mearl)	1.25
Cloisonne' Cerise Flambe 550Z (Mearl)	1.10
Cloisonne' Blue Flambe 650Z	2.60
Iron Oxide (Brown)	1.75
Iron Oxide (Russet)	2.00
Iron Oxide (Tan)	1.00
Antimicrobials	q.s.
B:	
Fragrance	q.s.
Antioxidant	q.s.
Carnation Mineral Oil (Witco)	2.90
Sorbitan Diisostearate	2.90
C:	
Flamenco Superpearl 120C (Mearl)	4.70
Cloisonne' Monarch Gold 233X (Mearl)	5.00

Procedure:

Blend and disperse A in dry blending/dispersing equipment. In separate vessel combine B and heat and mix until uniform. Spray B into premixed A and continue blending. Pulverize and return to blender. Add C and mix until uniform.

Pressed Powder Eyeshadow

<u>Formula:</u>	<u>% by Weight</u>
A:	
Mearltalc TCA (q.s. to 100) (Mearl)	45.00
Zinc Stearate	6.00
Mearlmica CF (Mearl)	34.00
Chromium Oxide Green	3.00
Iron Oxide (Yellow)	6.00
Antimicrobial	q.s.
B:	
Antioxidant	q.s.
Squalane	2.50
Carnation Mineral Oil (Witco)	3.50

Procedure:

Thoroughly blend and disperse Phase A in appropriate dry blending/dispersing equipment. Add Phase B ingredients into a support vessel. Heat and mix until uniform. Spray phase B into premixed A and continue until uniform. Pulverize and press.

SOURCE: Witco Corp.: Suggested Formulations

Purified Bentonite Refining Mask

Veegum HS is classified as "Purified Bentonite" in the USP/NF. This mask formulation is for all skin types and takes advantage of the recognized absorbative and cleansing properties of bentonite. Apply a thin coating to the face. Allow it to dry or remove it after 10 to 15 minutes before it is completely dry. Rinse off with clear water and a soft cloth or cotton ball.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum HS, Magnesium Aluminum Silicate	4.00
Rhodigel, Xanthan Gum	0.30
Deionized Water	43.70
B: Sucrose	15.00
Glycerin	10.00
DEA-Oleth-3 Phosphate (Crodafos N-3 Neutral)	5.00
C: Propylene Glycol (and) Grape Extract (and) Hypericum Extract (and) Arnica Extract (and) Witch Hazel Extract (and) Horse Chestnut Extract (and) Ivy Extract (Phytelene Complex EGX 243)	3.00
Propylene Glycol (and) Calendula Extract (and) Chamomile Extract (and) Linden Extract (and) Cornflower Extract (and) Matricaria Extract (and) Hypericum Extract (Phytelene Complex EGX 244)	3.00
Allantoin	1.00
Oat Flour (Ster-O-Pro)	10.00
Zinc Oxide	5.00
D: Preservative	q.s.

Procedure:

Dry blend the Veegum HS and Rhodigel. Add them to the water, agitating at maximum available shear until smooth. Add the Part B ingredients and mix until smooth. Add the Part C ingredients in the order shown and mix each until uniform. Add Part D and mix until uniform.

* As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 419

Silky Shadow

<u>Phase#:</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	1625 Talc	17.60
1	Silk Mica	30.00
1	Biron B-50	5.00
1	Siltex M Super	3.50
1	Zinc Stearate #695	3.50
1	Hubersorb 600	0.50
1	7055 (Yellow iron oxide)	10.00
1	7054 (Red iron oxide)	7.50
1	7133 (Black iron oxide)	2.00
1	Methyl Paraben	0.20
1	Propyl Paraben	0.10
2	Trivent OC-G	9.05
2	Emerest 2452	0.50
2	Schercermol CP	0.50
2	BHA	0.05
3	Timiron MP-24 Gold Karat	10.00

Procedure:

Combine phase #1. Pulverize with a hammer mill, passing twice through an 0.027" herring bone screen. Combine phase #2. Heat to 65C with stirring. Spray onto batch while agitating the bulk. Pulverize once through the 0.027" screen. Add phase #3. Blend in with gentle agitation. Do not pulverize.

Formulation P 2133

Powder Eyeshadow

	<u>Wt%</u>
Supra Talc	9.70
Biron ESQ	20.00
Microcel E	1.00
Orgasol 2002 UD Nat Cos	5.00
43001 (manganese violet)	15.00
43W1810 (ultramarine blue)	15.00
33-5198 (black iron oxide)	2.00
Mica M-RP	15.00
Magnesium Myristate	9.00
Methyl Paraben	0.20
Propyl Paraben	0.10
Ceraphyl 847 Octyldodecyl Stearoyl Stearate	6.95
Emerest 2452	0.50
Cetyl Palmitate	0.50
Oxyhex LM	0.05

Manufacturing Procedure:

Combine the pigments and fillers with tumbling agitation. Pulverize using a hammer mill twice through an 0.027" screen. Combine the oil phase. Heat to 70C until homogeneous. Spray onto batch while agitating.

Formulation P3-57-6

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Silky Smooth Emollient Liquid Makeup

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Veegum Plus, Magnesium Aluminum Silicate (and) Cellulose Gum	1.00
Deionized Water	53.50
Glycereth-26 (Liponic EG-1)	10.50
Triethanolamine, 99%	0.75
B: Iron Oxides	1.29
Talc	1.00
Titanium Dioxide	3.00
C: Isopropyl Isostearate	9.06
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Soy Glyceride (Myverol 18-06)	2.10
Stearic Acid XXX	1.60
Diocetyl Adipate (and) Octyl Stearate (and) Octyl Palmitate (1.1% by wt Wickenol 161 + 1.0% by wt Wickenol 163)	2.10
Vanseal CS, Cocoyl Sarcosine	1.00
Lithium Stearate	0.10
D: Preservative	q.s.

Heat the water to 70-75C. Add the Veegum Plus and mix at 1800 rpm for 20 minutes. Slowly mix in the remaining Part A ingredients. Mix the Part B ingredients thoroughly into Part A until uniform. Maintain temperature at 70 to 75C. Heat Part C to 70 to 75C and add to Parts A+B. Mix until cooling. At 40C, add Part D and mix until uniform.

Mascara

<u>Ingredients:</u>	<u>Wt.%*</u>
A: Demineralized Water	56.10
Veegum, Magnesium Aluminum Silicate	1.20
Butylene Glycol	10.00
Cellulose Gum (CMC 7MF)	0.60
Methylparaben	0.20
Diazolidinyl Urea (Germall II)	0.20
Triethanolamine, 99%	1.50
B: Candelilla Wax	10.00
Stearic Acid	7.00
Isostearic Acid	1.00
Mineral Oil	2.00
Propylparaben	0.20
C: Iron Oxide (C33-134 Cosmetic Black)	10.00

Into a side kettle add all Part B ingredients. Into the main kettle, fitted with a homogenizer type disperser, weigh the following: water; sprinkle in the Veegum; it is thoroughly dispersed add the butylene glycol; dust in the CMC; when the CMC is completely dispersed add the remaining Part A ingredients. Dust in Part C ingredients with high milling and raise the temperature to 76C. Heat Part B to 79C and mix until uniform. Add Part B to the main kettle with high milling for 15 min. Sweep cool to room temperature to eliminate the air.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas No. 460 & Sun Chemical

Topical Spray Powder

<u>Ingredients:</u>	<u>% by Weight</u>
Anhydrous Ethanol	42.00
AMP Regular	0.38
Dermacryl-79	2.00
Dry-Flo PC	10.00
Propellant A-46	45.62

Procedure:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift in Dermacryl-79. When solution is complete, sift in Dry-Flo PC. Mix well until homogeneous. Fill cans.

Valve: Seaquist NS-41

Stem Orifice: 2 x 0.025

Gasket: Buna P 0.042" THK Code 150

Cup: Regular, Epoxy Top, Laminate Bottom Dimpled,
Code 1610, Taperseal

Spring: 0.020 SS

Seat: None

Body: 0.062 Standard

Vapor Tap: 0.018"

Tubing ID: 0.165"

A-D Dim: Actual 8

Actuator Style: Excell 100 Misty

Orifice Size: 0.018" Misty

Formulation PF-0373 suggested by National Starch & Chemical Co. (7423-85B)

Hydroalcoholic Fragranced Spray Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Stabileze XL-80W	24.60-17.14
200 proof ethanol	70.00-77.59
AMP-95	0.40- 0.27
Vanilla BB-36943	5.00- 5.00

Procedure:

1. Add Ethanol to Stabileze XL-80W and mix well.
2. Add AMP-95 to the batch and mix well.
3. Add a fragrance and mix well.
4. Package.

Physical Characteristics:

A clear yellowish sprayable gel.

Apparent pH: 6.0

Stability: Stable at RT for 3 months.

Recommended Sprayer: Calmar Mark IV

Formulation PF-0378 suggested by ISP (10227-5)

SOURCE: Angus Chemical Co.: Product Formulary

Vitamin F Skin Moisturizer

<u>Formula:</u>	<u>% by Weight</u>
A:	
Stearic Acid	4.0
Cetiol MM Myristyl Myristate	5.0
Carnation Mineral Oil (Witco)	10.0
Lanette O Cetearyl Alcohol	1.5
Vitamin F Forte CLR	1.0
B:	
Water	76.8
Dowicil 200	0.1
Carbopol 941	0.2
C:	
Triethanolamine	1.0
D:	
D&C Yellow No. 5 (0.1 aq.)	0.2
Fragrance	0.2

Procedure:

Mix and heat Part A to 65-70C. Disperse Carbopol 941 into water and mix Part B. Add C to B and heat to 65-70C. Add B-C to Part A and mix until cooled to 40C. Add D when cooled to 35-40C. Adjust pH to 7.5.

Body Smoother

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Super Sterol Ester	10.0
Polawax (Croda)	7.5
Crodacol C-95 (Croda)	2.0
Carnation Mineral Oil (Witco)	10.0
Water Phase:	
Croquat M (Croda)	2.0
Glycerine	5.0
Germaben II	1.0
Water, Deionized	61.5
Hydrosoy 2000/SF (Croda)	1.0

Procedure:

Heat oil phase to 75-78C. Heat water phase to 75-80C. Add water to oil with good agitation. Mix. Cool to 45C. Add Hydrosoy 2000/SF.

SOURCE: Witco Corp.: Suggested Formulations

Waterproof Special Effects Mascara

<u>Phase #:</u>		<u>Wt%</u>
1	Soltrol 100	30.95
1	Polyethylene 6A	11.00
1	Candellila wax	4.50
1	OHlan	0.25
2	Pentalyn C	2.00
2	Soltrol 100	2.00
3	Methyl Paraben	0.20
3	Propyl Paraben	0.10
4	Zinc Stearate	1.00
5	Bentone Gel SS71	35.00
6	Pearl Pigment	

Rona Pearl Pigment Combinations:

A	Dichrona BG	13.00
B	Colorona Dark Blue	13.00
C	Transparent Black	13.00
D	Colorona Magenta	10.00
E	Colorona Majestic Green	10.00
F	Colorona Dark Blue	10.00
G	Dichrona BG	10.00

Procedure:

Prepare phase #2 in advance: combine in a closed vessel. Heat to 65-70C with constant Lightnin' mixer agitation until clear.

Combine phase #1 in a closed vessel. Heat to 90-95C with Lightnin' mixer agitation. When clear, add to remaining phases in order, insuring that each is fully dispersed before proceeding. Cool to 30C with sidesweep agitation. At 55C, check for solvent loss and adjust if necessary.

SOURCE: Rona/EM Industries, Inc.: Formulation AN251

W/O Liquid Foundation

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.00
Polyglyceryl-3 Oleate (Isolan GO-33)	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Octyl Palmitate (Tegosoft OP)	1.00
Hydrogenated Castor Oil	0.40
Beeswax	0.80
Phase B:	
Cyclomethicone	18.00
Phase C:	
Red, Yellow, Black Iron Oxides	3.00
Titanium Dioxide	7.80
Talc	1.70
Phase D:	
Butylene Glycol	2.80
Water	60.00
Sodium Chloride	0.50
Phase E:	
Fragrance	Q.S.

Procedure:

1. Combine ingredients of Phase A. Mix and heat to 85-90C. Mix until uniform.
2. Cool to 50C. Add Cyclomethicone.
3. Add ingredients of Phase C. Mix thoroughly to disperse.
4. Cool to 50C with mixing.
5. Combine ingredients of Phase D at ambient temperature. Add Phase D slowly to A/B/C mixture with slow agitation.
6. Increase agitation speed after all of Phase D is added. (10-15 minutes).
7. Homogenize.
8. Fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

W/O Moisturizing Emulsion

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)	8.00
Dynacerin 660 (Oleyl Erucate)	5.00
Softisan 645 (Bis-diglyceryl Polyacryladipate-2)	4.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	3.00
Abil WE 09 (Polyglyceryl-4-Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	4.00
Unacera M (Hydrogenated Microcrystalline Wax)	1.00
B) D-Panthenol	2.00
Preservative	q. s.
Water	67.00
C) Tocopheryl Acetate	3.00
Hydroviton (Water (and) Sodium Lactate (and) Lactic Acid (and) Glycerin (and) Serine (and) Sorbitol (and) TEA-Lactate (and) Triethanolamine (and) Urea (and) Sodium Chloride (and) Lauryl Diethylenediaminoglycine (and) Allantoin (and) Laurylaminopropylglycine (and) SD Alcohol 39-C)	3.00

Preparation:

(A) is heated to 65 degrees C. and homogeneously mixed. (B) is brought to the same temperature and then emulsified into (A). (C) can be mixed with the water phase or added in afterwards.

Formulation 1.2K

Skin Care Oil with Citric Acid Ester

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	10.00
Miglyol 810 (Caprylic/Capric Triglyceride)	40.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	20.00
Softigen 701 (Glyceryl Ricinoleate)	1.00
Mineral Oil	29.00
Antioxidants	q. s.
Fragrance Men At Sport 61569	0.30

Preparation:

All ingredients are mixed together at about 45 degrees C.

Formulation 1.5U (1)

SOURCE: Huls America Inc.; Suggested Formulations

W/O Sheer Make-Up

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM 90)	2.00
Polyglyceryl-3 Oleate (Isolan GO 33)	0.75
Cetyl Dimethicone (Abil Wax 9801)	2.00
Octyl Palmitate (Tegosoft OP)	3.00
Hydrogenated Castor Oil	0.40
Beeswax	0.80
Decyl Oleate (Tegosoft D0)	1.00
Dimethicone 350 cst	0.25
Octyl Stearate (Tegosoft OS)	3.00
Phase B:	
Cyclomethicone	15.00
Phase C:	
Iron Oxides: Red, Yellow, Black, Brown	0.30
Titanium Dioxide	2.10
Phase D:	
Water	66.90
Sodium Chloride	0.50
Propylene Glycol	2.00

Procedure:

1. Combine ingredients of Phase A. Mix and heat to 85-90C. Mix until uniform.
2. Cool to 70C. Add Cyclomethicone.
3. Add ingredients of Phase C. Mix thoroughly to disperse.
4. Cool to 50C with mixing.
5. Combine ingredients of Phase D at ambient temperature. Add Phase D slowly to A/B/C mixture with gentle agitation.
6. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Section V

Creams

AEC Cocoa Butter Cream

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Light Mineral Oil	20.000g
2 Petroleum Jelly; White	25.000g
3 Cocoa Butter, Refined	44.000g
4 Castorwax Mp80	10.000g
Cooling Cycle:	
5 Vitamin E Acetate	0.500g
6 Carrot Oil; Novarom	0.100g
7 P. Cocoabutter AA 6780	0.400g

Mixing Instructions:

Change in material proportions to make it less draggy and nearer Palmers Original.

Use a jacketed kettle suitable for heating and cooling, preferably fitted with a gate or anchor type mixer.

Stage 1: Weigh in the mineral oil and commence heating with slow stirring.

Add Petroleum Jelly and continue heating and stirring until all melted.

Add Cocoa Butter and Castor Wax and continue heating and stirring until all melted, the temperature should not exceed 60C. When a clear, homogeneous mix is obtained start cooling with continuous mixing.

Cooling Stage: Add the Vitamin E Acetate and Carrot Oil at about 55C and the Perfume at about 40C.

The product will thicken and then set, ideally it should be hot filled just above its setting temperature. Some experimental batches may be necessary to determine the optimum filling temperature.

Project: JW 2527/Formula Ref.: 1186*3

Cocoa Butter Cream

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Light Mineral Oil	17.000g
2 Cocoa Butter, Refined	42.000g
3 Petroleum Jelly; White	32.500g
4 Castorwax Mp80	8.000g
Cooling Cycle:	
5 P. Cocoabutter AA 6780	0.500g

Mixing Instructions:

Weigh out the mineral oil and start heating.

Add each item in turn, mix and continue heating until all ingredients have melted.

Switch off heat and cool with slow mixing, add the perfume at 40C.

The product may then be filled hot.

Project: JW 2450/Formula Ref. 1005*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

AHA Renewal Cream

This elegant, white AHA-cream with low pH is an active anti-wrinkle formula. Pentavitin reduces skin's sensitivity preventing from irritation reactions. Furthermore, Pentavitin increases the moisture content of the skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Promulgen D	3.50
2	Soya Oil	1.00
3	Arlacel 165	3.50
4	Myrj 59	1.00
5	Dow Corning 345 Fluid	2.50
6	Fitoderm	5.00
7	Miglyol 812	4.00
8	B) Deionized Water	60.00
9	Phenonip	0.30
10	Glycerin	3.00
11	1,3-Butandiol	3.00
12	Pemulen TR-1	0.20
13	C) Deionized Water	2.50
14	Imidazolidinyl Urea	0.20
15	Glycolic Acid	5.00
16	Pentavitin	5.00
17	D) Triethanolamine	
18	Fragrance: Rivalia 0/221212	0.30

Procedure:

Disperse Pemulen (12) in phase B) and heat to 75C. Heat phase A) to 70C. Under stirring, add phase A) to phase B), cool to 50C, homogenize and cool to 30C. Add phase C) and adjust pH with item 17 to 3.5. Add fragrance (18) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 034.1/03.96

Glycerin Cream with Citric Acid Esters

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	5.00
Imwitor 900 (Glyceryl Stearate)	4.00
Miglyol 812 (Caprylic/Capric Triglyceride)	5.00
Paraffin, White	5.00
Cetyl Alcohol	4.00
B) Keltrol F (Xanthan Gum)	0.50
Glycerin	5.00
Preservative	q.s.
Water	71.50

Preparation:

(A) is heated to ca. 65 degrees C. (B) is heated up to the same temperature and emulsified into (A). The cream is constantly stirred until cool.

SOURCE: Huls America Inc.: Formulation 1.10

Alpha Hydroxy Acid Liposome Cream

An elegant white creamy emulsion delivering Rovisome AHA (Lactic Acid) to the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol (50/50)	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctylcyclohexane	2.00
7. Dow Corning 200 Fluid (200 cst)	2.00
8. Ritasil 190 (Dimethicone Copolyol)	0.50
9. Sunflower Seed Oil	4.00
10. Distilled/Deionized Water	68.40
11. 1,3 Butylene Glycol	4.00
12. Xanthan Gum (Keltrol CG-T)	0.30
13. Rovisome-AHA (Lactic Acid)	6.00
14. Methyl dibromo Glutaronitrile and Phenoxyethanol	0.30

Compounding Procedure:

Disperse item 12 in water and butylene glycol mixture. In separate beaker heat items 1-9 to 70C. Heat water phase to 70C and add to oil phase. Then homogenize and cool to 35C. Add Rovisome and preservative.

Ref. No. 122-94

Washable Cleansing Cream

A glossy cleansing cream with water rinsability and residual emollience. Clariskin helps to attenuate skin brown spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritalan (Lanolin Oil)	3.00
2. Mineral Oil (Drakeol-9)	20.00
3. Stearic Acid	5.00
4. Rita CA (Cetyl Alcohol)	3.00
5. Distilled/Deionized Water	54.00
6. Glycerine	5.00
7. Triethanolamine (50%)	3.00
8. Ritabate-60 (Polysorbate-60)	2.00
9. Glydant	q.s.
10. Perfume	q.s.
11. Clariskin (Yeast Extract)	5.00

Compounding Procedure:

Heat 1-4 items to 70C. Heat items 5-9 to 65C. Add oil phase to water phase with agitation. Cool to 40C and add items 10 and 11.

Ref. No. 122-108

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Anti-Wrinkle Cream

<u>Material:</u>	<u>%w/w</u>
Water; Pure	65.250
Caprylic/Capric Triglyceride	7.000
Propylene Glycol USP	5.000
AEC Octyl Palmitate	5.000
AEC Hydroxyoctacosanyl Hydroxystearate	5.000
AEC PEG 45 Dodecylglycol Copolymer	4.000
Cocoa Butter, Refined	3.000
GMS NSE	3.000
AEC Methoxy Peg 22 Dodecylglycol Copolymer	2.000
Nipaguard BPX	0.500
Fragrance	0.250

Formula Ref.: 1081*0

AEC Cocoa Butter Cream

<u>Material:</u>	<u>%w/w</u>
Cocoa Butter, Refined	44.000
Petroleum Jelly; White	25.000
Light Mineral Oil	20.000
Castorwax Mp80	10.000
Vitamin E Acetate	0.500
P. Cocoabutter AA 6780	0.400
Carrot Oil; Novarom	0.100

Formula Ref.: 1186*3

Cocoa Butter Cream

<u>Material:</u>	<u>%w/w</u>
Cocoa Butter, Refined	42.000
Petroleum Jelly, White	32.500
Light Mineral Oil	17.000
Castorwax Mp80	8.000
P. Cocoabutter AA 6780	0.500

Formula Ref.: 1005*0

SOURCE: A&E Connock, Ltd.: Suggested Formulations

Anti-Wrinkle Moisturizing Cream

A moisturizing cream formulation that gives a smooth, creamy product that fights wrinkles.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol 1000 (R.I.T.A. Blend)	3.00
2. Rita CA (Cetyl Alcohol)	3.00
3. Rita GMS (Glyceryl Stearate)	1.00
4. Stearic Acid	2.75
5. Ritachol (Mineral Oil and Lanolin Alcohol)	2.00
6. Ritaderm (R.I.T.A. Blend)	10.00
7. Rita SSO (Sunflower Seed Oil)	4.00
8. BHA	0.10
9. Propylparaben	0.10
10. Distilled/Deionized Water	64.50
11. Acritamer 940 (Carbomer)	0.10
12. Glycerine	5.00
13. Methylparaben	0.10
14. Triethanolamine (99%)	1.25
15. Reductine (Oat Protein)	2.00
16. Quaternium 15 (20% Solution)	0.10
17. Fragrance	1.00

Compounding Procedure:

Heat items 1-7 to 70C. Slowly add item 11 to item 10 while stirring. Continue stirring until a homogeneous mixture is formed. Add items 12-14 to items 10-11 and heat to 70C. Add oil to water at 70C while stirring. Begin cooling. At 40C add items 15-17.

Ref. No. 120-188

Anti-Wrinkle Treatment Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol 50/50	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctylcyclohexane	2.00
7. Cyclomethicone	2.00
8. Dimethicone	0.50
9. Rita SSO (Sunflower Seed Oil)	4.00
10. Distilled/Deionized Water	68.40
11. 1,3-Butylene Glycol	4.00
12. Xanthan Gum	0.30
13. Reductine (Oat Protein)	6.00
14. Methyl dibromo Glutaronitrile	0.30

Compounding Procedure:

Disperse item 12 in water and butylene glycol mixture. Heat to 70C. Combine items 1-9 and heat to 70C. Add to water phase. Mix and cool to 30C. Add items 13 and 14.

Ref. No. 120-193

Anti-Wrinkle Treatment Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita Cetearyl Alcohol 50/50	2.50
2. Steareth-2	2.50
3. Steareth-21	1.50
4. PPG-15 Stearyl Ether	3.00
5. Dioctyl Adipate	3.00
6. Dioctyl Cyclohexane	2.00
7. Dow Corning 200 Fluid (200 cst)	2.00
8. Ritasil 190 (Dimethicone Copolyol)	0.50
9. Sunflower Seed Oil	4.00
10. Distilled/Deionized Water	64.40
11. 1,3 Butylene Glycol	4.00
12. Xanthan Gum	0.30
13. Rovisome ACE (ROVI Blend)	5.00
14. Reductine (Oat Protein)	5.00
15. Methyl dibromo Glutaronitrile and Phenoxyethanol	0.30

Compounding Procedure:

Disperse item 12 in items 10 and 11 and heat to 70C. Mix items 1-9 and heat to 70C. Add water phase to oil phase, then homogenize. Cool to 35C and add items 13-15.

Ref. No. 122-96

Night Cream

A smooth, moisturizing cream containing Clariskin for preventing and attenuating age spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritachol 2000 (R.I.T.A. Blend)	8.00
2. Rita SA (Stearyl Alcohol)	2.50
3. Mineral Oil (Britol-7)	12.00
4. Lanolin X-Tra Deo	1.00
5. Ritaderm (R.I.T.A. Blend)	10.00
6. Propylparaben	0.10
7. Butylated Hydroxyanisole	0.10
8. Distilled/Deionized Water	55.96
9. Acritamer 941 (Carbomer)	0.10
10. Propylene Glycol	5.00
11. Methylparaben	0.10
12. Triethanolamine 99%	0.10
13. Bromopol	0.04
14. Clariskin (Yeast Extract)	5.00
15. Perfume	q.s.

Compounding Procedure:

Combine items 1-7 and heat to 75C. Disperse item 9 into water until lump free. Add items 10 and 11 and heat to 75C. Add oil phase to water phase with agitation. Cool to 40-45C and add items 13-15. Cool to 25-30C and package.

Ref. No. 122-81B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Basic-Cream with AHA-Esters, Food Approved

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Antioxidant	q.s.
B. Glycerol	5.00
Preservative	q.s.
Water, ad	100.00
Fragrance	q.s.

Preparation:

Ingredients of A are heated to about 70C. B is brought to the same temperature and emulsified into A. The cream is stirred cold and at about 30C fragrance is added.

Formulation BAS FO

Eye Wrinkle Cream with UV Absorber

With citric acid ester as active ingredient

<u>Ingredient:</u>	<u>Weight%</u>
A. Miglyol 818 (Caprylic/Capric/Linoleic Triglyceride)	5.00
Miglyol 829 (Caprylic/Capric/Diglyceryl Succinate)	5.00
Dynacerin 660 (Oleyl Erucate)	5.00
Imwitor 370 (Glyceryl Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	8.00
Evening Primrose Oil	3.00
Antioxidant	q.s.
B. Keltrol F(Xanthan Gum)	0.50
Methocel K 100 LV (Hydroxymethylcellulose)	0.50
Preservative	q.s.
Water, ad	100.00

Preparation:

Ingredients of A are heated to about 70C. To build phase B Keltrol F and Methocel is dispersed in water and stirred to homogeneity. Then B is brought to the same temperature and emulsified into A.

The cream is stirred cold.

Formulation EYE OW

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Bleaching Night Cream Against Age Spots

This agreeable, rich night cream contains Fadeout, which has bleaching activity. Pentavitin provides the skin with moisture and regenerates the skin.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Cremophor A-6	2.50
2	Cremophor A-25	2.50
3	Cutina GMS	4.00
4	Lanette-O	3.00
5	Stearic Acid	1.00
6	Paraffin oil	10.00
7	Cetiol SN	5.00
8	Vaseline white	3.00
9	Abil-350	0.40
10	B) Water demineralized	54.60
11	Imidazolidinyl urea	0.20
12	Phenonip	0.50
13	Glycerin	3.00
14	Pentavitin	5.00
15	Fadeout	5.00
16	C) Fragrance/Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.; Application No. A 032.B/01.96

Cleansing Cold Cream W/O**Formulating Design and Advantages:**

This classic product has a natural mild orange aroma which refreshes while deeply cleansing the skin of dirt and oils, leaving the skin smooth and silky. Natural anti-microbial agents inherent in the beeswax and orange wax preserve this product along with the pH (pH=8).

Oil Phase:	<u>Wt%</u>
NF White Beeswax (Koster Keunen)	10.0
Ceresine Wax 130/135 (Koster Keunen)	6.0
Deodorized Orange Wax (Koster Keunen)	4.0
Light Mineral Oil (Witco)	38.5
Propylene Glycol Stearate (Inolex)	2.0

Water Phase:	
Water (Distilled)	27.5
Carbopol 940 2% Solution (BF Goodrich)	10.0
Sodium Borate (Borax)	2.0

Procedure:

Add Carbopol solution to the water phase mix and heat to 75C, add borax under agitation. Mix and melt oil phase to 75C. Add oil phase to the water phase while mixing. Cool and pour into containers.

Adaptation of Formula and Its Influence on the Product:

Small changes in this formula are possible, such as, reducing the concentration of the orange wax will eliminate the natural orange aroma. Plant oils can be added in low concentrations for label claims.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

	<u>Wt%</u>
Part A: Sulfetal CJOT 60	10.0
Imwitor 960	14.0
Part B: Water	75.5
Part C: Perfume, preservative	0.5

Mix part A and C separately. Add part B and C successively to part A whilst stirring.

Adjust pH to approx. pH 6.5 using citric acid.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/18

Cream Foundation

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	39.80
B: Veegum Ultra, Magnesium Aluminum Silicate Rhodigel, Xanthan Gum	1.00 0.20
C: Propylene Glycol	5.00
D: Iron Oxides Titanium Dioxide	2.17 8.83
E: Cetearyl Alcohol (and) Ceteareth-20 (Lipowax D) Ceteareth-4 (Lipocol SC-4) Decyl Oleate Mineral Oil Stearic Acid Lanolin Oil PPG-15 Stearyl Ether Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (Uniphen P-23) Isopropyl Myristate (and) Lecithin (and) Tocopherol (Unipheryl U-14)	4.00 2.00 4.00 20.00 2.00 3.00 3.00 1.00 0.70
F: Trimethyldodecatrienol (Unistab S-69) Farnesyl Acetate (and) Farnesol (and) Panthenyl Triacetate (Unitrienol T-27)	0.50 2.00
G: Water Imidazolidinyl Urea (Unicide 4-13)	0.50 0.30

Procedure:

Dry blend the Part B ingredients. Heat the Part A water to 70C. Add the Part B ingredients and mix for 30 minutes with a propeller mixer at 1800 rpm. Add Part C and mix 5 minutes. Add the Part D ingredients simultaneously and mix until uniformly dispersed. Mix and heat the Part E ingredients to 70C. Add Part E to Parts A+B+C+D and mix 10 minutes. Slow the mixer and cool the batch to 45C and add Parts F and G in the order shown. Continue cooling to 30C and package.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Induchem AG

Cream, Type O/W, with MPC-Milk Peptide Complex*

	<u>Weight%</u>
a) Emulgade 1000 NI	4.00
Lanette 16	1.00
Myritol 318	10.00
Phenonip	0.30
b) Water, distilled	50.00
Carbopol 934	0.40
c) Water, distilled	23.60
Phenonip	0.30
Triethanolamine	0.40
d) Water, distilled	9.36
Na ₃ -Citrate, anhydrous	0.14
MPC-Milk Peptide Complex	0.50

Manufacture:

Melt a) and bring to approx. 70C.

Melt b), bring to approx. 70C and add to a) with stirring.

Continue stirring until cooled to approx. 30C.

Dissolve c) and add to ab).

Dissolve d) at room temperature and add to abc) with stirring.

Perfume, homogenize

Cream, Type W/O, with MPC-Milk Peptide Complex

	<u>% by Weight</u>
a) Arlacel 1689	3.00
G-4909	0.50
Lunacera M	3.00
Paraffinum subliquidum	12.00
Beeswax	0.50
Vaseline	6.00
Cocoa butter	4.00
Vegetable oil	4.00
Phenonip	0.30
Oxydex LM	0.05
b) Water, distilled	51.85
Phenonip	0.30
Glycerin	4.00
Magnesium sulfate	0.50
c) Water, distilled	9.38
Na ₃ -Citrate x 2H ₂ O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

Melt a) and bring to approx. 75C.

Bring b) to approx. 75C and stir into a).

Continue stirring until cooled to approx. 30C.

Dissolve c) at room temperature and add to ab) with stirring.

Perfume, roll.

*MPC-Milk Peptide Complex contains natural polypeptides from milk, in activated form.

Day Cream with Evening Primrose Oil

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 818 (Caprylic/Capric/Linoleic Triglyceride)	5.00
Miglyol 829 (Caprylic/Capric/Diglyceryl Succinate)	5.00
Dynacerein 660 (Oleyl Erucate)	5.00
Imwitor 370 (Glyceryl Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	8.00
Evening Primrose Oil	3.00
Antioxidants	q.s.
B) Methocel K 100 LV (Hydroxypropyl Methylcellulose)	0.50
Keltrol F (Xanthan Gum)	0.50
Hydroviton (Water (and) Sodium Lactate (and) Lactic Acid (and) Glycerin (and) Serine (and) Sorbitol (and) TEA-Lactate (and) Triethanolamine (and) Urea (and) Sodium Chloride (and) Lauryl Diethylene-diaminoglycine (and) Allantoin (and) Lauryl Amino-propylglycine (and) SD Alcohol 39-C)	3.00
Preservative	q.s.
Water	up to 100.00
Perfume Oil	q.s.

Preparation:

(A) is added together, heated up to 75-80 degrees C., and homogenized. (B) is stirred until homogeneous, heated to the same temperature, and emulsified into (A). The cream is then stirred until cool.

Formulation 1.1Q

Basic O/W Cream, with Citric Acid Esters

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Antioxidants	q.s.
B) Glycerin	5.00
Preservatives	q.s.
Water	up to 100.00
Perfume Oil	0.30

Preparation:

(A) is heated up to ca. 75 degrees C., and (B) is brought to the same temperature and emulsified into (A). The perfume is added at ca. degrees C.

Formulation 1.1P

SOURCE: Huls America Inc.: Suggested Formulations

Dry Skin Cream

<u>Formula:</u>	<u>% by Weight</u>
Water Phase:	
Water	q.s. to 100
Triethanolamine	0.3
Glycerine	2.0
Methylparaben	0.2
Oil Phase:	
White Protopet 1S Petrolatum (Witco)	3.0
Carnation Mineral Oil (Witco)	4.0
Cetyl Alcohol	0.5
Isopropyl Ricinoleate	3.0
Sorbitan Oleate	2.0
Stearic Acid	1.0
Naturechem GMHS (CasChem)	3.0
Naturechem EGHS (CasChem)	1.5
Naturechem OHS (CasChem)	2.0
Ceresine Wax	1.1
Laureth 23	0.3
Propylparaben	0.1
Fragrance	0.3

Procedure:

Heat both phases to 80C. Add oil phase to water phase with high speed mixing. Maintain 80C temperature while mixing for 15 minutes. Allow to cool and continue mixing to 35C; add fragrance; mix thoroughly.

Aloe Night Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	67.625
Methylparaben	0.2
Promulgen-D	2.0
Triethanolamine	0.75
B:	
Ceraphyl-368	10.0
Kessco-653	3.0
Emerson-132	6.0
Carnation Mineral Oil (Witco)	6.0
Glyceryl Monostearate	2.0
Propylparaben	0.05
Vybar-5013 (Petrolite)	2.0
C:	
Aloe-Con WG-40 (Florida Food Products)	0.375
D:	
Fragrance	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Emollient Cream

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Methyl Glucose Dioleate (Glucate DO)	1.50
PEG 20 Methyl Glucose Sesquistearate (Glucamate SSE-20)	3.00
Petrolatum	8.00
Isopropyl Palmitate (Propal)	3.00
Mineral Oil	6.00
Dimethicone	0.50
Stearyl Alcohol (Stearal)	2.00
Cetyl Alcohol (Cetal)	1.00
B: Deionized Water	73.70
Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.30
C: Preservative	q.s.

Procedure:

Weigh Part B water into a suitable vessel and mix with homogenizer at 5000 rpm. Weigh and dry blend the Veegum and Rhodigel and add them slowly to the water. Mix for 20 minutes at 5000 rpm. Begin heating to 70C. Weigh the Part A ingredients into another vessel and heat to 70C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Cool to 40C and add the Part C ingredient. Continue cooling and package at 35C.

Formula from Amerchol Corp.

Hand Cream

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Dimethicone, 1000 cs. (SF-96)	2.50
Isopropyl Myristate	2.00
Stearic Acid	7.00
Lanolin	0.50
Emulsifying Wax NF (Polawax)	4.00
Sorbitan Oleate (Arlacel 80)	0.50
Polysorbate 60 (Tween 60)	2.50
B: Propylene Glycol	7.00
Deionized Water	66.00
Veegum, Magnesium Aluminum Silicate (5% Aqueous Dispersion)	8.00
C: Preservative	q.s.

Procedure:

Prepare the 5% Veegum dispersion using a homogenizer operating at 5000 rpm. Mix the dispersion for 20 minutes. Weigh the indicated amount of the dispersion into a suitable vessel. Mix with a propeller mixer at 1800 rpm and add the Part B water. Heat to 70C. Add the Propylene Glycol and mix for 5 minutes. Weigh the Part A ingredients into a suitable vessel, mix and heat to 70C. Add Part A to Part B and mix at 1800 rpm for 10 minutes at 70C. Slow the mixer to produce a slight vortex and begin cooling. At 40C, add Part C, continue cooling and package at 35C.

Formula from General Electric Co.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Emollient Eye Cream

This emollient cream is specifically designed for use around the eyes and contains Crodamol ISNP for the gentle, yet very emollient, effects that it confers to such delicate areas as the eyes, face and neck. Super Sterol Ester and Cromoist HYA are moisturizers that help keep the skin around the eyes smooth and supple. A combination of Polawax and ethylene glycol monostearate is used to emulsify the cream.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized water	84.50
Carbomer 934	0.25
Glycerin	1.50
Part B:	
Crodamol ISNP (Isostearyl Neopentanoate)	3.00
Polawax (Emulsifying Wax NF)	3.00
Super Sterol Ester (C10-30 Cholesterol/Lanosterol Esters)	2.00
Ethylene Glycol Monostearate	4.00
Part C:	
TEA 99%	0.25
Part D:	
Cromoist HYA (Hydrolyzed Protein (and) Hyaluronic Acid)	0.50
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

Procedure:

Add the Carbomer 934 of Part A to the water with mixing and heat to 65-70C. When homogeneous, add the glycerin of Part A with mixing. Combine the ingredients of Part B with mixing and heat to 65-70C. Add Part A to Part B with mixing and cool to 60C. Add Part C with mixing and cool to 40C. Add Part D with mixing and cool to desired fill temperature.

pH=6.0+/-0.5

Viscosity (RVT Spindle #TB, 10 rpm, 25C)=25,000cps+-10%

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-256

Enriched W/O Cream with Vitamin E Oil

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Peach Kernel Oil	10.000g
2 Almond Oil USP; Sweet	5.000g
3 AEC Macadamia Nut Oil	3.000g
4 AEC Hydroxyoctacosanyl Hydroxystearate	7.000g
5 AEC Methoxy Peg 22 Dodecylglycol Copolymer	4.000g
6 AEC PEG 45 Dodecylglycol Copolymer	3.000g
7 Vitamin E Oil	1.500g
Aqueous Phase:	
8 Water; Pure	60.770g
9 Propylene Glycol USP	5.000g
10 Magnesium Sulphate	0.080g
11 Nipaguard BPX	0.150g
Cooling Cycle:	
12 Fragrance	0.500g
Mixing Instructions:	
Heat the Oil Phase in a suitable jacketed vessel.	
Heat the Aqueous Phase in a separate vessel.	
Slowly add the hot water to the hot oils with high shear mixing and mix for five minutes. Start cooling and mix with a gate type mixer; add the perfume at about 35C and homogenise.	
This rich w/o emulsion is made with natural oils and uses Vitamin E Oil as a free radical scavenger.	
Project: JW 2382/Formula: 796*1	

Anti-Wrinkle Cream

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 AEC Hydroxyoctacosanyl Hydroxystearate	5.000g
2 AEC Methoxy Peg 22 Dodecylglycol Copolymer	2.000g
3 AEC PEG 45 Dodecylglycol Copolymer	4.000g
4 Cocoa Butter, Refined	3.000g
5 GMS NSE	3.000g
6 AEC Octyl Palmitate	5.000g
7 Caprylic/Capric Triglyceride	7.000g
Aqueous Phase:	
8 Propylene Glycol USP	5.000g
9 Nipaguard BPX	0.500g
10 Water; Pure	65.250g
Cooling Cycle:	
11 Fragrance	0.250g
Mixing Instructions:	
This is a w/o cream. The oil phase and aqueous phase are heated separately to 80C and the aqueous phase added slowly to the hot oils with high shear mixing. The product is stirred slowly until cool and then given a final homogenising mix.	
Vitamin E, Vitamin A, Sodium Hyurolonate and collagen would be suitable additives.	
Project: AEC/Formula Ref.: 1081*0	

SOURCE: A & E Connock Ltd.: Suggested Formulation

Eye Contour Cream, Type W/O, with MPC-Milk Peptide Complex

<u>Ingredients:</u>	<u>Weight%</u>
a) Dehymuls F	12.00
Vaseline, white	5.00
Softisan Gel	10.00
Paraffinum subl.	10.00
Phenonip	0.30
b) Water, distilled	46.70
Phenonip	0.30
Glycerin	5.00
Magnesium Sulfate x 7H ₂ O	0.70
c) Water, distilled	9.38
Na ₃ Citrate x 2 H ₂ O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C;
- b) Bring to approx. 70C and stir into a); Continue stirring until cream has cooled to approx. 30C.
- c) Add under stirring. Perfume, roll.

Moisturizing Cream with MPC - Milk Peptide Complex

<u>Ingredients:</u>	<u>Weight%</u>
a) Promulgen D	3.50
Paraffinum perliquidum	10.00
Glucam E-10	3.00
Cremerol HMG	1.50
Phenonip	0.30
b) Carbopol 940	0.10
Water, distilled	70.70
MPC-Milk Peptide Complex	0.50
c) Water, distilled	10.00
Phenonip	0.30
Triethanolamine	0.10

Manufacture:

- a) Melt and dissolve at approx. 75C. Allow to cool to approx. 40C
- b) Disperse at room temperature with rapid stirring.
- c) Dissolve at room temperature and stir into b).
Add mixture bc) to a) with slow stirring.
Adjust abc) to approx. pH 6.84. Homogenize.

**SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulations**

Gentle Night Repair Cream
Water in Oil Emulsion

Formulating Design and Advantages:

This product encapsulates Barley Beta an active ingredient which is anti-microbial and reduces the effects of skin aging. This cream quickly penetrates the skin leaving a soft silky feel.

	<u>Weight%</u>
Oil Phase:	
Emulsifying Wax (Koster Keunen)	3.10
Hexanediol Behenyl Beeswax (Koster Keunen)	3.00
Siliconyl Beeswax (Koster Keunen)	3.00
Ozokerite 164/170 (Koster Keunen)	1.00
Sunflower Oil (Alnor Oil)	8.00
Rice Bran Oil (Koster Keunen)	4.00
Foraha Oil (Koster Keunen)	1.00
Liquapar (Sutton Laboratories)	0.50
Fitoderm-Vegetal Squalane (Centerchem)	2.00
Silicone 200/100 (Dow Corning)	2.00
Glycerol Monostearate (Witco)	2.10
Isopropyl Palmitate (Inolex)	0.80
Vitamin E (BASF)	0.10
Vitamin A Palmitate (BASF)	0.10

Water Phase:	
Water (Deionized)	48.70
Methyl Paraben (Aldrich)	0.30
Sodium Borate (Amend)	0.50
Carbopol 940 2% (B.F.Goodrich)	9.60

Active Phase:	
Firming Liposome (Collaborative Laboratories)	4.00
APT (Centerchem)	3.00
Beta Glucan (Koster Keunen)	0.20

Procedure:

Heat the components of the oil phase, mix and maintain at a temperature of 82C. In a separate vessel heat the components of the water phase, mix and maintain at a temperature of 80C. Add the oil phase to the water under moderate agitation, and cool slowly while mixing. Add the Beta Glucan at a temperature less than 80C. Cool to 40C and add the Firming Liposome and APT. Cool to room temperature.

Adaptation of Formula and Its Influence on the Product:

Substitution can be made of the various plant oils depending on the formulation desired.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Intensive Anti-Wrinkle Soft Cream with AH-Acids (O/W)

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	12.00
Ewalan ODE-50 (Octyldodecyl Lanolate)	2.00
B) Pronalen Fruit Acid AHA-5 (Lemon & Passion Fruit Concentrate)	7.00
Preservative	q.s.
Water	up to 100.00
C) Perfume 726096	0.30

Preparation:

(A) is heated to 75-80 degrees C. (B) is mixed together, brought to the same temperature, and emulsified into (A).

(C) is added at about 30 degrees C.

Formulation 1.1M

W/O Cream with 17% Pigments

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-1)	28.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Beeswax	6.00
Vitamin E (Tocopherol)	0.10
Zinc Oxide	16.00
Talc	1.00
B) Allantoin	0.20
d-Panthenol USP	2.00
Preservative	q.s.
Water	25.70

Preparation:

(A) is mixed until homogeneous and brought up to 75 degrees C.

(B) is brought to the same temperature and emulsified into (A).

Formulation 2.1L

SOURCE: Huls America Inc.: Suggested Formulations

Light Moisturizing Cream for Dry Skin

Ultra light weight and low cost moisturizing cream for normal/dry skin. Leaves the skin with a soft satiny feel from the Liponate NPGC-2. Lipo/DNS Completech MBAC-DS helps control the dryness of the skin.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	66.35
1	Methylparaben	0.25
1	Trisodium EDTA	0.05
2	Carbopol 2984 (2% sol'n)	17.50
3	Liponate NPGC-2	4.00
3	Lipomulse 165	1.50
3	Lipocol C	0.60
3	Propylparaben	0.10
3	Butylparaben	0.05
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.35
5	Deionized Water	1.00
5	Unicide U-13	0.25
6	Deionized Water	5.50
6	DNS Completech MBAC-DS	1.50

Procedure:

1. Heat Sequence #1 to 75C. Mix with overhead mixer at medium speed until all ingredients are completely into solution.
2. Heat Sequence #2 to 75C and add to Sequence #1 with medium agitation (holding temperature at 75C).
3. Mix Sequence #3 together and heat to 75C, then add to batch with medium/high agitation.
4. Premix Sequence #4 ingredients and add to batch at 70-75C. Switch to moderate sweep and cool slowly to 35C.
5. At 35C add premixed Sequence #5 ingredients to batch and cool to 25C.
6. Premix Sequence #6 together until completely into solution and then add to batch on sweep mixer.

SOURCE: Lipo Chemicals Inc.: Formulation No. 868

Light Skin-Feel Cleansing CreamW/O**Formulating Design and Advantages:**

This adaptation of a typical cold cream has been updated with new ingredients to reduce oiliness while deep cleansing of the skin is still possible, leaving the skin with a luxurious smooth and silky after feel.

Oil Phase:	Wt%
Hexanediol Behenyl Beeswax (Koster Keunen)	5.00
Siliconyl Beeswax (Koster Keunen)	3.00
Ceresine 130/135 (Koster Keunen)	7.00
Light Mineral Oil (Witco)	17.25
Isostearic Acid (Unichema)	2.00
Cetylstearyl Alcohol (Koster Keunen)	1.00
Dow 200/100	6.00
Dow 245	11.25
Emulsifying Wax (Koster Keunen)	2.00
Liquapar Oil (Sutton)	0.30

Water Phase:	
Water (Deionized)	33.95
Carbopol 940 2% Solution (BF Goodrich)	10.00
Sodium Borate (Borax)	1.25

Procedure:

Add Carbopol solution to the water phase mix and heat to 75C, add borax under agitation. Mix and melt oil phase to 75C. Add oil phase to the water phase while mixing. Cool and pour into containers.

Adaptation of Formula and Its Influence on the Product:

Small changes in this formula are possible, such as the addition of small amounts of plant oils for label claims.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

	Wt%
Part A: Mulsifan CB	6.0
Dow Corning 593 Fluid	2.0
Dow Corning 200-1000	2.0
Avocado oil	3.0
Paraffin oil	2.0
Part B: Water	84.0
Carbopol ETD 2001	0.15
Part C: Caustic soda (45%) approx.	0.07
Part D: Perfume, preservative, antioxidant	0.3

Mix part A, B and D each separately.

Add part B, C and D successively to part A whilst stirring.

Adjust pH to approx. pH 6.5 using caustic soda (15%) or citric acid.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B27/19

Moisturizer O/W Cream**Formulating Design and Advantages:**

This product utilizes the minor components of natural products to deliver mild anti-microbial activity, which allows the formulator to reduce the concentration of synthetic preservatives. The light yellow colored cream quickly penetrates the skin, leaving a non-greasy feel and diminishes the signs of aging by laying down a flexible barrier.

Oil Phase:	Wt%
Orange Wax (Koster Keunen)	4.5
NF Yellow Beeswax (Koster Keunen)	2.5
Isostearic Acid (Unichema)	1.0
Almond Oil (Arista)	3.0
Mineral Oil (Witco)	3.5
Glycerol Monostearate (Henkel)	6.0
Cetyl Stearyl Alcohol (P&G)	6.0
Octyl Palmitate (Unichema)	2.5

Water Phase:	
Water (Distilled)	67.8
Propylene Glycol (Dow)	1.5
Triethanolamine (Dow)	1.0
Polysorbate 60 (Specialty Industrial Prod.)	0.2
Germaben II (Sutton)	0.5

Procedure:

Add a mixed and uniform water phase to a mixed and uniform oil phase at 75C under agitation. Continue mixing till cool.

Adaptation of Formula and Its Influence on the Product:

Actives are easily incorporated into a product without altering the aesthetics. Changing the types of oils should only alter the viscosity, if maintaining similar concentrations of oils. Viscosity changes are achieved by reducing the concentration of cetyl stearyl alcohol and glycerol monostearate, by approximately 30-40%, however this may cause instability.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Moisturizing Cream w/Tritisol

<u>Formula:</u>	<u>% by Weight</u>
A:	
Polawax	10.00
Incroquat Behenyl TMS	3.00
Carnation Mineral Oil (Witco)	5.00
B:	
Deionized Water	80.00
Tritisol (Soluble Wheat Protein)	1.00
Germaben II	1.00

Procedure:

Combine A with mixing and heat to 70C. Heat B to 70C. Add B to A with good mixing. Continue mixing and cool to 45C. Add C with mixing and cool to desired fill temperature.

Makeup Remover Cleansing Creme

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	82.5
Stearamidopropyl PG Dimonium Chloride Phosphate	3.0
Cocamidopropyl PG Dimonium Chloride Phosphate	1.5
B:	
Carnation Mineral Oil (Witco)	4.5
Cetyl Alcohol	3.0
Myristyl Alcohol	3.5
Dimethicone	0.1
Propylene Glycol Stearate	1.9

Procedure:

Heat parts A and B to 60C. Add B to A with good agitation. Remove heat. When product begins to thicken, increase speed of mixer to ensure adequate agitation. Add preservative, color and fragrance as required. Stir and cool to 34C and fill.

Moisturizing Hand & Body Cream

<u>Formula:</u>	<u>% by Weight</u>
Deionized Water	82.00
Carbomer 934	0.50
Glycerine	5.00
Polyglyceryl-10 Stearate	1.50
White Fonoline Petrolatum (Witco)	2.00
Carnation Mineral Oil (Witco)	2.00
Myristyl Propionate	2.00
Glyceryl Monostearate	1.50
Stearic Acid	2.50
Triethanolamine 99%	1.00
Glydant Plus (Lonza)	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Moisturizing Daycream

Sericin in this pleasant daycream protects the skin by its film forming and moisturizing properties. Due to this high-molecular protein, the emulsion is also ideal as a make-up base.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic Acid	1.50
4	Promulgen D	1.00
5	Modulan	1.00
6	Paraffin Oil	5.00
7	Eutanol G	1.00
8	B) Water demineralized	77.30
9	Phenonip	0.50
10	Glucam E 20	4.00
11	Carbopol 1342	0.40
12	C) Triethanolamine	qs. pH 6
13	D) Sericin	5.00
14	Fragrance/Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with item 12 adjust the pH to 6.0, homogenize and cool to 30C.

Then add items 13 and 14, one after another.

SOURCE: Pentapharm Ltd.: Application No. A020.A/10.93

Moisturizing Day Cream (Sericin)

Sericin in this pleasant day cream protects the skin by its film forming and moisturizing properties. Due to this high molecular weight protein, the emulsion is also ideal as a make-up base.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic Acid	1.50
4	Promulgen D	1.00
5	Modulan	1.00
6	Paraffin Oil	5.00
7	Eutanol G	1.00
8	B) Deionized Water	77.30
9	Phenonip	0.50
10	Glucam E 20	4.00
11	Carbopol 1342	0.40
12	C) Triethanolamine, q.s. pH 6.0	
13	D) Sericin	5.00
14	Fragrance-Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with item 12 adjust the pH to 6.0, homogenize and cool to 30C. Then add items 13 and 14 one after the other.

SOURCE: Pentapharm Ltd.: Application No. A 020.A/10.93

Incroquat Behenyl TMS Cream

This basic formulation shows how Incroquat Behenyl TMS can form a stable and elegant, yet simple, emulsion. The soft/powdery feel it confers on the skin is due to the conditioning effects of the behenyl quat.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Crodamol ISNP (Isostearyl Neopentanoate)	5.00
Dimethicone 200 (200cps)	1.00
Volpo S-2 (Steareth-2)	0.10
Volpo S-10 (Steareth-10)	0.50
Petrolatum	2.00
Part B:	
Deionized Water	79.40
Part C:	
Deionized Water	5.00
Hydrotriticum WAA (Wheat Amino Acids)	1.00
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Crodasome CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.00
Incroemcant LAMEA (Acetamide MEA (and) Lactamide MEA)	1.00
pH=5.0+-0.5	
Viscosity=16,000cps+-10% (RVT Spindle #TC, 10 rpm, 25C)	

SOURCE: Croda Inc.: Formulation SC-269

Moisturizing Skin Cream

An elegant and rich moisturizing cream based on the NMF (Natural Moisturizing Factor) concept of ProdeW 100.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	59.60
Veegum HV, Magnesium Aluminum Silicate	1.00
Triethanolamine, 99%	2.40
Rhodigel, Xanthan Gum	0.20
B: Squalane (Fitoderm)	6.00
Cetyl Palmitate	4.00
Dioctyl Maleate	8.00
Propylene Glycol Isostearate	4.00
Pentaerythrityl Tetrapelargonate	4.00
Dimethicone (100 cs.)	0.80
Hydrogenated Soy Glyceride	1.00
Stearyl Alcohol	1.00
Stearic Acid	5.00
C: Sorbitol (and) Sodium Lactate (and) Proline (and) Sodium PCA (and) Hydrolyzed Collagen (ProdeW 100)	3.00
Preservative	q.s.

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum HV and Rhodigel, add them slowly to the water and continue mixing for 20 minutes. Begin heating to 65C. Add the remaining Part A ingredients and continue mixing at 5000 rpm. Weigh the Part B ingredients into another vessel. Mix and heat to 70C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Cool while mixing to 35C and add the Part C ingredients in order, mixing each for 5 minutes. Continue cooling and package at 25-30C.

Moisturizing Cream

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Stearic Acid	2.00
Cetyl Alcohol	2.00
Isopropyl Myristate	2.00
Lanolin Oil (Lantrol 1673)	10.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	3.00
B: Veegum, Magnesium Aluminum Silicate	1.50
Deionized Water	74.50
C: Glycerin	4.00
Triethanolamine, 99%	1.00
D: Preservative	q.s.

Procedure:

Weigh the Part B water into a suitable vessel. Mix with an homogenizer operating at 5000 rpm and begin heating to 70C. Slowly add the Veegum and mix for 20 minutes. Add the Part C ingredients in the order shown, mixing each for 3 minutes at 5000 rpm. Weigh the Part A ingredients into another vessel. Mix and heat to 70C. Add Part A to Part B at 70C and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer, adjust the speed to produce a small vortex and begin cooling. At 40C, add Part D and package at 35C. *As received basis
SOURCE: R.T. Vanderbilt Co., Inc.: Formulas: Centerchem/ICI America

Multi Purpose Cream

This white, creamy emulsion has a good cosmetic texture and is suitable for different applications. Phytaluronate adds a pleasant slip to the formula, whereas Fitobroside (penetration enhancer) and Revitalin-BT exert their actions in deeper layers of the skin.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Glucate SS	1.20
2	Glucamate SSE 20	1.80
3	Stearic acid	1.50
4	Promulgen D	1.00
5	Modulan	2.00
6	Mineral oil	4.00
7	Eutanol G	2.00
8	B) Water demineralized	71.60
9	Imidazolidinyl urea	0.20
10	Phenonip	0.30
11	Glucam E 20	4.00
12	Phytaluronate	3.00
13	Revitalin-BT	3.00
14	Carbopol 1342	0.50
15	C) Triethanolamine	0.60
16	D) Fitobroside	3.00
17	E) Fragrance/Black Dragon II 0/232511	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), with phase C) adjust the pH to 6.0, homogenize and cool to 30C.

Then add phases D) and E) one after another and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 028.B/07.93

Neck Firming Cream**Formulating Design and Advantages:**

The neck is the most neglected part of the body and shows the first visible signs of aging. This product delivers actives to that area in a cost effective product which has emollient and moisturizing properties that firms tiny lines. Continued use helps promote the look of firm, resilient, soft, youthful-looking skin.

Phase A:	<u>Wt%</u>
Deodorized Orange Wax (Koster Keunen)	3.0
Emulsifying Wax NF (Koster Keunen)	5.0
Shea Butter (Sederma)	3.0
Stearic Acid (Unichema)	3.0
Mineral Oil (Witco)	5.0
Isopropyl Palmitate (Unichema)	5.0
Glycerol Monostearate (Koster Keunen)	1.5
Squalane (Barnet)	3.0
Phytoglycolipid (Barnet)	2.0
Cetyl Stearyl Alcohol (P&G)	0.5
Phase B:	
Water (Distilled)	57.9
Carbopol 940 (B.F. Goodrich)	0.2
Triethanolamine (Dow)	0.4
Glycerin (Unichema)	2.0
Aloe Vera Gel (Active Organics)	0.5
Propylene Glycol (Dow)	2.0
Germaben II (Sutton)	1.0
Phase C:	
Elastosol Animal Collagen & Elastin (Croda)	5.0

Procedure:

Weigh out materials for Phase A, heat to 80C and mix till homogeneous. Heat Phase B to 75C while mixing. Add Phase A to Phase B under rapid agitation. Cool to 45C and add Phase C. Continue mixing till 35 to 40C.

Adaptation of Formula and Its Influence on the Product:

Sunscreens are easily incorporated into a formula of this type. By reducing the concentration of water and/or the oils, Escalol 507 (Van Dyk) can be substituted at approximately 5% to produce an SPF of 6-8.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Night Cream

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Deionized Water	43.45
A	Sodium Borate	0.70
A	Glycerin	2.00
A	Xanthan Gum	0.30
A	Tetrasodium EDTA	0.10
B	Cetearyl Alcohol	2.00
B	Sorbitan Sesquioleate	2.00
B	Glyceryl Monostearate	5.00
B	Oils of Aloha Macadamia Nut Oil	8.00
B	Vitamin E Acetate	0.20
B	Beeswax	12.00
B	Mineral Oil	15.00
B	Octyl Palmitate	8.00
C	Germaben II	1.00
D	Fragrance	0.25

Manufacturing Procedure:

Heat Phase A to 75C.

Heat Phase B to 75C. Add Phase B to Phase A. Cool to 40C.

Add remaining phases. Homogenize.

This formula is meant to be left on the skin and to have a heavier film so that it lasts all night. This is a water in oil emulsion and the principal emulsifiers are Sorbitan Sesquioleate and a combination of sodium borate and beeswax. The combination of oils gives proper weight and feel. Could be all Macadamia Nut Oil, but it might be expensive. This formulation can also be used as a makeup remover for lipstick and eye makeup.

SOURCE: Oils of Aloha: Suggested Formulation

Cold Cream

<u>Formula:</u>	<u>% by Weight</u>
Polysynlane (Polyester)	32.0
Carnation Mineral Oil (Witco)	4.0
Paraffin Wax	4.0
I.P.M.	8.0
Beeswax	3.0
Lanolin	8.0
Propylene Glycol	4.0
Potassium Hydroxide	0.3
Arlacel 40	2.5
P.O.E. Sorbitol Beeswax	1.0
Stearic Acid	1.5
Perfume, Preservatives	q.s.
Water, to	100.0

SOURCE: Witco Corp.: Suggested Formulation

Night Creme

	<u>Wt%</u>
Mineral Oil	8.00
Ritachol	4.00
Ritachol 1000	8.00
Pationic SSL	6.00
Rita EGMS	5.00
Pationic ISL	2.00
Ritawax	1.00
Propylparaben	0.10
Distilled Water	60.70
Propylene Glycol	5.00
Methylparaben	0.20

pH: 5.2

Viscosity: 135,000 cps

Stabilities:

4F: No change after 3 cycles

40F: V. sl. separation after 1 week

110F: V. sl. separation after 24 hrs.

Formulation 111-204

Night Creme

	<u>Wt%</u>
Mineral Oil	8.00
Ritachol	4.00
Ritachol 1000	8.00
Pationic SSL	6.00
Rita EGMS	5.00
Pationic ISL	2.00
Ritawax	1.00
Propylparaben	0.10
Distilled Water	58.70
Propylene Glycol	5.00
Methylparaben	0.20
Ritavena 5	2.00

pH: 5.0

Viscosity: 175,000 cps

Stabilities:

4F: No change after 3 cycles

40F: No change after 6 weeks

110F: Sl. separation after 24 hrs.

Formulation 111-205

SOURCE: R.I.T.A. Corp.: Ritavena 5; Suggested Formulations

Night Repair Cream

<u>Ingredients:</u>	<u>%W/W</u>
1. Natural Beeswax	7.30
2. Ozokerite	4.30
3. Light Mineral Oil	19.50
4. Rita IPM (Isopropyl Myristate)	2.30
5. Rita GMS (Glyceryl Stearate)	2.10
6. Ritox 59 (PEG-100 Stearate)	1.50
7. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	1.20
8. Ritacet-20 (Ceteareth-20)	1.00
9. Isostearic Acid	0.80
10. Tocopherol	0.10
11. Retinyl Palmitate	0.10
12. Distilled/Deionized Water	53.25
13. Diazolidinyl Urea	1.00
14. Sodium Borate	0.40
15. Acritamer 940 (Carbomer)	0.15
16. Raffermine (Hydrolyzed Soy Flour)	2.00
17. Tensine (Wheat Protein)	3.00

Compounding Procedure:

Disperse item 15 in item 12 while heating to 70C. Combine items 1-11 and heat to 70C. Add to water phase. Add items 13 and 14 and mix while cooling. At 40C add items 16 and 17.

Ref. No. 122-17C

Cleansing Cream

A glossy water-in-oil cleansing cream containing Clariskin with the properties of attenuating skin brown spots.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritahydrox (Hydroxylated Lanolin)	3.00
2. Ritasol (Isopropyl Lanolate)	2.00
3. Natural Beeswax	10.00
4. Mineral Oil (Drakeol-9)	44.00
5. Rita GMS (Glyceryl Stearate)	2.00
6. Ozokerite	5.00
7. Distilled/Deionized Water	23.60
8. Biocare Polymer HA-24	3.80
9. Borax (99.5%)	0.60
10. Clariskin (Yeast Extract)	5.00
11. Germaben IIE	1.00
12. Perfume	q.s.

Compounding Procedure:

Add item 8 to item 7 at 25C. Mix until thoroughly dispersed. Heat to 45-50C if necessary. When dispersed, add item 9 and heat to 80C. Mix items 1-6 and heat to 80C. Add water phase to oil phase with agitation. Add item 11 at 75C. Continue to mix until mixture reaches 35C, then add items 10 and 11.

Ref. No. 122-79B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Night Repair Cream

<u>Formula:</u>	<u>% by Weight</u>
Octyldimethyl Paba	3
Finsolve	2
Carnation Mineral Oil (Witco)	2
White Protopet 1S (Witco)	3
Stearic Acid	2
Acetylated-Lanolin	3
Amerchol-L-101	3
Generol-122	2
Generol-122E-10	3
Lexemul	8
Benzyle, Alcohol	3
Ceraphyl-65	2
Glycerin	5
Selastin EL-10 (Secol)	10
Water	q.s.
Collagen Secolan BA 1-1% Solution (Secol)	5
Na-Hyaluronate Seluron 1% Solution (Secol)	3
Germall 115	0.25
Fragrance	As Desired

Facial Cleansing Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Gelwhite GP	2.0
Water	31.0
Sorbitol (70%)	5.0
B:	
Polestar 400A (ECC America)	20.0
C:	
Carnation Mineral Oil (Witco)	17.0
Solulan 16	3.0
Tween 80	1.0
Arlacel 186	3.0
White Protopet 1S	10.0
Synthetic Beeswax	5.0
Preservatives	q.s.

Procedure:

Slowly add Gelwhite to the water while mixing at maximum shear. Add glycerine and Sorbitol at moderate speed until smooth. Add B to A with slow mixing. Combine C and heat to 65C. Heat A/B to 70C and slowly add to C. Continue mixing until temp. cools to 30C. Add desired preservatives and mix until smooth and uniform.

SOURCE: Witco Corp.: Suggested Formulations

Night Time Moisturizing Cream

Rich emulsion containing Ritasil 190 as a lubricant.

<u>Ingredients:</u>	<u>%W/W</u>
1. Mineral Oil (Bristol 9 NF)	10.00
2. Rita IPP (Isopropyl Palmitate)	2.00
3. Stearic Acid	4.00
4. Ritox 52 (PEG-40 Stearate)	1.00
5. Ritasil 190 (Dimethicone Copolyol)	1.00
6. Ritalan (Lanolin Oil)	0.50
7. Rita GMS (Glyceryl Stearate)	3.00
8. Distilled/Deionized Water	74.75
9. Triethanolamine @ 99%	1.30
10. Dermacryl-79 (Acrylates/Octylpropenamide Copolymer)	1.00
11. Acritamer 934 (Carbomer 934)	0.25
12. Germaben 11E	1.00
13. Fragrance	0.20

Compounding Procedure:

Heat water and Triethanolamine 99% to 80C. Slowly sift item 10 and mix until completely dissolved. Sift item 11 slowly. Combine items 1-7 in a separate vessel, heat to 80C and mix until clear. Add items 1-7 to items 8-10 and mix for 30 minutes at 80C. Cool to 40C, then add items 12 and 13.

Ref. No. 121-96

Cleansing Cream

A cleansing cream with Raffermine to promote skin firmness and reduce skin elasticity with emollience from Ritachol and humectancy from glycerine.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	3.00
2. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00
3. Mineral Oil (Light)	20.00
4. Ritachol 2000 (R.I.T.A. Blend)	3.00
5. Distilled/Deionized Water	62.00
6. Glycerine	5.00
7. Raffermine (Hydrolyzed Soy Flour)	2.00
8. Glydant	1.00
9. Fragrance	q.s.

Compounding Procedure:

Combine items 1-4 and heat to 70C. Combine items 5 and 6 and heat to 70C with mixing. Add oil to water with mixing. Cool to 40C and add items 7-9.

Ref. No. 120-205A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Nighttime Moisturizing Cream

A glossy white night cream containing a collagen fiber restructuring booster: Raffermine. This elegant cream also contains Rita IPP and Ritalan as emollients.

<u>Ingredients:</u>	<u>%W/W</u>
1. Mineral Oil	10.00
2. Rita IPP (Isopropyl Palmitate)	2.00
3. Stearic Acid	4.00
4. Rita GMS (Glyceryl Stearate)	3.00
5. Ritox 52 (PEG-40 Stearate)	1.00
6. Ritasil 190 (Dimethicone Copolyol)	1.00
7. Ritalan (Lanolin Oil)	0.50
8. Distilled/Deionized Water	71.95
9. Triethanolamine (99%)	1.30
10. Acrylates/t-Octylpropenamide Copolymer	1.00
11. Acritamer 934 (Carbomer)	0.25
12. Germaben IIE	1.00
13. Fragrance	q.s.
14. Raffermine (Hydrolyzed Soy Flour)	3.00

Compounding Procedure:

Combine items 8 and 9 and heat to 80C. Slowly add item 10 and mix until completely dissolved. Then slowly add Acritamer and mix until dissolved. Combine items 1-7 and heat to 80C and mix until clear. Add to water and mix for 30 minutes at 80C. Cool to 40C and add items 12-14.

Ref. No. 122-3A

Under Make-Up Cream for Normal Skin

An elegant, non-greasy, protective day cream for under make-up use, Tensine smoothes the skin and helps make-up stay on.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Cetareth-15	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (R.I.T.A. Blend)	5.00
5. Distilled/Deionized Water	63.80
6. Propylene Glycol	5.00
7. Methylparaben	0.15
8. Propylparaben	0.05
9. Borage Oil	3.00
10. Fragrance	1.00
11. Tensine (Wheat Protein)	6.00

Compounding Procedure:

Heat items 1-4 to 70C. Heat items 5-8 to 70C. Add oil to water. Cool to 40C. Add items 9-11.

Ref. No. 122-13

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Oil-Free Exfoliating Cream**Formulating Design and Advantages:**

The use of natural exfoliating agent (easily dispersed) in this cream formula gives a marvelous, non-irritating, abrasive quality for the removal of spent surface cells. This will renew and revitalize worn and damaged skin, leaving a barrier which contains natural anti-oxidants inherent in the beeswax and deodorized orange wax.

Phase A:	<u>Wt%</u>
Deodorized Orange Wax (Koster Keunen)	3.0
Hydroxy Polyester (Koster Keunen)	2.0
Isostearic Acid (Unichema)	3.0
Dimethicone 200/100 (Dow)	7.5
Glycerol Monostearate (Koster Keunen)	1.5
Cetyl Stearyl Alcohol (P & G)	1.0
Octyl Palmitate (Unichema)	3.0
Phase B:	
Water (Deionized)	64.35
Propylene Glycol (Dow)	2.5
Triethanolamine (Dow)	1.0
Polysorbate 60 (Specialty Industrial Prod.)	0.2
Carbopol 940 (BFGoodrich)	0.2
Methyl Paraben (Aldrich)	0.75
Phase C:	
Microgranulated Carnauba, 20-60 mesh (Koster Keunen)	10.0

Procedure:

Add a mixed and uniform Phase A to a mixed and uniform Phase B at 75C under agitation. Continue mixing and cool to 50C. Add Phase C and mix until homogeneous.

Adaptation of Formula and Its Influence on the Product:

Viscosity of this product can easily be altered by substituting stearic acid for isostearic acid, to accommodate your preferred container. For sensitive skin, reduce the orange wax, and replace with Kester Wax 62 and Ceresin 130/135. A low viscosity will allow this product to be packaged in an open jar. The formulating advantages remain un-altered by the changes in viscosity.

SOURCE: Koster Keunen, Inc: A Guide to Natural Formulating

O/W-Cream

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGS	5.00
Hostacerin DGL	0.50
Isopropyl palmitate	8.00
Almond oil	4.00
Jojoba oil	2.00
Wheat germ oil	5.00
Sunflower oil	4.00
Antioxidant	q.s.
B Carbopol 980	0.30
C Aquamolllin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Caustic soda solution (10%)	1.20
Water	69.25
Preservative	q.s.
D Fragrance	0.40

Procedure:

- 1 Melt A at ca. 70C, then add B.
- 2 Heat C to ca. 70C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add D to 3.
- 5 Homogenize the emulsion.
Formula A VI/1852

O/W-Cream

"contains no ethylene oxide"

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGMS	5.00
Mineral oil, low viscosity	10.00
Eutanol G	7.00
Almond oil	6.00
Antioxidant	q.s.
B Carbopol 980	0.50
C Hostapon KCG	0.40
Caustic soda solution (10%)	2.00
Water	68.70
Preservative	q.s.
D Fragrance	0.40

Procedure:

- 1 Melt A at ca. 80C, then add B.
2. Heat C to ca. 80C.
- 3 Stir 2 into 1 and stir until cool.
4. At ca. 35C add D to 3.
5. Homogenize the emulsion.
Formula A VI/1751

O/W-Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGMS	4.00
	Hostaphat KML	2.00
	Mineral oil, low viscosity	8.00
	Eutanol G	6.00
	Almond oil	4.00
	Isopropyl palmitate	4.00
	Antioxidant	q.s.
B	Carbopol 980	0.50
C	Caustic soda solution (10%)	2.70
	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Water	68.15
	Preservative	q.s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 80C, then add B.
- 2 Heat C to ca. 80C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add D to 3.
- 5 Homogenize the emulsion.
Formula A VI/1550

O/W-Cream

"Contains no ethylene oxide",
manufacturing at room temperature possible

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGI	2.00
	Mineral oil, low viscosity	8.00
	Isopropyl palmitate	4.00
	Eutanol G	4.00
B	Carbopol 980	0.70
C	Hostapon KCG	0.80
	Caustic soda solution (10%)	2.80
	Water	77.30
	Preservative	q.s.
D	Fragrance	0.40

Procedure:

1. Stir B into A, then add C and stir well.
2. Stir D into 1.
3. Finally homogenize the emulsion.
Formula A VI/1752

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Phytodermin

Phytodermin contains solubilized high molecular weight constituents of the plant matrix from soybeans in natural distribution: hydroxyproline-rich glycoproteins as extensins, arabinogalactans as proteoglycan equivalents and proline-rich glycoproteins. The specific, most gentle production procedure applied in the case of Phytodermin maintains, contrary to conventional soya hydrolysates, the native character of the matrix components contained. In in vivo tests, Phytodermin has proved to be an efficient alternative to the classic animal derived matrix composition.

Regenerative Cream, Type W/O, with Phytodermin

<u>Ingredients:</u>	<u>Weight%</u>
a) Dehymuls PGPH	7.00
Lameform TGI	3.00
Beeswax	5.00
Isopropyl myristate	10.00
Myritol 318	5.00
Cetiol 868	5.00
Phenonip	0.30
OxyneX LM	0.10
b) Water, distilled	49.30
Phenonip	0.30
Karion F liquid	5.00
c) Phytodermin	10.00

Manufacture:

- Melt and bring to approx. 75C;
- Heat to approx. 75C and stir into a).
Continue stirring until cooled to approx. 30C;
- Stir in.
Perfume, roll.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH:
Suggested Formulation

O/W Basic Cream, Without Paraffin

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	35.00
Miglyol 812 (Caprylic/Capric Triglyceride)	3.00
Cetyl Alcohol	2.00
B) Preservative	q.s.
Water	60.00

This basic cream can be used to incorporate nonionic active ingredients.

Preparation:

(A) is heated to ca. 65 degrees C. (B) is heated to the same temperature and then emulsified into (A). The cream is then constantly stirred until cool.

SOURCE: Huls America Inc.: Formulation 1.1N

Protective Cream with Cromoist CM Glucan

Due to the incorporation of Cromoist CM Glucan, this cream can protect skin from environmental insult and help it to function better. Cromoist CM Glucan is a unique protective and therapeutic agent that works by stimulating the skin's own defense mechanisms, resulting in protective effects that enhance skin function and increase the skin's resistance to UVA-induced oxidative stress. Crodafos CES is a substantive phosphate-based emulsifying system that enhances the delivery of the other ingredients and improves the application properties of the cream.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.0
Corona PNL (Lanolin)	1.0
Part B:	
Deionized Water	69.8
Triethanolamine (98%)	0.2
Part C:	
Deionized Water	5.0
Hydrotriticum WAA (Wheat Amino Acids)	1.0
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.0
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	5.0
Part E:	
Deionized Water	5.0
DL Panthenol	2.0

pH=4.5+-0.5

Viscosity=20,000 cps+-10% (RVT Spindle #TC @ 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add ingredients of Part A to B with mixing and cool to 50C. Add ingredients of Part C, D and E with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-265

Rain Forest Cream

This formula produces a relatively viscous, shiny white cream and features Cronatural Cohune Oil, an emollient oil harvested out of the rain forest, and Crodafos CES. The use of Crodafos CES enhances the formulation's application properties significantly, allowing the cream to rub in effortlessly without any indication of drag. Crodafos CES confers a pleasing emollience, providing the skin with a conditioned afterfeel.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Cronatural Cohune Oil (Cohune Oil)	10.00
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.50
Part B:	
Deionized Water	79.00
Carbomer 2984	0.20
Glycerin	2.00
Na ₂ EDTA	0.05
Part C:	
TEA 99%	1.25
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

Viscosity=22,000+-10% (RVT Spindle B, 10rpm @ 25C)
pH=7.0+-0.5

Procedure:

Dissolve the Na₂EDTA of Part B in deionized water. Disperse Carbomer 2984 into water of Part B. When fully hydrated, add glycerin with mixing and heat to 70-75C. Combine ingredients of Part A with mixing and heat to 70-75C. Add Part A to Part B with mixing. Add C to A/B with mixing and cool to 40C. Add Part D with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-254

Rejuvenating AHA Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>Weight%</u>
Oil Phase:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Hydrogenated Castor Oil	0.50
Microcrystalline Wax	0.50
Caprylic/Capric Triglycerides (Tegosoft CT)	3.00
Octyl Stearate (Tegosoft OS)	5.00
Isopropyl Myristate (Tegosoft M)	4.00
Isopropyl Palmitate (Tegosoft P)	1.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Cyclomethicone	4.00
Water Phase:	
Water	70.75
NaCl	0.80
Propylene Glycol	2.00
Sodium Citrate	0.60
Malic Acid Granular	1.60
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to 80-85C to melt and disperse the waxes. When dispersed, cool and maintain a temperature of 45-50C.
2. Mix water, propylene glycol and sodium chloride together dissolving sodium chloride. Add and mix the remaining ingredients of the water phase.
3. Adjust the pH of the water phase to 4.0-4.5 if necessary.
4. With slow lightnin' mixing, slowly stream the water phase into the oil phase.
5. With sweep agitation, cool to 35C.
6. Add color, fragrance and preservatives.
7. Homogenize with a roto-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Skin Care Cream**Formulating Design and Advantages:**

This product imparts good skin feel and has a high quality appearance, though the production is cost effective. There are also barrier and moisturizing properties which are highly effective hydration system for all skin types. The formula also will help reduce transepidermal water loss.

Oil Phase:	<u>Wt%</u>
Cetyl Stearyl Alcohol 1618 (P&G)	4.50
NF White Beeswax (Koster Keunen)	2.50
Isopropyl Palmitate (Unichema)	3.00
Light Mineral Oil (Witco)	5.00
Propylene glycol Dioctanate (Inolex)	1.50
Stearic Acid (Unichema)	0.50
Coconut Oil (CocoChem)	1.25
Propyl Paraben (Sutton)	0.20

Water Phase:	
Water (Distilled)	74.25
Glycerine (UniChema)	5.50
Carboxymethyl Cellulose (CMC, Hercules)	0.30
Carbopol 940 (BFGoodrich)	0.60
Sodium Borate (Borax)	0.40
Triethanolamine (Dow)	0.30
Methyl Paraben (Sutton)	0.20

Procedure:

Add to the water phase under agitation, in order; CMC until everything is dissolved then propyl paraben while mixing. Then add Carbopol, mix till homogeneous making sure there is no agglomeration. Add the remainder of the water phase components, mix and heat to 75C. Add all the oil phase components, heat till 75C and mix. Add slowly the oil phase to the water phase under agitation maintaining a temperature of 75C. When the oil phase is added, cool and pour into container.

Adaptation of Formula and Its Influence on the Product:

By reducing the concentrations of mineral oil by 2.0%, propylene glycol dioctanate by 0.5% and the addition of 2.5% Escalol 507 (Van Dyk) the cream will take on an SPF of 6-8. The product has the same appearance, skin feel and stability as the above formula. Fragrances can also be added without affecting its texture.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Skin Cream**Formulating Design and Advantages:**

The emulsifying wax adds to the stability and richness of the cream.

Oil Phase:	<u>Wt%</u>
Emulsifying Wax NF (Koster Keunen)	12.0
Sunflower Oil (Alnoroil)	6.0
Olive Oil, Unsaponifiable (Collaborative Labs)	3.0
Isopropyl Myristate (Unichema)	2.0
Liquapar (Sutton)	1.0

Water Phase:	
Water (Deionized)	74.0
Glycerine (Unichema)	2.0

Procedure:

Mix and heat oil phase to 75C. Mix and heat water phase to 75C. Add oil phase to water phase. Cool.

Adaptation of Formula and Its Influence on the Product:

Other actives may be substituted for the olive oil.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hand Care Cream

Part A: Setacin F Spezial Paste	<u>Wt%</u> 58.0
Imwitor 960	10.0
Miglyol 840	5.0
Part B: Carboxymethyl Cellulose	0.5
Water	25.5
Part C: Lactic acid	0.3
Perfume, preservative	0.7

Mix part A, B and C each separately.

Add part B and C successively to part A whilst stirring.

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 27/14

Skin Lightening Night Cream Against Age Spots

This agreeable, rich night cream contains Melfade, which has a bleaching activity. Pentavitin provides the skin with moisture and regenerates the skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Cremophor A6	2.50
2	Cremophor A25	2.50
3	Cutina GMS	4.00
4	Lanette O	3.00
5	Stearic Acid	1.00
6	Paraffin Oil	10.00
7	Cetiol SN	5.00
8	Vaseline white	3.00
9	Abil-350	4.00
10	B) Deionized Water	51.00
11	Imidazolidinyl Urea	0.20
12	Phenonip	0.50
13	Glycerin	3.00
14	Pentavitin	5.00
15	Melfade	5.00
16	C) Fragrance: Chiara 0/238927	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.
 Heat the ingredients of water phase B) to 75C.
 Under stirring add phase B) to phase A), cool to 50C,
 homogenize and cool to 30C.
 Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 032.B/01.96

Cleansing Cream with Salicylic Acid

<u>Ingredients:</u>	<u>Weight%</u>
A. Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	18.00
Imwitor 370 (Glyceryl Stearate Citrate)	10.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Cetyl Alcohol	2.00
Salicylic Acid	0.50
B. Preservative	q.s.
Water	up to 100.00

Preparation:

Ingredients of "A" are melted to about 75 degrees C. "B" is heated to the same temperature and is emulsified into "A". Stir until cold.

SOURCE: Huls America Inc.: Formulation 1.1L

Skin Rejuvenating Cream

A synergistic combination of Veegum Plus and Rhodigel Xanthan Gum is used to thicken and stabilize this oil-in-water emulsion. Approximately 5% Glycolic Acid, an alpha-hydroxy acid, is incorporated into the formula to provide its well-known skin rejuvenating function.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum Plus, Magnesium Aluminum Silicate	0.95
Deionized Water	63.67
Rhodigel, Xanthan Gum	0.29
B: Glycerin	4.75
C: Triethanolamine, 99%	0.71
D: Cetyl Alcohol	2.85
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.28
Stearic Acid	1.43
Isopropyl Palmitate	4.28
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.28
Dimethicone (350 cs.)	1.43
E: Preservative	0.95
Glycolic Acid (67% Soln.)	7.13
Sodium Hydroxide (50% Soln.)	3.00

Procedure:

Dry blend the Veegum Plus and Rhodigel and slowly add the mixture to room temperature water while stirring with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 5 minutes. Heat Parts A+B to 50-55C and add Part C. Mix 3 minutes. Heat the water phase to 75C. Mix and heat Part D to 75-80C. Add Part D to parts A+B+C while stirring at 1800 rpm for 10 minutes. Maintain temperature at 75C. Begin cooling while stirring. At 40C, add Part E in the order shown, mixing each until uniform. Continue cooling and slow the stirrer to 900 rpm. Check the pH and adjust, if necessary, to 4.2-4.5. Package at 35-38C.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 462

Skin Therapy Creme

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Phospholipid GLA	1.50
Phospholipid SV	2.20
Glycerin	2.00
Titanium Dioxide	0.50
Germaben IIE	0.40
AMP-95	0.40
Water	80.00
Phase B:	
Cetyl Alcohol	2.00
Steareth-2	2.00
Monafax 160	1.00
Squalane	0.80
Octyl Stearate	4.00
Isopropyl Palmitate	2.40
Dow Corning Fluid 200/350 cs.	0.80

Procedure:

Add Phase B to Phase A very slowly; keep viscosity low or it will thicken beyond use.

SOURCE: Angus Chemical Co.: Product Formulary: Formulation PF-0347 suggested by Mona Industries

Cream, Type O/W, with Protectan*

	<u>% by Weight</u>
a) Cutina MD	4.00
Cutina CP	4.00
Eumulgin B1	1.00
Eumulgin B2	1.00
Cetiol B	5.00
Phenonip	0.30
b) Water, distilled	70.40
Phenonip	0.30
Carbopol 940	0.50
Triethanolamine	0.50
Glycerin	3.00
c) Protectan	10.00

Manufacture:

Melt a) and bring to approx. 70C. Bring b) to approx. 70C and stir into a). Continue stirring until cooled to approx. 30C.

Add c) with stirring. Perfume, homogenize.

*Protectan is a Lactococcus lactis lysate. High antioxidative potential.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formula

Ultra Skin Treatment Cream

Veegum Ultra is an ideal candidate for thickening and stabilizing this acidic oil-in-water emulsion because it yields a low pH when dispersed in water. When used in combination with Rhodigel Xanthan Gum, synergistic thickening and stabilization is achieved. Approximately 5% Glycolic Acid is added to provide its well-known skin rejuvenating function.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum Ultra, Magnesium Aluminum Silicate	1.43
Deionized Water	63.51
Rhodigel, Xanthan Gum	0.29
B: Glycerin	4.76
C: Triethanolamine, 99%	0.71
D: Cetyl Alcohol	2.85
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.28
Stearic Acid	1.43
Isopropyl Palmitate	4.28
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.28
Dimethicone (350 cs.)	1.43
E: Preservative	0.95
Glycolic Acid (67% Soln.)	7.14
Sodium Hydroxide (50% Soln.)	2.66

Procedure:

Dry blend the Veegum Ultra and Rhodigel. Slowly add the mixture to room temperature water while stirring with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 5 minutes. Heat Parts A+B to 50-55C and add Part C. Mix 3 minutes. Heat the water phase to 75C. Mix and heat the Part D ingredients to 75-80C. Add Part D to Parts A+B+C. Stir at 1800 rpm for 10 minutes. Maintain temperature at 75C. Begin cooling while stirring. At 40C, add the Part E ingredients in the order shown, mixing each until uniform. Continue cooling and slow the mixer to 900 rpm. Check the pH and adjust, if necessary, to 3.5-4.0. Package at 35-38C.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 463

W/O Basic Cream for Dry Skin, with Evening Primrose Oil

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	4.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Dynacerin 660 (Oleyl Erucate)	6.00
Softisan Gel (Bis-Diglyceryl Polyacyladipate-2 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	3.00
White Beeswax	2.00
Lunacera M (Microcrystalline Wax)	2.00
Mineral Oil	6.00
Evening Primrose Oil	5.00
B) Preservative	q.s.
Water	65.00
Perfume Oil	q.s.

Preparation:

(A) heated up to ca. degrees C. until homogeneous. (B) is heated to the same temperature and emulsified into (A). The perfume oil can be added below 30 degrees C. The emulsion must be stirred until cool.

Formulation 1.2L

Peeling Cream

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	10.00
Imwitor 900 (Glyceryl Stearate)	10.00
Miglyol 812 (Caprylic/Capric Triglyceride)	15.00
Miglyol 840 (Propylene Glycol Dicaprylate/ Dicaprate)	3.00
Dynacerin 660 (Oleyl Erucate)	2.00
Marlipal 1618/25 (Ceteareth-25)	1.80
Cremophor A6 (Ceteareth-6 (and) Stearyl Alcohol)	1.20
B) Ampholyt JB 130/K (Cocamidopropyl Betaine)	5.00
Allantoin	0.20
Preservative	q.s.
Water	up to 100.00
C) Fragrance	q.s.
Almond Meal (or 1.5% Sea Sand)	3.00

Preparation:

(A) is melted at about 75 degrees C. (B) is brought to the same temperature and emulsified into (A). Almond Meal or Sea Sand and fragrance is added at about 35 degrees C.

Formulation 1.1S

SOURCE: Huls America Inc.: Suggested Formulations

W/O Cream with Almond Oil and Shea Butter

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacryladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	10.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	10.00
Dynacerin 660 (Oleyl Erucate)	2.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Almond Oil	2.00
Shea Butter	2.00
Oxydex 2004 (BHT (and) Glyceryl Stearate (and) Glyceryl Oleate (and) Ascorbyl Palmitate (and) Citric Acid (and) Propylene Glycol)	0.02
B) Magnesium Sulfate	2.00
Nipagin M (Methyl Paraben)	0.15
Nipasol M (Propyl Paraben)	0.05
Phenoxyethanol	0.50
Deionized Water	66.28

Preparation:

(A) is heated to 75-80 degrees C. (B) is brought to the same temperature and emulsified into (A). Cool while stirring to the desired temperature.

Formulation No. 1.2M

Soft W/O Cream with Softisan 649

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Softisan 649 (Bis-Diglyceryl Polyacryladipate-2)	3.00
Alugel DF 30 (Aluminum Stearate)	0.75
Mineral Oil	10.00
Petrolatum	10.00
B) Preservative	q.s.
Water	up to 100.00
Fragrance Bellefresh	0.30

Preparation:

(A) is mixed homogeneously and brought to 80 degrees C. (B) is brought to the same temperature and emulsified into (A). Perfume is added at about 35 degrees C.

Formulation 1.2N

SOURCE: Huls America Inc.: Suggested Formulations

W/O-Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin WOL	6.00
	Lunacera M	2.50
	Mineral oil, low viscosity	5.00
	Isopropyl palmitate	4.00
	Isopropyl isostearate	4.00
	Squalane	5.00
	Panthenol	0.50
B	1,2-Propylene glycol	4.00
	Magnesium sulfate	0.70
	Citric acid (10%)	0.10
	Hoechst Potassium Sorbate	0.15
	Hoechst Sorbic Acid	0.08
	Water	67.57
C	Fragrance	0.40

Procedure:

- 1 Melt A at ca. 80C.
- 2 Heat B to ca. 80C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add C to 3.
Formula A VI/2754

Chamomile Glycerin Cream

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin CG	10.00
	Mineral oil, high viscosity	8.00
	Cetiol SN	4.00
	Isopropyl isostearate	4.00
B	Carbopol 980	0.30
C	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Caustic soda solution (10%)	1.20
	Extrapon chamomile special	0.50
	Glycerin	10.00
	Water	61.25
	Preservative	q.s.
D	Fragrance	0.40

Procedure:

- 1 Melt A at ca. 70C then add B.
- 2 Heat C to ca. 70C.
- 3 Stir 2 into 1
- 4 Stir until cool.
- 5 At 35C add D to 4.
- 6 Homogenize if necessary.
Formula A VI/6506

Section VI

Hair Care Products

Acudyne 255 55% VOC DME Aerosol Hair Spray

Fast-drying, extremely low-tack and excellent curl retention formula.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	31.84
Ethanol	25.00
AMP-95	0.56
DC-190 Fluid	0.10
B. Acudyne 255 (41%)	12.50
C. Dymel A	30.00

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is slightly turbid but active ingredients are dispersed. Add phase C. The mixture will immediately turn clear.

Physical Characteristics:

Cloud point: <-22F

Vapor Pressure: 33 psig at 70F

87 psig at 130F

Formulation PF-0371 suggested by Rohm & Haas (PF-050)

Non-Aerosol Hair Spray, Low VOC

<u>Ingredients:</u>	<u>% by Weight</u>
A. Alcohol, denatured	74.00
Gantrez ES-225	9.20
B. AMP-95	0.40
Permethyl 101A	5.15
Permethyl 102A	10.00
Vigilan AWS	1.00
C. Fragrance	0.25

Procedure:

Mix A until clear and uniform. Slowly add B in order shown. Mix until clear solution develops. Add C as desired.

Formulation PF-0372 suggested by Presperse

SOURCE: Angus Chemical Co.: Product Formulary

Acudyne 255 55% VOC Extra Hold Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	27.14
Ethanol	55.00
AMP-95	0.76
DC 190 Fluid	0.10
B. Acudyne 255 (41%)	17.00

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is clear.

Physical Characteristics:

Cloud point: -18F

Viscosity (#1 @ 60 rpm): 10.0 cps

Formulation PF-0390 suggested by Rohm & Haas Co. (PF-056)

Acudyne 255 0% VOC Pump Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
Water	88.78
AQ-55	3.20
AMP-95	0.42
Citroflex-2	0.10
Acudyne 255 (41%)	7.50
Preservative	q.s.

Procedure:

Heat 40 parts water to 90C. Add phase B with stirring. Add 48.8 parts ambient temperature water and allow to cool to approximately room temperature. Add remainder of ingredients in order.

Physical Characteristics:

Cloud point: -10C

Viscosity: 4.0 cps

Formulation PF-0391 suggested by Rohm & Haas Co. (PF-058)

SOURCE: Angus Chemical Co.: Product Formulary

Aerosol Styling Spray

Formulated to give a very quick drying spray which gives a firm but natural hold. The fast drying feature allows instant setting of curls. The spray also affords easy comb-out and washability.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Versatyl-42	4.50
Aminomethyl Propanol	1.08
Purcellin Oil 2/066210	0.10
Dow Corning 190 Surfactant	0.10
Monamid 716	0.10
Fragrance	0.10
Ethanol, SDA-40	49.02
Propellant A-46	45.00

Preparation:

Charge mixing vessel with SDA-40. While mixing, add amino-methyl propanol. Sift Versatyl-42 into solution with continued mixing. When solution is complete, add remaining ingredients. Filter solution and fill aerosol containers. Charge propellant.

Can: Continental

Valve: Precision, 0.018" stem (#04-1220), Buna gasket (#05-0310, SS spring (#06-6010), 0.018" body x 0.013" V.T. (#07-0131), #12-7100 cup, #09-2010 dip tube, #01-1836 actuator.

Formulation No. 6186-101

Aqueous Conditioning and Styling Mousse

This conditioning mousse provides improved gloss and manageability allowing for easier styling.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	1.00
Deionized Water	81.90
B) Crotein SPO	0.20
Crotein Q	0.20
Ethoquad 0/12	1.00
DC-190	0.20
Sodium Chloride	0.50
Preservative	q.s.
Fragrance	q.s.
C) Propellant A-46	15.00
Valve Specifications:	Precision Foam Valve
	Stem: 2 x 0.020"
	Body: Inverted with Tailpiece
	Actuator: Mars Inverted Spout

Preparation:

Prepare solution of (A). Add (B). When homogenous, filter and fill concentrate. Charge (C).

Formulation No. 4497-113

SOURCE: National Starch and Chemical Co.; Suggested Formulations

Alcohol-Free Aerosol Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl 47	5.00
AMP-95	1.01
Burst, RSD-10	0.50
Deionized Water	60.49
Dimethyl ether	33.00
Preservative	q.s.
Cloud Point: -15C	

Procedure:

Disperse Burst in water. Dissolve AMP-95 in the solution. When complete, slowly sift in Lovocryl 47 while maintaining good agitation. Mix until homogeneous. Filter and fill. Charge with propellant.

Valve: Seaquist Valve NS-34
 Stem: 0.013"
 Gasket: Butyl, 0.042" Tnk. Code: 501
 Spring: 0.020" SS
 Body: Capillary
 Cup: Regular, Epoxy Top, Laminate Bottom,
 Dimpled, Code: 1610
 Vapor Tap: 0.013"
 Dip Tube: 0.040"
 Actuator: Excel-200 Misty 0.016" Misty
 Formulation PF-0351 suggested by National Starch & Chemical Corp. (7502:95B)

Hair Spritz

<u>Ingredients:</u>	<u>% by Weight</u>
Crovol M40	0.50
AMP-95	0.16
Ethanol DEB100	to 100.00
Gantrez ES425	8.00
Escalol 507	1.00
Deionized water	11.36
d-Panthenol	0.10
Perfume	q.s.
Preservatives	q.s.
Color	q.s.

Procedure:

Dissolve AMP in the alcohol. Add Gantrez ES resin with mixing. Mix in the Escalol and then add the Crovol. Pre-mix the water and panthenol, and then add the alcohol. Mix until clear.

Formulation PF-0359E suggested by Croda, UK

SOURCE: Angus Chemical Co.: Product Formulary

Alcohol-Free Firm Holding Mousse

This alcohol-free, firm holding mousse gives very good wet/dry combability, excellent hold, and also conditions the hair.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	2.63
Lovocryl-47	1.13
AMP-95	0.64
Triton X-100	0.20
DC-929 Silicone	0.60
Propylene Glycol	0.10
Panthenol	0.20
Varion CADG-LS	0.20
Dowicil 200	0.10
Deionized Water	46.90
B. Natrosol 250 HHX	0.30
Deionized Water	37.00
C. Propellant A-46	10.00

Procedure:

Prepare portions (A) and (B). When solutions are complete, add (A) to (B) and mix until homogeneous. Filter and fill concentrate. Emplace Valve. Charge propellant (C).

Formulation PF-0354 suggested by National Starch & Chemical Corp. (8384-49-4)

Alcohol-Free Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Lovocryl 47	2.50
AMP-95	0.51
DC-929 Silicone	0.40
Triton X-100	0.30
Varion CADG-LS	0.10
Fragrance	q.s.
Dowicil 200	0.10
Deionized water	48.79
B. Natrosol 250 HHR	0.30
Deionized water	37.00
C. Propellant A-46	10.00

Procedure:

Prepare portions (A) and (B) separately. When solutions are complete, add (A) to (B) and mix until homogeneous. Filter and fill concentrate. Charge with propellant (C).

Formulation PF-0355 suggested by National Starch and Chemical Corp. (7502:105A)

SOURCE: Angus Chemical Corp.; Product Formulary

Alcohol-Free Non-Aerosol Spritz

This low VOC formulation provides sprayability, firm hold, and good humidity resistance.

<u>Ingredients:</u>	<u>% by Weight</u>
Emulsion 25-3800 (50% active)	14.00
AMP-95	1.00
Monawet MO-75E	0.30
Deionized water	84.70

Procedure:

Combine water, MO-75E and AMP. Next, add polymer emulsion with stirring until completely dissolved. Filter and fill concentrate.

Valving and Actuator:

Pump Type:	EuroMist, 190 mcl
Liner:	PE/Butyl
Closure:	24-410, White
Spring:	302 SS, 1 lb 0 oz.
Body:	190 mcl output
Dip Tube:	7", 0.060" ID
Insert:	.010" x .010" deep
Seal Valve:	Standard
Hood:	SBS, Clear
Turret:	24 mm

Formulation PF-0402 suggested by National Starch & Chemical Co. (8757-120-2)

Super Hold Pump Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	84.21
Deionized water	8.12
AMP-95	1.47
Dow Corning Q2-5220 Polyether	0.10
Fragrance (Peach Floral 92F/3235)	0.10
B. Luvimer 100 P	6.00

Procedure:

Combine phase A ingredients in order listed, mixing after each addition.

Sprinkle B into A with mixing until clear.

Formulation PF-0398 suggested by BASF (DKL84/3)

SOURCE: Angus Chemical Co.: Product Formulary

Alcohol-Free Ringing Gel with Hold

<u>Ingredients:</u>	<u>Parts by Weight</u>
Part A:	
Deionized Water	57.59
Propylene Glycol	12.00
AMP-Regular	0.41
Amphomer	3.00
Part B:	
Lt. Mineral Oil	10.00
Volpo 5	9.00
Crodafos N10 Neutral	4.00
Crodafos N3 Neutral	3.00
Part C:	
Germaben II	1.00

Preparation:

Part A: Combine the water, AMP, and propylene glycol. While maintaining good agitation, slowly sift in Amphomer. Slowly heat Part A to 70C.

Part B: Combine ingredients of Part B and heat to 80C. Add Part B to Part A with mixing and start to cool. Add Part C when the temperature drops to approximately 55C.

Continue mixing for five minutes or until homogeneous. Cool to room temperature.

Formula No. 8802:76B

Cream Hair Conditioner

This cream hair conditioner has excellent wet combability, adds body to the hair, and has good hold.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	1.00
Triethanolamine	0.50
Propylene Glycol	2.25
Distilled Water	76.25
Preservative	q.s.
B) Acetulan	0.50
Amerchol L-101	2.50
Stearic Acid XXX	1.25
Emerest 2407	1.00
Mineral Oil	14.75
Fragrance	q.s.

Preparation:

Heat A and B separately to 80C. While mixing, add B to A. Continue mixing while cooling to 25-30C. Add C. Adjust pH to 7.5 if necessary. Mix until uniform.

Formula No. 3474-28

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Alcohol-Free Styling Mousse

This alcohol-free styling mousse has good wet/dry combability, good subjective properties and excellent hold.

<u>Ingredients:</u>	<u>% by Weight</u>
A. Lovocryl 47	3.00
AMP-95	0.63
DC-929 Silicone	0.30
Triton X-100	0.30
dl-Panthenol	0.10
Neo Heliopan Hydro	0.10
Croteen Q	0.20
Dowicil 200	0.10
Deionized water	40.01
B. Natrosol 250 HHR	0.40
Deionized water	44.86
C. Propellant A-46	10.00

Procedure:

Prepare part A by dissolving AMP-95 in water. While maintaining good agitation, slowly sift in the Lovocryl-47. When solution is complete, add the remaining ingredients. Prepare part B. When solutions are complete, add A to B and mix until homogeneous. Filter and fill concentrate. Charge cans with propellant C.

Formulation PF-0356 suggested by National Starch & Chemical Corp. (7879:H101)

Alcohol-Free Styling Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	3.00
AMP-95	0.52
DC-929 Silicone	0.40
Triton X-100	0.30
Varion CADG	0.10
Fragrance	q.s.
Dowicil 200	0.10
Deionized water	48.08
DC-190	0.40
B. Natrosol 250 HHR	0.30
Deionized water	36.80
C. Propellant A-46	10.00

Procedure:

Prepare portions A and B. When solutions are complete, add A to B and mix until homogeneous. Filter and fill concentrate. Charge propellant C.

Formulation PF-0357 suggested by National Starch & Chemical Corp. (7974:32-3)

SOURCE: Angus Chemical Corp.: Product Formulary

Brush-On Hair Color

This formulation provides dramatic streaks and highlights yet rinses out easily.

	<u>Wt%</u>
A: Veegum, Magnesium Aluminum Silicate (5% Aq. Soln.)	10.00
B: Hydroxypropylcellulose (5% Aq. Soln.) (Klucel G)	15.00
C: Deionized Water	24.00
PVP (Luviskol K30)	2.00
Methylparaben	0.20
D: Cetyl Alcohol	3.60
Cetareth-25 (Cremophor A25)	2.40
Propylparaben	0.10
E: Deionized Water	17.34
Propylene Glycol	5.00
F: Mica (and) Iron Oxides (Colorona Copper)	20.00
G: DMDM Hydantoin (Glydant)	0.36

Procedure:

Prepare A and B in advance. Combine C and heat to 75C with stirring. Combine D. Heat to 75C stirring until clear. Add D to C with counter rotation agitation. Cool to 40C. Separately, add B to A followed by E, stirring until homogeneous. Add combined A,B,E to C+D. Homogenize at high speed for 5 minutes with a Silverson-type homogenizer. Add F and G, stirring with counter rotation agitation. Cool to 30C. Package in mascara vials with brush applicator.

Formula from Rona

Creme-in Hair Cleanser

	<u>Wt%</u>
Ammonium Lauryl Sulfate (Carsonol ALS)	15.00
Cocoamidopropyl Betaine	10.00
Lauramide DEA (Carsamide SAL-7)	2.00
PPG-5-Ceteth 10 Phosphate (Crodafos SG)	2.00
Stearyl Alcohol (and) Cetareth 20 (Cosmowax K)	2.50
Sucrose Cocoate (Crodesta SL-40)	12.00
Steartrimonium Hydroxyethyl Hydrolyzed Collagen (Crotein Q)	3.00
Veegum K, Magnesium Aluminum Silicate	0.45
Water	53.05
Dye, fragrance	q.s.

Procedure:

Disperse the Veegum K in half the water and heat to 85C until a uniform slurry is achieved. Dissolve the Crodesta in the rest of the water, then dissolve the Crotein Q. Heat other ingredients to 60C with stirring. Cool to 40C, add fragrance and fill off.

Formula from Croda

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

California Dream Hairspray - 55% VOC - 5% Solids

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Deionized Water	27.83
SD Alcohol 40, 190 proof	15.80
D-Panthenol	0.20
Cremophor A 25	0.25
Dow Corning 193 Polyether	0.50
AMP-95	1.22
Luvimer Low VOC	14.00
Phase B:	
Fragrance (Vibrant Spash 94F/2203)	0.20
Phase C:	
Dymel A	40.00

Procedure:

Combine Phase A ingredients in the written order.

Add B to A and mix well.

Fill into appropriate containers with propellant.

Packaging:

White Coated Aluminum Can (Peerless Tube Corp.)

Aquasol Valve & Concave Kosmos Actuator (Precision Valve Corp)

Overcap (Berry Plastics)

Formulation PF-0349 suggested by BASF Corp. (SG1096/4)

Non-Alcohol Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Amphomer	5.00
AMP-95	0.89
Deionized Water	61.66
Sodium Benzoate	0.10
Ammonium hydroxide	0.05
Fragrance	q.s.
Glycerine	0.10
DC-190 Silicone	0.20
Dimethyl Ether	32.00

Procedure:

Dissolve AMP-95, Sodium Benzoate and Ammonium Hydroxide in the water. Slowly add Amphomer to the solution while maintaining good agitation. When solution is complete, add remaining ingredients until homogeneous. Filter and fill concentrate. Add propellant.

Formulation PF-0350 suggested by National Starch & Chemical Corp. (6472:93)

SOURCE: Angus Chemical Co.: Product Formulary

Clear Hair Rinse Formulation

Natrosol viscosifies this crystal-clear hair rinse, which promotes manageability. Control formulas made without Natrosol have viscosities of less than 100 cps.

<u>Ingredients:</u>	<u>Weight%</u>
Natrosol 250HHR CS	1.0
Water	73.5
Cocamidopropylamine oxide (30%)	5.1
Lauramine oxide (30%)	10.2
Cetrimonium chloride (25%)	10.2
Perfume, preservative	q.s. to 100.0

Procedure:

1. Disperse Natrosol in water with good agitation. Mix until fully dissolved.
2. Add the remaining ingredients in the order listed, mixing well between additions.
(Brookfield viscosity at 30 rpm, 25C=3,360 cps [mPas])

Pearlescent Cream Rinse Formulation

Natrosol viscosifies this product and prevents phase separation.

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Natrosol 250HHR CS	1.3
Water	82.3
Phase B:	
Stearalkonium chloride (25%)	10.1
Propylene glycol	1.5
Glycol stearate	1.5
Oleth-20	1.5
Polyquaternium-17 (62%)	1.8
Perfume, preservative	q.s. to 100.0

Procedure:

1. Disperse Natrosol in water with good agitation. Mix until fully dissolved.
2. In a separate vessel, mix the stearalkonium chloride and propylene glycol. Heat to 80C.
3. Add the other ingredients listed in Phase B, in the order listed, to the mixture of stearalkonium chloride and propylene glycol. Mix well between each addition.
4. Add the surfactant mixture to the Natrosol solution. Mix well. Cool to 35C.
5. Add perfume and preservative.
(Brookfield viscosity at 30 rpm, 25C = 8,600 cps [mPas])

SOURCE: Aqualon Division: Hair Conditioning Products with
Natrosol Hydroxyethylcellulose

Concentrated Hair Repair
with UV Protection

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Dimethicone (50-60,000 cs)	15.00
Isohexadecane	29.65
Cyclomethicone	15.00
Cyclomethicone and Dimethiconol and Dimethicone (Abil OSW 12)	25.00
Dimethicone/Sodium PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
Phenyl Trimethicone (Abil AV 20)	5.00
Octyl Methoxycinnamate	1.00
Propylparaben	0.10
Phase B:	
Quaternium-80 (Abil Quat 3474)	0.75
Ethanol Denatured	4.00
Methyl Gluceth-20	3.50

Procedure:

1. Combine ingredients of Phase A together in order shown. Mix until fully dispersed.
2. Combine ingredients of Phase B together. Mix well.
3. Add B to A. Mix well. Avoid air entrapment.

Iridescent Hair Gel Concentrate

<u>Ingredients:</u>	<u>Weight%</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	27.27
Phenyl Trimethicone (Abil AV-20)	4.55
Propylene Glycol	40.93
Hexylene Glycol	4.55
Water	20.45
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	2.25

Procedure:

Add the ingredients in order, mixing well between additions. When all ingredients are combined, continue mixing until clear and iridescent.

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

Conditioner for Dry Brittle Hair

Phase:	Ingredient:	Wt%
A	Deionized Water	88.20
A	Guar Hyd. Propyl Trimonium Chloride	0.80
A	Quaternium-76 Hydrolyzed Animal Prot.	6.00
B	Glycol Stearate	2.00
B	Cetyl Alcohol	0.50
B	Myrj 52S (PEG-40 Stearate)	1.50
B	Oils of Aloha Kukui Nut Oil	1.00
C	Preservative	QS

Manufacturing Procedure:

Phase A: Disperse Guar in water while heating to 65C.

Phase B: Combine fatty components and add to water phase. Cool to 40C.

Phase C: Add remaining ingredients.

pH: 5.0

The primary conditioners are Guar hydroxy propyl trimonium chloride and the Quaternium-76 Hydrolyzed Animal Protein. Emulsifier is the Myrj 52S. Kukui Nut Oil (Macadamia Nut could be used) provides a glossing agent for dry hair and replaces the natural oils lost in shampooing.

SOURCE: Oils of Aloha: Suggested Formulation

Hair Styling Gel

<u>A:</u>		<u>Wt%</u>
	Deionized Water	85.95
	Carbomer 940	1.00
<u>B:</u>		
	Deionized Water	3.00
	Triethanolamine (99%)	1.00
<u>C:</u>		
	Vinylcaprolactam/PVP/Dimethylaminoethylmethacrylate Copolymer	7.50
<u>D:</u>		
	Silicone Quaternium-5 (Pecosil SMQ-40)	1.50
<u>E:</u>		
	Methylchloroisothiazolinone (and) Methylisothiazolinone	0.05

Procedure:

Disperse Carbomer in Phase A water. When a uniform dispersion is obtained, add Phase B to Phase A. Slowly sweep in Phase C, Phase D and Phase E until a uniform gel is obtained.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Conditioning Perm

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Crodacol C-95	2.00
Crodafos N10N	1.50
Volpo S-2	0.50
Carnation Mineral Oil (Witco)	13.00
White Protopet 1S Petrolatum (Witco)	11.50
Stearic Acid XXX	8.00
Water Phase:	
Volpo S-10	2.50
Croquat M	1.00
Propylene Glycol U.S.P.	2.00
Hampol OL Crystals (Lowenstein)	0.75
Germaben II	1.00
Water, Deionized	42.62
Ammonium Thioglycolate (60%)	9.00
Ammonium Hydroxide (29%)	4.63

Procedure:

Heat oil phase to 80C; heat water phase to 80-85C. Add water to oils under good agitation. Adjust ammonium thioglycolate with ammonium hydroxide, cool emulsion to 45C then add to ammonium thioglycolate solution. Fill off.

Scalp and Hair Conditioner

<u>Formula:</u>	<u>% by Weight</u>
Emerest 1723	20.5
Emerest 2316	14.5
White Protopet 1S Petrolatum (Witco)	47.0
Emsorb 2500	6.5
Emerwax 1266	10.5
Emerest 2486	1.0
Fragrance	q.s.

Procedure:

Combine all ingredients and heat to 85-90C with agitation. Cool to 65C with moderate agitation. Perfume and package.

SOURCE: Witco Corp.: Suggested Formulations

Conditioning Styling Mousse

This mousse has excellent conditioning properties and superior wet combing with a natural feel.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat L-200	1.00
PEG-36 Castor Oil	0.10
Collamino Complex 40	0.10
Arquad T-50	0.10
Preservative	q.s.
Fragrance	q.s.
Anhydrous Ethanol, SDA-40	15.00
Distilled Water	73.70
Propellant A-46	10.00

Procedure:

Slowly sift Celquat L-200 into distilled water while mixing. When solution is complete, add remaining ingredients in concentrate. Mix until homogeneous. Filter and fill.

Instructions for Use:

Shampoo, rinse, and towel dry hair. Shake can well, invert and press button to dispense egg-sized amount of foam into palm of hand. Adjust amount depending on hair length and amount of control desired. Massage evenly through hair. Do not rinse. Style hair as desired.

Formulation No. 5231-32

Thermal Mousse

This alcohol-free conditioning mousse has superior wet combing, adds body to hair, and has good fixative properties.

<u>Ingredients:</u>	<u>Parts by Weight</u>
A) Celquat L-200	3.00
DC 929 Silicone	0.30
Triton X-100	0.30
d1 Panthenol	0.10
Crotein Q	0.20
Germaben II	1.00
Deionized Water	85.10
B) Propellant A-46	10.00

Preparation:

Dissolve the Celquat L-200 in deionized water. When solution is complete, add the remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge cans with propellant Formulation No. 7879:H102B

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Cream Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	85.45
Sodium Chloride	0.30
Stearamidopropyl Dimethylamine (Tego Amid S 18)	1.50
Citric Acid Monohydrate	0.60
Methyl Paraben	0.20
Mineral Oil	1.25
Cyclomethicone	3.50
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Cetyl Alcohol	0.50
Cetyl Dimethicone (Abil Wax 9801)	0.35
Phase B:	
Propylene Glycol	1.00
Quaternium-80 (Abil Quat 3270)	0.25
Dimethicone Copolyol (Abil B 8852)	0.50
Phase C:	
Propyl Paraben	0.10
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Heat the water to 70-80C.
2. Add ingredients of Phase A in descending order. Mix.
3. Begin ambient cooling of batch. Add pre-mixed materials of Phase B to reactor. Homogenize.
4. Add material of Phase C at 40C with sweep mixer. Dispense at 35C.

Conditioning Rinse
(Cold Process)

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Quaternium-80 (Abil Quat 3272)	0.4
Cocamidopropyl Betaine (Tego Betaine F)	2.5
Fragrance	Q.S.
Water	40.9
Glycerin	1.5
Phase B:	
Water	50.0
Hydroxyethyl Cellulose	1.5
Guar Hydroxypropyltrimonium Chloride	0.2
Preservatives	Q.S.
Phase C:	
Citric Acid	to pH 4.0

Procedure:

1. Mix the ingredients of Phase A. 2. Add the water of Phase B to a tank. Add preservatives. Mix until clear. Disperse Hydroxyethyl Cellulose and Guar Hydroxypropyltrimonium Chloride. Mix until fully dispersed and viscosity increases.
3. Add Phase B to Phase A. Mix.
4. Adjust pH to 4.0 with Citric Acid.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Cream Curl Activator

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	80.43
Hydroxypropyl Methylcellulose	0.20
Triethanolamine	0.02
Panthenol	1.00
Hydrolyzed Silk Protein	1.00
Quaternium-15	0.30
B:	
Macol CPS	6.00
Solulan 16	1.00
Blandol Mineral Oil (Witco)	2.00
Masil 656 Fluid	3.00
Masil SF-V Fluid	3.00
Masil 280	2.00
C:	
Citric Acid 50%	0.05
Fragrance	q.s.

Procedure:

Disperse hydroxypropyl methylcellulose in the water, add TEA to initiate hydration. After 20 mins. add remaining A ingredients, heat to 55C and stir. Separately blend B and heat to 55C. Add B to A, maintain agitation while cooling to 40C. Adjust pH and add fragrance.

Hair Pomade

<u>Formula:</u>	<u>% by Weight</u>
White Protopet 1S (Witco)	28.0
Blandol Mineral Oil (Witco)	30.0
Ohlan Hydroxylated Lanolin	27.0
Kessco PEG 400 Dilaurate	8.0
Paraffin Wax	6.0
Isopropyl Myristate	1.0
Perfume and Color	q.s.

Procedure:

Combine all ingredients, heat to 80C with stirring until uniform and clear. Cool with stirring to 40C.

SOURCE: Witco Corp.: Suggested Formulations

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, together with a cationic conditioner, Incroquat BES-35S. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. The increased sheen, silkier, softer feel, and improved texture the hair acquires is the result of the quick delivery of the Crodamol esters, Super Refined Wheat Germ Oil and Incroquat BES-35S by Crodafos CES. Because Crodafos CES also improves its application properties, the product rinses out extremely easily without incidence of drag or a waxy deposit.

Ingredients:

	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Incroquat BES-35S (Behenamidopropylethyldimonium Etho-sulfate (and) Stearyl Alcohol)	1.5
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0
Part B:	
Deionized Water	83.65
TEA 99%	0.35
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

pH=5.5+-0.5

Viscosity=16,000cps+-10%, (Spindle TD @ 10RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.; Formulation HP-180

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, together with a cationic conditioner, Incroquat CTC-30. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. The increased sheen, silkier, softer feel, and improved texture the hair acquires is the result of the quick delivery of the Crodamol esters, Super Refined Wheat Germ Oil and Incroquat CTC-30 by Crodafos CES. Because Crodafos CES also improves its application properties, the product rinses out extremely easily without incidence of drag or a waxy deposit.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0
Part B:	
Deionized Water	83.65
Incroquat CTC-30 (Cetrimonium Chloride)	1.5
TEA 99%	0.35
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

pH=5.5+-0.5

Viscosity=18,500cps+-10% (Spindle TD @ 10 RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 50C. Add Part C while mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-181

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, a conditioning and emulsifying system from Croda, together with a cationic conditioner, Incroquat CTC-30. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. Increased sheen, silkier, softer feel, and improved texture. The product rinses out extremely easily without incidence of drag or a waxy deposit.

Ingredients:Weight%**Part A:**

Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil (Wheat Germ Oil)	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0

Part B:

Deionized Water	83.65
Incroquat CTC-30 (Cetrimonium Chloride)	1.50
TEA 99%	0.35

Part C:

Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
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pH=5.5+-0.5

Viscosity=18,500cps+-10% (Spindle TD @ 10 RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 50C. Add Part C while mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-181

Creme Rinse Conditioner for Color-Treated and Permed Hair
(Formula 89-1202)

This specially formulated conditioner gently conditions the hair only where it is needed and helps protect and restore damaged, or chemically treated hair.

	<u>% by Weight</u>
Water	91.5
Miracare CT-100	3.5
Cetyl Alcohol, N.F.	1.5
DL-Panthenol (Roche)	0.5
Hydrolyzed Animal Protein (Hormel Peptin 2000)	3.0
Citric Acid	Q.S. to pH 4-4.5

Blending Procedure:

1. Heat water to 75C.
2. With smooth agitation, slowly blend ingredients in the order listed.
3. Adjust pH of system to 4.0-4.5 with citric acid, as needed.
4. Cool to 40-45C and add compatible fragrance, dye(s) and preservative.

Typical Formulation Properties:

Appearance @ 25C: Viscous, opaque liquid
 pH: 8.5-10.0
 % Non Volatiles: 4.0-4.5

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Jojoba Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
(A): Water D.I.	80.0
Celquest H-100	0.5
(B): Polawax A-31	1.5
Jojoba Oil	1.0
PVP (K-30)	1.5
(C): SDA-40B (Reg)	15.2
Glydant	0.2
Perfume	0.1

Manufacturing Directions:

- (1) Stir A till clear solution.
 - (2) Add B and heat and stir till dissolved.
 - (3) Cool and add C pH-4
- Aerosol Fill:** 85% of above concentrate/15% of A-46 Propellent

Suppliers:

Cans - Lined Peerless Mousse containers

Valves - Precision Value Mousse valves and spouts

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation

Detangling Creme Rinse

N-Hance 3000 cationic guar provides wet and dry combability to this flowable, opaque, after-shampoo rinse for hair detangling and conditioning. This product will also increase hair softness and reduce fly-away. The cyclomethicone contributes gloss and adds protection against damage from heat styling. With N-Hance, the viscosity is 2,000 cps and the pH=5.2. Without N-Hance, the formulation is water-thin and experiences phase separation.

<u>Ingredient:</u>	<u>Wt%</u>
Aqueous Phase:	
Distilled water	q.s. to 100.00
N-Hance 3000 cationic guar	1.00
Cetrimonium chloride (25% active)	4.00
Citric acid (50% solution)	0.35
Oil Phase:	
Cetyl alcohol	1.50
Cyclomethicone	1.50
Stearamidopropyl dimethylamine	0.70
Glyceryl stearate	0.60
Polysorbate 80	0.40
Propylene glycol (and) diazolidinyl urea (and) methylparaben (and) propylparaben	0.75

Procedure:

1. Disperse N-Hance 3000 cationic guar by adding it to the vortex of well-agitated water. Add the citric acid solution, which promotes hydration of the N-Hance and neutralizes the stearamidopropyl dimethylamine. As elevated temperature is needed to form the emulsion, start heating to 65C. Mix until the polymer is fully dissolved.
2. Add the cetrimonium chloride and mix well.
3. In a separate vessel, combine the oil-phase ingredients. Heat to 65C.
4. Add the aqueous-phase ingredients to the oil-phase ingredients with good agitation. Turn off heat but continue mixing.
5. When at 40C or below, add preservatives and fragrance.

SOURCE: Aqualon Division: N-Hance 3000 Cationic Guar: Formulation

Easy Spreading Mousse

This mousse contains Dow Corning 193 surfactant to plasticize the Gantrez resin and to enhance the spreadability of the resin on the hair. Dow Corning 193 surfactant also assists in foam building and foam stability.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 193	0.50
Gantrez ES-225	5.00
AMP-95	0.20
Water	74.30
SD Alcohol 40	10.00
Propellant A-46	10.00

Procedure:

Add the AMP-95 to the ethanol. Stir in the Gantrez. Add Dow Corning 193 surfactant to the water. Stir the water mixture into the ethanol mixture. Add fragrance and preservative, if desired.

Aerosol Filling:

Load the concentrate (90% by weight) and fill with A-46 hydrocarbon propellant (10% by weight).

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0364 suggested by Dow Corning Corp. (E2-5284)

Gantrez Hair Spray with Cyclomethicone

This hair spray contains silicone cyclics, which plasticize the resin. The cyclics give improved curl retention when compared with the same formulation without cyclics. This formulation shows how silicone cyclics can be used in Gantrez-based hair sprays.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 345 Fluid	1.00
Gantrez ES-425	7.60
AMP-Regular	0.16
SD Alcohol 40	71.24
Propellant A-46	20.00

Procedure:

Weigh out the alcohol and dissolve the AMP into it. Stir in the Gantrez. Add the Dow Corning 345 fluid. Add fragrance if desired. Dow Corning 344 fluid can be substituted for Dow Corning 345 fluid.

Aerosol Filling:

Load the concentrate (80% by weight) and fill with A-46 hydrocarbon propellant (20% by weight).

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0365 suggested by Dow Corning Corp. (E2-5273)

SOURCE: Angus Chemical Co.: Product Formulary

Elegant Touch Strong Hold, 80% VOC Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 200 proof	40.00
D-Panthenol USP	0.30
Luviquat Mono CP	0.10
Luviskol VA 73 W	1.00
Uvinul MC 80	0.10
Dow Corning Q2-5220	0.23
AMP Regular	1.47
B. Luvimer 36D	16.70
C. Fragrance	0.10
D. Dimethyl Ether	40.00

Procedure:

Combine ingredients in phase A.

Add B to A and mix well.

Add C to AB.

Fill into appropriate containers with propellant.

Formulation PF-0393 suggested by BASF (SG1085/1A)

Acudyne 255 Spray Gel Formulation

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	79.94
Ethanol	6.00
Disodium EDTA	0.10
AMP-95	0.62
Kathon CG	0.04
Citroflex-2	0.10
Acudyne 255 (41%)	10.00
B. Aculyn 22	3.20

Procedure:

Add ingredients of phase A in order listed. Stir until clear, add phase B. Stir until thickened.

Physical Characteristics:

Viscosity (#4 @ 60 rpm): 400 cps

Formulation PF-0392 suggested by Rohm & Haas Co. (PF-022b)

SOURCE: Angus Chemical Co.: Product Formulary

Extra-Hold Conditioning Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Amphomer	3.75
AMP-95	0.60
Amodimethicone (and) nonoxynol-10 (and) tallow-trimonium chloride	0.40
Phospholipid EFA	0.60
Alcohol, denatured	10.00
Water	37.35
B. Hydroxyethyl cellulose	0.30
C. Water	37.00
D. Propellant	10.00

Procedure:

Combine A. Carefully sprinkle B in C with good agitation. Heating may help solubilization. Blend BC in A. Pressurize with D

Formulation PF-0370 suggested by Angus/Mona

De-Frizzing Creme-Gel

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	89.45
D-Panthenol 50P	1.00
AMP-95	0.25
Luvimer 36 D	2.80
B. Luvitol EHO	2.00
Sepigel 305	4.00
C. Nipaguard DMDMH	0.50
D. Fragrance	q.s.

Procedure:

Combine phase A in order listed while mixing.

Combine phase B.

Add B to A under propeller mixing until uniform emulsion is formed.

Add C and D to AB and mix until uniform.

Formulation PF-0395 suggested by BASF (ND547/2)

SOURCE: Angus Chemical Co.: Product Formulary

Firm Holding Mousse
(Alcohol Free)

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	43.80
Tetrasodium EDTA	0.10
Octylacrylamide/Acrylates/Butylaminoethyl Methacrylate Copolymer	3.75
Aminomethyl Propanol	0.65
Octoxynol-9	0.20
Quaternium-80 (Abil Quat 3272)	0.25
Dimethicone Copolyol (Abil B 88183)	0.40
Cocamidopropyl Betaine (Tego Betaine E)	0.25
Propylene Glycol	0.20
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol and Sodium Benzoate (and) Lactic Acid (Lactil)	0.20
Panthanol	0.20
Preservatives	Q.S.
Fragrance	Q.S.
Phase B:	
Hydroxyethyl Cellulose	3.00
Water	37.00
Phase C:	
Propellant A-46	10.00
Procedure:	
1. Mix ingredients of Phase A.	
2. Disperse the Hydroxyethyl Cellulose into the water of Phase B. Mix until clear.	
3. Combine Phases A/B. Filter.	
4. Fill.	
5. Charge Propellant.	

Spray Hair Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Water	91.10
Preservatives	Q.S.
Propylene Glycol	3.00
Glycerin	2.50
Quaternium-80 (Abil Quat 3272)	0.35
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
Citric Acid	0.20
Dimethicone Copolyol (Abil B 8851)	0.60
PEG-30 Glyceryl Oleate (Tagat O)	2.00
Fragrance	Q.S.
Procedure:	
Combine ingredients in order, mixing well between additions.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Glossing Hair Conditioner

This conditioner provides exceptional hair control, wet and dry combability, and gives a soft gloss to the hair.

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	91.25
Citric Acid	0.50
Phase B:	
Stearamidopropyl Dimethylamine (Tego Amid S 18)	1.25
Glyceryl Stearate S.E. (Tegin)	3.00
Ceteth-2	1.50
Behenoxy Dimethicone (Abil Wax 2440)	0.35
Phase C:	
Propylene Glycol	0.90
Quaternium-80 (Abil Quat 3272)	0.40
Phase D:	
Dimethicone Copolyol (Abil B 8851)	0.25
Sodium Chloride - 25% aqueous solution	0.60
Phase E:	
Color, Fragrance, Preservatives	Q.S.

Procedure:

1. Heat the water to 70C. Add and disperse the Citric Acid.
2. Add the ingredients of Phase B to Phase A, one at a time, mixing between additions. After all additions are made, mix until homogeneous.
3. Cool batch to 40C. Mix Phase C and add to A/B. Use sweep mixer.
4. Add remaining ingredients. Mix until uniform using sweep mixer.

Acidic Hair Rinse

Gives permed and dyed hair a soft smooth tactile feel and gloss.

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	4.0
Phase B:	
Water	73.8
Glycerin	2.0
Citric Acid (10%)	0.2
Phase C:	
Hydroxyethylcellulose (2.5% aqueous solution)*	20.0
Phase D:	
Perfume	Q.S.
Preservative	Q.S.

*Natrosol 250 HR

Procedure:

1. Heat Phase A and B to 70C, stir B into A and homogenize.
2. Add the Hydroxyethylcellulose and homogenize again. Stir until the emulsion is cool (30C).
3. The perfume is added at 30C.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Conditioner**Formulating Design and Advantages:**

This formula incorporates a mixture of amino acids from the Silk'n Soluble Liquid (Dacso). These amino acids have a good affinity for hair, especially when bleached and damaged, leaving your hair smooth and silky.

Water Phase I:	<u>Wt%</u>
Water (Distilled)	64.0
Butylene Glycol (Hoechst)	4.0
Glycerine (Unichema)	2.0
Silk'n Soluble Liquid (Dasco)	0.3
Cellosize (Hercules)	0.3
Methylparaben (Sutton)	0.3

Oil Phase:

Cera Bellina (Pg-3 Beeswax, Koster Keunen)	3.5
Minosil (Pride Solvents)	3.5
Glycerol Monostearate (Henkel)	2.0
Amerchol L 101 (Amerchol)	1.5
Vitamin E (Phibro Chem)	0.5
Propylparaben (Sutton)	0.1

Water Phase II:

Water (Distilled)	17.0
Triethanolamine (Dow)	1.0

Procedure:

Heat the water phase I to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase until homogeneous and a temperature of 75C is maintained. Slowly add the water phase I to the oil phase under moderate agitation. Allow to cool to 55C and add water phase II. Continue mixing and cool until at room temperature.

Adaptation of Formula and Its Influence on the Product:

Other active compounds and conditioning agents are easily introduced into this type of formula. Consistency is easily increased by using a greater concentration of Cera Bellina. This will also combine to increase the conditioning properties of the product.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hair Conditioner with DLL

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Procol CS-20 D	2.000g
2 AEC Cherry Pit Oil	0.500g
Aqueous Phase:	
3 Water; Pure	87.850g
4 Natrosol 250 HR	0.500g
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.000g
6 AEC Dicetyldimonium Chloride	3.000g
7 Propylene Glycol USP	3.000g
8 Germaben 11-E	0.500g
Cooling Cycle:	
9 D-Panthenol 75%	0.500g
10 Fragrance; Cherry AG6330	0.150g
11 Colours as required	g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C while adding the remaining items of the Aqueous Phase.

Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Panthenol and fragrance and adjust the pH to 5.0-5.5 with citric or phosphoric acid.

Colour as required.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients.

Project: JW 2390/Formula Ref.: 817*2

Hair Conditioner with DLL

<u>Stage Material:</u>	<u>Quantity</u>
Oil Phase:	
1 Cetearyl Alcohol	3.000g
2 Emulgade 1000 NI	1.500g
Aqueous Phase:	
3 Water; Pure	91.700g
4 Natrosol 250 HR	1.000g
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.000g
6 Germaben 11-E	0.500g
Cooling Cycle:	
7 P.AG 9960 Fruity Floral for hair	0.150g
8 Phosphoric Acid	0.150g
9 Colours as required	g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C.

Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Fragrance, Preservative and colour as required and adjust the pH to 5.0-5.5.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients as required.

Project JW 2390/Formula Ref.: 815*2

SOURCE: A & E Connock Ltd.: Suggested Formulations

Hair Conditioner with DLL

<u>Material:</u>	<u>%w/w</u>
Water; Pure	87.850
AEC Dicytyldimonium Chloride	3.000
Propylene Glycol USP	3.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.000
Procol CS-20D	2.000
D-Panthenol 75%	0.500
Natrosol 250 HR	0.500
AEC Cherry Pit Oil	0.500
Germaben 11-E	0.500
Fragrance; Cherry AG6330	0.150
Colours as required	

Formula Ref.: 817*2

Hot Oil Conditioner with CPO

<u>Material:</u>	<u>%w/w</u>
Water, Pure	85.440
Incroquat SDQ-25	3.000
Propylene Glycol USP	3.000
Lexamine S-13	2.220
Colours as required	2.000
Emulgade 1000 NI	1.000
AEC Cherry Pit Oil	1.000
Natrosol 250 HR	0.750
D-Panthenol 75%	0.500
Germaben 11-E	0.500
Citric Acid BP	0.440
Fragrance; Cherry AG6330	0.150

Formula Ref.: 816*1

Hair Conditioner with DLL

<u>Material:</u>	<u>%w/w</u>
Water; Pure	91.700
Cetearyl Alcohol	3.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.000
Emulgade 1000 NI	1.500
Natrosol 250 HR	1.000
Germaben 11-E	0.500
Phosphoric Acid	0.150
P. AG 9960 Fruity Floral for Hair	0.150
Colours as required	

Formula Ref.: 815*2

SOURCE: A & E Connock Ltd.: Suggested Formulations

Hair Cream Gel

<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Ceteareth-12	10.00
A	Ceteareth-20	10.00
A	PEG-7 Glyceryl Cocoate	10.00
A	Oils of Aloha Macadamia Nut Oil	5.00
A	Glycerine	10.00
A	Deionized Water	54.00
B	Preservative	QS
B	Perfume	1.00

Manufacturing Procedure:

Phase A: Combine ingredients at 95C. Cool to 40C.

Phase B: Add preservative and fragrance.

Used to firm the hair and to give it a beautiful sheen.

SOURCE: Oils of Aloha: Suggested Formulation

Hair Gel

<u>Phase#:</u>	<u>Ingredients:</u>	<u>Wt%</u>
1	Deionized water	18.00
1	Glycerine	2.00
1	SD 40 Alcohol	10.00
1	Disodium EDTA	0.05
1	Colorona Bordeaux	5.00
2	1% Carbopol 941 solution	50.00
3	Triethanolamine 99%	0.75
3	Deionized water	2.20
4	SD 40 Alcohol	10.00
4	PVP/VA E-735	2.00

Procedure:

Combine phase #1 with propeller agitation. When homogeneous, add the remaining phases in order.

SOURCE: Rona/EM industries, Inc.: Formulation EM3-57-2

Hair Repair and Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	88.10
Glyceryl Stearate S.E. (Tegin)	4.00
Mineral Oil	1.00
Cetyl Alcohol	2.00
Phenyl Trimethicone (Abil AV-20)	0.50
Ceteth-2	1.00
Phase B:	
Glycerin	1.00
Propylene Glycol	1.00
Dimethicone/Sodium Poly PG-Propyl Dimethicone Thiosulfate Copolymer (Abil S 201)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Phase C:	
Color	Q.S.
Preservatives	Q.S.
Fragrance	Q.S.
Citric Acid (25% solution)	to pH 7.2
Procedure:	
1. Heat the ingredients of A together with mixing to 70C.	
2. Cool to 45-50C. Switch to sweep mixer.	
3. Blend B. Add to A. Sweep mix. Cool to 35-40C.	
4. Adjust pH. Add Color, Fragrance and Preservatives.	

Conditioning Hair Rinse for Oily Hair

Provides refatting, moisturizing and reduces static fly-away of hair. Soft conditioning.

<u>Ingredients:</u>	<u>%w/w</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	4.0
Phase B:	
Water	71.5
Dimethicone Copolyol (Abil B 8852)	1.0
Propylene Glycol	3.0
Citric Acid (10%)	0.2
Quaternium-80 (Abil Quat 3272)	0.3
Phase C:	
Hydroxyethylcellulose (2.5% aqueous solution)*	20.0
Phase D:	
Perfume	Q.S.
Preservative	Q.S.
*Natrosol 250HR	

- Procedure:**
1. Heat Phase A and B to 70C, stir B into A and homogenize.
 2. Add the Hydroxyethylcellulose and homogenize again. Stir until the emulsion is cool (30C).
 3. The perfume is added at 30C.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Hair Shaping Gloss

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Volpo 10 (Croda)	9.00
Crodafos N3N (Croda)	3.20
Crodafos N10N (Croda)	2.50
Crodamol PTC (Croda)	0.80
Blandol Mineral Oil (Witco)	12.00
Parsol MCX	0.60
Propyl Paraben	0.15
Aqueous Phase:	
Volpo S-20 (Croda)	1.50
Glycerine	9.00
Propylene Glycol	1.40
Methyl Paraben	0.30
Germa11 115	0.20
Deionized Water	58.85
Protein Phase:	
Cromoist HYA (Croda)	0.25
Kerasol (Croda)	0.25

Procedure:

Heat oil phase to 80-85C, heat aqueous phase to 85C. Add aqueous phase to oils under good mechanical agitation. Cool to 45C, add proteins. Fill off.

Conditioning, Setting Gel

<u>Formula:</u>	<u>% by Weight</u>
A:	
Isoceteth-20	20.0
Blandol Mineral Oil (Witco)	11.0
Oleth-2	6.0
B:	
Water	49.6
Sorbitol Solution, USP	7.0
Propylene Glycol	5.0
Soyaethyl Morpholinium Ethosulfate	1.4

Procedure:

Heat A and B to 90C. Add B to A with gentle stirring. Cool to 80C and add make-up water. Stir until uniform and pour while still fluid.

SOURCE: Witco Corp.: Suggested Formulations

Hair Straightener

<u>Formula:</u>	<u>% by Weight</u>
<u>Oil Phase:</u>	
Carnation Mineral Oil (Witco)	11.00
White Protopet 1S (Witco)	11.00
Lipowax NI	16.00
Lipocol C	1.00
Lipocol S-2	0.50
<u>Water Phase A:</u>	
Deionized Water	50.00
Lipocol S-20	1.50
Lipolan 31	2.00
Propylene Glycol (Arco)	2.00
Sipon 201-10 (Alcolac)	0.25
<u>Water Phase B:</u>	
Lithium Hydroxide Monohydrate	3.50
Deionized Water	1.25

Procedure:

Combine all ingredients in oil phase in main kettle and heat to 75C. Combine A in side kettle and heat to 75C. Add A to Oil Phase at 75C with constant agitation. Cool to 65C with mixing and sprinkle in lithium hydroxide from B. Cool to 50C and add cold water from B. Cool to 42C and fill. Reducing Lipowax NI level to 12% results in softer cream.

Hair Relaxer

<u>Formula:</u>	<u>% by Weight</u>
<u>A:</u>	
Blandol Mineral Oil (Witco)	12.0
Macol 124	11.0
Cetyl Alcohol	2.0
PEG-75 Lanolin	3.0
<u>B:</u>	
Water	28.0
Propylene Glycol	5.0
Avanel S-150	3.5
Calcium Hydroxide	10.0
<u>C:</u>	
Water	25.0
Xanthan Gum (Kelco-Merck)	0.5

Procedure:

Blend A ingredients, heat slowly to 70C. Premix B and heat to 70C; add slowly to A with high shear, forming the emulsion. Premix C, heating to 55C. When uniform add to main batch with high shear. Cool while maintaining sweep agitation. Package at 35-40C.

SOURCE: Witco Corp.: Suggested Formulations

Hair Styling Cream (for dried hair)

<u>Ingredients:</u>	<u>% by Weight</u>
Phase 1:	
Lanocerin	12.00
Estol EHP	8.00
Crodacol CS-50	6.00
Standapol WAQ-Special	5.00
Petrolatum	5.00
Crodacol C-95	2.00
Lipocol C-10	1.00
Incrocas-40	1.00
Ozokerite Wax	1.00
Lipocol S-10	0.75
Carnauba Wax	0.50
Phase 2:	
Distilled Water	40.41
Propylene Glycol	4.00
Amphomer	2.00
AMP-95	0.34
Phase 3:	
Ethanol, SDA-40	10.00
Germaben II	1.00

Procedure:

Combine ingredients in Phase 1. Heat to 80C. Combine all ingredients of phase 2, except for Amphomer. With vigorous agitation, heat ingredients to 60C. Slowly sift in Amphomer. Bring heat to 80C. Combine ingredients of Phase 1 with ingredients of Phase 2. Mix for 15 minutes. Cool to 50C. Add ingredients of Phase 3. Mix for 10 minutes. Pour into container. Allow to cool.

Formulation PF-0353 suggested by National Starch & Chemical Corp. (8334-66)

Resyn Hair Spray with Dimethicone Copolyol

This hair spray contains Dow Corning 193 surfactant which plasticizes the resin. This formulation shows how silicone glycols can be used in Resyn-based hair sprays. Dow Corning Q2-5220 resin modifier can be substituted for Dow Corning 193 surfactant.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 193	0.50
Resyn 28-3307	3.00
AMP Regular	0.28
SD Alcohol 40	76.22
Propellant A-46	20.00

Procedure:

Dissolve the Resyn into the ethanol. Add the AMP. Add Dow Corning 193 surfactant. Stir until uniform. Add fragrance if desired.

Aerosol Filling:

Load the concentrate (80% by weight) and fill with A-46 hydrocarbon propellant (20% by weight).

Stability:

The stability of this formulation has not been assessed.

Formulation PF-0363 suggested by Dow Corning Corp. (E2-5285)

SOURCE: Angus Chemical Corp.: Product Formulary

High Performance Creme Rinse Conditioner

The dual action of the Crodafos CES and the Incroquat Behenyl TMS in this formulation give excellent conditioning to hair.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.00
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	1.00
Propyl paraben	0.10
Volpo S-2 (Steareth-2)	0.50
Crodacol C-70 (Cetyl Alcohol)	2.00
Crodamol PTIS (Pentaerythrityl Tetraisostearate)	1.00
Part B:	
Deionized Water	87.98
Incromectant Lamea (Acetamide MEA (and) Lactamide MEA)	1.00
Methyl Paraben	0.10
Part C:	
TEA 99%	0.32

Procedure:

Combine ingredients of Part A with mixing and heat to 65-70C.
Combine ingredients of Part B with mixing and heat to 65-70C.
Add Part B to Part A with mixing and cool to 40C. Continue mixing and add Part C. Cool to desired fill temperature.

pH=4.50±0.5

Viscosity=56,000±10% (RVT Spindle, #T-D, 10 rpm, @ 25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-178-1

Hair Shine Concentrated Gel

<u>Ingredients:</u>	<u>%w/w</u>
Water	25.45
Abil OSW-12	27.27
Abil AV-20	4.55
Propylene Glycol	35.00
Hexylene Glycol	4.55
Preservatives	Q.S.
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	3.18

Procedure:

Blend the ingredients together in the order given with mixing. When all ingredients are combined, continue mixing until clear. Viscosity will develop after mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

High Performance 80% VOC Non-Aerosol Hair Spray

This high solids 80% VOC non-aerosol hair spray combines low solution viscosity, a fine, misty spray and optimal drying time with a hard hold and good humidity resistance.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Lovocryl-47	8.00
AMP Regular	1.61
Citroflex-2	0.20
Crotein ADW	0.10
d1-Panthenol	0.05
Purcellin Oil	0.05
Deionized Water	9.99
Anhydrous Ethanol, SDA-40	80.00

Valve Specifications:	Calmar Mark II Valve	
	Head: WS	Inductor: 6 1/4"
	SPV: 302 SS	ACM: 1 BLIP
	GSK: 05744	

Preparation:

Dissolve AMP in water and ethanol. While maintaining good agitation, slowly sift in Lovocryl-47. Once dissolved, add balance of ingredients and mix until homogeneous. Filter and fill.

Formulation 7974:115

Ultra-Hold Finishing Spray

This anhydrous aerosol hair spray has a stiff hold with excellent humidity resistance, compatibility with a wide variety of additives and excellent subjective properties on hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Resyn 28-2930	5.40
AMP Regular	0.54
DC Q2-5220	0.20
Phospholipid EFA	0.20
TEA Salicylate	0.05
Monamid 716	0.10
Fragrance	q.s.
Anhydrous Ethanol, SDA-40	68.51
Propellant A-46	25.00

Preparation:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift Resyn 28-2930 into the vortex. When the solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill concentrate. Charge with propellant.

Formulation 6472:146

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Hot Oil Conditioner with CPO

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	85.440g
2 Natrosol 250 HR	0.750g
3 Germaben 11-E	0.500g
Stage B:	
4 Incroquat SDQ-25	3.000g
5 Emulgade 1000 NI	1.000g
6 AEC Cherry Pit Oil	1.000g
7 Propylene Glycol USP	3.000g
8 Citric Acid BP	0.440g
9 Lexamine S-13	2.220g
Cooling Cycle:	
10 D-Panthenol 75%	0.500g
11 Fragrance; Cherry AG6330	0.150g
12 Colours as required	2.000g

Mixing Instructions:

Disperse the Hydroxyethyl Cellulose in water and bring to 70C. Separately heat the Oil Phase to 70C and with high shear mixing add the Oil Phase to the Aqueous, mix briefly then stir until cool.

Add Fragrance, Preservative and colour as required and adjust the pH to 5.0-5.5.

This simple formula may be readily adapted to take herbal additives, soluble proteins and other active ingredients as required.

SOURCE: A & E Connock Ltd.: Project: JW 2335/Formula Ref. 816*1

Hair Straightener

Panalane's function is to reduce scalp burn while providing emollience and spreadability. Yet it has a less greasy feeling on the skin than other oils used in this type of product. Panalane is stable at the high pH required for this application.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	56.00
1	Propylene Glycol	2.00
1	Uniphen P-23	1.00
2	Lipowax P	15.00
2	Petrolatum White	8.00
2	Panalane L-14E	10.00
3	Sodium Hydroxide (25% soln)	8.00

Procedure:

1. Combine and heat Sequence #1 and Sequence #2 separately to 75C
2. Add Sequence #2 to Sequence #1 with rapid mixing.
3. Cool to 40C before adding Sequence #3.
4. Cool to room temperature and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 825

Modern Expression Hair Mask

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	70.01
Pluracare F127	20.00
Luviquat Mono CP	1.00
D-Panthenol 50 P	2.00
Luviskol VA 73 W	1.00
Dow Corning 193 Polyether	0.50
Hydrolyzed Wheat Protein	0.70
Solu-Soy EN25	0.30
Nipaguard DMDMH	0.50
AMP-95	0.49
Tenox BHT (10% in SD Alcohol)	1.00
B. Cremophor RH 40	0.35
Fragrance	0.15
C. Luvimer 100 P	2.00

Procedure:

Using cold water for phase A (40-10C) slowly add the Pluracare to the water and mix until the solution is homogeneous.

Add the remaining ingredients of A to the Pluracare solution.

Combine Phases B and C separately.

Maintain the phase A temperature below 10C and add phases B and C to A.

Transfer the mixture to appropriate containers and allow to warm up to room temperature, whereupon the liquid becomes a ringing gel.

Formulation PF-0397 suggested by BASF (SG1103/2)

Spiking Spritz

This spiking spritz contains Dow Corning 190 surfactant, which reduces tackiness and provides a light, nongreasy feel.

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol (190 proof)	91.90
Dow Corning 190 Surfactant	1.00
AMP-Regular	1.10
Amphomer	6.00

Procedure:

Mix in order.

Stability:

3 months at 40C

6 months at room temperature

Formulation PF-0367 suggested by Dow Corning Corp. (E8239-21)

SOURCE: Angus Chemical Co.: Product Formulary

Non-Aerosol Finishing Spray

A light, holding spray that provides a conditioning sheen through the use of Phospholipid EFA.

	<u>% By Weight</u>
SD Alcohol 40	94.10
Vinyl Acetate/Crotonic Acid Copolymer	3.75
Water	1.20
Phospholipid EFA	0.60
Aminomethyl Propanol	0.35

Add vinyl acetate/crotonic acid copolymer to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients, color, fragrance and package.

Finishing Spray

	<u>% By Weight</u>
SD Alcohol 40	94.10
Resyn 28-1310	3.75
Water	1.20
Aminomethyl Propanol	0.35
Phospholipid EFA	0.60

Procedure:

Add Resyn 28-1310 to alcohol slowly with adequate agitation, mix until well dispersed. Add aminomethyl propanol to neutralize, and mix until dissolved. Add remaining ingredients color, fragrance and package.

Replenishing Creme Rinse

	<u>% By Weight</u>
Water	87.80
Hydroxyethyl Cellulose	0.70
Glycol Distearate	2.00
Cetearyl Alcohol	2.50
Monaquat TG	6.70
Phospholipid EFA	0.30

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60 and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5 to 5.0. Add color, fragrance and preservative as required. Continue agitation and cooling until pearl develops.

Formula F-577

SOURCE: Mona Industries, Inc.: Suggested Formulations

Pelan Hair Conditioner

This product employs humectants, emollients and natural conditioners such as Pelan Black and Lipoquat R which soften and enrich the hair, leaving a healthy shine.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	79.00
1	Keltrol	0.30
3	Liponic EG-1	2.00
3	Uniphen P-23	0.50
4	Pelan Black	8.00
5	Lipocol C	1.50
5	Lipo GMS-450	1.25
5	Liponate SPS	1.00
5	Lipowax D	1.00
5	Lipopeg 6000 DS	1.00
5	Liponate IPP	0.75
5	Lipowax P	0.75
5	Lipocol S	0.65
5	Liponate DPC-6	0.50
5	Vitamin E Acetate	0.50
6	Deionized Water	1.00
6	Lipoquat R	0.30

Procedure:

1. Heat Sequence #1 to 76C.
2. Add Sequence #2 to Sequence #1 slowly on overhead mixer at medium/high speed.
3. Once Sequence #2 is completely hydrated, add Sequence #3 in order of addition, while holding temperature at 76C.
4. Add Sequence #4 to batch under homogenization at low/medium speed while holding temperature at 76C.
5. Heat Sequence #5 to 78C, until clear, then add to batch under homogenization at low/medium speed.
6. At room temperature, premix Sequence #6 and add to heated batch on homomixer at low speed for 20-30 seconds.
7. Switch to overhead mixer at low speed while cooling to room temperature.

Specifications:

pH: 5.2+-0.2

Viscosity: 27,900+-10% LVT #3 @ 3.0 rpm

SOURCE: Lipo Chemicals Inc.: Formulation No. 946

Pomade**Formulating Design and Advantages:**

This anhydrous product has been formulated for low cost and still have good functional properties toward hair.

Formula:	<u>% by Weight</u>
Perfecta Petrolatum (Witco)	32.00
Mineral Oil USP (Kaydol-Witco)	51.55
Emulsifying Wax NF (Koster Keunen)	6.00
Ceresine Wax 130/135 (Koster Keunen)	8.00
Vitamin E (BASF)	0.20
Deodorized Orange Wax (Koster Keunen)	2.00
D & C Red #17 Dye (Whittaker)	0.05
Coconut Fragrance Oil (Aroma Tech)	0.20

Procedure:

Add all ingredients except fragrance into a vessel, heat till 70C and mix. Once homogeneous, allow to cool while mixing. Add fragrance at 50C and pour into container.

Adaptation of Formula and Its Influence on the Product:

Substitution of the dye and/or fragrance will not alter product consistency. Additional actives may be incorporated to fit consumer's needs.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Hair Straightener

Formula:	<u>% by Weight</u>
A:	
Deionized Water	56.00
Propylene Glycol	2.00
B:	
Polawax	15.00
White Protopet 1S Petrolatum (Witco)	8.00
Hydrogenated Polyisobutene	10.00
C:	
Sodium Hydroxide (25% sol.)	8.00
D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (Sutton)	1.00

Procedure:

Combine and heat water phase A and oil phase B separately to 75C. Add the oil phase to the water phase with rapid mixing. Cool to 40C before adding C and D. Cool to room temp. and package.

SOURCE: Witco Corp.: Suggested Formulation

Premium Biodegradable Hair Conditioner

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Hydroxyethyl Cellulose	0.70
Sodium Hydroxide (50%)	Q.S.
Ammonyx GA-90/GA-70PG	2.22/2.86
Kessco Cetyl Alcohol	2.00
Kessco Octyl Isononanoate	2.00
Potassium Chloride	0.50
Citric Acid (50%)	Q.S.
Fragrance, Dye, Preservative	Q.S.

Mixing Procedure:

Into a suitable vessel equipped with heating, cooling, and agitation means, add D.I. Water. Begin mixing. Into a vortex, sprinkle in Hydroxyethyl Cellulose. Add Sodium Hydroxide to raise the pH to 7.5-8.0 and continue agitation until all of the Hydroxyethyl Cellulose has dissolved (30-40 minutes). Heat to 70-75C. Add Ammonyx GA-90 or GA-70PG, Kessco Cetyl Alcohol, and Kessco Octyl Isononanoate. Emulsify for 30 minutes and maintain the temperature between 70-75C. Cool to 38-48C and add Potassium Chloride dissolved in water. Adjust final pH (3.5-4.5) with citric acid, if necessary. Cool to ambient temperature with continuous mixing, add remaining ingredients.

Ethnic Hair Shine

	<u>% by Weight</u>
Dow Corning Silicone 245	70.0
Kessco Octyl Isononanoate	25.0
Octyl Methoxycinnamate	5.0

Mixing Procedure:

Combine all ingredients with mixing.

SOURCE: Stepan Co.: Suggested Formulations

Pump Hair Spray

Pump Hair Spray based on the well-known Gantrez ES-225, contains Dow Corning 3225C Formulation aid which functions in two ways. First, the cyclomethicone component provides lubricity for the initial styling and combing. Second, the dimethicone copolyol component remains behind after all the volatiles are gone, to provide easy combing. Dow Corning 3225C also acts as a resin plasticizer and detackifier.

<u>Ingredients:</u>	<u>% by Weight</u>
Dow Corning 3225C Fluid	1.00
Gantrez ES-225	6.90
AMP-Regular	0.20
SD Alcohol 40	91.90

Procedure:

Weigh out the alcohol and dissolve the AMP into it. Stir in the resin and the Dow Corning 3225C formulation aid. Mix until uniform and add fragrance if desired.

Stability:

The stability of this formulation has not been assessed.
Formulation PF-0366 suggested by Dow Corning Corp. (E2-3287)

Flexible Spray Gel

Highly shear thinning due to the copolymer thickener in Phase B.

<u>Ingredients:</u>	<u>% by Weight</u>
<u>Part A:</u>	
Water	79.94
Ethanol	6.00
Disodium EDTA	0.10
AMP-95	0.62
Kathon CG	0.04
Citroflex-2	0.10
Acudyne 255, 41%	10.00
<u>Part B:</u>	
Aculyn 22	3.20

Procedure:

Combine A in order shown. Stir until clear. Add B. Stir until thickened.

Properties:

Viscosity (#4 at 60 rpm): 400 cps
Formulation PF-0369 suggested by Rohm & Haas.

SOURCE: Angus Chemical Co.: Product Formulary

Salon Type Hair Conditioner

State of the art protein/panthenol based conditioner designed for achievement of salon type performance.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita CA (Cetyl Alcohol)	5.00
2. Rita STAC-80 (Steartrimonium Chloride)	2.50
3. Rita CTAC-605 (Cetrimonium Chloride)	0.50
4. Citric Acid @ 50%	0.18
5. Dimethyl Stearamine (Adogen MA-108)	0.13
6. Distilled/Deionized Water	85.84
7. Amanduline SG (Sweet Almond Protein)	2.00
8. Ritaleo 200M (Aloe Vera Gel)	0.50
9. Ritapan DL (dl-Panthenol)	1.00
10. Propylene Glycol	0.50
11. Polyquta 400 (Polyquaternium-10)	1.00
12. Kathon CG	0.03
13. Dow Corning 7224	0.40
14. Dow Corning 344 Fluid	0.17
15. Fragrance	0.25

Compounding Procedure:

Disperse item 11 in item 6 while mixing. Heat to 70C. Add items 8, 9, 10 and 13. Combine items 1, 2, 3 and 5 and heat to 70C. Add to water phase. Add item 4 and mix while cooling. Add items 7, 12, 14 and 15 when cool.

Ref. No. 121-177

Pump Spray Hair Conditioner

A pump spray conditioner containing Polyquta 400, Ritasil 190 and Amanduline SG for conditioning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	89.60
2. Polyquta 400 (Polyquaternium-10)	0.50
3. Amanduline SG (Hydrolyzed Sweet Almond Protein)	5.00
4. Ritasil 190 (Dimethicone Copolyol)	1.00
5. Propylene Glycol	3.50
6. Glydant	0.20
7. Fragrance	0.20

Compounding Procedure:

Disperse item 2 in item 1. Heat if necessary. Allow to cool and add items 3-7. Mix until uniform.

Ref. No. 121-181

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Soft Set Conditioning Mousse

This conditioning mousse formulation provides for both a soft, nontacky hold to a hair set and a conditioning effect on the hair fibers. The Sodium Poly PG-propyl Dimethicone Thiosulfate contributes gloss and hydrophobicity to the hair.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Water	82.20
Stearamidopropyl PG-dimonium chloride phosphate	3.00
Part B:	
Isopropyl Alcohol	10.00
Sodium Poly PG-propyl Dimethicone Thiosulfate (Abil S-201)	0.50
AMP-95	0.30
Butyl Ester of PVM/MA copolymer	2.00
Part C:	
Dimethicone Copolyol (Abil B 8851)	2.00
Part D:	
Fragrance, Preservatives	q.s.
Fill:	
Concentrate	83.30
Isobutane	16.70

Procedure:

Mix A. Heat to 65C and continue to mix until homogeneous. Cool to 40C. Separately mix B at 25C until homogeneous. Add A to B with stirring. Add C and D, mix until homogeneous. Add fragrance, coloring and preservative as required. Cool to 25C. Charge into aerosol container. Add propellant.

Formulation PF-0237 suggested by Goldschmidt Chemical Corp.

Styling/Conditioning Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Water, deionized	74.15
Mulgofen ON-870	0.10
Gafquat HS-100	10.00
Dimethicone polyol	0.40
Phase B:	
Ethanol	10.00
Advantage CP	5.00
AMP Regular	0.35
Aerosol Fill:	
Concentrate	90-95
Propane/butane	5-10

Procedure:

Prepare Phase A by dissolving Mulgofen in water. Add remaining ingredients in order listed, stir thoroughly after each addition. Prepare Phase B by dissolving AMP Regular in ethanol. Then add Advantage CP, mix until uniform. Add perfume with stirring. Add Phase B to Phase A with stirring. Mix until uniform. Charge aerosol containers and pressurize with propellant.

Formulation PF-0240E suggested by ISP

SOURCE: Angus Chemical Corp.: Product Formulary

Strong Advantage Mousse

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	81.50
Luviquat Mono CP	1.00
D-Panthenol 50P	0.32
Dow Corning 193 Polyether	1.00
Hydrolyzed Wheat Protein	0.20
Nipaguard DMDMH	0.50
AMP-95	0.98
B. Luvimer 100 P	4.00
C. Cremophor RH 40	0.30
Lipopeg 6000 DS	0.10
Fragrance (Hair Monster U800 025)	0.10
D. Propellant A46	10.00

Procedure:

Combine all ingredients in phase A and mix until homogeneous.
 Add phase B to A and mix.
 Add C to AB and mix.
 Fill into appropriate containers with propellant.

Formulation PF-0396 suggested by BASF (SG1099/2)

Shape N' Style Volumizing Spritz

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	82.00
Deionized water	7.41
Luviskol VA 73 E	4.00
D-Panthenol USP	0.50
Uvinul MC 80	0.10
AMP-95	0.49
Fragrance	q.s.
B. Luvimer 36 D	5.50

Procedure:

Combine phase A ingredients in order listed, mixing after each addition.
 Add B to A and mix.

Formulation PF-0394 suggested by BASF (ND546/1)

SOURCE: Angus Chemical Co.: Product Formulary

Vision '98 55% VOC Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	58.00
Deionized water	23.87
D-Panthenol USP	0.50
AMP-95	1.13
Dow Corning 190 Surfactant	0.10
Luvimer Low VOC	16.20
B. Fragrance	0.20

Procedure:

Combine phase A ingredients in the written order under mixing.
Add B to A and mix well.

Formulation PF-0400 suggested by BASF Corp. (ND6098/1)

Vision '98 55% VOC Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 190 proof	58.00
Deionized water	14.35
D-Panthenol USP	0.50
AMP-95	1.70
Dow Corning 190 Surfactant	0.20
Luvimer Low VOC	25.00
B. Fragrance	0.25

Procedure:

Combine phase A ingredients in the written order under mixing.
Add B to A and mix well.

Formulation PF-0401 suggested by BASF Corp. (ND6098/2)

SOURCE: Angus Chemical Co.: Product Formulary

Vision '98 Pump Hairspray - 55% VOC - 6% Solids

<u>Ingredients:</u>	<u>% by Weight</u>
Phase A:	
Deionized Water	23.50
SD Alcohol 40, 190 proof	58.00
D-Panthenol	0.50
AMP-95	1.50
Dow Corning 190 Surfactant	0.10
Luvimer Low VOC	16.20
Phase B:	
Fragrance (Balsam HF-F-95-14276)	0.20

Procedure:

Combine phase A ingredients in the written order.
Add B to A and mix well.

Packaging:

Milan Oval Bottle (Calpac Continer Corp.)
Air Force II Pump (Emerson Corp.)

Formulation PF-0348 suggested by BASF Corp. (ND6037/1)

Forever Curls Hair Spray

Particularly effective for curl retention, this pump spray keeps curls beautifully in place. By giving hair more body and adding lubricity, Hydrotriticum QL enhances the hold and keeps hair feeling soft and smooth. Crovol A-70 is used here as a solubilizer and plasticizer.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
SDA-40 Alcohol	63.50
Amphomer 28-4910	0.75
Part B:	
Deionized Water	33.62
Crovol A-70	1.00
AMP-95	0.13
Part C:	
Hydrotriticum QL	1.00

Procedure:

Combine ingredients of Part A by dusting Amphomer into alcohol with vigorous mixing. Combine ingredients of Part B with mixing. Add Part A to Part B with mixing. When clear, add Part C with mixing and fill.

Formulation PF-0169 suggested by Croda Inc.

SOURCE: Angus Chemical Co.: Product Formulary

Wheat Moisturizing and Styling Gel

Thick, spreadable gel holds, moisturizes, and adds shine and protective proteins to hair.

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Polysorbate-20	1.00
PPG-12 PEG-65 lanolin oil (Ivarlan AWS)	2.00
Fragrance	0.20
Part B:	
Glycerin	10.00
Deionized water	22.20
Hydrolyzed wheat protein (Wheat-Tein NL)	1.00
Preservative, color	q.s.
Part C:	
Carbomer 940, 2% aq. soln. (Carbopol 940)	50.00
Part D:	
AMP-95	0.60
Part E:	
Isopropyl Alcohol, 99%	10.00
PVP/PA copolymer (PVP/VA E-735)	2.00
Part F:	
Ethyl ester of hydrolyzed keratin (Kera-tein 1000 AS)	1.00

Procedure:

Premix A until clear. Add B. Mix until homogeneous. Add to C. Add D to ABC. Mixture will clear and thicken. Premix E. Add to batch. Add F; mix.

Formulation PF-0255 suggested by Maybrook

Pump Hairspray

<u>Ingredients:</u>	<u>% by Weight</u>
Gantrez ES 225	9.00
AMP Regular	0.45
Finsolv TN	0.50
Ethanol	90.05

Procedure:

Dissolve AMP in ethanol. Add the resin with mixing and continue mixing until uniform. Add Finsolv TN and mix.

Formulation PF-0358 suggested by Finetex

SOURCE: Angus Chemical Co.: Product Formulary

W/O Hair Sculpturing Cream

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Hydrogenated Castor Oil	0.50
Microcrystalline Wax	0.20
Petrolatum	1.80
Mineral Oil	7.50
Phenyl Trimethicone (Abil AV 20)	1.00
Octyl Stearate (Tegosoft OS)	2.00
Octyl Palmitate (Tegosoft OP)	2.00
Isopropyl Palmitate (Tegosoft P)	2.00
Phase B:	
Glycerin	2.50
Propylene Glycol	2.50
Preservatives	Q.S.
Water	70.15
Sodium Chloride	0.80
DL-Panthenol	0.40
Hydrolyzed Wheat Protein	0.40
PVP	1.00
Quaternium-80 (Abil Quat 3272)	0.25
Phase C:	
Fragrance	Q.S.

Procedure:

1. Add the components of the oil phase together. Heat to melt and disperse the waxes. When dispersed, cool to temperature of 45-50C.
2. Mix the water and sodium chloride. Heat to 45-50C.
3. With soft lightnin' mixing, stream the water phase slowly into the oil phase.
4. With sweep agitation, cool to 35C.
5. Add color, fragrance and preservatives.
6. Homogenize with a roto-stator homogenizer.

Spray Detangler/Conditioner

<u>Ingredients:</u>	<u>Weight%</u>
Water	96.50
Tetrasodium EDTA	0.10
Preservatives	Q.S.
Propylene Glycol	1.60
Quaternium-80 (Abil Quat 3272)	0.30
PEG-30 Glyceryl Oleate (Tagat O)	0.45
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.30
Dimethicone Copolyol (Abil B 88183)	0.75
Citric Acid (25% solution)	to pH 4.0
Fragrance	Q.S.

Procedure:

Add ingredients in order. Adjust pH. Fragrance.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

55% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	14.90
Water	38.97
AMP-95	0.33
Omnirez-2000	10.00
Ammonium Hydroxide	0.30
MEA Borate and MIPA Borate	0.40
Dimethyl Ether	35.00

Valve:

Seaquist:	ST-74
Stem:	0.018"
Body:	capillary
V. Tap:	0.015"
ID Tubing:	0.050"
Actuator:	ST-150 Misty
Orifice:	0.023"

Formulation PF-0383 suggested by ISP (10263-11)

Acudyne 255 55% VOC HFC-152a Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	1.80
Ethanol	55.00
AMP-95	0.56
DC 190 Fluid	0.10
B. Acudyne 255 (41%)	12.50
C. Dymel HFC-152a	12.50

Procedure:

Prepare phase A. Then add phase B with stirring. Mix until solution is slightly turbid but active ingredients are dispersed. Add phase C.

Physical Characteristics:

Cloud point: <-22F

Formulation PF-0389 suggested by Rohm & Haas Co. (PF-051)

SOURCE: Angus Chemical Co.: Product Formulary

80% VOC Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	57.00
Water	11.13
AMP-95	0.37
Omnirez-2000	16.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
Propane/Isobutane blend (A-70)	15.00

Valve:

Precision Aquasol	
Stem:	2 X 0.20"
Body:	.023"
V.Tap:	N/A-chamber 2 X 0.10"
ID Tubing:	0.060"
Actuator:	Precision
Orifice:	0.016" CO2

Formulation PF-0379 suggested by ISP (10250-18-1)

80% VOC Single Phase Hydrocarbon Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	37.00
Water	11.13
AMP-95	0.37
Omnirez-2000	16.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
Dimethyl Ether	35.00

Valve:

Seaquist	ST-74
Stem:	0.018"
Body:	capillary (under development)
V.Tap:	0.013"
ID Tubing:	0.030"
Actuator:	ST-150 Misty
Orifice:	0.020"

Formulation PF-0380 suggested by ISP (10250-18-2)

SOURCE: Angus Chemical Co.: Product Formulary

55% VOC Innovative Product Formulation

<u>Ingredients:</u>	<u>% by Weight</u>
Lovocryl 47	10.00
AMP-95	1.73
Monamid 716	0.15
Varion CADG LS	0.10
DC 556	0.10
Purcellin Oil	0.15
Deionized Water	7.77
Ethanol, SDA-40	50.00
Fragrance	q.s.
n-Butane	12.00
Dimethyl ether	18.00

Procedure:

Dissolve AMP-95 in ethanol and water. While maintaining good agitation, slowly sift in Lovocryl 47. When solution is complete, add remaining ingredients. Mix until homogeneous. Filter and fill. Charge cans with propellant.

Valve:

Seaquist Valve: NS-34
 Stem Orifice: 0.013"
 Dip Tube: 0.040"
 Body: Capillary
 Vapor Tap: 0.013"
 Actuator: Excel 200 0.013" Misty

Formulation PF-0352 suggested by National Starch & Chemical Corp. (7879-1221)

Aerosol Finishing Spray

<u>Ingredients:</u>	<u>% by Weight</u>
A. SD Alcohol 40, 200 proof	55.16
D-Panthenol 50P	1.00
AMP Regular	0.74
Fragrance	0.10
B. Luvimer 100P	3.00
C. HFC 152a	40.00

% VOC: 55%

Procedure:

Combine phase A.
 Sprinkle B into A and mix well.
 Fill into appropriate containers with propellant.

Formulation PF-0399 suggested by BASF Corp. (ND538/1)

SOURCE: Angus Chemical Corp.: Product Formulary

80% VOC Innovative Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	44.36
AMP-95	0.44
Omnirez-2000	20.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
152A HFC propellant	15.00
Dimethyl Ether	20.00

Valve:

Seaquist:	ST-74
Stem:	0.010"
Body:	capillary
VaporTap:	0.010"
ID Tubing:	0.030"
Actuator:	ST-150 Misty
Orifice:	0.020"

Formulation PF-0381 suggested by ISP (10250-18-8)

55% VOC Innovative Aerosol Hair Spray

<u>Ingredients:</u>	<u>% by Weight</u>
SD 40 B Alcohol	44.36
Water	4.06
AMP-95	0.44
Omnirez-2000	20.00
Dimethicone Copolyol	0.10
Lauramide DEA	0.10
Ammonium Hydroxide	0.10
MEA Borate and MIPA Borate	0.20
152 A HFC Propellant	30.00
Dimethyl Ether	5.00

Valve:

Seaquist:	ST-74
Stem:	0.010"
Body:	capillary
VaporTap:	0.010"
ID Tubing:	0.030"
Actuator:	ST-150 Misty
Orifice:	0.020"

Formulation PF-0382 suggested by ISP (10250-18-9)

SOURCE: Angus Chemical Co.; Product Formulary

Section VII

Lotions

AHA Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	5.00
Methyl Paraben	0.15
Ammonyx GA-70 PG	2.85
Neobee M-5 Cosmetic	15.0
Kessco GMS Pure	2.5
Kessco IPM	2.0
Kessco Cetyl Alcohol	2.0
Stearyl Alcohol	1.5
Propyl Paraben	0.01
Glycolic Acid (70%)	7.0-10.0
Preservative, Color, Fragrance	Q.S.
Mixing Procedure:	

Into a suitable vessel equipped with heating, cooling, and agitation, prepare the water phase by adding D.I. Water, Glycerin, Methyl Paraben, and Ammonyx GA-70 PG. Start heating to 70-75C. Into a separate vessel, prepare the oil phase by adding together Neobee M-5 Cosmetic, Kessco GMS Pure, Kessco IPM, Kessco Cetyl Alcohol, Stearyl Alcohol, and Propyl Paraben. Heat to 73-77C. Add the oil phase to the water phase with good agitation. Emulsify for 20-25 minutes at 80-82C. With mixing, start cooling to room temperature. Slowly add Glycolic Acid (70%) at 30C. Mix well. Add Preservative, Color, and Fragrance. Adjust pH to 3.0-3.5 if necessary.

AHA Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Glycerin	1.5
Kessco GMS S.E./A.S.	2.0
Kessco GMS Pure	3.5
Kessco Cetyl Alcohol	1.5
Neobee M-5 Cosmetic	5.0
Kessco ICS	1.5
Glycolic Acid (70%)	7.2
Preservative, Color, Fragrance	Q.S.
Mixing Procedure:	

Into a suitable vessel equipped with heating, cooling, and agitation, prepare the water phase by adding D.I. Water, Methyl Paraben, and Glycerin. Start mixing and heating to 75-80C. Into a separate vessel prepare the oil phase by adding together Kessco GMS S.E./A.S., Kessco GMS Pure, Kessco Cetyl Alcohol, Neobee M-5 Cosmetic, and Kessco ICS. Start heating to 77-82C. Add the oil phase to the water phase with good agitation. Emulsify for 20-25 minutes at 80-82C. With mixing, start cooling to room temperature. Slowly add Glycolic Acid (70%) at 30C. Mix well. Add Preservative, Color, and Fragrance. Adjust pH to 3.5-4.0, if necessary.

SOURCE: Stepan Co.: Suggested Formulations

Anti-Aging Day Lotion

This soft, anti-aging lotion leaves a non-oily, gentle after feel on the skin. Pentavitin improves the water retention and Immucell makes skin smoother and more delicate.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Glucate D0	2.00
2	Glucate SS	1.50
3	Glucam E 20 Distearate	1.50
4	Promulgen D	1.50
5	Isopropyl Palmitate	3.00
6	Sesame Oil	1.00
7	B) Deionized Water	77.30
8	Phenonip	0.30
9	Imidazolidinyl Urea	0.20
10	Glucam E 10	3.00
11	Carbopol 1342	0.20
12	Pentavitin	5.00
13	Immucell	3.00
14	C) Triethanolamine	0.20
15	D) Fragrance-Courage 0/243101	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A). With phase C adjust the pH to 6.0, homogenize and cool to 30C.

Then add phase D) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. C 014.B/09.95

Cationic Lotion with Incroquat Behenyl TMS

Due to the superior emulsifying and conditioning properties of Incroquat Behenyl TMS, only a few basic ingredients are needed to form this stable and elegant lotion. This lotion acquires its soft, powdery afterfeel from the conditioning effects of the Behenyl quat. If desired, emollients, proteins or other such materials can easily be added to the formula to enhance the appeal of the final product.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	83.0
Glycerin	5.0
Part B:	
Mineral Oil (70ssu)	5.0
Petrolatum	2.0
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	4.0
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

Procedure:

Combine ingredients of Part A with mixing and heat to 70-75C. Combine ingredients of Part B with mixing and heat to 70-75C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-267

Body Lotion for Sensitive Skin

This pure white and elegant lotion, with a pleasant end feel, contains Dismutin-BT and Phytaluronate. This combination regenerates and protects sensitive or dry skin.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Cremophor A6	1.00
2	Cremophor A25	1.00
3	Luvitol EHO	7.00
4	Paraffin Oil	8.00
5	Cetyl Alcohol	1.00
6	Cutina GMS	2.50
7	B) Deionized Water	71.70
8	Phenonip	0.30
9	Imidazolidinyl Urea	0.20
10	Propylene Glycol	2.00
11	Phytaluronate	5.00
12	C) Dismutin-BT	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.
Heat the ingredients of water phase B) to 75C.
Under stirring add phase B) to phase A), cool to 50C,
homogenize and cool to 30C.
Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. C 004.D/01.96

Cleansing Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	12.00
Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Imwitor 928 (Glyceryl Cocoate)	5.00
B) Hygroplex HHG (Hexylene Glycol (and) Glucose (and) Fructose (and) Sucrose (and) Urea (and) Dextrin (and) Alanine (and) Glutamic Acid (and) Aspartic Acid (and) Hexyl Nicotinate)	5.00
Keltrol F (Xanthan Gum)	0.80
Preservative	q.s.
Water	Up to 100.00
Fragrance Fleur Blanches	0.30

Preparation:

(A) is heated to 75 degrees C., (B) is mixed homogeneously, brought to the same temperature, and emulsified into (A). Perfume is added at about 35 degrees C.

SOURCE: Huls America Inc.: Formulation 1.3U

Botanical Facial Moisturizing Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Carbopol 934	0.15
Cyclomethicone	0.25
Glycerin	3.50
Methyl Paraben	0.15
Neobee M-5 Cosmetic	2.00
Drewpol 3-1-0	1.50
Petrolatum	1.50
Kessco Cetyl Alcohol	1.00
Stearic Acid T.P.	2.50
Propyl Paraben	0.10
DMDM Hydantoin	0.25
Tetrasodium EDTA	0.10
Triethanolamine	1.65
Avocado Extract	0.01

Mixing Procedure:

Combine water and Carbopol 934 with good mixing, agitate until a thin solution free of lumps is obtained. Add next 3 ingredients and mix until completely dissolved. Heat to 165F. Prepare the oil phase by adding together Neobee M-5 Cosmetic, Drewpol 3-1-0, Petrolatum, Kessco Cetyl Alcohol, Stearic Acid T.P., and Propyl Paraben. Heat to 165-170F. Add the oil phase to the water phase (both at 165-170F) with good agitation. Emulsify for 20 minutes and then begin to cool with slow agitation. At 110F, add DMDM Hydantoin, Tetrasodium EDTA, Triethanolamine, and Avocado Extract. Continue to cool to 90F. At room temperature, adjust pH to 7.0-8.0 if necessary. Check viscosity.

SOURCE: Stepan Co.: Suggested Formulation

Cationic Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	77.25
Glycerine	5.00
Polyquaternium 10	0.75
Varisoft TA-100	1.50
B:	
Adol 52	1.00
Adol 62	3.00
Finsolv TN	2.00
White Protopet 1S (Witco)	1.50
Carnation Mineral Oil (Witco)	1.50
Starfol OS	1.50
DC Fluid 345	1.00
DC Fluid 593	1.50
Varonic 63-E-20	1.00
Varonic LI-67	1.50
C:	
Preservative	q.s.

Procedure:

Mix water, glycerine and Polyquaternium 10 until even. Sprinkle in Varisoft TA-100 with mixing. Continue mixing and heat phase A to 75-80C. Heat phase B to 75-80C. Add phase A to phase B. Cool to 30C with mixing. Add preservative.

Body Lotion: Water in Oil

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Abil-We 09	5.0
Abil-Wax 9800	3.0
Isopropyl Myristate	6.0
Carnation Mineral Oil (Witco)	5.0
PCL Liquid (Dragoco)	4.0
White Fonoline Petrolatum (Witco)	3.0
Water Phase:	
Water	71.2
Glycerol	2.0
Sodium Chloride	0.8
Perfume, Preservative	q.s.

SOURCE: Witco Corp.: Suggested Formulations

Cromoist CM-Glucan Lotion with Crodafos CES

This lotion features Cromoist CM Glucan and Crodafos CES - two high activity ingredients that reflect today's demands for truly functional products. Cromoist CM Glucan works by stimulating the skin's resistance to oxidative stress and improve its level of skin own function. Crodafos CES works by exhibiting shear thinning, producing a system that provides better oil deposition, faster delivery of active ingredients, and enhanced application properties. The lotion itself has a glossy white texture, a lubricious feel and quick rub-in.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.0
Crodacol C-70 (Cetyl Alcohol)	0.5
Volpo S-2 (Steareth-2)	0.1
Volpo S-10 (Steareth-10)	0.5
Part B:	
Triethanolamine (98%)	0.2
Deionized Water	87.7
Part C:	
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0

pH=5.0+/-0.5

Viscosity=5,700 cps+-10% (RVT Spindle TC, 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 70C. Combine ingredients of Part B with mixing and heat to 70C. Add Part A to Part B with mixing. Cool to 45C with mixing. Add ingredients of Part C separately. Continue mixing to desired fill temperature.

SOURCE: Croda Inc.; Suggested Formulation SC-264

Dihydroxyacetone Lotion

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	1.5
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	1.0
Octyl Stearate (Tegosoft OS)	4.0
Isohexadecane	7.0
Hydrogenated Castor Oil	0.4
Beeswax	0.4
Phase B:	
Cyclomethicone	6.0
Phase C:	
Water	72.9
Propylene Glycol	2.0
Sodium Chloride	0.8
Dihydroxyacetone	4.0
Preservatives	Q.S.
Color	Q.S.
Phase D:	
Fragrance	Q.S.

Procedure:

1. Blend the components of Phase A. Heat to 85C in a closed kettle while mixing until all waxes are dispersed.
2. Cool to 40C.
3. Add the Cyclomethicone. Mix.
4. Heat Phase C components to 40C while mixing.
5. Add C to A/B slowly with slow agitation until B is fully dispersed.
6. Add fragrance with slow agitation. 7. Homogenize.

Isolan DO Lotion
O/W Cold Process

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Methylglucose Dioleate (Isolan DO)	2.0
Octyl Stearate (Tegosoft OS)	5.0
Octyl Palmitate (Tegosoft OP)	5.0
Isopropyl Palmitate (Tegosoft P)	5.0
Phase B:	
Water	79.0
Glycerin	3.0
Preservative	Q.S.
Phase C:	
Carbomer 1382	0.2
Isopropyl Palmitate (Tegosoft P)	0.8
Phase D:	
NaOH (10% Solution) adjust pH to 5.5-6.5	Q.S.

Procedure:

1. Mix the ingredients of Phase A and B separately. Add B to A without mixing.
2. Homogenize A/B, oil particle size <0.1 um.
3. Disperse the Carbomer 1382 into the oil/ester and add to A/B. Stir intensively for 30 minutes.
4. Add D and stir for five additional minutes.

Temperature of the phases A, B, C, D: are 20-25C

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Emollient Lotion

A synergistic combination of Veegum and Carbomer is used to thicken and stabilize this elegant cosmetic lotion. The emollients in this formula were selected for their moisturizing properties. The emulsification for the formula is provided by the glyceryl monostearate and the triethanolamine stearate (formed in situ).

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.50
Deionized Water	83.66
Carbomer 934 (Carbopol 934)	0.10
B: Triethanolamine	0.10
Glycerine	4.00
C: Mineral Oil	4.00
Petrolatum	0.44
Stearic Acid XXX	1.80
Cetyl Alcohol	0.90
Glyceryl Stearate SE (Kessco GMS-SE)	1.60
Cetyl Acetate (and) Acetylated Lanolin Alcohol (Acetulan)	2.20
Dimethicone, 350 cs	0.70
D: Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating at maximum available shear until smooth. Add the remaining Part A ingredient and mix until thoroughly dispersed. Add the Part B ingredients in the order shown, mixing each until uniform. Heat Parts A+B to 70-75C. Mix and heat the Part C ingredients to 75-80C. Add Part C to Parts A+B with high speed agitation. Begin cooling while mixing slowly and add Part D at 40C or lower.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulation No. 378

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Tetrasodium EDTA	0.10
Methyl Paraben	0.15
Propyl Paraben	0.10
Carbopol 934	0.15
Triethanolamine (88%)	1.80
Glycerin	5.00
Neobee M-20	6.50
Stearic Acid, Tech.	3.00
Wecobee S	0.50
Kessco Cetyl Alcohol	0.46
Kessco GMS Pure	0.10
Silicone DC-200 (200 cps)	0.10
DMDM Hydantoin	0.25

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, add the D.I. Water, Tetrasodium EDTA, Methyl Paraben, Propyl Paraben, Carbopol 934, and Glycerin. Mix with very good agitation until there are no lumps. Add Triethanolamine (88%). Start heating to 165-170F. In a separate container, combine Neobee M-20, Stearic acid, Wecobee S, Kessco Cetyl Alcohol, and Kessco GMS Pure. Heat to 170-175F. Add to water phase and emulsify for 20-25 minutes. Start cooling. At 100F, add Silicone DC-200. At 90F, add DMDM Hydantoin. At room temperature, adjust pH to 7.8-8.0 if necessary. Check viscosity.

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Neobee M-5	10.00
Kessco GMS-Pure	3.00
Kessco Cetyl Alcohol	2.00
Wecobee SS	2.50
Brij 78	0.40
Propyl Paraben	0.05
Silicone DC-200 (350 cps)	1.00
DMDM Hydantoin	0.25

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, prepare water phase by adding D.I. Water and Methyl Paraben. Start mixing and heat to 160-165F. In a separate container, prepare oil phase by adding Neobee M-5, Kessco GMS-Pure, Kessco Cetyl Alcohol, Wecobee SS, Brij 78, and Propyl Paraben. Heat to 165-170F. Increase agitation of water phase and slowly add oil phase. Emulsify for 20-25 minutes at 165-170F. Start cooling. At 100F, add Silicone DC-200 and DMDM Hydantoin. At room temperature, adjust pH to 7.8-8.0 if necessary. Check viscosity.

SOURCE: Stepan Co.: Suggested Formulations

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Carbopol 934	0.15
Deionized Water	83.45
B:	
Methylparaben	0.20
Propylparaben	0.10
Propylene Glycol	0.80
Disodium EDTA	0.10
Glycerin	5.00
C:	
Carnation Mineral Oil (Witco)	4.00
Stearic Acid	2.00
Glycol Stearate	1.50
Cetyl Acetate/Acetylated Lanolin Alcohol	0.50
Glyceryl Stearate	0.50
Dimethicone	0.50
Cetyl Alcohol	0.20
Triethanolamine	1.00
Fragrance	q. s.

Procedure:

Part A-Disperse Carbopol into water under rapid agitation, heat to 75C. Combine B ingredients, add to A under moderate agitation. Separately combine C ingredients, heat to 75C. Slowly combine C to A-B with good agitation. Add TEA cooling with slow agitation to 45C. Add fragrance, cool to room temp.

Cocoa Butter Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
Oil Phase:	
Glyceryl Stearate	1.28
Hydrofol Acid 1655CG	2.03
Carnation Mineral Oil (Witco)	7.50
Adol 52NF	1.07
Lanolin	0.53
Isopropyl Palmitate	0.57
Cocoa Butter	0.50
Water Phase:	
Varonic LI-48	1.60
Triethanolamine	0.89
Propylene Glycol	1.60
Deionized Water	82.43
Preservatives:	
Methyl Paraben	0.10
Propyl Paraben	0.05

Procedure:

Prepare Water and Oil Phases separately. Warm each phase to 80C. Blend Oil Phase into Water Phase with rapid but smooth agitation. Cool system with smooth agitation to 40C. Blend in Preservatives. Continue agitation to 35C and add dye and perfume.
SOURCE: Witco Corp.; Suggested Formulations

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum Pro	2.00
Water	70.75
Glycerin	6.00
B:	
Ervol Mineral Oil (Witco)	10.00
White Protopet 1S Petrolatum (Witco)	4.00
Arlacel 165	5.00
Synchrowax AW1-C	1.25
C:	
Allantoin	1.00
Preservative	q.s.

Procedure:

Heat the water to 70-75C, then slowly add Veegum while agitating at maximum shear. Mix until smooth. Add glycerine and mix until uniform. Heat B to 75-80C. Add B to A and mix until cool. Add C and mix until uniform. Veegum Pro effectively thickens and stabilizes the emulsion even at elevated temperatures.

Depilatory Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	57.1
Avenel S-150 (PPG-Mazer)	3.0
Calcium Hydroxide	6.5
Melamine	3.0
Lithium Hydroxide	2.8
B:	
Macol 124 (PPG-Mazer)	6.0
Carnation Mineral Oil (Witco)	7.0
C:	
Water	10.0
Thioglycolic Acid (Witco)	4.6

Procedure:

Blend A ingredients. Heat A to 65C. Premix B ingredients, heating to 65C. Add B to A with high shear agitation. With sweep agitation cool batch to 30C. Premix C at or below room temp. and add slowly to main batch. Maintain temp. at 35C during the addition.

SOURCE: Witco Corp.: Suggested Formulations

Hand and Body Lotion

A Veegum and Cellulose Gum combination is used effectively in this formula to provide emulsion stabilization and viscosity control. The combination of liquid emollients provides smooth rub-in and non-greasy feel. Stearic Acid is used as a non-greasy oil phase thickener.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Cellulose Gum (CMC 7MF)	0.15
Deionized Water	80.75
Simethicone (Dow Corning Antifoam AF)	0.10
B: Mineral Oil	5.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	4.00
Stearic Acid XXX	3.00
Glyceryl Stearate (and) PEG-100 Stearate (Arlacel 165)	4.00
Lanolin Oil	2.00
C: Preservative	q.s.

Procedure:

Add the Veegum/Cellulose Gum dry blend to the water slowly, agitating at maximum available shear until smooth. Add Simethicone at slow mixing speed. Heat Part A to 70C and Part B to 75C. Add Part B to Part A and mix while cooling. Package at 40C.

Formula No. 370

Dry Touch Emollient Lotion

Veegum stabilizes the emulsion and adjusts the viscosity of this lotion. The emollients used for these lotions were selected for their moisturizing properties. The emulsification for these formulas is provided by the glyceryl monostearate and the triethanolamine stearate (formed in situ).

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.50
Water	85.50
B: Triethanolamine	0.10
Glycerin	3.50
C: Mineral Oil	3.60
Petrolatum	0.40
Stearic Acid XXX	1.60
Cetyl Alcohol	0.80
Glyceryl Stearate SE (Kessco GMS-SE)	1.40
Cetyl Acetate (and) Acetylated Lanolin Alcohol (Acetulan)	2.00
Dimethicone, 350 cs.	0.60
D: Color, Preservative, Perfume	q.s.

Procedure:

Add the Veegum to the water slowly, agitating at maximum available shear until smooth. Add the Part B ingredients to Part A and heat to 70-75C with gentle stirring. Heat the Part C ingredients to 75-80C. Add Part C to Parts A+B and mix thoroughly while cooling. At 40C add Part D, mix until uniform.

Formula No. 377

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Hand and Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Glucate SS	1.00
Glucamate SSE-20	1.00
Modulan	2.00
Stearic Acid	2.00
Blandol Mineral Oil	3.00
Aprikol (Bell)	3.00
Phenonip (Fanning)	0.20
B:	
Glucam E-20	5.00
Deionized Water	81.00
Dowicil 200	0.20
C:	
Pacific Sea Kelp Extract	0.25
Chamomile Extract	0.25
Hawaiian White Ginger Extract	0.25
Fragrance J-5390 (Bell)	0.30
Premix Tween 20	0.50

Procedure:

Heat Phases A and B to 85C. Add B to A at 85C. Stir and cool to 45C. Add Botanicals and Fragrance. Stir to 30C and package.

Rehydrating Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	60.68
Tetrasodium EDTA	0.04
Methylparaben	0.16
Propylparaben	0.08
Propylene Glycol	4.00
Carbopol 940 2% in Water	5.60
B:	
Carnation Mineral Oil (Witco)	5.60
Stearic Acid XXX	2.00
Aldo MS (Glyco)	2.40
Fluilan	0.40
Liponate GC	2.40
Finsolv TN	0.04
Butyl Paraben	0.04
C:	
Triethanolamine 99%	0.80
D:	
Aloe-Moist (Terry)	15.00

Procedure:

Add B at 80C while stirring. Add C and stir 15 minutes at 80C. Cool to 55C and add D. Cool to 30C.

SOURCE: Witco Corp.: Suggested Formulations

Hand and Body Lotion

A non-tacky, moisturizing hand and body lotion with natural skin feel, containing Clariskin for eliminating brown age spots.

Ingredients:

	<u>%W/W</u>
1. Distilled/Deionized Water	78.90
2. Disodium EDTA	0.10
3. Acritamer 941 (Carbomer)	0.20
4. Propylene Glycol	0.80
5. Glycerine	5.00
6. Methylparaben	0.20
7. Propylparaben	0.10
8. Mineral Oil (Drakeol-21)	4.00
9. Stearic Acid	2.00
10. Rita EGMS (Glycol Stearate)	1.50
11. Ritawax ALA (R.I.T.A. Blend)	0.50
12. Rita SA (Stearyl Alcohol)	0.50
13. Rita CA (Cetyl Alcohol)	0.20
14. Ritasil 190 (Dimethicone Copolyol)	0.50
15. Triethanolamine	0.50
16. Clariskin (Yeast Extract)	5.00

Compounding Procedure:

Disperse item 2 into the water until uniform and add item 2. Mix items 4-7 and add to the combined items 1-3, then heat to 65C. Mix items 8-14 and heat to 65C. Add oil phase to water phase. Hold temperature at 65C and add item 15. Cool to 40C and add item 16.

Ref. No. 122-88B

Hand Lotion

A non-greasy hand lotion designed for normal skin.

Ingredients:

	<u>%W/W</u>
1. Mineral Oil (Light)	3.00
2. Stearic Acid	2.50
3. Rita GMS (Glyceryl Stearate)	2.00
4. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	0.75
5. Rita CA (Cetyl Alcohol)	0.50
6. Propylparaben	0.05
7. Acritamer 934 (Carbomer)	0.10
8. Distilled/Deionized Water	81.85
9. Methylparaben	0.10
10. Triethanolamine (50%)	0.65
11. Propylene Glycol	3.50
12. Fragrance	q. s.
13. Tensine (Wheat Protein)	5.00

Compounding Procedure:

Slowly add item 7 to item 8 with agitation. Add item 9 and heat to 70C. Combine items 1-6 and heat to 70C. Add items 10 and 11 to water. Add oil to water with mixing. Begin cooling while mixing. Add items 12 and 13.

Ref. No. 122-2A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Hand & Body Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	72.15
B:	
Polysorbate-20	2.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Glycerin	3.00
Xanthan Gum	0.12
D:	
Sesame Oil	4.00
Carnation Mineral Oil (Witco)	1.00
Glyceryl Stearate & PEG-100 Stearate	3.00
Sorbitan Stearate	2.00
Cetyl Alcohol	1.00
Mineral Oil and Lanolin Alcohol (Amerchol)	3.00
Dimethicone	0.50
BHA	0.05
Methocel 40-100	0.10
Vitamin E Oil	0.01
Stearic Acid	1.50
E:	
Deionized Water	1.50
Dowicil 200	0.10
F:	
Deionized Water	1.00
Collagen	0.01
Elastin	0.01
G:	
Fragrance	0.10

Procedure:

Heat A to 70-80C. Combine B ingredients and warm. Add to A at 75-80C, combine C ingredients and mix well to pre-wet xanthan. Add to A. Weigh D ingredients into steam-jacketed kettle and heat to 80C. Add to water phase. Turn heat off and mix emulsion down to 45C. Prepare E, add to batch at 45C. Add F at 45C. Add G to emulsion.

Light Conditioning Hand Lotion

<u>Formula:</u>	<u>% by Weight</u>
A: Glucquat 100	1.0
Deionized Water	84.0
B: Glucate SS	0.8
Glucamate SSE-20	1.2
Acetulan	2.0
Glyceryl Monostearate	0.5
Carnation Mineral Oil (Witco)	7.5
Perfume and Preservative	q.s.

Procedure:

Dissolve Gluquat 100 in water and heat to 70C. In separate vessel, combine B and heat to 70C with propeller agitation. Slowly add A to B and mix until uniform. Cool to room temperature with mixing.

SOURCE: Witco Corp.: Suggested Formulations

Incroquat Behenyl TMS Lotion

This basic formulation shows how Incroquat Behenyl TMS can form a stable and elegant, yet simple, emulsion. The soft/powdery feel it confers on the skin is due to the conditioning effects of the behenyl quat.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	3.00
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.00
Dimethicone 200 (200 cps)	1.00
Volpo S-2 (Steareth-2)	0.10
Volpo S-10 (Steareth-10)	0.50
Part B:	
Deionized Water	77.40
Part C:	
Deionized Water	5.00
Hydrotriticum 2000 (Hydrolyzed Whole Wheat Protein)	1.00
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) and Propylparaben	1.00
Crodasome CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.00
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	5.00

pH=4.5+-0.5

Viscosity=9,000 cps+-10% (RVT Spindle #TC, 10 rpm, 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Heat Part B to 75-80C. Add Part A to B with mixing. Cool with mixing to 50C and add Parts C and D. Continue mixing and cool to desired fill temperature.

SOURCE: Croda, Inc.: Formulation SC-268

High SPF-30 Lotion
Cold Process

Active Ingredients:

Octyl Methoxycinnamate	3%
Octyl Salicylate	3%
Titanium Dioxide	2%

Ingredients:Weight%**Phase A:**

Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.00
Caprylic/Capric Triglycerides (Tegosoft CT)	3.00
Cyclomethicone	3.00
Octyl Palmitate (Tegosoft OP)	3.00
Octyl Stearate (Tegosoft OS)	2.00
Polydecene	2.00
Cetyl Dimethicone (Abil Wax 9801)	1.00
Octyl Methoxycinnamate	3.00
Octyl Salicylate	3.00

Phase B:

Water	68.40
Sodium Chloride	0.80
Hydroxyethyl Cellulose	0.80
Titanium Dioxide (40% aq. dispersion)	5.00
Preservatives	Q.S.
Fragrance	Q.S.
Color	Q.S.

Procedure:

1. Combine the ingredients of Phase A together. Mix well.
2. Dissolve the Hydroxyethyl Cellulose into the vortex of the agitating water phase. Allow the cellulose to fully hydrate prior to adding the sodium chloride. Add TiO₂ (40% aq. dispersion). Mix until uniform. Add preservatives.
3. Add Phase B slowly into Phase A with slow agitation.
4. Homogenize.
5. Fragrance and color can be added upon forming the emulsion.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Low pH Glycolic Acid Lotion with
18-B Glycyrrhetic Acid Phytosome

An AHA lotion containing Lipo Fruit Acid Complex for softer smoother skin and 18-B Glycyrrhetic Acid Phytosome which should make this more acceptable to sensitive skin.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Wt%</u>
1	Deionized Water	52.65
1	Hypan QT-100 (1% gel)	0.20
1	Benzyl Alcohol	0.50
1	FG-10 Antifoam Simethicone Emulsion	0.10
2	Liponate NPGC-2	5.00
2	Lipocol C	1.75
2	Lipomulse 165	5.00
2	DC Silicone 200/350 cts.	0.50
2	Lipowax D	3.00
3	Liponic EG-1	6.00
3	18-B Glycyrrhetic Acid Phytosome	0.50
4	Lipo Fruit Acid Complex	5.00

Procedure:

1. In main kettle, combine Sequence #1 ingredients under homogenizer and heat to 75C.
2. In auxiliary kettle, combine Sequence #2 ingredients and heat to 80C.
3. At proper temperature, add combined Sequence #2 to Sequence #1 under homogenizer and continue to homogenize until emulsification is complete and all Hypan Gel particles are not visible. Begin to cool and switch to lightnin' mixing.
4. Cool to 40C and add premixed Sequence #3 into batch mix until dissolved and batch is uniform. Cool to 25C with sweep blade at low speed.
5. At 25C, add Sequence #4 into batch.
6. Adjust pH to 3.8-4.1 with appropriate buffer.

SOURCE: Lipo Chemicals Inc.: Formulation No. 891

Moisturizing Lotion

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Glyceryl Stearate (and) PEG-100 Stearate (Lexemul 561)	2.00
Isopropyl Myristate (Lexol IPM)	1.00
Glycol Stearate (Lexemul EGMS)	0.50
Mineral Oil	0.50
Acetylated Lanolin Alcohol	1.00
Cetyl Alcohol	1.00
Stearic Acid	1.00
Cyclomethicone	0.50
Propylparaben (Lexgard P)	0.05
B: Sorbitol, 70%	4.00
Veegum, Magnesium Aluminum Silicate	0.30
Triethanolamine, 99% to pH 7.0	q.s.
Carbomer 934	0.20
Methylparaben (Lexgard M)	0.15
Deionized Water	87.80

Procedure:

Weigh the water into a suitable vessel and heat to 70C while mixing with a homogenizer at 5000 rpm. Add the Veegum slowly and continue mixing for 20 minutes. Add the Sorbitol and Methyl Paraben and mix each for 3 minutes at 5000 rpm. Add the Carbomer 934 and mix for 3 minutes. Weigh the Part A ingredients into another vessel. Mix and heat to 70C. Add Part A to Part B and mix for 10 minutes at 70C. Move the batch to a propeller mixer, adjust the speed to produce a small vortex, and begin cooling. At 40C, measure the pH and adjust to 7.0 using Triethanolamine. Continue cooling and package at 35C.

Collagen Lotion

The Veegum/Rhodigel mixture stabilizes the emulsion and adjusts the viscosity of this cold process lotion. The lotion provides an elegant feel in both initial application and in the residual film.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.50
Deionized Water	76.25
B: Glycerin	6.00
Soluble Collagen (Collasol)	5.00
Allantoin	0.25
C: Hydrogenated Polyisobutylene (Polysynlane)	4.00
Mineral Oil (and) Lanolin Alcohol (Amerchol L-101)	3.00
C10-30 Cholesterol/Lanosterol Esters (Super Sterol Ester)	2.00
DEA-Oleth-3 Phosphate (Crodafos N-3 Neutral)	1.00
Dimethicone, 350 cs. (Dow Corning 200 Fluid)	1.00
D: Preservative	q.s.

Procedure:

Dry blend Veegum and Rhodigel and add them to the water while agitating at maximum available shear until smooth. Add Part B in order, mixing each until smooth and uniform. Combine Part C ingredients, stirring until uniform. Add Part C to Parts A+B. Mix until homogeneous.

*As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Formulas: Inolex Chemical/#381

Moisturizing Lotion

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Pentaerythrityl Tetralaurate	5.00
Glyceryl Stearate (and) PEG-100 Stearate	5.00
Mineral Oil	2.50
Acetylated Lanolin Alcohol	1.00
Dimethicone	1.00
Stearic Acid	1.00
Stearyl Alcohol	0.50
Cetyl Alcohol	0.50
B: Deionized Water	78.00
Veegum HV, Magnesium Aluminum Silicate	0.30
Carbomer 934, 3% Soln. (Carbopol 934)	5.00
C: Triethanolamine, 99%	0.20
Preservative	q.s.

Procedure:

Prepare the 3% Carbomer solution in accordance with the manufacturer's recommendations. Weigh the Part B water into a suitable vessel and heat to 50C. While mixing the water with a homogenizer at 5000 rpm, slowly add the Veegum HV and continue mixing for 20 minutes while heating to 75F. Add the Carbomer solution and continue mixing. Weigh the Part A ingredients into another vessel. Mix and heat to 75C. Add Part A to Part B and mix for 10 minutes at 75C. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 45C, add the Triethanolamine. At 40C, add the preservative and package at 35C.

Formula from Rhone-Poulenc, Inc.

Silicone Barrier Lotion

In this formula, Veegum is used along with Rhodigel Xanthan Gum to stabilize the emulsion and adjust the viscosity. This lotion uses a silicone fluid to achieve an emollient protective barrier with a pleasant non-greasy feel. Stearic Acid is used as a non-greasy oil phase thickener. The Span/Tween combination provides the emulsification for this formula. Lotion viscosity is adjusted by changing the Veegum/Rhodigel level.

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.25
Water	80.75
B: Phenyl Trimethicone (Dow Corning 556 Fluid)	5.00
Stearic Acid XXX	5.00
Polysorbate 20 (Tween 20)	4.50
Sorbitan Laurate (Span 20)	3.50
C: Preservative	q.s.

Procedure:

Add the Veegum/Rhodigel dry blend to the water slowly, agitating at maximum available shear until smooth. Heat Part A to 70C. Heat Part B to 75C. Add Part B to Part A and mix while cooling to room temperature. Add Part C and mix until uniform.

Formula No. 374

* As received basis

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

O/W Hand & Body Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Glyceryl Monostearate	4.00
Cetyl Alcohol	1.00
Cetiol LC	10.00
Silicone 200/100 cs	0.50
Edeta BD	0.10
Phenonip	0.60
Amphisol A	1.51
B. Deionized Water	10.00
AMP Regular (10% sol'n)	4.00
C. Deionized Water	52.69
Pemulen TR-1 1% soln	10.00
Propylene Glycol	5.00
D. AMP Regular (10% sol'n)	0.60
E. Perfume Oil	q.s.

Procedure:

Heat part A to 85C while stirring. When homogeneous, add part B pre-heated to 75C, while mixing. Add parts C and D pre-heated to 75C, while mixing. Cool to 40C, add part E. Compensate for water loss and continue stirring, while cooling to ambient temperature.

Remark: b) Recommended percentage of suitable dermatologically tested perfume for cream 0.5%.

Formulation PF-0374E suggested by Givaudan-Roure SA

Aculyn 33 Hand Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	to 100%
Imidazolidinyl Urea	0.30
EDTA Na2	0.15
Cetearyl glycoside	20.00
Isopropyl myristate	5.00
Aculyn 33	3.00
B. AMP-95 (10% soln.)	3.00

Procedure:

Mix the ingredients in the order listed.

Physical Characteristics:

pH: 7.4

Viscosity (6 rpm): 12,000 cps

Formulation PF-0388 suggested by Rohm and Haas Co. (PF-034)

SOURCE: Angus Chemical Corp.: Product Formulary

Pearlized Body Lotion

<u>Phase#:</u>		<u>Wt%</u>
1	Deionized Water	q.s.
1	Pearlescent Pigment (Rona)	2.00-5.00
2	Carbopol 941	0.40
3	Propylene Glycol	8.00
3	Methyl Paraben	0.20
4	Disodium EDTA	0.05
5	Triethanolamine 99%	0.60
5	Deionized water	2.00
6	Crodesta SL40	3.00
7	Mineral Oil 90cs	4.00
7	Schercemol 185	
7	Crill 6	1.00
7	Propyl Paraben	0.10
8	DMDM Hydantoin 55%	0.18
9	Fragrance	0.10

Procedure:

Combine phase 7, heat to 80C with stirring until homogeneous. Combine phase 1, heat to 70C. Add phase 2 while homogenizing. Combine phase 3, add to batch. Add phase 4. Combine phase 5, add to batch. Add phase 6. Heat to 75C. Add combined phase 7, maintain homogenizer agitation for 15 minutes. Cool to 45C, add phases 8,9. Cool to 30C.

Rona Pearl Pigment Combinations:

EM1-55-1	Timiron Super Gold	2%
EM1-55-2	Timiron Super Red	2%
EM1-55-3	Timiron Super Violet	2%
EM1-55-4	Timiron Super Blue	2%
EM1-55-5	Timiron Super Green	2%
EM1-55-6	Timiron Super Copper	2%

SOURCE: Rona/EM Industries, Inc.: Formulation EM1-55

Protective Lotion with Cromoist CM Glucan

This lotion is ideal for every day use due to the protective effects of Cromoist CM Glucan on the skin and is especially beneficial before and after exposure to the sun. By stimulating the skin's own defense mechanisms, the powerful protectant and therapeutic agent is able to increase the skin's resistance to UV-A induced oxidative stress and other environmental insults. Crodafos CES is a unique conditioning and emulsifying system that enhances the protective and emollient effects of the lotion by promoting better delivery of Cromoist CM Glucan and Crodamol PMP, the emollient ester used to reduce the greasiness of the petrolatum.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol PMP (PPG-2 Myristyl Ether Propionate)	5.0
Petrolatum	2.0
Part B:	
Deionized Water	75.8
Triethanolamine (98%)	0.2
Part C:	
Deionized Water	5.0
Collasol (Soluble Collagen)	1.0
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl- paraben (and) Propylparaben	1.0
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Incromectant LAMEA (Acetamide MEA (and) Lauramide MEA)	5.0

pH=4.5+-0.5

Viscosity=6,000 cps+-10% (RVT Spindle # TC @ 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C.
Combine ingredients of Part B with mixing and heat to 75-80C.
Add ingredients of Part A to B with mixing and cool to 50C.
Add ingredients of Part C and D with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-266

Rain Forest Lotion with Cronatural Brazil Nut Oil

This formulation produces a shiny white, pumpable lotion with excellent rub-in characteristics and dries quickly to a very conditioned softness. Cronatural Brazil Nut Oil imparts a dry emollient feel without a hint of oiliness.

Ingredients: Wt%**Part A:**

Incromine BB (Behenamidopropyl Dimethylamine)	3.0
Crodacid B (Behenic Acid)	2.5
Mineral Oil (70ssu)	15.0
Cronatural Brazil Nut Oil	5.0

Part B:

Deionized Water	73.5
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Part C:

Propylene glycol (and) diazolidinyl urea (and) methyl paraben (and) propyl paraben*	1.0
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pH: 7.5+-0.5

Viscosity: 3,000 cps+-10% (RVT Spindle #5, 50 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 80-85C. Heat Part B to 80-85C. Add Part B to Part A with mixing and cool to 40C. Add Part C with mixing and cool to desired fill temperature.

*Germaben II (Sutton Labs)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SC-245**Dihydroxyacetone Lotion**

Phase A:	<u>Wt%</u>
Abil EM-90	1.5
Abil WE-09	1.0
Abil B 8839	6.0
Tegosoft OS	4.0
Isohexadecane	7.0
Hydrogenated Castor Oil	0.4
Beeswax	0.4
Phase B:	
Water	72.9
Propylene Glycol	2.0
Sodium Chloride	0.8
Dihydroxyacetone	4.0
Preservatives	Q.S.
Color	Q.S.
Phase C:	
Fragrance	Q.S.

Procedure:

1. Blend the components of Phase A. Heat to 85C in a closed kettle while mixing until all waxes are dispersed.
2. Cool to 40C.
3. Heat Phase B components to 40C while mixing.
4. Add B to A slowly with slow agitation until B is fully dispersed.
5. Add fragrance with slow agitation. 6. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Skin Firming Lotion

A light skin lotion containing Raffermine to enhance the firmness of the skin.

<u>Ingredients:</u>	<u>%W/W</u>
1. Stearic Acid	3.10
2. Soy Glycerides	3.10
3. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	1.20
4. Caprylic/Capric Triglycerides	2.50
5. Methylparaben	0.15
6. Propylparaben	0.05
7. C12-15 Alkyl Benzoate	1.50
8. Distilled/Deionized Water	79.10
9. Acritamer 940 (Carbomer)	0.15
10. Methyl Gluceth-20	3.00
11. Propylene Glycol	3.20
12. Raffermine (Hydrolyzed Soy Flour)	2.00
13. TEA (50%)	0.50

Compounding Procedure:

Combine items 1-7 and heat to 70C. Combine items 8, 10 and 11. Heat to 70C while dispersing item 9. Add oil to water. Add TEA and mix while cooling. At 40C add item 12.

Ref. No. 121-125

Facial Moisturizing Lotion

Elegant mineral oil and lanolin based emulsion formulated with Polyquta to add substantivity to the skin and Ritasil 190 for pleasant skin feeling.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritapro-165 (R.I.T.A. Blend)	4.00
2. Mineral Oil	5.00
3. Lanolin USP (R.I.T.A. X-tra Deo)	0.50
4. Ritapro 100 (R.I.T.A. Blend)	1.50
5. Ritasil 190 (Dimethicone Copolyol)	0.40
6. Distilled/Deionized Water	81.70
7. Propylene Glycol	6.00
8. Polyquta 3000 (Polyquaternium-10)	0.50
9. Glydant	0.20
10. Fragrance-Light Musk 169-119	0.20

Compounding Procedure:

Dissolve Polyquta 3000 in water. Add item 7 and heat to 70C. Separately heat items 1-5 to 70C. Add this mixture to water mixture. Mix to uniform and cool to 40C. Add preservative and perfume.

Ref. No. 121-89

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Therapeutic Hand & Body Lotion

<u>Raw Material:</u>	<u>Wt% (as-is)</u>
1. D.I. Water	Q.S. to 100.00
2. Methyl Paraben	0.15
3. Glycerine	3.5
4. Brij 78	0.4
5. Octyl Isononanoate	10.0
6. Kessco GMS	3.0
7. Kessco Cetyl Alcohol	2.0
8. Wecobee S	2.5
9. Propyl Paraben	0.01
10. Silicone 200 (350 cps)	1.0
11. Glydant	0.25
12. Citric Acid 50%	Q.S.
13. Fragrance, Color	Q.S.

Properties:

Appearance: Opaque Lotion

pH @ 25C: 6.0-7.0

Mixing Procedure:

Prepare water phase by adding 1,2 and 3. Heat to 70C. Prepare oil phase by adding 4,5,6,7,8 and 9. Heat to 70C. Add oil phase to the water phase. Increase agitation. Mix at 70C for 20-25 minutes. Start cooling to room temperature with continuous agitation. At 45C, add 10 and 11. Adjust pH if necessary. Cool to ambient temperature.

Ethnic Hand & Body Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Glycerin	4.00
Ammonyx 4	18.40
Petrolatum	4.00
Kessco IPP	3.00
Silicone DC-200 (350 cps)	1.00
Kessco Cetyl Alcohol	2.00
Potassium Chloride	0.40
Citric Acid (50%)	Q.S.
Preservative	Q.S.

Mixing Procedure:

Into a suitable container equipped with mixing, heating, and cooling capabilities, add the D.I. Water, Glycerin, and Ammonyx 4. Start mixing and heating to 155-160F. At 155-160F, add Petrolatum, Kessco IPP, Silicone DC-200, and Kessco Cetyl Alcohol. Mix well for 20 minutes, keeping heat at 160F. Start cooling to room temperature. At 100F, premix potassium chloride with small amount of D.I. Water and add to the batch. At 90F, add preservative. At room temperature, adjust pH to 4.0-4.5 if necessary with citric acid (50%).

SOURCE: Stepan Co.: Suggested Formulations

Under Make-Up Lotion

A non-greasy, protective day cream containing Tensine and Reductine to firm the skin and help reduce fine lines.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Cetareth-25	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	5.00
5. Methylparaben	0.20
6. Propylparaben	0.10
7. Distilled/Deionized Water	62.50
8. Propylene Glycol	5.00
9. Tensine (Wheat Protein)	6.00
10.Reductine (Oat Protein)	5.00
11.TEA (99%)	q.s.
12.Fragrance	0.20

Compounding Procedure:

Combine items 1-6 and heat to 70C. Combine items 8 and 9 and heat to 70C. Add oil to water and mix. Allow to cool to 40C and add items 9-12.

Ref. No. 120-195

Under Make-Up Lotion

A non-greasy, protective day cream containing Tensine and Reductine to firm the skin and help reduce fine lines.

<u>Ingredients:</u>	<u>%W/W</u>
1. Rita GMS (Glyceryl Stearate)	8.00
2. Cetareth-6 and Stearyl Alcohol	3.00
3. Rita IPP (Isopropyl Palmitate)	5.00
4. Ritachol 2000 (Cetearyl Alcohol and Polysorbate-60)	5.00
5. Methylparaben	0.20
6. Propylparaben	0.10
7. Distilled/Deionized Water	62.50
8. Propylene Glycol	5.00
9. Tensine (Wheat Protein)	6.00
10.Reductine (Oat Protein)	5.00
11.TEA (99%)	q.s.
12.Fragrance	0.20

Compounding Procedure:

Combine items 1-6 and heat to 70C. Combine items 8 and 9 and heat to 70C. Add oil to water and mix. Allow to cool to 40C and add items 9-12.

Ref. No. 120-196

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Water-in-Oil Moisturizing Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum	1.3
Water	55.7
Magnesium Sulfate	0.5
B:	
Carnation Mineral Oil (Witco)	9.0
Polysynlane	10.0
Nimlesterol D	7.5
Amerchol L101	9.0
70% Sorbitol Solution	5.0
Witcamide 511	2.0
Preservative	q.s.

Procedure:

Add Veegum to water slowly, agitating continually until smooth. Add magnesium sulfate and mix until smooth. Blend B and add A to B. Mix until smooth and uniform. This formula is a rich, pourable or pumpable lotion and may be dispensed from a suitable glass or plastic bottle.

Facial Lotion

<u>Formula:</u>	<u>% by Weight</u>
Water Phase:	
Water	q.s. to 100
Triethanolamine	0.2
Oil Phase:	
Carnation Mineral Oil (Witco)	4.0
Stearic Acid	1.0
Naturechem GMHS (CasChem)	2.5
Lanolin Oil	2.0
Imidazolidinyl Urea, Methylparaben, Propylparaben	0.2
Fragrance	0.3

Procedure:

Heat both phases to 75C. Add oil phase to water phase with high speed mixing. Allow to cool and continue mixing to 35C; add preservative and fragrance; mix thoroughly.

SOURCE: Witco Corp.: Suggested Formulations

W/O Lotion, EO-free with Softisan 649

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	8.00
Miglyol 840 (Propylene Glycol/Dicaprylate/Dicaprate)	8.00
Softisan 649*	5.00
Arlacel 1689 (Polyglycerin (and) Sorbitol)	4.00
Arlamol HD (Isohexadecane)	3.00
B. Magnesium Sulphate	2.00
Preservative	q.s.
Water, ad	100.00
C. Fragrance	q.s.
* Bis-Diglyceryl Polyacyladipate-2	

Preparation:

- A is heated up at about 75C.
 B is brought to the same temperature.
 A is emulsified with an homogenizer into A.
 C is added at 30C.
 Formulation HUK WOL

New "Light Lotion" with Inwitor 375

<u>Ingredients:</u>	<u>Weight%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	16.25
Inwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
B. Natrosol Plus 330 CS	0.75
Preservative	q.s.
Water, ad	100.00
C. Fragrance	q.s.

Preparation:

- Ingredients of A are heated to about 70C.
 To build phase B Natrosol is dispersed in water and stirred to homogeneity.
 Then B is brought to the same temperature and emulsified into A.
 The cream is stirred cold and then C is added.
 Formulation HUK LL

SOURCE: Huls Aktiengesellschaft: Suggested Formulation

2% AHA Low Viscosity Lotion with Uninontan U-34

An AHA Lipo Fruit Acid lotion with Uninontan U-34 and Gorgonian Extract to provide an even skin tone and help minimize skin irritation. This formula also contains a balanced emulsifier system for excellent stability and a variety of emollients/moisturizers for skin softness.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Deionized Water	76.64
1	Uniphen P-23	0.50
1	Liponic EG-1	1.50
2	Keltrol	0.25
2	Veegum	0.15
3	Ultrapure L	1.50
3	Lipo GMS 450	1.50
3	Lipopeg 6000 DS	1.75
3	Lipowax G	0.25
3	Lipowax P	0.45
3	Lipocol C	1.00
3	Liponate NPGC-2	4.00
3	Lipovol SAF	0.50
3	Lipovol SES	0.50
4	Uninontan U-34	5.00
5	Gorgonian Extract	0.50
6	Triethanolamine, 99%	QS*

* To adjust pH

Procedure:

- Mix Sequence #1 together with overhead mixer while heating to 78C.
- Dry mix Sequence #2 together and add slowly to Sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous.)
- Mix Sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C).
- At 45C, premix Sequence #4 together at room temperature and add to batch using sweep blade at low speed. Lower temperature to 40C.
- At 40C, add Sequence #5 to the batch.
- Cool down to 25C and remove from mixer.
- Adjust pH to 3.8-4.2 with Sequence #6.

Specifications:

pH: 4.0+/-0.2

Viscosity: 6,700 cps+/-10% LVT #4 @ 30rpm

SOURCE: Lipo Chemicals Inc.: Formulation No. 936

Section VIII

Shampoos

Anti-Dandruff Shampoo
Suspending Sulfur with Ritavena 5

	<u>Wt%</u>
Sodium Lauryl Sulfate	51.70
Distilled Water	28.30
Pationic ISL/85	3.00
Ethylene Glycol Distearate	3.00
Cocamide DEA	4.50
Propylene Glycol	2.00
NaCl (25% Solution)	1.00
Lactic Acid (44%)	QS
Flowers of Sulfur	2.00
Ritavena 5	4.50

pH: 7.55

Viscosity: 15,800 cps

Stability:

Freeze/Thaw: v. sl. precip. after 2 cycles

40F: no change after 6 weeks

110F: slight separation but sulfur stays

Foam Testing:	Foam	H2O
0.0 minute	310	80
1.0 minute	310	100
3.0 minute	295	100

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 112-120-B

Children's Conditioning Shampoo

	<u>Wt%</u>
Mackadet BSC	25.0
Mackalene 426	3.0
Sodium Chloride	1.5
Mackstat DM	qs
Water, Dye, Fragrance qs to	100.0

Procedure:

1. Add first two components to water and heat to 40 degrees C.
2. Blend until clear.
3. Adjust viscosity with Sodium Chloride.
4. Add remaining components and cool.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

Antidandruff Shampoo

	<u>Wt%</u>
A:	
Water	47.0
Veegum, Magnesium Aluminum Silicate	0.5
B:	
Cocobetaine	6.0
Ammonium Lauryl Sulfate	25.0
Disodium Oleamido PEG-2 Sulfosuccinate	15.0
C:	
Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (and) Propylene Glycol (Germaben II)	1.0
Hydroxypropyl Guar	0.5
Cocamide DEA	3.0
Zinc Pyrithione	2.0
D:	
Dye, fragrance	q.s.

Procedure:

Slowly add Veegum to the water using maximum available shear. Allow to fully disperse and hydrate under continuous mixing for a minimum of 15 minutes. Blend B ingredients into A with continuous stirring for 5 minutes. In separate kettle disperse guar and cocamide DEA in Germaben II. Blend in zinc pyrithione. When uniform add A + B to C. Add dye and fragrance. No heat is required.

Formula from ISP Sutton Laboratories

Moisturizing Antidandruff Shampoo

	<u>Wt%</u>
Sodium Laureth Sulfate, 30%	25.00
Potassium Cocoyl Hydrolyzed Collagen (Maypon 4C)	10.00
Cocamide DEA	1.00
Propylene Glycol	3.00
Zinc Pyrithione, 48%	4.50
Veegum, Magnesium Aluminum Silicate	1.00
Hydroxypropyl Methylcellulose	1.20
Methyl Paraben (Lexgard M)	0.15
Propyl Paraben (Lexgard P)	0.05
Water	q.s. to 100

Procedure:

Heat water to 70C. Disperse methyl cellulose and Veegum. Add remaining ingredients and mix thoroughly. Cool to 40C. Typical properties: pH 6.7. Viscosity at 24C: 2925 cps. Thick lather, small bubbles.

Formula from Inolex Chemical Corp.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulas

Clear Shampoo with Microcapsules

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	39.60
1	Sodium Chloride	0.20
1	Methylparaben	0.25
1	Hampene Na2T	0.05
2	Liponic EG-1	1.00
2	Hypan SR150H	0.10
3	Carbopol ETD 2020 (2% sol'n)	30.00
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.80
5	Standapol ES-2	20.00
5	Standapol T	6.00
6	LipoPearl Green	1.00
	Vitamin E Acetate	

Procedure:

1. Mix and heat Sequence #1 to 80C with overhead mixer at medium speed.
2. Premix into slurry Sequence #2 and add to Sequence #1 at 80C with overhead mixer.
3. Premix Sequence #3 and add to batch with overhead mixer at medium speed.
4. Premix Sequence #4 and add to batch with overhead mixer at medium speed.
5. At low speed on overhead mixer add Sequence #5 in order of addition (keeping aeration to a minimum). Cool to 25C with sweep blade.
6. At 25C slowly add Sequence #6 microcapsules using sweep blade at low speed.

SOURCE: Lipo Chemicals Inc.: Formula No. 869

All Natural Shampoo

	<u>Wt%</u>
Mackadet WGS	45.0
Mackamide LLM	10.0
Sodium Chloride	2.5
Mackstat DM	Q.S.
EDTA (40%)	Q.S.
Fragrance	Q.S.
Deionized Water	100.0

Procedure:

1. Add components to water and blend until clear.
2. If a higher viscosity is needed, adjust with sodium chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary

Conditioning Color Enhancer Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	20.00
Sodium Laureth Sulfate (28% 2M. E.O.)	20.00
Disodium Cocoamphodipropionate	10.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.50
Quaternium-80 (Abil Quat 3272)	0.50
Phase B:	
Basic Blue 99	Q.S.
Basic Brown 16	Q.S.
Acid Violet 43	Q.S.
Basic Red 36	Q.S.
Basic Yellow 57	Q.S.
Phase C:	
Water	38.40
Tetrasodium EDTA	0.10
Cocamidopropyl Betaine (Tego Betaine E)	7.00
Dimethicone Copolyol (Abil B 8852)	0.50
Fragrance	Q.S.
Preservatives	Q.S.
Citric Acid	to pH 6.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.00

Procedure:

1. Combine ingredients of Phase A.
2. Blend colors, add to Phase A. Mix well.
3. Add ingredients of Phase C to A/B in order, mixing well. Avoid foaming. Adjust pH to 6.0 with Citric Acid.
4. Adjust viscosity with the PEG-18 Glyceryl Oleate/Cocoate (Antil 171).

SOURCE: Goldschmidt Chemical Co.: Suggested Formulations

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>Weight%</u>
Carbopol ETD 2020, 1.5%	77.70
Disodium EDTA	0.10
Calfoam SLS-30	15.00
Calfoam ES-303	5.00
Calamide C	2.00

Comments about this formula:

1. A 1.5% solution is made by dispersing the Carbopol in 40C warm water and stirring.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution and stirred until a homogeneous product is prepared.

SOURCE: Pilot Chemical Co.: Formulation SHM-005-01

Conditioning Shampoo

This formula uses Incroquat HO-80PG, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat HO-80 PG has been found to work especially well with polymeric quaternaries, like the Jaguar C14S used here, as it appears to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	57.05
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10
Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat HO-80PG (Dioleoylamidoethyl Hydroxyethylmonium Methosulfate)	2.50
Glycol Stearate	0.50
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	3.00
Dimethicone Copolyol	1.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.5+-0.5

Viscosity=3,000 cps +-10%, Spindle #4 @ 10 rpm

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-96

Conditioning Shampoo

This formula uses Incroquat Behenyl HE, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat Behenyl HE also works especially well with polymeric quaternaries, like the Jaguar C14S used here, and has been found to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	59.55
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10
Part B:	
SLES (3 mol)	15.00
SLS	5.00
Incronam 30 (Cocamidopropyl Betaine)	6.00
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat Behenyl HE (Behenamidopropyl Hydroxyethyl Dimonium Chloride)	2.50
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	2.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.0+-0.5

Viscosity=10,000+-10%, Spindle #4 @ 10 rpm.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-97

Conditioning Shampoo

This formula uses Incroquat HO-80 PG, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and soft, dry feel. Incroquat HO-80 PG has been found to work especially well with polymeric quaternaries, like the Jaguar C 14S used here, as it appears to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	57.05
Guar Hydroxypropyltrimonium Chloride*	0.35
Citric Acid	0.10
Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat HO-80PG (Dioleoylamidoethyl Hydroxyethylmonium Methosulfate)	2.50
Glycol Stearate	0.50
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.00
Hexylene Glycol	3.00
Dimethicone Copolyol***	1.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.56+-0.5

Viscosity=4200cps+-10%, Spindle #4 @ 10 rpm

*Jaguar C14S (Rhone-Poulenc)

**Germaben II (Sutton Labs)

***Dow Corning 190 Polyether (Dow Corning)

N.A.T.C. approved

SOURCE: Croda Inc.: Formulation SH-96

Conditioning Shampoo

This formula uses Incroquat Behenyl HE, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat Behenyl HE also works especially well with polymeric quaternaries, like the Jaguar C14S used here, and has been found to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	59.55
Guar Hydroxypropyltrimonium Chloride*	0.35
Citric Acid	0.10
Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat Behenyl HE (Behenamidopropyl Hydroxyethyl Dimonium Chloride)	2.50
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben**	1.00
Hexylene Glycol	2.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.26+-0.5

Viscosity=4800cps+-10%, Spindle #4 @ 10rpm

*Jaguar C145S (Rhone-Poulenc)

**Germaben II (Sutton Labs)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-97

Conditioning Shampoo

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	49.600g
2 Sodium Laureth Sulfate (SLES)	40.000g
3 Tegobetaine L7	5.000g
4 PEG 150-distearate	2.000g
Stage B:	
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	2.500g
6 Germaben 11-E	0.400g
7 P. AG 9960 Fruity Floral for hair	0.300g
8 Phosphoric Acid	0.200g
Colours as required	g

Mixing Instructions:

Measure out the water and add items 2, 3 and 4 and heat until 4 has dissolved, about 65C.

Mix briefly then start cooling, add items 5 & 6 and when at 35C add 7 and adjust the pH to 5.5-6.5.

Colour as required.

This simple formula may be readily adapted to incorporate herbal extracts, hydrolyzed protein, panthenol and other special ingredients as required.

Project JW 2390/Formula Ref. 839*0

Conditioning Shampoo

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	48.600g
2 Texapon L20/M	40.000g
3 Tegobetaine L7	5.000g
4 PEG 150-distearate	2.000g
Stage B:	
5 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	3.500g
6 Germaben 11-E	0.400g
7 Fragrance	0.300g
8 Phosphoric Acid	0.200g
9 Colours as required	g

Mixing Instructions:

Measure out the water and add items 2,3 and 4 and heat until 4 has dissolved, about 65C.

Mix briefly then start cooling, add items 5 & 6 and when at 35C add 7 and adjust the pH to 5.5-6.5.

Colour as required.

This simple formula may be readily adapted to incorporate herbal extracts, hydrolyzed protein, panthenol and other special ingredients as required.

Project: JW 2390/Formula Ref.: 837*1

SOURCE: A & E Connock Ltd.: Suggested Formulations

Conditioning Shampoo

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Wt</u>
A	Deionized Water	61.25
A	Standapol ES1 (30%)	25.00
A	Velvetex BK35 (35%)	10.00
A	Lauramide DEA	3.00
A	Oils of Aloha Macadamia Nut Oil	0.50
B	Perfume	0.25
B	Preservative	QS

Manufacturing Procedure:

Phase A: Heat water to 70C and add all ingredients except preservative and perfume. Cool to 40C. Add preservative and perfume. Package.

Oils of Aloha Macademia Nut Oil serves as a refatting agent to replace the natural oils lost during shampooing.

SOURCE: Oils of Aloha; Suggested Formulation

Conditioning Shampoo

<u>A:</u>	<u>Wt%</u>
Deionized Water	57.80
Sodium Laureth Sulfate (Phoenate SLES-70)	20.00
Cocamidopropyl Betaine	1.60
Pecosil CAP-1240	2.00
Decyl Polyglucose	8.00
Lauramide DEA (Phoenamid LD)	2.00
PEG-3 Distearate (Phoenate 3DSA)	2.40
Sodium Chloride	0.80
PEG-120 Methyl Glucose Dioleate	2.40
Dimethicone Copolyol Phosphate (Pecosil PS-100)	2.00
B:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00
Color	q.s.
Fragrance	q.s.
10% Aqueous Citric Acid Solution	adjust to pH 5.0-6.0

Procedure:

Combine Phase A items, agitate and heat to 70C. When Phase A is uniform, begin cooling under slow sweep agitation to 45C. Add Phase B with continued slow sweep agitation. When AB is uniform, adjust pH to 5.0-6.0.

SOURCE: Phoenix Chemical, Inc.: Suggested Formulation

Conditioning Shampoo

This multifunctional shampoo provides cleansing and conditioning in one product. It gives improved gloss, wet and dry combability, and manageability to the hair. Frequent use will not lead to a "greasy" buildup on the hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat SC-240C	0.70
Distilled Water	55.00
Monateric 805	18.80
Stepanol WAT	18.50
Monamid 716	4.00
Propylene Glycol	2.00
Bermaben II	0.50
Citric Acid	0.50

Preparation:

While maintaining good agitation, slowly sift Celquat SC-240C into water. When solution is complete, add remaining ingredients and mix until homogeneous. Filter and fill container.

Formulation No. 8802:92

Clear, Colorless Conditioning Shampoo

This clear, colorless shampoo provides excellent conditioning and body to the hair.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Celquat SC-230M	0.25
Distilled Water	56.40
Standapol A	35.00
Rewoteric AM B14	7.00
Monamid 716	1.00
Versene 100	0.25
Sodium Chloride	0.10
Preservative	q.s.

Preparation:

Add Celquat SC-230M to water while maintaining good agitation. When solution is complete, add remaining ingredients in the order listed.

Formulation No. 6919-117

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Conditioning Shampoo

<u>Material:</u>	<u>%w/w</u>
Water; Pure	48.600
Texapon L20/M	40.000
Tegobetaine L7	5.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	3.500
PEG 150-distearate	2.000
Germaben 11-E	0.400
Fragrance	0.300
Phosphoric Acid	0.200
Colours as required	

Formula Ref.: 837*1

Conditioning Shampoo

<u>Material:</u>	<u>%w/w</u>
Water; Pure	49.600
Sodium Laureth Sulphate (SLES)	40.000
Tegobetaine L7	5.000
AEC Dimethicone(&)Laureth-4(&)Laureth-23	2.500
PEG 150-distearate	2.000
Germaben 11-E	0.400
P.AG 9960 Fruity Floral for hair	0.300
Phosphoric Acid	0.200
Colours as required	

Formula Ref.: 839*0

Shampoo with Silicone

<u>Material:</u>	<u>%w/w</u>
Water; Pure	47.390
Sodium Laureth Sulphate (SLES)	18.000
Empicol TL 40t	17.500
Texapon SBN	9.500
AEC Dimethicone(&)Laureth-4(&)Laureth-23	4.000
Empilan LDE	2.000
Empilan EGMS	1.000
Polymer JR 400	0.500
Kathon CG 100	0.100
Sodium Hydroxide 33%	0.010

Formula Ref.: 1067*0

SOURCE: A & E Connock Ltd.: Suggested Formulations

Conditioning Shampoo

	<u>% By Weight</u>
Water	45.35
Sodium Laureth Sulfate (2 Mole 26%) (Sipon ES2)	20.00
Sodium Lauryl Sulfate and Disodium Lauryl Sulfosuccinate (Monaterge 1164)	20.00
Trisodium Lauroampho PG Acetate Phosphate Chloride (Phosphoteric QL-38)	10.00
Dimethicone (Dow Corning 200 Fluid 200 CS)	2.50
Glycol Distearate (Kessco Ethylene Glycol Distearate)	1.00
Cocamide MEA (Monamid CMA)	1.00
Sodium Chloride	0.15

Procedure:

Add ingredients in order listed with agitation. Heat to 70C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Properties: White pearled lotion
Viscosity @ 25C: 7,100 cps

Formula F-578

Everyday Shampoo

	<u>% By Weight</u>
Water	48.00
Sodium Laureth Sulfate (2 Mole 26%)	20.00
Monaterge 1164	20.00
Phosphoteric QL-38	10.00
Monamid CMA	1.00
Sodium Chloride	1.00

Procedure:

Add ingredients in order listed with agitation. Heat to 60C. Cool to 40C. Adjust pH to 5.5 to 6.0 with 50% citric acid. Add fragrance, color and preservative as required.

Formulation Properties:

Physical Appearance: Viscous liquid
Solids: 17.00%

Formula F-609

SOURCE: Mona Industries, Inc.: Suggested Formulations

Deodorizing Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	32.60
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate (28%)	17.50
Sodium Laureth Sulfate (28% 2M E.O.)	20.00
PEG-20 Glyceryl Laurate (Tagat L)	2.50
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.50
Glycol Distearate (Tegin EGS)	3.00
Zinc Rincinoleate (and) Triethanolamine (and) Dipropylene Glycol (and) Lactic Acid (Tego Deo HY77)	1.80
Phase B:	
Water	10.00
Preservatives	Q.S.
Fragrance	Q.S.
Cocamidopropyl Betaine (Tego Betaine L7)	7.50
Citric Acid (20% solution)	to pH 7.0
Sodium Chloride (25% solution)	Q.S.

Procedure:

1. Heat Phase A to 70C. Add components in order, mixing well between additions. Avoid foam.
2. Begin cooling. Slowly cool to 35-40C. Some of the water of Phase B can be used to start the cooling.
3. Add the ingredients of Phase B.
4. Adjust pH and viscosity.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Water	74.45
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
Sodium Chloride	2.50
Perfume and Dye	0.10

Comments about this formula:

1. Mix the first four ingredients (pH=10).
2. Add the Citric Acid (approximately 0.1%) to adjust pH to about 6.
3. Add salt to the desired viscosity.
4. Perfume and dye as desired.

SOURCE: Pilot Chemical Co.: Formulation SHM-003-01

Mild Deep Cleaning Shampoo

This unique shampoo formulation provides excellent cleansing of the "greasy" buildup on hair, without drying the hair or scalp. This shampoo also aids in preventing/controlling static flyaway.

<u>Ingredients:</u>	<u>Parts by Weight</u>
Flexan 130	2.00
Distilled Water	62.55
Stepanol WAT	20.00
Rewoteric AM B-14LS	10.00
Propylene Glycol	2.00
Monamid 716	2.25
Sodium Chloride	0.80
Glydant	0.40

Preparation:

While maintaining good agitation, add Flexan 130 to water. When solution is complete, add remaining ingredients one at a time and mix until homogeneous. Filter and fill.

SOURCE: National Starch and Chemical Co.: Formulation 8802:3813

Water White Shampoo

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepanol WA-Extra	46.50
Amphosol CA	5.00
Ninol 40-CO	2.50
Sodium Chloride	1.00
Propylene Glycol	1.00
Glycerin	0.50
Citric Acid (50%)	0.10
Kathon CG	0.06
Sodium Chloride	Q.S.

Mixing Procedure:

Heat first seven ingredients to 165F. Mix. Cool to 110F. Add Kathon CG. Adjust pH with Citric Acid (50%) to 6.5-7.0. Adjust viscosity with Sodium Chloride.

SOURCE: Stepan Co.: Suggested Formulation

Moisture Therapy Shampoo with Hydrotriticum WAA

The use of Hydrotriticum WAA in this shampoo gives hair deep-down moisturization for shine that shows clear through to the outside. Hydrotriticum WAA is a powerful wheat protein-derived amino acid complex that has been shown to penetrate inside the hair, enabling it to moisturize from within. As a cold formula, this shampoo is economical and easy to make.

Ingredients:

	<u>Weight%</u>
Part A:	
Incromide LR (Lauramide DEA)	5.00
Incronam 30 (Cocamidopropyl Betaine)	5.00
Sodium Pareth-25 Sulfate	15.00
Hydrotriticum WAA (Wheat Amino Acids)	1.00
Deionized Water	73.00
Part B:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

Procedure:

Combine ingredients of Part A, with mixing until clear. Then add Part B with mixing. Adjust pH to 5.0 with a 10% citric acid solution.

pH=5.0±0.5

Viscosity=8,000±10% (RVT Spindle #4, 10rpm, 25C)

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-93

Pearlescent Conditioning Shampoo

<u>Ingredient:</u>	<u>Wt%</u>
Distilled water	q.s. to 100.00
TEA-lauryl sulfate (40% active)	15.00
Sodium lauroamphoacetate (and) sodium trideceth sulfate	10.00
Cocamide DEA	2.50
Glycol stearate	1.20
Propylene glycol (and) diazolidinyl urea (and) methylparaben (and) propylparaben	0.75
Benecel MP 943 R hydroxypropyl methylcellulose	0.60
N-Hance 3000 cationic guar	0.50
Citric acid (50% solution)	pH adjust

Procedure:

1. Disperse the N-Hance by adding to the vortex of well-agitated water. Reduce to pH 7.0 with citric acid solution to promote dissolution of the surface-treated N-Hance. Heat to 50C.
2. Sift the Benecel into the N-Hance solution. Mix until both polymers are fully dissolved.
3. Increase the temperature to 70C. Add the TEALS and glycol stearate, one at a time. Mix well between each addition. Turn off heat when homogeneous. Maintain mixing.
4. When temperature is at 55C, add remaining surfactants and preservative.
5. Adjust to pH 5.0 with citric acid solution.
6. When below 40C, add fragrance.

SOURCE: Aqualon Div.:N-Hance 3000 Cationic Guar: Formulation

Normal Hair Shampoo

A good, basic shampoo with excellent flash foam and lather which is dense and soft.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	58.64
	Hydroxypropyl Methylcellulose (Methocel 40-100)	0.10
	Na4EDTA	0.20
	Triethanolamine	0.01
B	TEA Lauryl Sulfate (Stepanol WAT)	22.50
	Methyl Paraben	0.20
	Imidazolidinyl Urea (Germall 115)	0.20
	Ammonium Laureth Sulfate (Alfonic 1412-A)	5.50
	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	6.70
C	Cocamide DEA (Mazamide 80)	3.00
	Soya Ethyldimonium Ethosulfate (M-Quat 1033)	0.70
	Citric Acid	0.25
	Ammonium Chloride	2.00

pH: 6.3-6.7

Viscosity: 5500-6000 cps

Appearance: Clear, straw-colored liquid

Procedure:

In the main vessel, disperse the hydroxypropyl methylcellulose in the water, mixing for ten minutes. Add the Na4EDTA and triethanolamine, which initiates hydration of the gum. Mix for about 20 minutes to ensure complete hydration, then add the part B ingredients in order given. When batch is clear and uniform, add the Mazamide 80 and the M-Quat 1033, and adjust the pH and viscosity.

Formula A-208

Baby Shampoo

Clear, mild, gentle-cleansing shampoo. Note: while PPG test data on the individual ingredients indicate that this formula should be extremely mild to skin and eyes, PPG has not performed mildness testing on this system.

<u>Part:</u>	<u>Ingredient (Trade Name):</u>	<u>Wt%</u>
A	Deionized Water	68.1
	PEG-80 Sorbitan Laurate (T-Maz 28)	3.0
	Sodium C12-15 Pareth-15 Sulfonate (Avanel S-150 CG)	7.1
	PEG-150 Distearate (Mapeg 6000DS)	1.0
B	Ammonium Cocoyl Isethionate (Jordapon ACI-30)	10.0
	Cocamidopropyl Hydroxysultaine (Mafo CSB-50)	9.0
	Cocamide DEA (Mazamide JT-128)	1.5
C	Quaternium 15 (Dowicil 200)	0.2
	Fragrance	0.1

pH: 6.8-7.2

Viscosity: 3,400 cps (Brookfield #2 @ 6 rpm)

Appearance: Clear, pale straw-colored liquid

Procedure:

Blend the Part A ingredients, heating to 60-65C to dissolve the Mapeg 6000DS. When uniform, add the Part B ingredients in order and begin cooling. Add the Part C ingredients at approximately 40C.

Formula A-112

SOURCE: PPG Industries, Inc.: Suggested Formulations

Opaque Antidandruff Shampoo

	<u>Wt%</u>
Water	65.3
Veegum, Magnesium Aluminum Silicate	1.0
Hydroxypropyl Methylcellulose	1.1
Zinc Pyrithione, 48% (Zinc Omadine)	4.2
Citric Acid, 50%	0.4
Sodium Lauryl Ether Sulfate	18.0
Cocamide DEA	5.0
Sodium Lauryl Sarcosinate	1.0
Hydrolyzed Collagen	2.0
FD&C Blue No. 1, 0.2%	1.5
FD&C Yellow No. 5, 01.%	0.5
Fragrance	q.s.

Procedure:

Heat the water to 70C. Begin and maintain rapid stirring (1,500 rpm) during the adding of ingredients. Add the Veegum and stir 15 minutes. Add the hydroxypropyl methylcellulose and stir an additional 15 minutes. Add the Zinc Omadine and stir 5 minutes. Reduce speed to 300 rpm. Add the citric acid and stir until mixed. Turn off heat. While cooling, add the other ingredients (except fragrance) in the order listed. Stir until mixed after each addition. Weigh back and add water to make up for evaporation losses. Cool to room temperature, stirring slowly. Add fragrance. Adjust pH to 8.

Formula from Olin Corp.

Ultra Pearlescent Conditioning Shampoo

This luxurious shampoo formula is thickened using Veegum Ultra which also suspends the mica pigment that provides pearlescence. Vanseal CS (cocoyl sarcosine) provides mildness and hair conditioning properties while combining with lauramide DEA to markedly enhance the quality and stability of the lather produced during shampooing.

	<u>Wt%</u>
A: Veegum Ultra, Magnesium Aluminum Silicate	2.00
Deionized Water	61.25
B: Mica (and) Titanium Dioxide (Timeron MP-1001)	0.50
C: Sodium Laureth Sulfate	25.00
Lauramide DEA (Monamid 716)	7.50
Vanseal CS, Cocoyl Sarcosine	3.75
Preservative, dye, fragrance	q.s.

Procedure:

Sift Veegum Ultra into the water while mixing at 700 rpm with a propeller stirrer. Adjust the propeller speed to 1500-1700 rpm and mix for 30 minutes. Add the B ingredients and mix for 5 minutes. Adjust the speed to 200 to 500 rpm and add the C ingredients in the order shown, mixing after each addition until smooth and uniform.

Formula No. 452

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Pearlescent Shampoo

Three color variants using titanated mica pearl pigments are suggested with this shampoo formula.

	<u>Wt%</u>
A:	
Veegum HV, Magnesium Aluminum Silicate (5% aq. Susp.)	14.00
Hydroxypropylcellulose (5% aq. Soln.) (Klucel G)	20.00
Distilled Water	6.00
B:	
Distilled Water	q.s. to 100.00
TEA Lauryl Sulfate (Standapol T)	25.00
C:	
Citric Acid	0.10
Distilled Water	2.00
D:	
Methyl Paraben	0.20
Diazolidinyl Urea (Germall II)	0.30
Titanium Dioxide (and) Mica (Timiron Super Gold or Super Red)	0.20
Cocamidopropyl Betaine (Velvetex BA-35)	5.00
Cocamide DEA (Standamid KD)	3.00
E:	
Water Soluble Dyes:	
(w/red pearl) 0.2% aq D&C Red 33	0.25
(w/gold pearl) 0.02% FD&C Blue 1	0.30
Yellow 5	0.40
(or) 0.02% FD&C Blue 1	1.00
(or) D&C Red 33	2.00

Procedure:

Prepare the part A dispersion and solution in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B in order. Combine C, add to batch. Combine D; add to batch. Add E, insuring that each is well dispersed before proceeding.

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formula from Rona

Pearlescent Shampoo

Titanated mica pearl pigments can give unique "two color" iridescent effects, with appearance changing with angle of viewing.

	<u>Wt%</u>
A:	
Veegum HV, Magnesium Aluminum Silicate, (5% aqueous Susp.)	14.00
Hydroxypropylcellulose (5% aq. Soln.) (Klucel G)	20.00
Distilled Water	6.00
B:	
Distilled Water	q.s. to 100.00
TEA Lauryl Sulfate (Standapol T)	35.00
C:	
Coco-Betaine (Dehyton AB30)	10.00
Cocamide DEA (Standamid KD)	1.00
Hydroxycetyl Hydroxyethyl Dimonium Chloride (Dehyquart E)	2.00
D:	
Diazolidinyl Urea (Germall II)	0.25
Distilled Water	0.50
E:	
Titanium Dioxide (and) Mica (Timiron MP-1001)	0.20
0.02% D&C Red No. 33	2.00
0.02% FD&C Blue No. 1	1.00

Procedure:

Prepare the dispersions in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B in order. Add C to batch in order, mixing each well. Combine D; add to batch. Add E in order, insuring that each is well dispersed before proceeding.

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formula from Rona

Pearlescent Shampoo

Phase #:		Wt%
1	5% Veegum HV suspension (aq)	14.00
1	5% Klucel G solution (aq)	20.00
1	Distilled water	6.00
2	Distilled water	12.30
2	Standapol T (TEA lauryl sulfate)	25.00
3	Citric Acid	0.10
3	Distilled water	2.00
4	Sodium Chloride	2.00
4	Distilled water	10.00
5	Methyl paraben	0.20
5	Germall II	0.30
6	TiO ₂ /mica (e.g. Timiron Super Gold)	0.10-0.30
7	Velvetex BA-35	5.00
8	Standamid KD	3.00
9	Water soluble dyes	q.s.

Procedure:

Prepare the Veegum and Klucel dispersions in advance, combine phase #1. Homogenize until no undispersed particles remain. Combine batch with sidesweep agitation. Add phase #2 ingredients in order. Combine phase #3; add to batch. Combine phase #4; add to batch. Add remaining ingredients in order, insuring that each is dispersed before proceeding.

SD1-67-1A:

Color Combinations:
0.20% Timiron Super Red
0.25% D&C Red #33 (0.02% aq)

SD1-67-1B:

Color Combinations:
0.20% Timiron Super Gold
0.30% FD&C Blue #1 (0.02% aq)
0.40% FD&C Yellow #5 (0.02% aq)

SD1-67-1C:

Color Combinations:
0.2% Timiron Super Gold
1.0% FD&C Blue #1 (0.02% aq)
2.0% D&C Red #33 (0.02% aq)

SD1-67-1E:

Color Combinations:
0.2% Timiron Super Violet
1.0% FD&C Blue #1 (0.02% aq)
2.0% D&C Red #33 (0.02% aq)

SD1-67-II:

Color Combinations:
0.20% Timiron MP-1001
1.00% FD&C Blue #1 (0.02% aq)
2.00% D&C Red #33 (0.02% aq)

SD1-67-1J:

Color Combinations:
0.20% Timiron Super Silver
0.10% FD&C Blue #1 (2% aq)

SOURCE: Rona/EM Industries, Inc.: Formulation SD1-67-1

Pearlescent Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Pearl	30.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:**Blending Procedure:**

Charge water into mixing vessel and slowly blend in Pearl. Mix until uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 4,000-7,000 cPs (No. 4 Spindle @ 10rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: White, Pearlescent Liquid
 Viscosity @ 25C: 4,000-7,000 cPs
 pH: 6.0-7.0
 % Non Volatiles: 12.5-13.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Glycol Stearate, Fragrance, Preservative, PEG-45M, Citric Acid, Dye(s).

Formulation SHM-020-01

Basic Shampoo Gel

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam ES-303	42.86
Calamide F	3.00
Sodium Chloride	3.00
Water	51.14

Comments about this formula:

1. The viscosity of this formula is 125,000 cPs. At 2.5% salt, the viscosity is 96,000 cPs.
2. Increasing the amide provides for higher viscosities at lower salt levels. For example, at 4% amide, a viscosity of 112,000 cPs is reached at 1.5% salt, and 230,000 cPs is reached at 2% salt.

Formulation SHM-018-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Pearlescent Shampoo

A pearlized shampoo utilizing Pationic ISL for mildness and Ritapan DL for conditional feel.

<u>Ingredients:</u>	<u>%W/W</u>
1. Pationic ISL (Sodium Isostearoyl Lactylate)	2.25
2. Ritapeg 150 DS (PEG-150 Distearate)	0.75
3. Rita EGDS (Glycol Distearate)	2.00
4. Sodium Laureth Sulfate (Standapol ES-2)	53.60
5. Distilled/Deionized Water	37.45
6. Methylparaben	0.15
7. Ritapan DL (Panthenol)	0.25
8. Laneto-50 (PEG-75 Lanolin)	0.75
9. Propylene Glycol	2.50
10. Perfume	0.20
11. Kathon CG	0.10
12. NaCl (25% Soln.)	q.s.

Compounding Procedure:

Heat items 1-7 to 70-75C. Add items 8 and 9. Cool to 40-45C. Add items 10-12.

Ref. No. 122-104

Salon Conditioning Shampoo

Optimized conditioning level is achieved through use of a Polyquta Cationic Polymer and Ritapan DL (Pro-Vitamin B-5).

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	40.00
2. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
3. Ritapeg 150 DS (PEG-150 Distearate)	0.50
4. Ritapan DL (dl-Panthenol)	0.50
5. Laneto-50 (PEG-75 Lanolin)	0.75
6. Polyquta 400 (Polyquaternium-10)	0.50
7. Kathon CG	0.03
8. Fragrance-Nature Harvest 165-050	0.30
9. Distilled/Deionized Water	49.42
10. Amanduline S.G. (Hydrolyzed Sweet Almond Protein)	5.00

Compounding Procedure:

Disperse item 6 in water at 165F. Add item 3 and mix until uniform. Then add item 4, 2, 1, and 5 in order and mix until uniform. Cool to 120F. Add items 7, 8 and 10.

Ref. No. 121-178

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Pearlized Conditioning Shampoo
with Amilan GST 40
(cold process)

<u>Ingredients:</u>	<u>Weight%</u>
Water	46.00
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate (28%)	20.00
Sodium Laureth Sulfate (28% 2M. E.O.)	20.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Dimethicone Copolyol (Abil B 88183)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Cocamidopropyl Betaine (Tego Betaine F)	7.50
DATEM (Amilan GST 40)	1.50
Glycol Distearate and Steareth-4 (Tego Pearl N100)	2.50
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.
Sodium Chloride (25% Solution)	Visc. Adj.
Citric Acid (10%)	Adjust to pH 5.5-6.0 if needed

Procedure:

1. Add ingredients in order - mixing between additions.
2. Adjust viscosity with the Sodium Chloride.

SOURCE: Goldschmidt Chemical Co.: Suggested Formulation

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>Weight%</u>
Carbopol ETD 2020, 1.5%	77.70
Disodium EDTA	0.10
Calfoam TLS-40	20.00
Calamide C	2.00

Comments about this formula:

1. A 1.5% solution in water is prepared by dissolving the Carbopol at 40C.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution.
5. The blend turns clear upon Calfoam TLS-40 addition.
6. Stir until the blend is homogeneous.
7. Without adjustment the pH is 5-6.

SOURCE: Pilot Chemical Co.: Formulation SHM-004-01

Pearl Pigment Shampoo

	<u>Wt%</u>
Veegum HV, Magnesium Aluminum Silicate & (Klucel G) Hydroxypropyl Cellulose Solution	40.0
TEA Lauryl Sulfate (Texapon T42)	25.0
Citric Acid	0.1
Sodium Chloride	2.0
Preservative	0.2
Sicomet	0.5-0.2
Amaranth 85 E123 or Sicomet Blue S 42045 (Dyestuff Suspension 1%)	0.1-0.2
Titanium Dioxide (and) Mica (Timeron MP 1001 or Timeron S.I. Pigments)	0.1-0.2
Cocamidopropyl Betaine (Dehyton K)	5.0
Cocamide DEA (Comperlan KD)	3.0
Water, demineralized	q.s.

Procedure:

Composition of Veegum/Klucel Suspension: A) Veegum HV (5%) 35%; B) Klucel G (5%) 50%; Water 15%.

For the Veegum HV Suspension (A) hydrate 5% Veegum HV in water, followed by homogenization with (e.g.) an Ultra Turrax. For the Klucel G solution (B) add 5% Klucel G to the appropriate amount of water stirring continuously. This is followed by the addition of a preservative, e.g. Germall 115. Then the solution is allowed to swell for about 12 hours. The stock suspension (A) and solution (B) are mixed as assigned (A:35%, B:50%, C:15% water) and homogenized. To the resulting Veegum/Klucel suspension all other components are added in the order as indicated, while stirring. Developed by Dr. A. Thurn-Müller.

Formula from E. Merck

Pearlescent Conditioning Shampoo

	<u>Wt%</u>
A: Veegum HV, MAS (5% Disp.)	14.00
Hydroxypropyl Cellulose (5% Soln.) (Klucel G)	20.00
Distilled Water	11.50
B: Sodium Lauryl Sulfate (Standapol WAQ Spec.)	30.00
Hydrolyzed Collagen (Nutrilan L)	10.00
C: Sodium Chloride	1.00
Distilled Water	1.55
D: Diazolidinyl Urea (Germall II)	0.20
Distilled Water	1.55
E: Titanium Dioxide (and) Mica (Timeron Super Gold)	0.20
Coco-Betaine (Dehyton AB30)	10.00
Water soluble dyes, optional	q.s.

Procedure:

Prepare dispersions in advance; combine A. Homogenize until no undispersed particles remain. Continue batch with sidesweep agitation. Add B, in order. Combine C, add to batch. Combine D, add to batch. Add E in order, insuring that each is dispersed before proceeding.

Formula from Rona

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formulations

Salon Conditioning Shampoo

Optimized conditioning level is achieved through use of a Polyquta Cationic Polymer and Ritapan DL (Pro-Vitamin B-5).

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth-2 Sulfate (Standapol ES-2)	54.35
2. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
3. Ritapeg 150 DS (PEG-150 Distearate)	1.00
4. Ritapan DL (dl-Panthenol)	0.25
5. Laneto-50 (PEG-75 Lanolin)	0.75
6. Polyquta 400 (Polyquaternium-10)	0.50
7. Sodium Chloride (25% Soln.)	0.25
8. Kathon CG	0.03
9. Fragrance-Nature Harvest 165-050	0.30
10. Distilled Water	37.87
11. Amanduline S.G. (Hydrolyzed Sweet Almond Protein)	5.00

Compounding Procedure:

Disperse item 6 in water at 165F. Add item 3 and mix until uniform. Then add item 4, 2, 1, 5 and 7 in order and mix until uniform. Cool to 120F. Add preservative and perfume. Adjust viscosity with NaCl.

Ref. No. 121-171

Conditioning Shampoo

A rich shampoo containing Amanduline SG and Pationic ISL for conditioning and hair repair.

<u>Ingredients:</u>	<u>%W/W</u>
1. Sodium Laureth Sulfate 29%	25.00
2. Sodium Lauryl Sulfate 29%	20.00
3. Ritamide C (Cocamide DEA)	5.00
4. Pationic ISL (Sodium Isostearoyl Lactylate)	3.50
5. Distilled/Deionized Water	40.80
6. Rita PEO-3 (PEG-23M)	0.50
7. Amanduline SG (Hydrolyzed Sweet Almond Protein)	5.00
8. Glydant	0.20

Compounding Procedure:

Disperse item 6 into item 5. Add items 1-4 and heat while mixing until uniform. Allow to cool to 40C. Add items 7 and 8.

Ref. No. 121-161C

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shampoo
All Purpose for Normal Hair

<u>Ingredients:</u>	<u>Weight%</u>
Water	50.00
Calfoam ES-303	40.00
Caltaine C-35	5.00
Calamide LL	1.50
Citric Acid	0.07
Fragrance, Dye(s)	0.00
NaCl	2.50

Comments about this formula:

1. Mix the first four ingredients.
 2. Add Citric Acid to adjust the pH to 5.5-6.5.
 3. Add the reported amount of salt. Salt content can be adjusted to achieve desired viscosity.
 4. Fragrance or dye compatibility were not evaluated.
- Formulation SHM-006-01

Shampoo
All Purpose for Oily Hair

<u>Ingredients:</u>	<u>Weight%</u>
Water	46.00
Calfoam SLS-30	25.00
Calfoam ES-303	25.00
Calamide LL	2.50
Citric Acid	0.10
Fragrance, Dye(s)	0.00
NaCl	1.00

Comments about this formula:

1. Mix the first four ingredients.
 2. Add enough Citric Acid to adjust the pH to 5.5-6.5.
 3. Fragrance or dye compatibility was not evaluated.
- Formulation SHM-007-01

Shampoo-Inexpensive

<u>Ingredients:</u>	<u>Weight%</u>
Water	45.70
NH ₄ Cl	1.00
PEG-75 Lanolin	0.30
Calfoam ALS-30	50.00
Calamide C	3.00
Preservative	0.00
Fragrance, Dye	0.00

Comments about this formula:

1. The ingredients should be mixed in order reported.
 2. If needed, adjust pH to 5.5-6.5 with Citric Acid.
- Formulation SHM-009-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>%Wt.</u>
Carbopol ETD 2020 (1.5%)	77.70
Disodium EDTA	0.10
Calfoam TLS-40	20.00
Calamide C	2.00

Comments About this Formula:

Carbopol ETD 2020-Hydrophobically Modified Polyacrylic Acid (Easy to Disperse)-B.F.Goodrich

1. A 1.5% solution in water is prepared by dissolving the Carbopol at 40C.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution.
5. The blend turns clear upon Calfoam TLS-40 addition.
6. Stir until the blend is homogeneous.
7. Without adjustment the pH is 5-6.
Formulation #SHM-004-01

Shampoo-Clear Gel Type

<u>Ingredients:</u>	<u>%Wt.</u>
Carbopol ETD 2020 (1.5%)	77.70
Disodium EDTA	0.10
Calfoam SLS-30	15.00
Calfoam ES-303	5.00
Calamide C	2.00

Comments About this Formula:

Carbopol ETD 2020 (Easy to Disperse)-Hydrophobically Modified Polyacrylic Acid, B.F.Goodrich

1. A 1.5% solution is made by dispersing the Carbopol in 40C warm water and stirring.
2. The dispersion is slightly hazy with gel-like consistency.
3. Probably even a 1% solution would be suitable for this application.
4. The ingredients are gradually added into the Carbopol solution and stirred until a homogeneous product is prepared.
Formulation #SHM-005-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo-Clear Liquid Conditioning

<u>Ingredients:</u>	<u>Weight%</u>
Water	55.00
Calfoam ES-301	30.00
Caltaine C-35	6.50
Cocamidopropylamine Oxide	3.00
Calamide C	1.50
PEG-7 Glyceryl Cocoate	2.00
PEG-15 Cocopolyamine	2.00
Fragrance, Dye(s)	0.00
Preservative	0.00

Comments about this formula:

1. Add ingredients, one at a time, in the order given, under agitation.
2. Adjust pH to 6.5+0.5 With Citric Acid.
3. Small addition of salt can be used to adjust viscosity.

Formulation SHM-011-01

Shampoo - All Purpose

<u>Ingredients:</u>	<u>Weight%</u>
Water	51.20
Calfoam ES-302	40.00
Caltaine C-35	5.00
Calamide C	3.00
NaCl	0.75
Kathon CG	0.05

Comments about this formula:

1. Mix ingredients as listed.
2. Adjust pH to 6.3 with Citric Acid.
3. Formula is similar to SHM-006-0.

Formulation SHM-010-01

Shampoo - Clear Liquid

<u>Ingredients:</u>	<u>Weight%</u>
Water	60.70
n-coco Beta Amino Propionic Acid	7.00
Calfoam TLS-40	28.00
Calamide LL	4.00
Fragrance	0.00
Sodium Chloride	0.25
Kathon CG	0.05

Comments about this formula:

1. Add ingredients in the order given under adequate agitation. (if fragrance is added, pre-mix it with Calamide LL).
2. Adjust to pH 6.5 with Citric Acid.
3. Adequate agitation is important-otherwise gel-like particles will form upon standing for a few days.

Formulation SHM-013-01

Shampoo - Clear Viscous

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	30.00
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:**Blending Procedure:**

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 3,000-5,000 cPs (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid
 Viscosity @ 25C: 3,000-5,000 cPs
 pH: 6.0-7.0
 % Non Volatiles: 11.5-12.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation SHM-019-01

Shampoo-Conditioning

<u>Ingredients:</u>	<u>Weight%</u>
Water	57.85
Calfoam SLS-30	35.00
Calamide LL	3.00
Calamide C	0.50
Silicone Dimeramidoquat	2.00
EG Monostearate	0.50
NaCl	1.00
Preservative, Dye, Fragrance*	9.50

Comments about this formula:

- Mix ingredients in order reported while heating to about 60C.
 - Cool before adding fragrance.
 - Add preservative and dye as needed.
 - Adjust pH to 6 with Citric Acid.
- *Fragrance, Fragrance #S-5704 - Fine Flavors & Fragrances, Inc
 Formulation SHM-017-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Concentrate

<u>Ingredients:</u>	<u>%Wt.</u>
Water	12.75
Propylene Glycol	8.00
Calfoam TLS-40	20.00
Calamide C	12.50
Calamide LL	12.50
Calfoam ALS-30	26.00
Citric Acid	0.75
NaCl	7.50

Comments About this Formula:

1. Mix water and Propylene Glycol.
 2. Add the next three ingredients into the water/PG solution.
 3. The last surfactant added is ALS-30; the blend becomes viscous.
 4. Adjust the pH with Citric Acid (pH 6-7).
 5. Add NaCl last. The concentrate is very viscous.
 6. Add Perfume, Dye(s) and Preservative as desired.
 7. Finished shampoo can be made by diluting 1 part concentrate with 7-15 parts water.
- Formulation #SHM-008-01

**Shampoo
Clear Liquid Conditioning**

<u>Ingredients:</u>	<u>%Wt.</u>
Water	55.00
Calfoam ES-301	30.00
Caltaine C-35	6.50
Cocamidopropylamine Oxide	3.00
Calamide C	1.50
PEG-7 Glyceryl Cocoate	2.00
PEG-15 Cocopolyamine	2.00
Fragrance, Dye(s)	0.00
Preservative	0.00

Comments About this Formula:

1. Add ingredients, one at a time, in the order given, under agitation.
 2. Adjust pH to 6.5+-0.5 with Citric Acid.
 3. Small addition of salt can be used to adjust viscosity.
- Formulation #SHM-011-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo-Concentrate

<u>Ingredients:</u>	<u>Weight%</u>
Water	12.75
Propylene Glycol	8.00
Calfoam TLS-40	20.00
Calamide C	12.50
Calamide LL	12.50
Calfoam ALS-30	26.00
Citric Acid	0.75
NaCl	7.50

Comments about this formula:

1. Mix water and Propylene Glycol.
 2. Add the next three ingredients into the water/PG solution.
 3. The last surfactant added is ALS-30; the blend becomes viscous
 4. Adjust the pH with Citric Acid (pH 6-7).
 5. Add NaCl last. The concentrate is very viscous.
 6. Add Perfume, Dye(s) and Preservative as desired.
 7. Finished shampoo can be made by diluting 1 part concentrate with 7-15 parts water.
- Formulation SHM-008-01

Shampoo-Cream

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Calfoam SLS-30	45.00
Stearic Acid	7.50
PEG-5 Soya Sterol	1.00
Part B:	
Water	43.50
NaOH, 50%	1.00
NaCl	2.00

Comments about this formula:

1. Heat Part A and Part B (separately) to 70C with agitation.
 2. Add Part A to Part B.
 3. Cool while stirring.
 4. Add Perfume, Dye(s) and Preservative as needed at 45C.
 5. The Ethoxylated Soya Sterol provides a desirable after shampoo sheen to the hair.
- Formulation SHM-012-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Shampoo-Cream

<u>Ingredients:</u>	<u>%Wt.</u>
Calsoft T-60	22.00
Calamide O	4.75
Calfoam EA-603	16.00
Stearic Acid	7.00
NaOH, 50% Solution	0.50
Citric Acid	0.10
Water	49.65

Comments About This Formula:

1. Mix the first four ingredients together.
2. Apply heat to melt the Stearic Acid (75C).
3. Add Caustic and Citric Acid into water and heat to about 60-70C.
4. Add the solution into the surfactant blend with stirring.
5. Cool the product while stirring.
6. The product is a soft cream
Formulation #SHM-001-01

Shampoo

<u>Ingredients:</u>	<u>%Wt.</u>
Water	74.45
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
Sodium Chloride	2.50
Perfume & Dye	0.10

Comments About this Formula:

1. Mix the first four ingredients (pH=10).
2. Add Citric Acid (approximately 0.1%) to adjust pH to about 6.
3. Add salt to the desired viscosity.
4. Perfume and dye as desired.
Formulation #SHM-003-01

SOURCE: Pilot Chemical Co.: Formulary

Shampoo with Silicone

<u>Stage Material:</u>	<u>Quantity</u>
Stage A:	
1 Water; Pure	47.390g
2 Polymer JR 400	0.500g
3 Kathon CG 100	0.100g
Stage B:	
4 Sodium Laureth Sulphate (SLES)	18.000g
5 Empicol TL 40t	17.500g
6 Texapon SBN	9.500g
Stage C:	
7 Empilan EGMS	1.000g
8 Empilan LDE	2.000g
Stage D:	
9 AEC Dimethicone (&) Laureth-4 (&) Laureth-23	4.000g
Stage E:	
10 Sodium Hydroxide 33%	0.010g

Mixing Instructions:

Weigh out water and start heating. Disperse Polymer JR and add Kathon.

Add items of Part B and bring to 65/70C.

Stir in items of Part C and stir until dissolved, more heating may be required.

Add Silicone CM2139-D1 and Silverson mix - do not introduce air - Adjust pH. Cool with slow stirring.

SOURCE: A & E Connock Ltd.; Project JW 2465/Formula Ref.: 1067*0

Gentle Everyday Shampoo

This mild shampoo is suitable for everyday use. A clear, water-white, viscous shampoo with excellent heat stability.

<u>Ingredients:</u>	<u>Weight%</u>
Distilled water	q.s. to 100.00
Sodium laureth sulfate, 28%	19.60
Cocamidopropyl betaine, 35%	11.00
Sodium lauroyl sarcosinate, 30%	9.60
PEG-150 distearate	2.90
Benece1 MP 943 R	1.10
Methylchloroisothiazolinone and methylisothiazoline, 1.5%	0.08

Procedure:

1. Disperse the Benece1 by adding to the vortex of well-agitated water. Heating to 40-45C will accelerate hydration. Mix until fully dissolved.
2. Add the surfactants, one at a time, mixing well between each addition.
3. Heat to 70-75C. Add the PEG-150 distearate. Mix until dissolved. Turn heat off.
4. When temperature reaches 40C or below, add fragrance and preservative.

SOURCE: Aqualon; Bulletin VC-526D: Performance of Benece1

Temporary Color-In Shampoo

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Water	36.40
Tetrasodium EDTA	0.05
Cocamidopropyl Betaine (Tego Betaine E)	7.00
Lauryl Glucoside (Tego Glucosid 1216)	6.50
Propylene Glycol	1.25
PEG-18 Glyceryl Oleate Cocoate (Antil 171)	2.00
Cocamidopropylamine Oxide (Aminoxid WS 35)	5.00
Quaternium-80 (Abil Quat 3272)	0.30
Disodium Cocoamphodipropionate	18.00
Phase B:	
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
Basic Blue 99)	
Basic Brown 16)	Blend as needed
Acid Violet 43)	for color
Basic Red 76)	1.00
Basic Yellow 57)	
Water	20.00
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.
Phase D:	
Citric Acid 25% Solution	to pH 6.5
Procedure:	
1. Heat the water of Phase A to 50C. Add the remaining ingredients of Phase A in order, mixing between additions.	
2. Combine the ingredients of Phase B. Mix until uniform.	
3. Combine the ingredients of Phase C. Mix. Heat to 50C.	
4. Add Phase B to Phase C. Mix well.	
5. Add Phase B/C to Phase A. Mix.	
6. Cool to 40C. Adjust pH and fragrance.	
SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations	

Shampoo-Cream

<u>Ingredients:</u>	<u>Weight%</u>
Calsoft T-60	22.00
Calamide O	4.75
Calfoam EA-603	16.00
Stearic Acid	7.00
NaOH, 50% Solution	0.50
Citric Acid	0.10
Water	49.65
Comments about this formula:	
1. Mix the first four ingredients together.	
2. Apply heat to melt the Stearic Acid (75C).	
3. Add Caustic and Citric Acid into water and heat to about 60-70C.	
4. Add the solution into the surfactant blend with stirring.	
5. Cool the product while stirring.	
6. The product is a soft cream.	
SOURCE: Pilot Chemical Co.; Formula SHM-001-01	

Transparent Shampoo

	<u>Weight%</u>
Miracare MPC	25.0
Citric Acid (to pH 5.5-6.5)	Q.S.
Fragrance, Dye(s), Preservative	Q.S.
Sodium Chloride	0.6-1.6
Water	74.0

Blending Procedure:

Charge water into mixing vessel and slowly blend in Miracare MPC. Mix until completely uniform. Adjust formulation pH to 5.5-6.5 with Citric Acid as needed. Add compatible Fragrance, Dye(s), and Preservative. Adjust formulation viscosity to desired consistency with the judicious addition of Sodium Chloride as needed.

Typical Formulation Properties:

Appearance @ 25C: Clear Liquid
 Viscosity @ 25C: 4,000-6,000 cps
 pH: 5.5-6.5
 % Non Volatiles: 10-12

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Sodium Chloride, Cocamidopropyl Betaine, Fragrance, Preservative, Citric Acid, Dye(s).

SOURCE: Rhone Poulenc Surfactants & Specialties: Formula 91-1008

Shampoo

	<u>Weight%</u>
Water	74.40
Calfoam SLS-30	5.00
Calfoam ES-303	16.00
Calamide C	2.00
Citric Acid	0.10
NaCl	2.50
Fragrance, Dye	Q.S.
Pilot Formula #SHM-003-01	

All Purpose Shampoo

	<u>Weight%</u>
Water	51.20
Calfoam ES-302	40.00
Caltaine C-35	5.00
Calamide C	3.00
NaCl	0.75
Kathon CG	0.05
Pilot Formula #SHM-010-01	

SOURCE: Pilot Chemical Co.: Personal Care Formulations

Water White Shampoo from a Blend

	<u>% by Weight</u>
Agent 1829-50*	25.00
Sodium Chloride	0.50
D.I. Water	Q.S. to 100.00
DMDM Hydantoin	0.20
Citric Acid (50%)	0.11
Sodium Chloride	Q.S.

Mixing Procedure:

Mix first four ingredients together. Adjust pH to 6.5-7.0 with 50% citric acid.

Additional sodium chloride may be added to increase viscosity.

*Contains Ammonium Lauryl Sulfate, Sodium Laureth Sulfate, Lauramide DEA, Citric Acid

Premium Water White Shampoo

	<u>% by Weight</u>
Stepan-Mild LSB	25.0
Steol CS-330	10.0
Amphosol CA	10.0
Ninol 40-CO	3.0
D.I. Water	Q.S. to 100.0
Citric Acid (50%)	Q.S.
Kathon CG	0.06
Sodium Chloride	Q.S.

Mixing Procedure:

Mix first five ingredients together. Adjust pH to 6.5-7.0 with citric acid. Add preservative.

Sodium chloride may be added to increase viscosity.

Water White Shampoo

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Stepan-Mild LSB	24.0
Steol CA-130	15.4
Ninol 96-SL	2.0
DMDM Hydantoin	0.25
Citric Acid (50%)	Q.S.
Sodium Chloride	1.0

Mixing Procedure:

Mix first four ingredients together with heat. (Heating to 150F). Mix for 30 minutes. Cool to room temperature with mixing. Add DMDM Hydantoin and adjust pH to 5.5-6.5 with citric acid. Viscosity can be adjusted with additional sodium chloride.

SOURCE: Stepan Co.: Suggested Formulations

3 in 1 Antidandruff Shampoo
17.2% active ingredient

<u>Recipe:</u>	<u>Weight%</u>
A Octopirox	0.40
B Water	10.00
C Genapol LRO liquid	30.00
Hostapon KCG	5.00
Genamin KSL	2.00
Cetiol HE	1.00
Belsil DMC 6032	2.00
Merquat 550	5.00
Fragrance	0.30
D Water	30.30
E Glucamate DOE 120	1.00
F Genagen CAB	8.00
Genapol L-3	2.00
Genapol TSM	3.00

Procedure:

- 1 Mix A with B.
 - 2 Add the components of C to 1 and stir well.
 - 3 Dissolve E in D, add to 1 and stir well.
 - 4 Stir the components of F one after another into 1.
 - 5 Adjust the pH to 6.0
- Formula BI/6142

Hair Shampoo

For daily use, clear, 15.8% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid	30.00
B Genapol AMG	8.00
Hostapon KCG	5.00
Fragrance	0.30
Water	46.70
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB	6.00
Genapol L-3	2.00
C Sodium chloride	2.00

Procedure:

- 1 Stir the components of B one after another into A.
 - 2 If necessary adjust the pH.
 - 3 Finally adjust the viscosity with C.
- Formula BI/1130

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Section IX

Shaving Products

Brushless Shave Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	78.193
Glycerine	5.000
Triethanolamine	0.857
B:	
Methocel 40-100 (Dow)	0.100
C:	
Stearic Acid	10.000
Stearyl Alcohol	0.500
Acetylated Lanolin Alcohol	1.500
White Protopet 1S (Witco)	1.500
Glyceryl Stearate SE	1.500
D:	
Deionized Water	0.500
Dowicil 200 Antimicrobial	0.200
E:	
Perfume Oil-Almond	0.150

Procedure:

Mix A at room temp. 10 min., then add B and mix until completely dissolved. Begin heating A&B and, in separate vessel, combine and heat C ingredients. When both mixtures are between 75 and 80C, combine with rapid agitation. When batch cools below 45C add D. Add E when batch is below 40C.

Brushless Shave Cream

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	78.193
Glycerine	5.000
B:	
Methocel 40-100	0.100
C:	
Triethanolamine	0.857
D:	
Stearic Acid	10.000
Stearyl Alcohol	0.500
Acetylated Lanolin Alcohol	1.500
White Fonoline Petrolatum (Witco)	1.500
Glyceryl Stearate SE	1.500
E:	
Deionized Water	0.500
Dowicil 200 Preservative	0.200
F:	
Perfume Oil (Almond)	0.150

Procedure:

Mix A ingredients at room temp. for 10 mins., then add B with agitation, then C. The dispersed Methocel will hydrate in about 15 mins. Begin heating the solution and in a separate vessel combine and heat D. When both mixtures are 75-80C combine with rapid agitation. When batch cools to 45C add E. Add F when batch is below 40C.

SOURCE: Witco Corp.; Suggested Formulations

Non-Foaming Shaving Gel

This non-foaming shave gel is uniquely designed to give excellent razor glide without using water. Areas of suggested use are as a travel shaving gel, an ethnic product or for problem skin where blemishes or other sensitive areas are visible.

<u>Sequence</u>	<u>Raw Material:</u>	<u>Weight%</u>
1	Standamid LD	5.50
1	Steol CS-460	4.50
1	Lipocol O/95	3.00
1	Lipocol S-20	6.50
1	Liponate IPM	5.00
1	Liponic EG-1	10.00
1	Ultraol 70 NF	15.00
1	Panalene L-14E	5.00
2	Deionized Water	45.25
2	Methylparaben	0.25

Procedure:

1. Premix Sequence #1 ingredients and heat to 80C with medium speed on overhead mixer.
2. Heat Premixed Sequence #2 to 80C and mix until the methylparaben is completely solubilized.
3. Add Sequence #2 to Sequence #1 with medium speed and slowly allow to cool.

SOURCE: Lipo Chemicals Inc.; Formulation No. 898

After Shave Balm

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
SD Alcohol 40A	30.00
Water	30.00
Carbomer 940	0.40
Phase B:	
Water	5.74
Triethanolamine	0.56
Allantoin	0.20
Phase C:	
Glyceryl Stearate (and) Ceteth-20 (Teginacid H)	0.75
Steareth-7 (and) Stearyl Alcohol (and) Steareth-10 (Emulgator 2155)	0.75
Decyl Oleate (Tegosoft D0)	3.00
Isopropyl Stearate (Tegosoft S)	3.00
Menthol	0.05
Phase D:	
Water	25.55
Phase E:	
Fragrance	Q.S.

Procedure:

1. Disperse the Carbomer in the water and alcohol.
2. Mix Phase B and add to Phase A. Mix well.
3. Heat Phase C to 80C.
4. Heat the water (Phase D) to 80C and add to Phase C. Begin homogenization and cool to 50C.
5. Using sweep mixer, add Phase A/B to Phase C/D. Homogenize. Sweep mix cool to 30C. Dispense.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulation

Shave Gel

The rich lather of this shaving gel has good foam and lubricity with low irritancy characteristics.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	53.73
2. Sodium Laureth Sulfate	26.67
3. Pationic 138C (Sodium Lauroyl Lactylate)	10.00
4. Ritamide C (Cocamide DEA)	4.00
5. Ritapeg 150 DS (PEG-150 Distearate)	2.00
6. Titanium Dioxide	0.50
7. Rita PEO-1 (PEG-5M)	0.10
8. Methylparaben	0.10
9. Perfume	0.20
10. Glydant	0.20
11. Triethanolamine 50%	+ -2.00
12. Sodium Chloride (25% solution)	+ -0.50

Compounding Procedure:

Heat items 1-8 to 165F while mixing. Neutralize to pH 7.5 with Triethanolamine. Cool to 120F and add items 9 and 10. Adjust viscosity with Sodium Chloride solution.

Ref. No. 122-91

Low Alcohol Moisturizing Lotion

A moisturizing, low alcohol, opaque aftershave, which has a cooling, soothing skin-tightening feel with a substantive after-feel from the Patlac IL and Pationic ISL.

<u>Ingredients:</u>	<u>%W/W</u>
1. Acritamer 941 (Carbomer)	0.75
2. Distilled/Deionized Water	81.61
3. Patlac IL (Isostearyl Lactate)	1.00
4. Ritapro 165 (Glyceryl Stearate and PEG-100 Stearate)	0.50
5. Pationic ISL (Sodium Isostearyl Lactylate)	1.00
6. Rita CA (Cetyl Alcohol)	0.50
7. Myristyl Lactate	1.00
8. Triethanolamine (50%)	0.64
9. Alcohol SD 40	12.00
10. Perfume, A.S. Type	1.00

Compounding Procedure:

NOTE: A sweep agitator is recommended for this product.

Weigh items 1-2 and items 3-7 and heat to 165F. Slowly add items 3-7 to items 1-2, taking care not to entrap air. Cool to 140F. Add items 8-9. Cool to 110F and add item 10. Adjust pH to 5.3. Pour into containers.

Viscosity: Brookfield RVF Heliopath TA @ 10 rpm @ 27C: 6460cps
Ref. No. 122-90

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Section X

Soaps and Hand Cleaners

Anti-Bacterial Handsoap

<u>Ingredients:</u>	<u>%Wt</u>
CalBlend Clear	35.0
Nipacide PX	0.75
Propylene Glycol	1.50
Versene 100	0.20
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	62.55

Comments About this Formula:**Blending Procedure:**

With smooth agitation, slowly blend CalBlend Clear and Versene 100 into water and mix until uniform. In a separate mixing vessel, disperse Nipacide PX in propylene glycol and, with smooth agitation, warm slightly until clear and uniform. With smooth agitation, slowly blend the propylene glycol/PX mixture into the main CalBlend Clear system and stir until uniform. Add compatible fragrance, dye and preservative. If desired, the viscosity of the system may be increased with the trace addition (0.05-0.25%) of sodium chloride or decreased with the addition (0.2-0.5%) of propylene glycol as needed.

Typical Formulation Properties:

Active Ingredient: Chloroxylenol
 Appearance: Clear Liquid
 Viscosity @ 25C: 6,000-10,000 cps
 pH: 6.5-7.5

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Tetrasodium EDTA, Citric Acid, Dye(s).

SOURCE: Pilot Chemical Co.: Formulation #HAN-019-01

Baby Mild Cleansing Bar
(Formula 91-1103)

This high foaming cleansing bar is mild enough for baby use. Therefore, it is perfect for anyone who wants a good cleansing product for sensitive skin. Its non-alkaline formula gently cleanses the skin without the drying effects of soap. Its emollients and moisturizers leave the skin feeling clean, soft and smooth.

	<u>% by Weight</u>
Step A:	
Geroon AS-200 (Rhone-Poulenc)	64.0
Stearic Acid, Triple Pressed	Q.S.
Wickeno1 550 (CasChem)	6.0
Titanium Dioxide	0.2
Step B:	
DV-3284* (Rhone-Poulenc)	6.0
Step C:	
Water	4.0
Sodium Chloride	0.4
Step D:	
Fragrance, Dye(s), Preservative	Q.S.

*DV-3284 is a 55% aqueous solution of Sodium Isethionate

Blending Procedure:

Step A:

Blend the dry components (Geroon AS-200, Stearic Acid, Wickeno1 550, Titanium Dioxide) in a powder mixer.

Step B:

Slowly and evenly, add the DV-3284 to Step A to avoid wet spots.

Step C:

Dissolve the Sodium Chloride and any other water soluble components in the water and uniformly add to Steps A and B to avoid wet spots.

Step D:

Finally, add the fragrance evenly to the batch. When uniformly mixed, mill and/or refine the batch until it is homogeneous. Extrude and stamp into bars.

Typical Formulation Properties:

Appearance: Opaque Bar

pH (5% dispersion): 5-6

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Hand CleanersAnti-Bacterial Handsoap

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	35.00
Nipacide PX	0.75
Propylene Glycol	1.50
Versene 100	0.20
Fragrance, Dye, Preservative	Q.S.
Sodium Chloride	Q.S.
Water	62.55

Comments about this formula:

Blending Procedure:

With smooth agitation, slowly blend CalBlend Clear and Versene 100 into water and mix until uniform. In a separate mixing vessel, disperse Nipacide PX in propylene glycol and, with smooth agitation, warm slightly until clear and uniform. With smooth agitation, slowly blend the propylene glycol/PX mixture into the main CalBlend Clear system and stir until uniform. Add compatible fragrance, dye and preservative. If desired, the viscosity of the system may be increased with the trace addition (0.05-0.25%) of sodium chloride or decreased with the addition (0.2-0.5%) of propylene glycol as needed.

Typical Formulation Properties:

Active Ingredient: Chloroxylenol
 Appearance: Clear Liquid
 Viscosity @ 25C: 6,000-10,000 cps
 pH: 6.5-7.5

CTFA Identification:

Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Tetrasodium EDTA, Citric Acid, Dye(s).
 Formulation HAN-019-01

Waterless Liquid

<u>Ingredients:</u>	<u>Weight%</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS (Ethylene Glycol Monostearate)	5.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	39.00

Comments about this formula:

Part A: White Mineral Oil, Kerosene, EGMS, and Calimulse PRS.
 Combine and heat to 160F to melt EGMS.

Part B: Propylene Glycol, Ethoxy Lanolin and water. Combine and heat to 160F. Combine parts A and B.

Part C: Dye and Perfume if desired. Cool A and B, blend below 110F before adding.

Formulation HAN-009-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner, Heavy DutyPhase A:Ingredients:

	<u>%Wt</u>
d-Limonene	35.00
Caloxylate N-9	13.00
Pilot SXS-40	4.00

Phase B:Ingredients:

	<u>%Wt</u>
Water	30.00
Calsoft AOS-40	4.00
Calfax 10L-45	10.00
Calamide C	4.00

Comments About This Formula:

Propylene Glycol can be used instead of SXS-40.

Phase A-Organic Phase:

Mix the ingredients in order listed. Upon SXS-40 addition, the blend is slightly hazy (the blend is clear when Propylene Glycol is used).

Phase B-Aqueous Phase:

Mix the ingredients in order listed.

Add Phase A into Phase B with vigorous mixing. A white creamy paste is formed. This is a good grease cutting hand cleaner.

Formulation #HAN-004-01

Hand Cleaner, Liquid, SoapIngredients:

	<u>%Wt</u>
Calfoam SLS-30	27.64
Caltaine C-35	5.00
Calamide C	3.04
EGMS	1.77
Citric Acid	0.09
Kathon CG	0.09
Nipacide PX	0.09
Water	62.01
Ammonium Chloride	0.25

Formulation #HAN-005-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersLiquid Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Deodorized Kerosene	53.00
White Mineral Oil	5.00
Calsuds CD-6	9.50
Water	32.40
Perfume	0.10

Comments about this formula:

Part A: Kerosene, White Oil, and Calsuds CD-6. Blend and heat to 70C.

Part B: Water. Heat separately to 70C. Then combine and mix with Part A.

Part C: Perfume. Cool Part A and B mixture to 25C before adding Part C.

Formulation HAN-001-01

Liquid Dispenser Type: Pearlescent

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam SLS-30	25.00
EGMS (Ethylene Glycol Monostearate)	2.00
Calamide LL	5.00
Kathon CG	0.20
Perfume, Color	0.10
Water	67.60
Citric Acid	0.10

Comments about this formula:

1. Warm to 140F to disperse the EGMS.
2. Viscosity 1,200 cPs.

Formulation HAN-002-01

Liquid Dispenser Type: Pearlescent

<u>Ingredients:</u>	<u>Weight%</u>
Calsuds CD-6	15.00
Calsoft LAS-99	3.70
Pilot SXS-40	1.25
Opacifier	1.00
Kathon CG	0.50
Water	78.55

Comments about this formula:

Add ingredients in order listed.

Formulation HAN-003-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaners**Liquid Soap**

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam SLS-30	27.64
Caltaine C-35	5.00
Calamide C	3.04
EGMS (Ethylene Glycol Monostearate)	1.77
Citric Acid	0.09
Kathon CG	0.09
Nipacide PX	0.09
Water	62.01
Ammonium Chloride	0.25

Comments about this formula:
 Mix all the ingredients in order listed.
 Formulation HAN-005-01

Liquid Soap

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam SLS-30	28.00
Caltaine C-35	5.00
Calamide C	3.00
EGMS (Ethylene Glycol Monostearate)	1.00
Propylene Glycol	1.00
PEG 46M	0.50
Kathon CG	0.05
Citric Acid	0.20

Comments about this formula:
 1. Ingredients 1-6 combined and heated to 70C to melt EGMS.
 2. Kathon CG added after cooling before adjusting pH.
 3. Sodium Chloride (1%) can be added to adjust the viscosity (increase).
 Formulation HAN-016-01

Liquid, Soap, Antiseptic

<u>Ingredients:</u>	<u>Weight%</u>
Calfoam SLS-30	27.42
Calsoft T-60	5.00
Calamide C	3.02
EGMS (Ethylene Glycol Monostearate)	1.76
Citric Acid	0.08
Kathon CG	0.09
Nipacide PX	0.09
Water	61.54
Ammonium Chloride	1.00

Comments about this formula:
 1. Combine ingredients 1-5 and heat to 55C to melt EGMS.
 2. Cool below 50C before adding Kathon and Nipacide.
 3. Add Citric Acid to adjust pH.
 4. Add Ammonium Chloride to adjust the viscosity.
 Formulation HAN-017-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner-Liquid
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Deodorized Kerosene	53.00
White Mineral Oil	5.00
Calsuds CD-6	9.50
Water	32.40
Perfume	0.10

Comments About this Formula:

Part A: Kerosene, White Oil, and Calsuds CD-6.
Blend and heat to 70C.

Part B: Water. Heat separately to 70C then combine and mix with Part A.

Part C: Perfume. Cool Part A & B mixture to 25C before adding Part C.

Formulation #HAN-001-01

Hand Cleaner-Liquid
Dispenser Type, Pearlescent

<u>Ingredients:</u>	<u>%Wt</u>
Calfoam SLS-30	25.00
EGMS	2.00
Calamide LL	5.00
Kathon CG	0.20
Perfume, Color	0.10
Water	67.60
Citric Acid	0.10

Comments About this Formula:

1. EGMS-Ethylene Glycol Monostearate
2. Warm to 140F to disperse the EGMS.
3. Viscosity~1,200 cPs.

#HAN-002-01

Hand Cleaner-Liquid
Dispenser Type, Pearlescent

<u>Ingredients:</u>	<u>%Wt</u>
Calsuds CD-6	15.00
Calsoft LAS-99	3.70
Pilot SXS-40	1.25
Opacifier	1.00
Kathon CG	0.50
Water	78.55

Formulation #HAN-003-01

SOURCE: Pilot Chemical Co.: Formulary

Hand Cleaner, Liquid, Soap
Antiseptic

<u>Ingredients:</u>	<u>%Wt</u>
Calfoam SLS-30	27.42
Calsoft T-60	5.00
Calamide C	3.02
EGMS	1.76
Citric Acid	0.08
Kathon CG	0.09
Nipacide PX	0.09
Water	61.54
Ammonium Chloride	1.00

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate.

1. Combine ingredients 1-5 and heat to 55C to melt EGMS.
2. Cool below 50C before adding Kathon and Nipacide.
3. Add Citric Acid to adjust pH.
4. Add Ammonium Chloride to adjust the viscosity.

Formulation #HAN-017-01

Handsoap-Clear Liquid

<u>Ingredients:</u>	<u>%Wt</u>
CalBlend Clear	30.0
Fragrance, Dye	Q.S.
Preservative	Q.S.
Sodium Chloride	1-2
Water	68.5

Comments About this Formula:**Blending Procedure:**

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye and preservative. Adjust formulation viscosity to 3,000-5,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

pH: 6.0-7.0

Viscosity @ 25C: 3,000-5,000

% Non Volatiles: 11.5-12.5

CTFA Identification: Water, Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).

Formulation #HAN-018-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersPowder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Calsoft F-90	2.00
Pilot SXS-96	1.00
Sodium Sesquicarbonate	86.80
Borax Crystals	10.00
Color & Perfume	0.20

Comments about this formula:

1. Blend Calsoft F-90, SXS-96, and Sesquicarbonate.
 2. Add Borax.
 3. Add perfume and dye by overspraying.
- Formulation HAN-006-01

Powder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Sulfate	71.70
Sodium Sesquicarbonate	15.90
Calsoft F-90	12.00
Triton X-100	0.40

Comments about this formula:

1. Triton X-100 used as anti-dusting agent.
 2. Formula has higher bulk density than HAN-007.
- Formulation HAN-008-01

Powder Dispenser Type

<u>Ingredients:</u>	<u>Weight%</u>
Sodium Sesquicarbonate	85.30
Calsoft F-90	14.20
Triton X-100	0.50

Comments about this formula:

- Triton X-100 used as anti-dusting agent.
Formulation HAN-007-01

SOURCE: Pilot Chemical Co.; Suggested Formulations

Hand Cleaner, Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Calsoft F-90	2.00
Pilot SXS-96	1.00
Sodium Sesquicarbonate	86.80
Borax Crystals	10.00
Color & Perfume	0.20

Comments About this Formula:

1. Blend Calsoft F-90, SXS-96, and Sesquicarbonate.
2. Add Borax.
3. Add perfume and dye by overspraying.
Formulation #HAN-006-01

Hand Cleaner-Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Sodium Sesquicarbonate	85.30
Calsoft F-90	14.20
Triton X-100	0.50

Comments About this Formula:

- Triton X-100 used as anti-dusting agent.
Formulation #HAN-007-01

Hand Cleaner-Powder
Dispenser Type

<u>Ingredients:</u>	<u>%Wt</u>
Sodium Sulfate	71.70
Sodium Sesquicarbonate	15.90
Calsoft F-90	12.00
Triton X-100	0.40

Comments About this Formula:

1. Triton X-100 used a anti-dusting agent.
2. Formula has higher bulk density than HAN-007.
Formulation #HAN-008-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersHandsoap-Clear Liquid

<u>Ingredients:</u>	<u>Weight%</u>
CalBlend Clear	30.00
Fragrance, Dye	Q.S.
Preservative	Q.S.
Sodium Chloride	1.00-2.00
Water	68.50

Comments about this formula:

Blending Procedure:

Charge water into mixing vessel and slowly blend in Clear. Mix until completely uniform. Add compatible fragrance, dye, and preservative. Adjust formulation viscosity to 3,000-5,000 cps (No. 4 Spindle @ 10 rpm) with the incremental addition of sodium chloride as needed.

Typical Formulation Properties:

Appearance: Clear, Viscous Liquid

Viscosity @ 25C: 3,000-5,000 cps

pH: 6.0-7.0

% Non Volatiles: 11.5-12.5

CTFA Identification:

Sodium Laureth Sulfate, Cocamide DEA, Cocamidopropyl Betaine, Sodium Chloride, Fragrance, Preservative, Citric Acid, Dye(s).
Formulation HAN-018-01

Heavy Duty

<u>Phase A Ingredients:</u>	<u>Weight%</u>
d-Limonene	35.00
Caloxylate N-9	13.00
Pilot SXS-40	4.00

Phase B Ingredients:

Water	30.00
Calsoft AOS-40	4.00
Calfax 10L-45	10.00
Calamide C	4.00

Comments about this formula:

Propylene Glycol can be used instead of SXS-40.

Phase A-Organic Phase: Mix the ingredients in order listed. Upon SXS-40 addition, the blend is slightly hazy (the blend is clear when Propylene Glycol is used).

Phase B-Aqueous Phase: Mix the ingredients in order listed.

Add Phase A into Phase B with vigorous mixing. A white creamy paste is formed. This is a good grease cutting hand cleaner.

Formulation HAN-004-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner, Waterless, Liquid

<u>Ingredients:</u>	<u>%Wt</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS	5.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	39.00

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate.

Part A: White Mineral Oil, Kerosene, EGMS, and Calimulse PRS.
Combine and heat to 160F to melt EGMS.

Part B: Propylene Glycol, Ethoxy Lanolin and water. Combine and heat to 160F. Combine parts A & B.

Part C: Dye and Perfume if desired. Cool A & B, blend below 110F before adding.

Formulation #HAN-009-01

Hand Cleaner-Waterless Paste

<u>Ingredients:</u>	<u>%Wt</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS	10.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	34.00

Comments About this Formula:

Part A: Ingredients 1-4. Heat and mix to 160F.

Part B: Ingredients 5-7. Heat and mix to 160F. Combine "A" and "B".

Part C: Perfume. Cool "A" and "B", blend below 100F before adding. Package immediately, forms a paste on cooling.

Formulation #HAN-010-01

SOURCE: Pilot Chemical Co.: Formulary

Hand CleanersWaterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Oleic Acid	1.60
Triethanolamine 85%	0.40
Caloxylate N-9	11.00
Calamide CWT	4.00
d-Limonene	34.00
Water, D.I.	49.00

Comments about this formula:

1. Combine ingredients 1-5 and heat to 80C with mixing.
2. Slowly add water while maintaining temperature.
3. Forms a gel on cooling.

Formulation HAN-013-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	10.50
Caloxylate N-9	6.00
Lauramine Oxide	0.50
d-Limonene	40.00
Glycerol	1.50
Water, D.I.	41.50

Comments about this formula:

Part A: Ingredients 1-4, combine and heat to 70C.

Part B: Combine and heat ingredients 5 and 6 to 70C. Combine with Part "A". Package before cooling.

Formulation HAN-014-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Caloxylate N-9	2.50
d-Limonene	45.00
Glycerine	1.50
Water	39.50

Comments about this formula:

Part A: Ingredients 1-5, mix and heat to 70C.

Part B: Ingredients 6 and 7, warm to 80C and add to Part "A". Cool and package, before cooling.

Formulation HAN-015-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand CleanersWaterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
White Mineral Oil	30.00
Deodorized Kerosene	10.00
EGMS (Ethylene Glycol Monostearate)	10.00
Calimulse PRS	5.00
Propylene Glycol	5.00
Ethoxy Lanolin (75 Mole)	6.00
Water	34.00

Comments about this formula:

Part A: Ingredients 1-4. Heat and mix to 160F.

Part B: Ingredients 5-7. Heat and mix to 160F. Combine "A" and "B".

Part C: Perfume. Cool "A" and "B", blend below 100F before adding.

Package immediately, forms a paste on cooling.

Formulation HAN-010-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Deodorized Kerosene	42.10
Caluds CD-6	13.60
White Mineral Oil	3.30
Water	40.40
Kathon CG	0.50
Perfume	0.10

Comments about this formula:

Part A: Ingredients 1-3, combine and heat to 70C.

Part B: Ingredient 4, heat to 60C and add with mixing to Part "A"

Part C: Ingredients 5 and 6. Cool A/B, blend below 40C before adding. Forms a gel on standing.

Formulation HAN-011-01

Waterless Paste

<u>Ingredients:</u>	<u>Weight%</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Deodorized Mineral Spirits	45.00
Glycerol	1.50
Water	42.00

Comments about this formula:

Part A: Mix and heat ingredients 1-4 to 80C.

Part B: Mix and heat ingredients 5 and 6 to 80C. Combine with Part "A". Forms a gel on cooling.

Formulation HAN-012-01

SOURCE: Pilot Chemical Co.: Suggested Formulations

Hand Cleaner-Waterless Paste

<u>Ingredients:</u>	<u>%Wt</u>
Deodorized Kerosene	42.10
Calsuds CD-6	13.60
White Mineral Oil	3.30
Water	40.40
Kathon CG	0.50
Perfume	0.10

Comments About this Formula:

Part A: Ingredients 1-3, combine and heat to 70C.

Part B: Ingredient 4, heat to 60C and add with mixing to Part "A"

Part C: Ingredients 5 and 6. Cool A/B, blend below 40C before adding. Forms a gel on standing.

Formulation #HAN-011-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Deodorized Mineral Spirits	45.00
Glycerol	1.50
Water	42.00

Comments About this Formula:

Part A: Mix and heat ingredients 1-4 to 80C.

Part B: Mix and heat ingredients 5 and 6 to 80C. Combine with Part "A". Forms a gel on cooling.

Formulation #HAN-012-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Oleic Acid	1.60
Triethanolamine 85%	0.40
Caloxylate N-9	11.00
Calamide CWT	4.00
d-Limonene	34.00
Water, D.I.	49.00

Comments About this Formula:

1. Combine ingredients 1-5 and heat to 80C with mixing.

2. Slowly add water while maintaining temperature.

3. Forms a gel on cooling.

Formulation #HAN-013-01

SOURCE: Pilot Chemical Co.: Formulary

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	10.50
Caloxylate N-9	6.00
Lauramine Oxide	0.50
d-Limonene	40.00
Glycerol	1.50
Water, D.I.	41.50

Comments About this Formula:

Part A: Combine and heat ingredients 1-4 to 70C.

Part B: Combine and heat ingredients 5&6 to 70C. Combine with Part "A". Package before cooling.

Formulation #HAN-014-01

Hand Cleaner-Waterless, Paste

<u>Ingredients:</u>	<u>%Wt</u>
Calamide CWT	5.00
Oleic Acid	5.00
Triethanolamine 85%	1.50
Caloxylate N-9	2.50
d-Limonene	45.00
Glycerine	1.50
Water	39.50

Comments About this Formula:

Part A: Ingredients 1-5, mix and heat to 70C.

Part B: Ingredients 6&7, warm to 80C and add to Part "A". Cool and package.

Formulation #HAN-015-01

Hand Cleaner-Liquid, Soap

<u>Ingredients:</u>	<u>Wt%</u>
Calfoam SLS-30	28.00
Caltaine C-35	5.00
Calamide C	3.00
EGMS	1.00
Propylene Glycol	1.00
PEG 46M	0.50
Kathon CG	0.05
Citric Acid	0.20

Comments About this Formula:

EGMS-Ethylene Glycol Monostearate

1. Ingredients 1-6 combined and heated to 70C to melt EGMS.

2. Kathon CG added after cooling before adjusting pH.

3. Sodium Chloride (1%) can be added to adjust the viscosity (increase).

Formulation #HAN-016-01

SOURCE: Pilot Chemical Co.: Formulary

Hot Pour Syndet Bar

This mild cleansing bar provides rich lather and soft skin as a result of Jordapon CI-60. The formula is designed to be manufactured using hot-fill equipment; no soapmaking lines are needed.

<u>Ingredient:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-60)	80.0
Stearyl Alcohol (CO-1895)	10.0
PEG-150 (Carbowax E-8000)	3.0
Triethanolamine, 99%	5.0
Demineralized Water	2.0

pH (5% solution): 6.3

Procedure:

With all ingredients in the vessel, heat to 70C. Begin propellor agitation when the batch becomes fluid. Maintain slow mixing until all solids are dissolved and the batch becomes a uniform, nonviscous, opaque fluid. Fill molds, allow to solidify.

Formula M102

Syndet Bar

Modification of an example in US Patent #4,707,288

<u>Ingredient:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid (Jordapon CI-75)	76.5
Tallow/Coco Soap	16.7
Water	4.1
NaCl	0.3
TiO ₂	1.0
Fragrance	1.0
BHT	0.2
Na ₃ HEDTA	0.2

Formula M103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Liquid Soap

A mild, high-foaming formulation which is simple, yet offers lubricious lather and soft skin afterfeel thanks to the Jordapon CI-UP. The Mapeg EGMS provides a bright pearlescence to the system. It can be omitted if a clear product is desired.

Part:	Ingredient (Trade Name):	Wt%
A	Deionized Water	74.4
	Sodium Cocoyl Isethionate (Jordapon CI-UP)	3.0
	Ammonium Lauryl Sulfate (Stepanol AM)	13.0
	Glycol Stearate (Mapeg EGMS)	0.5
	Na4EDTA	0.1
	Methyl Paraben	0.2
B	Cocamidopropyl Betaine (Mafo CAB)	6.0
	Cocamide DEA (Mazamide JT-128)	2.5
C	Fragrance	0.2
	Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 2500-3500 cps (with 0.6-0.9% NaCl)

Appearance: Creamy, Pearlescent Liquid

Procedure:

Mix and heat part A ingredients to 65C (150F). When uniform, add the Mafo CAB and the Mazamide JT-128. Cool the batch to 40C (150F), add fragrance and adjust pH. Adjust viscosity with sodium chloride.

SOURCE: PPG Industries, Inc.: Formulation N-201

Hand Cleaning Gel

Zusolat 1004	Wt%	25.0
Oleic acid		4.0
Caustic soda (15%)	approx.	3.0
Shellsol D 40		18.0
q.s. to make 100%: water, perfume, preservative		

SOURCE: Zschimmer & Schwarz GmbH & Co.: Formulation B 25/216

Lotion Hand Cleaner (With Abrasive)

	<u>Wt%</u>
Distilled Water	61.55
Bioterge AS-40	25.00
Methylparaben	0.15
Ritasynt IP	4.00
Pationic ISL	3.00
Ritapeg 150 DS	1.00
Walnut Shells (Coarse)	5.00
Kathon CG	0.10
TEA (50% Solution)	0.15
Perfume	0.05

pH: 6.0

Viscosity: 3400 cps

Foaming Results:	Foam	H2O
0.0 Minute	260	85
1.0 Minute	260	95
3.0 Minute	260	100

Stabilities:

4F: Walnuts drop to bottom after 1 cycle

40F: Walnuts drop to bottom after 4 weeks

70F: Walnuts drop to bottom overnight

110F: Separation overnight-all walnuts at bottom

Centifuge Results: Separates after 10 seconds @ 1600 rpm

Description: 1% Ritapeg 150 DS Without Ritavena 5

SOURCE: R.I.T.A. Corp.: Ritavena 5: Formulation 114-24

Mild Hand Cleanser

	<u>Wt%</u>
Mackanate LO-Special	83.0
Mackamide PKM	4.0
Mackernium 007	0.8
Mackstat DM	qs
Water, Fragrance qs to	100.0

Procedure:

1. Add Mackamide PKM to Mackanate LO-Special and heat to 70 degrees C.
2. Blend until homogeneous.
3. Dissolve Mackernium 007 in water and add to product.
4. Blend until completely homogeneous.
5. Cool to 50 degrees C. with mild agitation.
6. Add Mackstat DM and fragrance and cool with continuous agitation.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formula

Mild Pearlied Hand Cleanser

	<u>% By Weight</u>
Water	61.4
Sodium Chloride	0.3
Monateric 951A	20.8
Monamate LNT-40	12.5
Monamid 1089	1.0
Cerasynt IP	1.5
Phospholipid PTC	2.5

Procedure:

Add ingredients in order listed and warm with gentle agitation to 60C. Maintain 60C until the Cerasynt IP has dissolved. Cool - adjust pH with phosphoric acid. At pH 6.5, viscosity is about 2000 cps.

Formula F-128

Pearled Gel Facial Cleanser

	<u>% By Weight</u>
Water	52.5
Sodium Laureth (1) Sulfate (25% Active)	28.0
Monamate CPA-40	12.5
Monamid 1089	3.0
Cerasynt IP	1.5
Phospholipid PTC	2.5

Procedure:

Add ingredients in order listed and heat with gentle agitation to 70C while the Cerasynt IP dissolves. Cool and adjust pH level desired. At pH 5 to 6 the product is a pearled, barely flowable gel which is suitable for packing in tubes. Hand lather is copious, with a soft-creamy feel. When dry, the skin has a silky feel.

Formula F-156

Facial Cleanser

This high foaming formulation utilizes the mild cleansing and anti-irritation properties of Phospholipid PTC. Its substantivity to the skin and effective conditioning activity will help to minimize or alleviate dry skin conditions while leaving a silky talc-like afterfeel.

	<u>% By Weight</u>
Phospholipid PTC	2.5
Monateric CLV	12.5
Sodium Laureth (1) Sulfate (26%)	28.0
Water	57.0

SOURCE: Mona Industries, Inc.: Suggested Formulations

Opaque Liquid Soap

Natrosol 250HHR hydroxyethylcellulose effectively boosts the viscosity of this lower actives opaque shampoo base. At a surfactant solids level of only 7.3%, the addition of Natrosol yields a rich liquid soap with a viscosity of 4,000 cps (MPas) (Brookfield LVT at 30 rpm, 25C).

<u>Ingredients:</u>	<u>Weight%</u>
Water	75.88
Sodium C14-C16 olefin sulfonate, 40% active	7.50
Sodium lauroyl sarcosinate, 30% active	6.66
Cocamidopropyl betaine, 35% active	6.66
Glycol stearate	1.00
Natrosol 250HHR CS hydroxyethylcellulose	0.80
Propylene glycol	0.50
Glycerin	0.50
Tetrasodium EDTA	0.30
Stearalkonium chloride	0.10
Methyl paraben	0.10

Procedure:

1. Disperse the Natrosol in water with good agitation. Mix until fully dissolved. Moderate heating or an increase in solution pH to slightly alkaline will accelerate hydration.
 2. Disperse the methyl paraben in the propylene glycol. Add to the Natrosol solution. Mix until dissolved.
 3. While slowly stirring the water-soluble polymer solution, add the stearylalkonium chloride, olefin sulfonate, and glycol stearate. Heat the mixture to 80C until all of the glycol stearate has melted and the solution has turned opaque.
 4. Add the remaining ingredients while cooling the solution slowly to room temperature.
 5. Add color and fragrance.
- Formula N09-01W

Transparent Toilet Soap

Natrosol 250HR gives viscosity and pseudoplastic flow to this transparent hand soap.

<u>Ingredients:</u>	<u>Weight%</u>
Water	65.70
Sodium C14-C16 olefin sulfonate, 40% active	20.00
Sodium lauroyl sarcosinate, 30% active	10.00
Cocamide MEA	3.00
Natrosol 250HR CS	1.00
Disodium EDTA	0.20
Methyl paraben	0.10

Formula N09-02W

SOURCE: Aqualon Division: Natrosol 250 Hydroxyethylcellulose

Soap Bar for Hard Water
(Formula 91-1106)

This soap bar incorporates a mild amphoteric surfactant to improve foaming in hard water situations. Additionally, the amphoteric reduces the harshness of the soap system in any washing environment. This bar is less drying than a pure soap based product.

	<u>% by Weight</u>
Step A:	
80/20 Bradpride Soap Base (Original Bradford Soap Works)	Q.S.
Bentone EW (Rheox)	10.0
Step B:	
Water	7.5
Miranol C2M-SF 70%	5.0
Step C:	
Fragrance, Dye(s), Preservative	Q.S.

Blending Procedure:**Step A:**

Blend the dry components (Bradpride Soap Base, Bentone EW) in a powder mixer.

Step B:

Dissolve the Miranol C2M-SF 70% and any other water soluble components in the water with heating. Slowly and evenly add the aqueous solution to Step A to avoid wet spots.

Step C:

Finally, add the fragrance to Steps A and B. When uniformly mixed, mill and/or refine until the batch is homogeneous. Extrude and stamp into bars.

Typical Formulation Properties:

Appearance: Opaque Bar

pH (5% dispersion): 10.0-10.5

CTFA Identification:

Sodium Tallowate, Sodium Cocoate and/or Sodium Palm Kernalate, Hectorite, Water, Disodium Cocamphodipropionate.

SOURCE: Rhone-Poulenc Surfactants & Specialties: Formulation for Personal Care

Waterless Hand Cleaner

<u>Formula:</u>	<u>% by Weight</u>
A:	
Mineral Colloid BP (ECC America)	2.0
Water	36.0
B:	
Potassium Hydroxide	1.0
Water	5.0
C:	
Microwhite 100 (ECC America)	20.0
D:	
Oleic Acid	6.0
Deodorized Kerosene	25.0
Solulan 98	3.0
Yellow Protopet 2A Petrolatum (Witco)	2.0
Preservatives	q.s.

Procedure:

Slowly add the Mineral Colloid BP to the water while agitating at max. shear. Dissolve potassium hydroxide in water. Add B to A with medium shear. Add Microwhite 100 to A/B and mix until smooth and uniform. Heat A/B/C to 60C. Combine D and heat to 65C. Add D to A/B/C with slow mixing until cooled to 30C. Add preservatives and mix until smooth and uniform. Mineral Colloid, a refined smectite clay, effectively thickens and stabilizes the emulsion and suspends the abrasive.

Waterless Hand Cleaner with Abrasive

<u>Formula:</u>	<u>% by Weight</u>
A:	
Veegum Pro	2.0
Water	39.4
B:	
Potassium Hydroxide	0.9
Water	2.7
C:	
Oleic Acid	9.0
Carnation Mineral Oil (Witco)	9.0
C11-12 Isoparaffin	27.0
D:	
Polyethylene	
Preservative	q.s.

Procedure:

Slowly add Veegum Pro to the water, agitating at maximum available shear. Mix until smooth. Add B with careful mixing and mix until uniform. Add C to A/B and mix until emulsion is smooth and uniform. Add D and mix until uniform. This is a medium viscosity cream.

SOURCE: Witco Corp.: Suggested Formulations

Section XI

Sun Care Products

After Sun Cream with Aloe Vera and Evening Primrose

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Miglyol 812 (Caprylic/Capric Triglyceride)	12.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Aloe Vera Lipo Quinone Extract (Aloe Barbadosis Extract)	2.00
Evening Primrose	2.00
B) Carbopol Gel 1%	15.00
Allantoin	0.20
Preservative	q.s.
d-Panthenol	3.00
Water	Up to 100.00
C) Fragrance	q.s.
Vitamin E	0.20

Preparation:Carbopol Gel:

Carbopol 980 (Carbomer)	1.0%
KOH 10%	4.0%
Water	up to 100.0%

After Sun Cream:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A).

(C) is added at about 35 degrees C.

Formulation 4.1D

W/O Sun Protection Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacryladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	5.00
Dynacerin 660 (Oleyl Erucate)	18.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	5.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
B) Hombitec L5 (Titanium Dioxide)	3.00
Magnesium Sulfate	2.00
Preservative	q.s.
Water	up to 100.00

Preparation:

(A) is warmed up to ca. 75 degrees C. and stirred. (B) is brought to the same temperature and emulsified into (A) with an homogenizer. (C) is added at about 35 degrees C.

Formulation 4.2B

SOURCE: Huls America Inc.: Suggested Formulations

After Sun Lotion

The combination of Elhibin and Lactomide in this deep acting lotion regenerates the skin through the anti elastase effect and lipid barrier reconstruction. The formula is ideal for after sun applications.

<u>Item</u>	<u>Ingredients</u>	<u>Weight%</u>
1	A) Tween 60	5.00
2	Arlacel 60	3.00
3	Arlacel 165	2.00
4	Cetyl Alcohol	2.50
5	Isopropyl Myristate	8.00
6	B) Deionized Water	66.40
7	Phenonip	0.50
8	Imidazolidinyl Urea	0.30
9	Propylene Glycol	2.00
10	Elhibin	5.00
11	Lactomide	5.00
12	C) Fragrance: Timbuktu 0/186901	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. C 008.1/01.96

Light After Sun Fluid

Disbutin-BT, in this quick break emulsion, positively influences the regenerative capacity of the skin by instant dismutation of the oxygen free radicals preventing tissue damage.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Pemulen TR-1	0.25
2	Cetiol 868	8.00
3	Paraffin Oil	10.00
4	Vitamin E Acetate	0.50
5	B) Deionized Water	78.15
6	Glycerin	2.00
7	Phenonip	0.30
8	Imidazolidinyl Urea	0.20
9	C) Sodium Hydroxide 18% Solution qs. pH 6.0	
10	D) Dismutin-BT	0.30
11	Fragrance: Chiara 0/238927	0.30

Procedure:

Mix phase A) and homogenize for 2 minutes.

Under stirring add phase B) to phase A) and homogenize.

Neutralize with phase C and then add items 10 + 11, stir.

Application No. A 033.A/01.96

SOURCE: Pentapharm Ltd.: Suggested Formulations

After Sun Lotion

A smooth lotion that adds moisture to the skin after sunning.

<u>Ingredients:</u>	<u>%W/W</u>
1. Stearic Acid	2.00
2. C12-15 Alkyl Benzoate	6.50
3. Cocoa Butter	1.00
4. Wheat Germ Oil	1.00
5. Tocopheryl Acetate	0.50
6. Rita GMS (Glyceryl Stearate)	2.00
7. Ritox 52 (PEG-40 Stearate)	1.00
8. Distilled/Deionized Water	68.30
9. Ritaloe 1X (Aloe Vera Gel)	10.00
10. Glycerine	3.00
11. Triethanolamine (99%)	1.00
12. Allantoin	0.50
13. Acritamer 941 (Carbomer)	0.20
14. Acrylates/Octylacrylamide Copolymer	1.00
15. Germaben IIE	1.00
16. Fragrance	q.s.
17. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Combine items 1-7 and heat to 80C. Combine items 8-12. Slowly add item 13 with rapid agitation. Heat to 80C. Slowly sift in item 14 and mix until dissolved. Add oil to water. Cool to 40C while mixing. Add items 15-17.

Ref. No. 122-6A

Sunscreen Cream

An elegant, smooth cream. The sunscreen has an estimated SPF of about 15 with a light feel and greaseless rub in. The formula is stabilized with Acritamer.

<u>Ingredients:</u>	<u>%W/W</u>
1. Acritamer 934 (Carbomer)	0.40
2. Distilled/Deionized Water	64.95
3. Propylene Glycol	3.00
4. Benzophenone-3	5.00
5. Octyl Methoxycinnamate	7.50
6. C12-15 Alkyl Benzoate	7.50
7. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00
8. Stearic Acid (T.P.)	2.00
9. Ritabate-80 (Polysorbate-80)	0.50
10. Rita CA (Cetyl Alcohol)	0.50
11. TEA (99%)	0.65
12. Rovisome C (ROVI Blend)	4.00
13. Glydant	q.s.
14. Perfume	q.s.

Compounding Procedure:

Disperse item 1 into item 2 and heat to 75-80C. Add item 3. Mix items 4-10 and heat to 75-80C. Combine phases with mixing. Adjust pH with item 11. Cool to 35-40C and add items 11-14.

Ref. No. 122-124

After Sun Milk

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat KL 340 N	1.50
Hostacerin DGS	4.00
Mineral oil, high viscosity	3.00
Isopropyl palmitate	3.00
Cetiol SN	3.00
Jojoba oil	3.00
Walnut oil	3.00
D-Panthenol	1.00
B-Carotin	q. s.
Antioxidant	q. s.
B Carbopol 980	0.40
C Allantoin	0.20
Aquamollin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Glycerin	3.00
Caustic soda solution (10%)	1.60
Water	68.15
Preservative	q. s.
D Collagen KD	3.00
Ethanol	1.50
Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
 - 2 Heat C to ca. 70C.
 - 3 Stir 2 into 1 and stir until cool.
 - 4 Add ca. 35C add the components of D to 3.
 - 5 Homogenize the emulsion.
- Formula A VI/3016

W/O-Sun Screen Milk

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin WO	2.00
Arlacel 989	2.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	5.00
Eutanol G	5.00
Neo-Heliopan E 1000	4.00
Neo-Heliopan BB	1.00
B Allantoin	0.20
Aquamollin BC pdr.h.c.	0.10
Citric acid (10%)	0.25
Sodium chloride	2.00
Water	68.15
Preservative	q. s.
C Fragrance	0.30

Procedure:

- 1 Melt A at ca. 80C.
 - 2 Stir solution B into 1 at room temperature and stir until cool.
 - 3 At ca. 35C add C to 2.
- Formula A VI/7300

SOURCE: Hoechst: Guide Recipes for the Cosmetic Industry

Insect Repellent Sunscreen

This lotion contains both Unirep U-18 which is a highly effective repellent against a variety of insects, and multiple sunscreen ingredients which provide an SPF of 20+.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Percent</u>
1	Deionized Water	51.00
1	Methylparaben	0.25
1	Hampene Na3T	0.05
2	Carbopol 934 (2% aq. disp.)	12.25
3	Unirep U-18	12.75
3	Uvatone 2-6	7.75
3	Escalol 557	7.25
3	Neoheliopan BB	2.50
3	Lipovol MOS-70*	1.45
3	Lipomulse 165	1.45
3	Lipowax P	1.45
3	Propylparaben	0.10
4	Deionized Water	0.50
4	Triethanolamine, 99%	0.25
5	Deionized Water	0.75
5	Unicide U-13	0.25

*Patent #4,659,573

Procedure:

1. Heat Sequence #1 to 80C while mixing with overhead mixer at medium speed.
2. Heat Sequence #2 to 65C and add to Sequence #1 with overhead mixer at medium speed (holding temperature at 80C).
3. In another vessel mix and heat Sequence #3 to 80C or until completely melted and add to batch on overhead mixer at medium speed.
4. Premix Sequence #4 and add to batch switching to sweep blade at low speed. Lower temperature to 35C.
5. At 35C premix Sequence #5 and to batch. Cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 884

Light After Sun Fluid

Disbutin-BT, in this quick break emulsion, positively influences the capacity of regeneration of the skin by instant dismutation of the oxygen free radicals and therefore preventing tissue damage.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Pemulen TR1	0.25
2	Cetiol 868	8.00
3	Paraffin Oil	10.00
4	Vitamin-E-Acetate	0.50
5	B) Water demineralized	78.15
6	Glycerin	2.00
7	Phenonip	0.30
8	Imidazolidinyl urea	0.20
9	C) Sodium Hydroxide (18% solution in demin. water)	qs. pH=6
10	D) Disbutin-BT	0.30
11	Fragrance/Chiara 0/238927	0.30

Procedure:

Mix phase A) and homogenize for 2 minutes.

Under stirring add phase B) to phase A) and homogenize.

Neutralize with phase C) and then add items 10 + 11, stir.

Application No. A 033.A/01.96

After Sun Lotion

The combination of Elhibin and Lactomide in this deep acting lotion provides skin regeneration through the anti elastase effect and lipid barrier reconstruction. This makes this formula ideal for after sun application.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Tween 60	5.00
2	Arlacel 60	3.00
3	Arlacel 165	2.00
4	Cetyl alcohol	2.50
5	Isopropyl myristate	8.00
6	B) Water demineralized	66.40
7	Imidazolidinyl urea	0.30
8	Phenonip	0.50
9	Propylene glycol	2.00
10	Elhibin	5.00
11	Lactomide	5.00
12	C) Fragrance/Timbuktu 0/186901	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

Application No. C 008.1/01.96

SOURCE: Pentapharm Ltd.: Cosmetic Applications

Oil Free Skin Bronzer

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	3.00
Glyceryl Stearate (Tegin M)	2.00
Cetyl Alcohol (Tego Alkanol 16)	1.50
Polydecene	4.00
Cetearyl Octanoate (Tegosoft Liquid)	4.00
Caprylic/Capric Triglyceride (Tegosoft CT)	3.50
Phase B:	
Glycerin	1.50
Butylene Glycol	2.00
Water	76.50
Preservatives	Q.S.
Phase C:	
Titanium Dioxide	0.70
Iron Oxides	1.30
Phase D:	
Fragrance	Q.S.

Procedure:

1. Combine the ingredients of Phase A together. Heat to 65C and mix.
2. Combine the ingredients of Phase B together. Heat to 65C.
3. Add Phase A to B. Homogenize.
4. Add pigments. Continue to homogenize. When the pigments are fully dispersed, begin cooling.
5. Cool to 35-45C with sweep agitation.
6. Add Fragrance. Sweep mix.
7. Dispense.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

O/W-Sun Blocker

<u>Ingredients:</u>	<u>% by Weight</u>
A. Hostacerin DGL	1.00
Hostacerin DGS	4.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	5.00
Eusolex 6300	5.00
D-Panthenol	0.50
B. PNC 400	1.30
C. Eusolex 232	5.00
D. Tris Amino	2.21
Water	65.69
Preservative	q.s.
E. Fragrance	0.30

Procedure:

1. Melt A at ca. 70C, then add B.
2. Dissolve C in D at ca. 70C.
3. Stir 2 into 1 and stir until cool.
4. At ca. 35C add E to 3.
5. Homogenize the emulsion.

Formulation PF-0377E suggested by Hoechst AG (A VI/7204)

Aculyn 33 Sun Screen Lotion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Montan OV 68	5.00
Lanol 37T	15.00
Dow Corning 200/350	5.00
Eusolex 6300	3.00
Solagum L	0.50
B. Water	63.00
Eusolex 232TS	3.00
Aculyn 33	3.00
Tris Amino Crystals	2.00
C. Preservative	q.s.
Perfume	q.s.

Physical Characteristics:

Appearance: Brilliant cream

pH: 7

Viscosity (RVT, #3/20): 15,000

Formulation PF-0386 suggested by Rohm & Haas Co. (PF-037)

SOURCE: Angus Chemical Co.; Product Formulary

O/W-Sun Screen Milk

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGL	1.00
	Hostacerin DGS	4.00
	Mineral oil, high viscosity	6.00
	Avocado oil	1.00
	Neo-Heliopan E 1000	9.00
	Neo-Heliopan BB	1.00
	Antioxidant	q.s.
B	PNC 400	0.30
C	Aquamollin BC pdr.h.c.	0.10
	Citric acid (10%)	0.25
	Water	77.05
	Preservative	q.s.
D	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
- 2 Heat C to ca. 70C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add D to 3.
- 5 Homogenize the emulsion.
Formula A VI/7200

O/W-Sun Blocker

<u>Recipe:</u>		<u>Wt%</u>
A	Hostacerin DGL	1.00
	Hostacerin DGS	4.00
	Mineral oil, low viscosity	10.00
	Isopropyl palmitate	5.00
	Eusolex 6300	5.00
	D-Panthenol	0.50
B	PNC 400	1.30
C	Eusolex 232	5.00
D	Tris(hydroxymethyl)-aminomethane	2.21
	Water	65.69
	Preservative	q.s.
E	Fragrance	0.30

Procedure:

- 1 Melt A at ca. 70C, then add B.
- 2 Dissolve C in D at ca. 70C.
- 3 Stir 2 into 1 and stir until cool.
- 4 At ca. 35C add E to 3.
- 5 Homogenize the emulsion
Formula A VI/7204

SOURCE: Henkel: Guide Recipes for the Cosmetic Industry

O/W Sun Screen with Organic and Inorganic Screens

<u>Ingredients:</u>	<u>Weight%</u>
A. Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	5.00
Cetyl alcohol	3.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
Hombitec L 5 (Titanium Dioxide)	3.00
B. Luviskol K 30 (PVP)	0.50
Keltrol F (Xanthan)	0.50
Preservative	q.s.
Water, ad	100.00
C. Perfume	0.30

SPF ca. 10, water resistant

Preparation:

A is heated to 75-80C.

B is mixed and heated up to the same temperature.

B is emulsified into A.

At 30C C is added.

O/W Sun Protection Lotion (SPF 15)

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	3.00
Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	5.00
Eusolex 6300 (4-Methylbenzylidene Camphor)	3.00
Hombitec L5 (Titanium Dioxide)	3.00
B) Keltrol F (Xanthan Gum)	0.50
Preservative	q.s.
Water	Up To 100.00
C) Fragrance	q.s.

Preparation:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A).

(C) is added at about 35 degrees C.

Formulation 4.2C

SOURCE: Huls America Inc.: Suggested Formulations

Pre-Sun Moisture Accelerator

A glossy oil-in-water emulsion containing Vitamin E, vitamin A, Ritapan D and Defensine to protect against the drying and damaging effects of the sun.

<u>Ingredients:</u>	<u>%W/W</u>
1. Ritabate-80 (Polysorbate 80)	3.00
2. Rita IPP (Isopropyl Palmitate)	2.50
3. Rita GMS (Glyceryl Stearate)	2.50
4. Rita SA (Stearyl Alcohol)	2.00
5. Tocopheryl Linoleate	1.50
6. Sorbitan Stearate	1.50
7. Ritacetyl (Acetylated Lanolin)	1.50
8. Tocopheryl Acetate	1.00
9. Distilled/Deionized Water	79.65
10. Ritapan D (Panthenol)	1.00
11. Acritamer 934 (Carbomer)	0.30
12. Triethanolamine (99%)	0.60
13. Vitamin A Palmitate	1.20
14. Germaben IIE	0.75
15. Fragrance	q.s.
16. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Dissolve item 10 in item 9 and slowly add item 11 with rapid agitation. Heat to 75C. Heat items 1-8 to 75C. Add to water with agitation. Add item 12. Cool to 40C. Add items 13-16. Cool to room temperature while mixing.

Ref. No. 121-174

Oil in Water Sunscreen Cream

An oil in water emulsion that protects against UV-B rays.

<u>Ingredients:</u>	<u>%W/W</u>
1. Polyethylene	2.00
2. Stearic Acid	0.50
3. Ritalan (Lanolin Oil)	6.00
4. Rita IPP (Isopropyl Palmitate)	12.50
5. Sorbitan Stearate	1.30
6. Ritabate-60 (Polysorbate 60)	1.80
7. Octyl Methyloxycinnamate	6.50
8. Distilled/Deionized Water	62.00
9. Acritamer 940 (Carbomer)	0.20
10. Sorbitan (70%)	5.00
11. Germaben II	0.80
12. Triethanolamine (99%)	0.40
13. Defensine (Wheat Germ Extract)	1.00

Compounding Procedure:

Slowly sift item 9 into item 8 with rapid agitation. Add items 10 and 11 and heat to 85C. Combine items 1-7 and heat to 95C. Slowly add to water while mixing. Add item 12 with agitation until smooth and uniform. Cool to 40C and add item 13.

Ref. No. 121-172

Self Tanning DHA Cream
(W/O Emulsion)

<u>Ingredients:</u>	<u>Weight%</u>
Oil Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Hydrogenated Castor Oil	0.5
Microcrystalline Wax	0.5
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Octyl Stearate (Tegosoft OS)	5.0
Isopropyl Myristate (Tegosoft M)	4.0
Isopropyl Palmitate (Tegosoft P)	1.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
 Oil Phase B:	
Cyclomethicone	4.0
 Water Phase:	
Water	69.2
Propylene Glycol	2.0
Dihydroxyacetone	4.0
NaCl	0.8
Preservatives, Color, Fragrance	Q.S.

Procedure:

1. Add the components of the Oil Phase together. Heat to melt and disperse the waxes. When dispersed, cool to 40C while mixing.
2. Add the Cyclomethicone. Mix.
3. Add the components of the Water Phase together. Heat to 40C.
4. Adjust pH of the Water Phase to 4.0-4.5, if necessary.
5. With lightnin' mixing, stream the Water Phase into the Oil Phase.
6. With sweep agitation, cool to 35C.
7. Add color, fragrance and preservatives.
8. Homogenize with a roto-stator homogenizer.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Skin Protecting Waterproof Sunscreen

A waterproof sunscreen that protects the skin by avoiding free radical formation with Defensine.

<u>Ingredients:</u>	<u>%W/W</u>
1. Octylmethoxycinnamate	7.50
2. Benzophenone-3	3.00
3. Rita IPP (Isopropyl Palmitate)	3.00
4. Rita CA (Cetyl Alcohol)	1.00
5. Stearic Acid	2.00
6. Ritox 52 (PEG-40 Stearate)	1.50
7. Ritasil 190 (Dimethicone Copolyol)	1.00
8. Dimethyl Stearamine	2.00
9. Acrylates/Octylacrylamide Copolymer	2.00
10. Distilled/Deionized Water	72.60
11. Acritamer 941 (Carbomer)	0.20
12. Triethanolamine (99%)	0.70
13. Germaben II-E	1.00
14. Defensine (Wheat Germ Extract)	2.50

Compounding Procedure:

Combine items 1-8 and heat to 70C. Slowly sift in item 9. Disperse item 11 in item 10 and heat to 70C. When completely dispersed add item 12. Add oil to water and mix. Allow to cool and add items 13 and 14.

Ref. No. 120-194B

Waterproof Sunscreen

A high SPF sunscreen lotion which is waterproof and contains Ritasil 190 for lubricity.

<u>Ingredients:</u>	<u>%W/W</u>
1. Distilled/Deionized Water	74.90
2. Acritamer 941 (Carbomer 941)	0.20
3. Octylmethoxy Cinnamate	7.50
4. Benzophenone-3	3.00
5. Rita IPP (Isopropyl Palmitate)	3.00
6. Rita CA (Cetyl Alcohol)	1.00
7. Stearic Acid XXX	2.00
8. Ritox 52 (PEG-40 Stearate)	1.50
9. Ritasil 190 (Dimethicone Copolyol)	1.00
10. Dimethyl Stearamine	2.00
11. Acrylates/Octylacrylamide Copolymer	2.00
12. TEA	0.70
13. Germaben IIE	1.00

Compounding Procedure:

Disperse item 2 in item 1 and heat to 70C. When completely dispersed add item 12. Combine items 3-10 and heat to 70C. Slowly sift in item 11 and mix until uniform. Add to water phase and mix. Cool to 45C and add item 13.

Ref. No. 121-99

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Solar Protection Lotion

<u>Ingredient:</u>	<u>Wt%*</u>
A: Dimethicone	2.00
Hydroxyoctocosanyl Hydroxystearate	3.50
Potassium Cetyl Phosphate (Amphisol K)	0.50
Titanium Dioxide (and) C12-15 Alkyl Benzoate (Tioveil FIN)	12.50
Sorbitan Palmitate	3.50
Dilauryl Trimethylolpropane Siloxy Silicate	5.00
B: Deionized Water	63.10
Veegum Ultra, Magnesium Aluminum Silicate	0.80
Rhodigel, Xanthan Gum	0.20
Propylene Glycol	5.00
Polysorbate 20	3.50
Sodium Lactate	0.30
Lactic Acid to pH 5.5	q.s.
C: Methylchloroisothiazolinone (and) Methylisothiaz- olinone (Kathon CG)	0.10

Procedure:

Weigh the water into a suitable vessel and heat to 75C. Mix with a homogenizer operating at 5000 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel, add them to the water and mix for 20 minutes. Add the remaining Part B ingredients and mix each for 3 minutes. Maintain temperature at 75C. Weigh the Part A ingredients into a separate vessel, mix and heat to 75C. Add Part A to Part B. Mix for 10 minutes at 5000 rpm. Transfer the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing, at 40C, add Part C. Package at ambient temperature. Note: Avoid pH of 6.5-7.5 as this may affect SPF value.

Formula from A&E Connock, Ltd.

TiO₂ Lotion

<u>Ingredient:</u>	<u>Wt%*</u>
A: Propylene Glycol Isoceteth-3 Acetate (Hetester PHA)	10.00
Octyldodecyl Neopentanoate (Elefac I-250)	10.00
Titanium Dioxide (and) Bismuth Oxychloride (Titanium Dioxide 110)	10.00
B: Deionized Water	68.90
Veegum, Magnesium Aluminum Silicate	0.70
Rhodigel, Xanthan Gum	0.30
C: Methylchloroisothiazolinone (and) Methylisothiazol- inone	0.10

Procedure:

Weigh the water into a suitable vessel and mix with a propeller mixer at 1800 rpm. Dry blend the Veegum and Rhodigel and add them to the water. Mix for 60 minutes. In a separate vessel, mix the Part A ingredients until the Titanium Dioxide is uniformly dispersed. Add Part A to Part B and mix until uniform. Add Part C, mix until uniform and package.

Formula from Bernel Chemical Co., Inc.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulations

Sprayable Sunscreen

<u>Ingredients:</u>	<u>% by Weight</u>
Part A:	
Deionized Water	79.20
Glycerin	3.00
AMP-95	0.12
Part B:	
Octyl Methoxy Cinnamate	7.00
Octyl Salicylate	3.00
Oxybenzone	2.00
C12-15 Alcohols Benzoate	4.00
Oleth-10	0.08
Sorbitan Oleate	0.05
Dimethicone, 100 cs.	0.50
Pemulen TR-2	0.15
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	0.80
Disodium EDTA	0.10

Procedure:

Combine A ingredients in a vessel which will contain the entire formulation. In a separate vessel, combine all B ingredients except dimethicone and Pemulen. Heat to 45-50C to hasten dissolution of oxybenzone. Discontinue heating and add Pemulen. Mix to obtain a smooth dispersion. Add dimethicone. Add B to A with rapid agitation. Continue mixing to obtain a smooth emulsion. Add C. Disodium EDTA should be added incrementally such that a Brookfield viscosity of 500-1000 cps is achieved (model RVT @ 20 RPM, #2 spindle).

Formulation PF-0320 suggested by B.F. Goodrich

Waterproof Aerosol Sunscreen (SPF 10)

<u>Ingredients:</u>	<u>% by Weight</u>
SD Alcohol 40	43.65
AMP-95	0.35
Dermacryl	2.00
Deionized water	9.00
Octyl Methoxycinnamate	7.50
Menthyl Anthanilate	4.00
Cyclomethicone	3.00
Tocopheryl Acetate	0.50
Dimethyl Ether	30.00

Procedure:

Combine SD Alcohol 40 with AMP-95. With good agitation, slowly sift in Dermacryl-79. Mix until complete. Add rest except Dimethyl Ether. Continue mixing until complete. Filter, fill and charge with dimethyl ether.

Formulation PF-0318 suggested by National Starch & Chemical (7172-100)

SOURCE: Angus Chemical Co.: Product Formulary

Sunblock Lotion

In this formula, Veegum is used with Rhodigel Xanthan Gum and a Xanthan Gum-based dispersible emulsifier to stabilize the emulsion and adjust emulsion viscosity. This cold process lotion has a light feel with quick, greaseless rub-in. The sunscreen should offer considerable protection against sunlight-induced skin problems. The Ritachol and Finsolv are included for emollience and rapid skin absorption on rub-in.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Veegum, Magnesium Aluminum Silicate	0.60
Rhodigel, Xanthan Gum	0.15
Deionized Water	65.45
Nonfat Dry Milk (and) Xanthan Gum (and) Glyceryl Stearate (and) Hydrogenated Vegetable Glycerides Phosphate	0.80
Propylene Glycol	3.00
B: C12-15 Alkyl Benzoate (Finsolv TN)	8.00
Benzophenone-3 (Escalol 567)	5.00
Octyl Methoxycinnamate (Parsol MCX)	7.50
Mineral Oil (and) Lanolin Alcohol (Ritachol)	4.00
Polysorbate 80	0.50
C: Zinc Oxide	5.00
D: Preservative	q.s.

Add the Veegum/Rhodigel dry blend to the water slowly, agitating at maximum available shear until smooth. Add the remaining Part A ingredients in the order shown, mixing after each until smooth and uniform. Mix the Part B ingredients until the Benzophenone-3 dissolves. Add Part B to Part A and mix until smooth. Add Part C and then Part D and mix each until smooth and uniform.

Sunblock with TiO₂

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Diisopropyl Dimer Dilinoleate (Schercemol DID)	10.00
Cetyl Octanoate (Schercemol CO)	1.50
Sorbitan Stearate	3.00
Glyceryl Isostearate	1.00
Dimethicone Copolyol	1.00
Titanium Dioxide (and) Caprylic/Capric Triglyceride	12.50
Cetearyl Alcohol (and) Cetareth-20	1.00
Phenyl Trimethicone	1.50
B: Deionized Water	62.20
Veegum, Magnesium Aluminum Silicate	1.00
Rhodigel, Xanthan Gum	0.30
Propylene Glycol	2.00
Polysorbate 60	3.00
C: Preservative	q.s.

Weigh the water into a suitable vessel and heat to 70C. Mix the water with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum and Rhodigel, add them to the water and continue mixing for 20 minutes. Add the remaining Part B ingredients, mixing each for 3 minutes. Weigh the Part A ingredients into another vessel, mix and heat to 70C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer, adjust the speed to create a small vortex and begin cooling. At 40C add Part C and continue cooling. Package at 35C.

SOURCE: R.T.Vanderbilt Co., Inc.: Formula #367 & Scher Chemicals

Sunless Tanning Lotion

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Propyl Paraben	0.01
Glycerin	3.5
Brij 78	0.4
Neobee M-5 Cosmetic	10.0
Kessco GMS	3.0
Kessco Cetyl Alcohol	2.0
Wecobee S	2.5
Silicone 200 (350 cps)	1.0
Glydant	0.25
Dihydroxyacetone	3.5
Citric Acid (50%)	Q.S.

Mixing Procedure:

Prepare water phase by adding water, Methyl Paraben, and Glycerin. Mix well. Heat to 160F. Prepare oil phase by adding Brij 78, Neobee M-5 Cosmetic, Kessco GMS, Kessco Cetyl Alcohol, Propyl Paraben, and Wecobee S. Heat to 165F. Add oil phase to the water phase. Increase agitation. Mix at 165F for 20-25 minutes. Start cooling to room temperature. At 110F, add Glydant. Premix Dihydroxyacetone with water. Add at 95F. Mix well. Adjust pH (to 5.5-6.0) with Citric Acid.

Tanning Accelerator

	<u>% by Weight</u>
D.I. Water	Q.S. to 100.0
Methyl Paraben	0.15
Propyl Paraben	0.01
Glycerin	3.5
Brij 78	0.4
Neobee M-5 Cosmetic	10.0
Kessco GMS	3.0
Kessco Cetyl Alcohol	2.0
Wecobee S	2.5
Silicone DC 200 (350 cps)	1.0
Glydant	0.25
Dihydroxyacetone	3.5
Citric Acid (50%)	Q.S.

Mixing Procedure:

Prepare water phase by adding water, Methyl Paraben, and Glycerin. Mix well. Heat to 160F. Prepare oil phase by adding Brij 78, Neobee M-5 Cosmetic, Propyl Paraben, Kessco GMS, Kessco Cetyl Alcohol, and Wecobee S. Heat to 165F. Add oil phase to the water phase. Increase agitation. Mix at 165F for 20-25 minutes. Start cooling to room temperature. At 110F, add Glydant. Premix Dihydroxyacetone with water. Add at 95F. Mix well. Adjust pH (to 5.5-6.0) with Citric Acid.

SOURCE: Stepan Co.: Suggested Formulations

Sunscreen Cream
SPF 9

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	29.53
1	2% Carbopol 980 aqueous solution	15.00
1	Propylene glycol	5.00
1	Methylparaben	0.20
1	Propylparaben	0.10
1	Triethanolamine 99%	0.45
2	Deionized water	10.00
2	Tetrasodium EDTA	0.02
2	Eusolex 232 (2-phenylbenzimidazole-5-sulfonic acid)	4.00
2	Triethanolamine 99%	4.20
3	Arlacel 165 (glyceryl stearate (and) PEG-100 stearate)	1.00
3	Dow Corning 344 Fluid (cyclomethicone)	5.00
3	Emersol 132 Lily Stearic Acid, NF	5.00
3	Prisorine 2039 (isostearyl isostearate)	10.00
3	Finsolv TN (C12-15 alkyl benzoate)	10.50

Procedure:

Add Phase 1 ingredients to main vessel under impeller agitation. Heat Phase 1 to 75-80C. Combine Phase 2 ingredients; mix to clarity while heating to 70C. Slowly add Phase 2 to Phase 1. Mix combined phases at 75-80C. Combine Phase 3 ingredients; heat and mix to 85C. Slowly add Phase 3 to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to room temperature.

SOURCE: Rona/EM Industries, Inc.: Formulation EUS2-47-5

Sunscreen Cream
SPF 12+

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	44.23
1	2% Carbopol 980 aqueous solution	15.00
1	Propylene glycol	5.00
1	Methylparaben	0.20
1	Propylparaben	0.10
1	Triethanolamine 99%	0.45
1	Tetrasodium EDTA	0.02
2	Octyl methoxycinnamate	5.00
2	Eusolex 4360	3.00
2	Arlacel 165 (glyceryl stearate (and) PEG-100 stearate)	1.00
2	Dow Corning 344 Fluid (cyclomethicone)	5.00
2	Glyceryl stearate	4.00
2	Emersol 132 Lily Stearic Acid, NF	2.50
2	Prisorine 2039 (isostearyl isostearate)	10.00
2	Castorwax (hydrogenated castor oil)	2.00
2	Finsolv TN (C12-15 alkyl benzoate)	2.50

Procedure:

Add Phase 1 ingredients to main vessel under impeller agitation. Heat Phase 1 to 75-80C. Combine Phase 2 ingredients; heat and mix to 85C. Slowly add Phase 2 to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to room temperature.

Formulation EUS2-93-2

After Sun Lotion

<u>Phase #:</u>		<u>Wt%</u>
1	Deionized water	ad 100.00
1	Timiron Starlight Gold	4.00
1	D-Panthenol USP	1.00
1	Propylene glycol	3.00
1	Preservatives	qs
2	Cremophor A6 (Ceteareth-6 (and) Stearyl Alcohol)	2.00
2	Cremophor A25 (Ceteareth-25)	2.00
2	Luvitol EHO (Cetearyl Octanoate)	7.00
2	Paraffin Oil	8.00
2	Cetyl Alcohol	1.00
2	Glyceryl Monostearate	6.00
2	Dow Corning 200 Fluid; 100 cs	0.20
2	(+)- α -Bisabolol	0.20
3	Fragrance	qs

Procedure:

Combine phase 2, heat to 70-75C with stirring until homogeneous. Combine phase 1, heat to 70-75C, add to phase 2 with stirring. Stop heating at 60C, begin homogenizer mixing. Add phase 3 fragrance at 40C with stirring. Cool to room temperature with stirring.

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Sunscreen Cream with UVA Protection (Est. SPF=25)

This formula contains the UVA absorbers Menthyl Anthranilate and Zinc Oxide for a stable, elegant, high-SPF composition with enhanced UVA protection.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Octyl Methoxycinnamate (Neo Heliopan AV)	7.50
Octyl Salicylate (Neo Heliopan OS)	5.00
Menthyl Anthranilate (Neo Heliopan MA)	5.00
Isocetyl Alcohol	2.00
Cetearyl Alcohol (and) Ceteareth-20	2.00
Glyceryl Stearate	1.50
PEG-40 Stearate	1.00
Cetyl Alcohol	0.75
Tocopheryl Acetate	0.25
Zinc Oxide (Zinc Oxide Neutral)	6.00
Dimethicone	1.00
B: Deionized Water	64.70
Veegum Ultra, Magnesium Aluminum Silicate	0.50
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	2.00
Disodium EDTA	0.20
C: Methylchloroisothiazolinone (and) Methylisothiazol- inone (Kathon CG)	0.10

Procedure:

Weigh the water into a suitable vessel and heat to 75-80C. Mix the water with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel, add them to the water and continue mixing for 15 minutes. Add the remaining Part B ingredients in order, mixing each for 3 minutes. Weigh the Part A ingredients into another vessel. Mix and heat to 75-80C. Add Part A to Part B and mix for 10 minutes at 75-80C. Move the batch to a propeller mixer, adjust the speed to produce a small vortex and start cooling. At 40C add Part C and continue cooling. Package at 35C.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Haarman & Reimer Corp.

Sunscreen Emulsion with Titanium Dioxide

This base is an ideal starting point for sunscreen lotions. It is a very stable formulation for any type of pigmented product.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	61.98
Veegum, Magnesium Aluminum Silicate	0.50
Cellulose Gum	0.15
Allantoin	0.05
Methylparaben	0.20
Titanium Dioxide (and) Alumina (and) Glycerin (and) Silica (UV-Titan M212)	8.00
B: Lecithin	1.00
Lanolin Alcohol	1.50
Glyceryl Stearate	0.80
Isopropyl Palmitate	4.00
Stearic Acid	0.50
Caprylic/Capric Triglycerides	4.00
Isoeicosane (Permethy1 102A)	7.50
Polyisobutene (Permethy1 104A)	2.50
Isostearic Acid	2.40
Propylparaben	0.10
C: Imidazolidinyl Urea	0.20
D: Triethanolamine, 99%	1.62
Polyglycerylmethacrylate	3.00

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer operating at 5000 rpm. Dry blend the Veegum and cellulose gum, add the mixture to the water and continue mixing for 30 minutes at 5000 rpm, while heating the batch to 70-72C. Add the remaining Part A ingredients in order, mixing each until uniformly dispersed. Mix the Part B ingredients in another vessel and heat to 75C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing. At 60C, add Part C. At 40C, add the Part D ingredients in order. Package at ambient temperature.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulation from Presperse, Inc.

Sunscreen Gel

Cera Bellina (Pg-3 Beeswax) produces a non-granular, low penetration and high stability gel. This formula utilizes an array of oils and actives producing a product with a non-greasy skin feel, penetrates the skin quickly and has an SPF of 4 to 6.

Oil Phase:	Wt%
Sweet Almond Oil (Croda)	29.0
Cera Bellina (Pg-3 Beeswax, Koster Keunen)	15.3
Isopropyl Palmitate (Unichema)	15.0
Jojoba Oil (Jojoba Growers)	13.0
Sesame Oil (Polyester)	9.0
Avocado Oil (Arista)	9.0
Cetyl Stearyl Alcohol (Proctor & Gamble)	4.0
Escalol 507 (Van Dyk)	4.0
Ozokerite 160/164 (Koster Keunen)	1.0
Carnauba #1 Yellow (Koster Keunen)	0.5
Vitamin A Palmitate (BASF)	0.1
Vitamin E Concentrate (BASF)	0.1

Procedure:

Weigh and add each component of the oil phase to a vessel. Heat, not exceeding 75C, and mix until homogeneous. Reduce temperature to 60C and pour into container.

Adaptation of Formula and Its Influence on the Product:

By replacing the jojoba, sesame and avocado oils with light mineral oil (28.8%) and increasing the Cera Bellina concentration (17.5%), one can produce the same product as described above. The formulator has the ability to substitute their preferred oils with only slight concentration changes of Cera Bellina to produce products of the same consistency. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

Lip Care Balm

This very economical product offers good barrier properties and has an SPF of 4-6. Neo Heliopan (H & R) is a solution of 2-Ethylhexyl-p-methoxycinnamate, a UV-B absorber which offers protection over a wide spectra range and is considered safe.

	Wt%
Petrolatum White USP (Witco)	44.0
Stearyl Alcohol (Proctor & Gamble)	17.5
NF White Beeswax (Koster Keunen)	9.5
Ozokerite 160/164 (Koster Keunen)	19.5
Deodorized Orange Wax (Koster Keunen)	2.5
Isopropyl Palmitate (Unichema)	1.0
Paraffin 160/165 (Koster Keunen)	3.0
Neo Heliopan AV (H&R)	2.0
Titanium Dioxide (Whittaker C&D)	1.0

Procedure:

Add all components, heat till 75C and use low shear to disperse the TiO₂. Once the mixture is homogeneous, cool and pour into molds.

Adaptation of Formula and Its Influence on the Product:

It is easy to incorporate actives such as vitamins, other oils and additional sunscreens to increase the SPF. Fragrance and colors are also easily added. This formula is very stable and slight substitutions in ingredients can be tolerated.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Lotion**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA; Van Dyk) giving this formula an approximate SPF value of 4 to 6. The product has high gloss and excellent skin feel. The rheological properties of Cera Bellina allow for this product to be packaged in convenient tubes or squeeze bottles.

Oil Phase:	<u>Wt%</u>
Escalol 507 (Van Dyk)	5.63
Amerchol L 101 (Amerchol)	4.70
Cera Bellina (Pg-3 Beeswax; Koster Keunen)	3.80
Glycerol Monostearate (Henkel)	2.77
Light Mineral Oil (Witco)	2.83
Isostearic Acid (Unichema)	1.00

Water Phase:	
Water (Distilled)	71.66
1,3-Butylene Glycol (Hoechst)	2.90
Glycerine (Unichema)	2.83
Triethanolamine (Dow)	0.80
Germaben II (Sutton)	0.80
Carboxymethyl Cellulose (Hercules)	0.28

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase at 75F. Slowly add the oil phase to the water phase under vigorous agitation. Allow to cool to 35C and pour into jars.

Adaptation of Formula and Its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Milk W/O

In this w/o sunscreen milk, Lipogard acts as a free radical scavenger and protects skin lipids from peroxidation. Pentavitin provides the skin with moisture.

<u>Item</u>	<u>Ingredients:</u>	<u>Weight%</u>
1	A) Arlancel 989	6.00
2	Arlancel 481	1.50
3	Paraffin Oil	14.00
4	Isopropyl Palmitate	6.00
5	Parsol MCX	3.00
6	Parsol 1789	3.00
7	Lipogard	3.00
8	B) Deionized Water	57.70
9	Phenonip	0.50
10	Pentavitin	5.00
11	C) Fragrance: Solara 0/227632	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.
Heat the ingredients of water phase B) to 75C.
Under stirring add phase B) to phase A), cool to 50C,
homogenize and cool to 30C.
Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. G 006.A/03.96

After Sun Lotion

<u>Ingredients:</u>	<u>Weight%</u>
A) Imwitor 960K, Flakes (Glyceryl Stearate SE)	4.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	7.00
Cetyl Alcohol	1.00
Hostaphat KL 340 N (Dilaureth-4-Phosphate)	5.00
B) Preservative	q.s.
Keltrol F Gel 2% (Xanthan Gum)	30.00
Citric Acid	0.30
Water	Up to 100.00
C) Fragrance	q.s.
Vitamin E	0.20

Preparation:

(A) is heated up to ca. 75 degrees C. (B) is stirred and brought to the same temperature and emulsified into (A). (C) is added at about 35 degrees C.

SOURCE: Huls America Inc.: Formulation 4.2D

Sunscreen Milk W/O

In this w/o sunscreen milk, Lipogard acts as free radical scavenger and protects the skin lipids from peroxidation. Pentavitin provides the skin with moisture.

<u>Item:</u>	<u>Ingredients:</u>	<u>%w/w</u>
1	A) Arlace1 989	6.00
2	Arlace1 481	1.50
3	Paraffin Oil	14.00
4	Isopropyl palmitate	6.00
5	Parsol MCX	3.00
6	Parsol 1789	3.00
7	Lipogard	3.00
8	B) Water demineralized	57.70
9	Phenonip	0.50
10	Pentavitin	5.00
11	C) Fragrance/0/227632 Solara	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. G 006.A/03.96

Sunscreen Spray

<u>No.:</u>	<u>Phase/Ingredient:</u>	<u>% by Weight</u>
1	A) Cyclomethicone DC 345	55.60
2	A) *Polysynlane	10.00
3	A) *Grapeseed Oil	2.00
4	A) *Sunflower Seed Oil	2.50
5	A) Vitamin E Acetate	0.25
6	A) Tenox 6	0.15
7	A) Fragrance Novarome NC-48	0.50
8	B) Ceraphyl 230	5.00
9	B) Octyl Methoxycinnamate	7.50
10	B) Oxybenzone	4.00
11	B) Octyl Salicylate	5.00
12	B) Transcutol	7.50

*Polyester Corp. Product

Manufacturing Instructions:

Combine phase A. Combine phase B. Add phase B to phase A.

Package.

An easy to apply spray that leaves the skin protected from both UVA and UVB radiation. It spreads quickly and is completely non-greasy. The anticipated SPF is 15. The formulation exhibits excellent solubilization of the oxybenzone, which is often seen to crystallize out.

SOURCE: Polyester Corp.: Suggested Formulation

Sunscreen Moisturizing Cream**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA; Van Dyk) giving this formula an approximate SPF value of 4 to 6. The cream has high gloss and excellent skin feel.

Oil Phase:	Wt%
Cera Bellina (PG-3 Beeswax, Koster Keunen)	6.0
Minosil (Pride Solvents)	6.0
Escalol 507 (Van Dyk)	5.1
Amerchol L101 (Amerchol)	5.0
Castor Oil (Caschem)	3.0
Glycerol Monostearate (Henkel)	2.0
Isopropyl Palmitate (Unichema)	2.0
Ozokerite 160/164 (Koster Keunen)	1.0
Silicone Fluid 245 (Dow Corning)	1.0
Propyl Paraben (Sutton)	0.2

Water Phase:	
Water (Distilled)	65.3
Butylene Glycol (Hoechst)	2.9
Sodium Borate (Borax)	0.2
Methyl Paraben (Sutton)	0.3

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase until homogeneous and a temperature of 75C is maintained. Slowly add the oil phase to the water phase under vigorous stirring. Allow to cool to 35C and pour into jars.

Adaptation of Formula and its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen, Inc.: A Guide to Natural Formulating

Sunscreen Stick

<u>Phase:</u>	<u>Ingredient:</u>	<u>% by Weight</u>
A	Beeswax	15.00
A	Myritol 318	15.00
A	Oils of Aloha Macadamia Nut Oil	10.00
A	Cetearyl Alcohol	8.00
A	Carnauba Wax	1.50
A	Petrolatum	50.50
A	Octyl p-Methoxycinnamate	5.00
A	Vitamin E	0.25

Manufacturing Procedure:

Combine ingredients at 75C. Pour into molds.

SPF would be 4 to 6. Sunscreen is the Octyl p-Methoxycinnamate.

Beeswax, carnauba and cetearyl alcohol form the stick.

The Macadamia Nut Oil helps reduce Petrolatum's tacky feel.

Vitamin E serves as an anti-oxidant.

SOURCE: Oils of Aloha: Suggested Formulation

Aloe After Sun Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Water	74.00
Glycerin	3.0
Triethanolamine	1.0
Germaben II	0.5
B:	
Stearic Acid	8.0
Carnation Mineral Oil (Witco)	5.0
Finesolv TN	2.0
Cetyl Alcohol	1.0
Silicone Fluid 225	0.5
Cocoa Butter	2.0
Isopropyl Lanolate	2.0
C:	
Aloe-Con WG-40 (Florida Food Products)	1.0
D:	
Fragrance	q.s.

Procedure:

Heat phases to 80C. At 80C add oil phase to water phase.

Mix and cool to 55C. Add aloe concentrate to batch at 55C.

Add fragrance at 45C.

SOURCE: Witco Corp.: Suggested Formulation

Sun Tan Oil-A

<u>Formula:</u>	<u>% by Weight</u>
SF1204	45
SS4267	5
Blandol Mineral Oil (Witco)	45
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Sun Tan Oil-B

<u>Formula:</u>	<u>% by Weight</u>
SF1204	40
SS4267	5
Blandol Mineral Oil (Witco)	40
Fluilan	5
Sunflower Oil (Lipo)	5
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Sun Tan Oil-C

<u>Formula:</u>	<u>% by Weight</u>
SF1204	40
SS4267	5
Blandol Mineral Oil (Witco)	35
Fluilan	5
Almond Oil	5
Sunflower Oil	5
Escalol 507	5
Preservative	q.s.
Perfume	q.s.

Procedure:

Blend all ingredients except SS4267. Add SS4267 and stir to a clear solution.

SOURCE: Witco Corp.: Suggested Formulations

Wash-Off Resistant Sunscreen Lotion with Crodafos CES

The incorporation of Crodafos CES in the formula enables this sunscreen lotion to attain higher static SPF and sustain a more improved waterproof SPF. These improved SPF's are due to the ability of Crodafos CES to enhance oil deposition, which gives the higher initial SPF, and to its substantivity as a phosphate-based emulsifying system, which results in better resistance to wash-off to give the higher sustained waterproof SPF.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol C-70 (Cetyl Alcohol)	0.5
Volpo S-2 (Steareth-2)	0.5
Volpo S-10 (Steareth-10)	1.0
Petrolatum	4.5
Mineral Oil (70ssu)	8.0
Part B:	
Deionized water	70.7
TEA 99%	0.3
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.0
Octyl Methoxycinnamate	7.5

pH=5.0+-0.5

Viscosity=(RVT Spindle #5, 10rpm, 25C)=13,000cps+-10%

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 40C. Add ingredients of Part C with mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE; Croda Inc.: Formulation SC-258

Water-In-Oil Sunscreen
SPF 26

<u>Ingredients:</u>	<u>Weight%</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.00
Cetyl Dimethicone (Abil Wax 9840)	0.25
Octyl Palmitate (Tegosoft 0P)	1.25
Octyl Stearate (Tegosoft 0S)	5.35
Mineral Oil	1.75
Beeswax	1.20
Hydrogenated Castor Oil	0.80
 Phase B:	
Octyl Methoxycinnamate	5.00
Titanium Dioxide	5.00
Cyclomethicone	4.40
 Phase C:	
Water	69.20
Sodium Chloride	0.80
Preservatives	Q.S.

Procedure:

1. Heat Phase A to 85C to melt and disperse waxes.
2. Cool Phase A to 50C. Add B to A slowly with a low energy mixer.
3. Roller mill to reduce particle size of Titanium Dioxide.
4. Cool to 50C.
5. Heat Phase C to 50C. Add Phase C to A/B slowly with low energy mixing. Maintain a smooth milky appearance at all times while mixing.
6. Cool to 35C and homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Waterproof SPF 30 Sunscreen

This sunscreen formula containing Croda's new conditioning and emulsifying system Crodafos CES was clinically tested by AMA Laboratories for its Sun Protection Factor (SPF) and shown to have a static SPF of 31.66 and a Waterproof SPF of 30.31. The ability of Crodafos CES to increase oil deposition and improve wash-off resistance appears to enhance the formula's sunscreen performance and contribute to the high SPF.

<u>Ingredients:</u>	<u>Weight%</u>
Deionized Water	63.23
Carbopol 981	0.13
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.50
Benzophenone-3	5.00
Octyl Methoxycinnamate	7.50
Octyl Salicylate	5.00
Menthyl Anthranilate	5.00
Crodamol OS (Octyl Stearate)	5.00
NaOH-10% Soln.	1.54
BHT	0.10
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
pH=5.8+-0.5	
Viscosity=17,000 cps+-10% (RVT Spindle TB, 10 rpm @ 25C).	
Static SPF=31.66	Waterproof SPF=30.31

Procedure:

Dust Carbopol into the deionized water while stirring rapidly. Mix well for good hydration. Begin heating to 75-80C. Add Crodafos CES and mix well until all is melted and homogeneous. Add Benzophenone-3, Octyl Methoxycinnamate, Octyl Salicylate, Menthyl Anthranilate and Crodamol OS individually and with good mixing. Continue mixing at 75-80C, until homogeneous. Begin slow cooling and at 60C add NaOH solution. Cool to 45C and add BHT and preservative.

N.A.T.C Approved

SOURCE: Croda Inc.: Formulation SC-260

Waterproof Sunscreen Lotion (SPF 15)
Using Pemulen TR-1 and Carbopol Ultrez 10

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized Water	82.60
Methocel E4M	0.10
Nuosept C	0.20
Disodium EDTA	0.05
AMP-95	0.25
B. Neo Heliopan, Type AV	7.00
Neo Heliopan, Type OS	3.00
Uvinul M-40	2.00
Finsolv TN	4.00
Pemulen TR-1	0.25
Carbopol Ultrez 10	0.20
C. Crovol A-40	0.20
Fragrance #99189 "Twister"	0.15

Procedure:

1. Combine Part A ingredients. Mix until homogeneous.
 2. Combine first four Part B ingredients in a separate vessel. Heat mixture until oxybenzone has dissolved.
 3. Cool Part B to 45C. Disperse last two Part B ingredients in Part B vessel. Mix until polymers are dispersed well.
 4. With moderate agitation, add Part B to Part A. Mix for 20 minutes or until a smooth, non-grainy dispersion is apparent. Add Part C and mix vigorously until a smooth, lustrous product is obtained.
- Formulation PF-0375 suggested by B.F.Goodrich (P0052)

Sunscreen Cream

<u>Ingredients:</u>	<u>% by Weight</u>
A. Deionized water	78.16
Rheolate 5000	0.30
Propylene carbonate	2.50
B. Panalene	8.00
Silicone 7207	1.00
Promulgen D	0.50
Ceraphyl 494	2.00
C. AMP-95	0.24
D. Euxyl K-400	0.30
Finsolv TN	2.00
Escalol 507	5.00

Procedure:

Sift the polymer in the water, mix for 20 minutes and add the propylene carbonate. Heat to 80C. Combine B and heat to 78C. Add B to A with stirring. Mix for 10 minutes and add C. Cool to 40C and add D. Package at room temperature.

Formulation PF-0313 suggested by Rheox, Inc.

SOURCE: Angus Chemical Co.: Product Formulary

Waterproof Suntan Lotion SPF 17

<u>Ingredient:</u>	<u>Wt%*</u>
A: Isostearic Acid	4.00
Cetyl Alcohol	1.00
DEA Cetyl Phosphate	2.00
Dimethicone	0.50
Octyl Methoxycinnamate (Parsol MCX)	7.50
Octyl Salicylate	4.00
Benzophenone-3 (Uvinul M-40)	2.00
Octyldodecyl Neopenanoate (Elefac I-205)	10.00
B: Deionized Water	63.00
Veegum, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.25
Glycerin	4.00
C: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Weigh the water into a suitable vessel and heat to 85C. Dry blend the Veegum and Rhodigel and add them to the water while mixing with a homogenizer at 5000 rpm. Continue mixing for 20 minutes. Add the remaining Part B ingredient and mix 3 minutes. Weigh and mix the Part A ingredients in another vessel and heat them to 85C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing slowly. At 40C, add Part C. Continue cooling and package at 35C.

Formula from Bernel Chemical Co., Inc.

SPF 12 Sunscreen Liposome Lotion

This is an elegant feeling sunscreen in a cold-process lotion containing liposomes for longer lasting protection.

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Deionized Water	58.53
Veegum, Magnesium Aluminum Silicate	1.40
Rhodigel Xanthan Gum	0.18
Cellulose Gum (CMC 7MF)	0.56
B: Glycerin, 99%	3.00
Butylene Glycol (and) Glycerin (and) Chlorophenesin (and) Methylparaben (Killitol)	3.00
Water (and) Octyl Methoxycinnamate (and) Phenyl Trimethicone (and) Cyclomethicone (and) Dimethiconal (and) Phosphoglycerides (and) Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (Sansurf OMC)	23.33
Water (and) Octyl Methoxycinnamate (and) Soy Phospho- glycerides (and) Phenoxyethanol (and) Tocopheryl Acetate (and) Methylparaben (and) Propylparaben (and) Ethylparaben (and) Butylparaben (Sunscreen Liposomes)	10.00

Weigh the water into a suitable vessel and mix with a propeller stirrer at 1800 rpm. Weigh and dry blend the Veegum, Rhodigel and CMC and add them to the water. Continue mixing for 60 minutes at 1800 rpm. Reduce the mixer speed to produce a slight vortex and add the Part B ingredients in the order shown, mixing each for 5 minutes. Package. *As received basis

Formula from Collaborative Laboratories

SOURCE: R.T. Vanderbilt Co., Inc.: Veegum Formulations

Water-Resistant Suntan Lotion

<u>Formula:</u>	<u>% by Weight</u>
A:	
Deionized Water	60.90
Versene Powder	0.05
Carbomer 934	0.15
B:	
Glycerin	3.00
Propylene Glycol	1.00
Methylparaben	0.20
Ethylparaben	0.15
C:	
Propylene Glycol	2.00
Xanthan Gum	0.10
D:	
Solution of 10% Ethocel (Dow) and Diisopropyl Adipate	10.00
Carnation Mineral Oil (Witco)	10.00
Glyceryl Stearate	3.00
Sorbitan Stearate	1.00
Stearic Acid	2.00
Dimethicone	0.50
Octyl Dimethyl PABA	1.50
White Fonoline Petrolatum (Witco)	1.00
Cetyl Alcohol	1.00
E:	
Deionized Water	1.00
Triethanolamine	0.20
F:	
Deionized Water	1.00
Dowicil 200	0.10
G:	
Perfume	0.15

Procedure:

Begin mixing water without heat; add Versene and dissolve. Sprinkle in Carbomer and mix rapidly. Start heating to 80C. Mix B phase, heat to 80C; add to A when A is above 60C. Mix C, add to A at 60C. Mix D, heat to 80C, add to water phase when both at 80C. Mix E, add to batch, mix 10 min., start to cool. At 45C, add F, then perfume oil.

SOURCE: Witco Corp.: Suggested Formulation

Zinc Oxide Sunscreen (Measured SPF=9.2)

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Glyceryl Stearate	2.50
PEG-40 Stearate	0.75
Cetearyl Alcohol (and) Ceteareth-20	0.75
Tricontanyl PVP	2.00
Caprylic/Capric Triglycerides	5.00
Mineral Oil	5.00
Dimethicone	2.00
B: Zinc Oxide (Zinc Oxide Neutral)	10.00
C: Deionized Water	65.35
Veegum Ultra, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	5.00
Tetrasodium EDTA	0.10
D: DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	0.20
Lactic Acid, 88%	0.10

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 80C. Weigh the Part A ingredients into another vessel and heat to 80C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-30C.

Sunscreen Lotion Using Micronized TiO2

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Propylene Glycol Isoceteth-3 Acetate	8.00
C12-15 Alkyl Benzoate	5.00
Casein (and) Xanthan Gum (Tensami 306)	1.50
Propylparaben (Trisept P)	0.25
B: Deionized Water	67.40
Veegum, Magnesium Aluminum Silicate	0.70
C: Methyl Gluceth-20	5.00
Glycerin	3.00
Methylparaben (Trisept M)	0.25
Titanium Dioxide (Micro Titanium Dioxide MT-500B)	5.00
D: Deionized Water	3.00
Imidazolidinyl Urea (Tristat IU)	0.30
E: Sodium Lactate	0.60

Weigh the water into a suitable vessel and heat to 75C. Mix the water with a homogenizer at 5000 rpm. Add the Veegum to the water and continue mixing for 20 minutes. Add the Part C ingredients in order, mixing each for 5 minutes. Weigh the Part A ingredients into another vessel. Mix and heat them to 75C. Add Part A to Parts B+C and mix for 10 minutes at 75C. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling with continuous, slow mixing. Mix the Part D ingredients and add them at 40C, then add Part E. Continue mixing and cooling. Package at 35C.

*As received basis.

SOURCE: R.T. Vanderbilt Co.: Formulas Haarman & Reimer/Tri-K

Zinc Oxide Sunscreen Cream (PABA/Oxybenzone Free)
Estimated SPF=20

<u>Ingredient:</u>	<u>Wt.%*</u>
A: Octocrylene (Neo Heliopan 303)	7.00
Octyl Methoxycinnamate (Neo Heliopan AV)	7.50
Isocetyl Alcohol	2.00
Cetearyl Alcohol (and) Cetareth-20	2.00
Glyceryl Stearate	3.00
PEG-40 Stearate	1.00
Dimethicone	1.00
Cetyl Alcohol	0.75
Tocopheryl Acetate	0.25
B: Zinc Oxide	6.00
C: Deionized Water	65.30
Veegum Ultra, Magnesium Aluminum Silicate	0.50
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	2.00
Disodium EDTA	0.20
D: Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben	1.00

Procedure:

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 75C. Weigh the Part A ingredients into another vessel and heat to 75C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-28C.

SOURCE: R.T.Vanderbilt Co., Inc.: Veegum Formula from Haarman & Reimer Corp.

Section XII

Miscellaneous

Fluoride Dentifrice*

<u>Ingredients:</u>	<u>% by Weight</u>
Calcium pyrophosphate	45.00
Sorbitol, 70% aq. soln.	20.00
Sodium lauryl sulfate	1.20
Sodium carboxymethylcellulose	0.60
Sodium saccharine	0.10
Stannous fluoride	0.40
Hexetidine	0.20
Flavoring	0.75
Water	31.75

*UK Patent 2,001,526A held by William R. Warner Co. Ltd. (1979)

Mouthwash*

<u>Ingredients:</u>	<u>% by Weight</u>
Ethanol	10.00
Glycerol	5.00
Ethoxylated high-purity castor oil (Cremophor EL)	0.25
Zinc Citrate	0.15
Hexetidine	0.20
Flavoring, saccharine	0.10
Water	to 100.00

*European Patent 0,049,830 A2 held by Professor Hans Muehlmann (1982)

Gum-Massage-Gel*

<u>Ingredients:</u>	<u>% by Weight</u>
Water	87.69
Allantoin	1.00
Panthenol	5.00
Cetylpyridinium chloride	0.01
Hexetidine	0.10
Methylcellulose	6.00
Peppermint oil	0.20

*Swiss Patent 622,945 held by Hans Lukaschek and Professor Manfred Maier (1981)

SOURCE: Angus Chemical Co.: Product Formulary

Glycerol Gel Base

Other ingredients may be incorporated as desired.

<u>Ingredients:</u>	<u>% by Weight</u>
Water, deionized	9.00
Stabileze 06	0.50
AMP-95	0.50
Glycerine	89.70
Additives	q.s.
Germall II	0.30

Procedure:

Disperse Stabileze in water with stirring for 10 minutes. Heat the dispersion to 70-80C for 15 to 20 minutes, until thickening occurs. Start cooling. Add AMP with stirring. Mix until uniform. Add glycerine slowly over 10 minutes with stirring. Stir until uniform gel is obtained. Add remaining ingredients, mixing thoroughly after each addition.

Formulation PF-0244E suggested by ISP

Aculyn 33 Fluid Gel Emulsion

<u>Ingredients:</u>	<u>% by Weight</u>
A. Water	to 100%
Aculyn 33	2.50
Isopropyl myristate	10.00
Imidazolidinyl Urea	0.30
EDTA Na ₂	0.15
B. AMP-95	2.50

Procedure:

Mix the ingredients in the order listed.

Physical Characteristics:

Appearance: Fluid gel
pH: 7.34
Viscosity: 700 cps

Formulation PF-0387 suggested by Rohm & Haas Co. (PF-039)

SOURCE: Angus Chemical Co.: Product Formulary

Oil Liposome Gel

<u>Ingredients:</u>	<u>% by Weight</u>
Phase 1: Water, dem.	ad 100.00
Panthenol	10.00
Phase 2: Alcohol	13.30
Phase 3: Ultrez 10	0.80
Phase 4: Jojoba Oil	5.00
Titanium Dioxide	0.50
Phase 5: Tris Amino	q.s.
Water, dem.	5.00
Phase 6: Natipide II	5.00
Phase 7: Preservatives, Perfume	q.s.

Manufacture:

1. Manufacturing at room temperature.
2. Slowly add phase 2 to phase 1 while stirring thoroughly.
3. Slowly add phase 3 while stirring thoroughly.
4. Homogenize the mixture intensively.
5. Add phase 4 while stirring thoroughly.
6. Homogenize the mixture intensively.
7. Add phase 5 while stirring thoroughly.
8. Homogenize the mixture intensively.
9. Add phase 6 while stirring thoroughly.
10. Homogenize the mixture intensively.
11. Add phase 7 and homogenize the mixture intensively for a short time.

Formulation PF-0376E suggested by Rhone-Poulenc Rorer.

SOURCE: Angus Chemical Co.: Product Formulary

Ritavena 5 (1.0%)/Acritamer 934 (1.0%) Blend

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Distilled Water	0.00
2. Methylparaben	0.15
Part B:	
3. Ritavena 5	1.00
4. Distilled Water, (100C)	10.00
Part C:	
5. Acritamer 934	1.00
6. Distilled Water	75.80
Part D:	
7. Glydant 40/700	0.25
8. NaOH (20% Solution)	1.80

Compounding Procedure:

Premix A in hot water bath. Premix C. Mix B in Blender for 2 minutes. Mix A and B. Add C. Adjust pH to 7.0 with NaOH solution. Combine. Mix until uniform.

Formulation 111-117

Gel Stick

A solid gel stick obtained by using Behenoyl Lactylate and Propylene Glycol. The addition of Ritavena 5 adds slip and glide for application, and reduces crumbling of edges. The Ritavena 5 also reduces synerisis of the glycol.

<u>Ingredients:</u>	<u>%W/W</u>
Part A:	
1. Behenoyl Lactylate	15.00
2. Propylene Glycol	70.00
3. Rita CA	3.00
Part B:	
4. Distilled Water (100C)	6.48
5. Ritavena 5	1.00
Part C:	
6. Sodium Hydroxide (20% Solution)	4.52

Compounding Procedure:

Weigh and heat Part A to 170F. All items should be liquid. Mix until uniform. Premix Part B in a Blender for 2 minutes. Add Part B to Part A. Mix. Adjust pH to 8.5 with Part C. Package while fluid.

Melt point ca. 55C.

Formulation 114-111

SOURCE: R.I.T.A. Corp.: Ritavena 5: Suggested Formulations

Section XIII

Trade-Named Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV-20, B 8851, B 8852, B 88183	Phenyl trimethicone	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil OSW 12	Cyclomethicone/dimethi- conol/dimethicone	Goldschmidt
Abil Quat 3270, 3272, 3474	Quaternium-80	Goldschmidt
Abil S-201	Dimethicone/sodium PG propyl dimethicone/thio- sulfate copolymer	Goldschmidt
Abil Wax 2440	Behenoxy dimethicone	Goldschmidt
Abil Wax 9800	Stearyl dimethicone	Goldschmidt
Abil Wax 9801, 9840	Cetyl dimethicone	Goldschmidt
Abil WE-09	Polyglyceryl-4-isostearate/ cetyl dimethicone copolyol/ hexyl laurate	Goldschmidt
Abil 100, 350	Dimethicone	Goldschmidt
A-C Copolymer 400, 400A	Ethylene-vinyl acetate copolymer	Allied-Sig-
Acetulan	Acetylated lanolin alcohol	Amerchol
Acid Phytosome	Phospholipids	Lipo
A-C Polyethylene 9A, 617, 617A	Polyethylene	Allied-Sig-
Acritamer 934	Carbomer 934	RITA
Acritamer 940	Carbomer 940	RITA
Acritamer 941	Carbomer 941	RITA
Acudyne 255, 41%		Rohm & Haas
Aculyn 22, 33		Rohm & Haas

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Adogen MA-108	Dimethyl stearamine	
Adol 52NF	Cetyl alcohol	Witco
Adol 62, 66	Fatty alcohol	Witco
Advantage CP		ISP
Aerosil 200	Fumed silica	Degussa
Agent 1829-50	Complex of chemicals	Stepan
Aldo MS	Glyceryl fatty acid ester	Lonza
Aldo MSA	Glyceryl stearate & PEG-100 stearate	Lonza
Alfonic 1412-A	Ammonium laureth sulfate	Vista
Alkamide DC 212/S	Alkanolamide	Rhone-
Alkamuls GMS		Rhone-
Alkamuls MM/M		Rhone-
Alkamuls PSML-80		Rhone-
Aloe-Con WG-40	Aloe	Florida
Aloe-Moist	Aloe	Terry
Aloe Vera Lipo Quinone Extract		Terry
Alugel DF30	Aluminum hydroxide	Giulini
Amanduline SG	Hydrolyzed sweet almond protein	RITA
Amaranth 85E123	Dyestuff suspension 1%	BASF
Amerchol L-101	Mineral oil & lanolin alcohol	Amerchol
Ammonyx GA-70 PG	Amine oxide	Stepan
Ammonyx GA-90/GA-70PG	Amine oxide	Stepan
Ammonyx 4	Amine oxide	Stepan
Ammonyx 4B	Stearalkonium chloride	Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Amerlate P	Lanolin fatty acid/ester	Amerchol
Amilan GST 40	DATEM	Goldschmidt
Amphisol A		Givaudan
Amphisol K	Potassium cetyl phosphate	Givaudan
Amphomer	Octylacrylamide/acrylates/ butylaminoethyl methacryl- ate copolymer	Nat Starch
Amphomer 28-4910		Nat Starch
AMP Regular, AMP-95	2-amino-2-methyl-1-propanol	Angus
Ampholyt JB 130/K	Cocamidopropyl betaine	Huls
Amphosol CA, CG		Stepan
Antarox CO 530	Nonoxynol 6	ISP
Antil 141 Liquid	Propylene Glycol & PEG-55 Propylene Glycol Oleate Preservative	Goldschmidt
Antil 171	PEG-18 Glycerol oleate cocoate	Goldschmidt
Aquamollin BC pdr.hc	Ethylenediamine tetraacetic acid sodium salt	Hoechst
Argonol		
Aristoflex A60%	VA/crotonates copolymer, isopropyl alcohol	Hoechst
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 165	Glyceryl stearate & PEG-100 stearate	ICI
Arlacel 186	Glycerol monooleate	ICI
Arlacel 481	Glyceryl sorbitan oleostearate	ICI
Arlacel 989	PEG-7 hydrogenated castor oil	ICI
Arlacel 1689	Polyglycerin & sorbitol	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Arlamol HD	Isohexadecane	ICI
Arosurf 66-PE12	Surfactant	Sherex
Arquad T-50	Tallowtrimonium chloride & isopropyl alcohol	Akzo
Avanel S-150	Anionic surfactant	PPG
Avanel S-150 CG	Sodium C12-15 pareth-15	PPG
Bioterge AS-40	Sodium C14-16 olefin sulfonate	Stepan
Balsam HF-F-95-14276	Fragrance	Hogan
Belsil DMC 6032	Dimethicone copolyol	Wacker
Benol	White mineral oil	Witco
Bentone EW	Hectorite clay	Rheox
Bentone Gel CAO, SS71	Rheological additive	Rheox
Biocare Polymer HA-24		Stepan
Biocare SA	Albumen/Hyaluric acid/Dextran sulfate	Stepan
Biron B-50		Rona
Biron ESQ	BiOC1	Rona
Blando1	Mineral oil	Witco
Brij 78	Steareth-20	ICI
Britol 9NF	White mineral oil	Witco
Bronidox L/15		
Brooksme SOD		Brooks
Brookswax P		Brooks

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Brown Red Shade 1654		
Brown Umber Shade 1985		
Burst, RSD-10	Defoamer	Hydrolabs
Butyl Carbitol	Solvent	Union Carb
Butyl Cellosolve	Solvent	Union Carb
C19-011 D&C Red #7 Ca Lake		Rona
C19-022 D&C Red #6 Ba Lake		
Calamide C	Coconut derived amide	Pilot
Calamide CWT	Super amide	Pilot
Calamide F	Modified oleamide DEA	Pilot
Calamide LL	Liquid lauramide DEA	Pilot
Calamide O	Modified coco-oleic diethanol- amide 100%	Pilot
Calblend Clear	Ether sulfate based concentrate	Pilot
Calblend Pearl	Pearlescent concentrate	Pilot
Calendula Oil CLR		Richter
Calfax 10L-45	Disulfonated alkyl diphenyl ether	Pilot
Calfoam ALS-30	Ammonium lauryl sulfate 30%	Pilot
Calfoam EA-603	Ammonium lauryl ether sulfate	Pilot
Calfoam ES-301, ES-302 ES-303	Sodium lauryl ether sulfate 30%	Pilot
Calfoam SLS-30	Sodium lauryl sulfate 30%	Pilot
Calfoam TLS-40	TEA lauryl sulfate 40%	Pilot
Calimulse PRS	Isopropyl linear alkyl benzene sulfonate 90%	Pilot
Caloxylate N-9	Nonyl phenol ethoxylate	Pilot

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Calsoft AOS-40, F-90	Linear alkylate sulfonate	Pilot
Calsoft L-40	Linear alkylbenzene sulfonate	Pilot
Calsoft LAS-99, T-60	Linear alkylate sulfonate	Pilot
Caltaine C-35	Cocamidopropyl betaine	Pilot
Captex 300	Fatty acid ester (med. chain)	Capital
Carbopol ETD 2001, ETD 2020	Carbomer	Goodrich
Carbopol Ultra 10	Carbomer	Goodrich
Carbopol 934	Carbomer 934	Goodrich
Carbopol 940	Carbomer 940	Goodrich
Carbopol 941	Carbomer 941	Goodrich
Carbopol 980	Carbomer 980	Goodrich
Carbopol 981	Carbomer 981	Goodrich
Carbopol 1342	Carbomer 1342	Goodrich
Carbopol 2984	Carbomer 2984	Goodrich
Carbowax E-8000	PEG-150	
Cardre TiO ₂ /Z-Coat/Octylmethoxycinnamate Dispersion		Cardre
Carnation	Mineral Oil	Witco
Carnauba Wax		Keumen
Carnauba #1 Yellow		Keunen
Carrott Oil CLR		Richter
Carsimide SAL-7	Lauramide DEA	Lonza
Carsmol ALS	Ammonium lauryl sulfate	Lonza
Castorwax MP80	Hydrogenated castor oil	CasChem
Cellosize	Hydroxyethylcellulose	Union Carb

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cellosez QP 30,000H, QP 52,000H	Hydroxyethyl cellulose	Union Carb
Celquat H-100, L-200	Polyquaternium-4	National
Celquat SC-230M, SC-240C	Polyquaternium-10	National
Ceramide Complex CLR		Richter
Ceraphyl-368	Octyl palmitate	ISP/Van Dyk
Ceraphyl 494	Emulsifier	ISP/Van Dyk
Ceraphyl 868	Emollient	ISP/Van Dyk
Cerasynt IP	Emulsifier	ISP/Van Dyk
Ceresine Wax 130/135		Keunen
Cetiol B	Emollient esters	Henkel
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Emollient esters	Henkel
Cetiol LC	Emollient esters	Henkel
Cetiol MM	Myristyl myristate	Henkel
Cetiol PGL	Emollient esters	Henkel
Cetiol SN	Cetearyl isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Octyl stearate	Henkel
Cetylstearyl Alcohol		Keunen
Cetylstearyl Alcohol 1618		Proctor &
Chamomile Oil		Dragoco
Citmol 316 TM		
Citroflex-2	Triethyl citrate	Morflex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Clariskin	Yeast extract	RITA
Clearlan	Lanolin	Henkel
Cloisonne' Blue Flambe 650Z:	Cosmetic pearl powders	Mearl
Cloisonne' Cerise Flambe 550Z		
Cloisonne' Monarch Gold 233X		
CMC, CMC 7MF	Carboxymethyl cellulose	Aqualon
CO-1895	Stearyl alcohol	
Coconut Fragrance Oil		Aroma Tech
Collagen KD		GFN
Collagen Secolan BA		Secol
Collamino Complex 40	Collagen amino acids	Brooks
Collasol	Soluble collagen	Croda
Colorona Copper	Pearlescent pigments	Rona
Colorona Red Gold		
Colorona Red Brown		
Comperlan KD	Cocamide DEA	Henkel
Corona PNL	Lanolin	Croda
Cosmetic Tan C33-130	Iron oxide	Sun
Cosmowax K	Stearyl alcohol/ceteareth 20	Croda
Cremerol HMG	Surfactant	Huls
Crephor A6	Ceteareth-6/stearyl alcohol	Huls
Crephor A25	Ceteareth 25	BASF
Crephor EL	Ethoxylated castor oil	BASF
Crephor RH40	Surfactant	BASF
Crill 6	Sorbitan ester	Croda
Crodacol C-70	Cetyl alcohol	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crodacol C-95	Cetyl alcohol	Croda
Crodacol CS-50	Cetearyl alcohol	Croda
Crodafos CES	Cetearyl alcohol/cetearyl phosphate	Croda
Crodafos N3 Neutral	DEA oleth-3-phosphate	Croda
Crodafos N10 Neutral	DEA oleth-10-phosphate	Croda
Crodafos SG	PPG-5-ceteth-10-phosphate	Croda
Crodamol GTCC	Caprylic/capric triglyceride	Croda
Crodamol IPM	Fatty acid ester	Croda
Crodamol OPG	Octyl pelargonate	Croda
Crodamol OS	Octyl stearate	Croda
Crodamol PMP	PPG-2 myristyl ether propionate	Croda
Crodamol PTC	Pentaerythrityl tetracaprylate/caprate	Croda
Crodasome CM-Glucan	Sodium carboxymethyl B-glucan	Croda
Crodesta SL-40	Sucrose cocoate	Croda
Cromoist CM-Glucan, Cromoist GM-Glucan	Carboxymethyl B-glucan	Croda
Cromoist HYA		Croda
Croquat M	Cationic protein derivative	Croda
Crosilk Powder		Croda
Crotein ADW	Isostearoyl hydrolyzed wheat protein	Croda
Crotein Q	Steartrimonium hydroxyethyl hydrolyzed collagen	Croda
Crotein SPO	Hydrolyzed collagen	Croda
Crovol A-40	Modified ethoxylated oil	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crovol A-70	PEG-60 almond glycerides	Croda
Croda M40		Croda
Crovol PK-40	Modified ethoxylated oils	Croda
Cutina GMS	Glyceryl stearate	Henkel
DC Q2-5220	Dimethicone copolyol	Dow Corning
DC Silicone 200/350 cts	Dimethicone	Dow Corning
DC-190	Dimethicone copolyol	Dow Corning
DC 200/200 cs	Dimethicone	Dow Corning
DC 345 Fluid	Cyclomethicone	Dow Corning
DC 556	Phenyl trimethicone	Dow Corning
DC 929 Silicone	Amodimethicone & nonoxynol-10 & tallowtrimonium chloride	Dow Corning
Defensine	Wheat germ extract	RITA
Dehymuls F		Henkel
Dehymuls PGPH		Henkel
Dehyquart E	Hydroxycetyl hydroxyethyl dimonium chloride	Henkel
Dehyquart LT	Laurtrimonium chloride	Henkel
Dehyton AB 30	Coco-betaine	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Dentphos K	Dicalcium phosphate	Hoechst
Deodorized Orange Wax		Keunen
Dermacryl, Dermacryl LT	Skin care polymer	National

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Dermalcare NI	Skin care polymer	Rhone-Poul
Dermacryl-79	Skin care polymer	National
Dervacid 3155		
Dimethyl Ether		DuPont
Dioctyl Adipate & Octyl Stearate & Octyl Palmitate		Wickhen
Dismutin-BT	Superoxide dismutase	Pentapharm
DL-Panthenol		Roche
DNS Completech MBAC-DS	Chemicals complex	Lipo
Dowanol TPM	Tripropylene glycol methyl ether	Dow
Dow Corning Fluid 200/350 cs.	Dimethicone	Dow Corning
Dow Corning Q2-5220	Dimethicone copolyol	Dow Corning
Dow Corning Silicone 245	Dimethicone	Dow Corning
Dow Corning 190, 193	Dimethicone copolyol	Dow Corning
Dow Corning 200 Fluid	Dimethicone	Dow Corning
Dow Corning 344 Fluid, Cyclomethicone 345 Fluid		Dow Corning
Dow Corning 3225C Fluid		Dow Corning
Dow Corning 7224		Dow Corning
Dowicide A	Antimicrobial agent	Dow
Dowicil 200	Preservative	Dow
D-Panthenol		Hoffman-La
D-Panthenol USP		BASF
D-Panthenol 50P	Panthenol & propylene glycol	BASF
Drakeol-9	Mineral oil	Penreco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Drakeol-21	Mineral oil	Penreco
Drewpol 3-1-0, 10-10-0	Emulsifier	Stepan
Dry-Flo PC	Aluminum starch octenylsuccinate	National
DV-3284	Sodium isethionate (55%)	Rhone-Poul
Dymel A, HFC-152a		DuPont
Dynacerin 660	Oleyl erucate	Huls
Edeta BD		BASF
Elastosol Animal Collagen & Elastin		Croda
Elefac I-205	Octyldodecyl neopentaoate	Bernel
Elfacos GT282S	Hydrogenated talloweth-60 myristyl glycol	Akzo
Elhibin	Soy protein	Pentapharm
Emerest 1723	Ester	Henkel
Emerest 2316	Ester	Henkel
Emerest 2407	Glyceryl stearate SE	Henkel
Emerest 2452	Ester	Henkel
Emerest 2486	Ester	Henkel
Emerson-132		Henkel
Emerwax 1266		Henkel
Empicol TL 40t	Anionic surfactant	Albright
Empigen BB	Lauryl betaine	Albright
Empilan EGMS	Surfactant	Albright
Empilan E2502	Cocamide DEA surfactant	Albright

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Empilan LDE	Surfactant	Albright
Emsorb 2500	Sorbitan ester	Henkel
Emulgade 100NI		
Emulgade 1000NI		
Emulgator 2155	Steareth-7&stearyl alcohol&steareth-10	Goldschmidt
Emulsifying Wax		Keunen
Emulsion 25-3800 (50%)		National
Emulsogen EL	PEG-36 castor oil	Hoechst
Emulsogen LP	Oleth-5	Hoechst
Ervol	White mineral oil	Witco
Escalol 507	Octyl dimethyl PABA	ISP Van Dyk
Escalol 557	Sunscreen	ISP Van Dyk
Escalol 567	Benzophenone-3	ISP Van Dyk
Estol EHP/EHP 1543/ 1462	Cosmetic ester	Unichema
Ethocel	Ethyl cellulose	Dow
Ethoquad O/12	PEG-2 oleammonium/isopropyl alcohol	Armak
Eumulgin VL 75	Cosmetic emulsifier o/w	Henkel
Eusolex 232/232TS/ 6300	Sunscreen	EM
Eutanol G	Octyl dodecanol	Henkel
Euxyl K-400	Cosmetic preservative	Calgon
Ewalan ODE-50	Octyldodecyl lanolate	Wagner
Extrapon Chamomile Special		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Extrapon Witch Hazel		Dragoco
Extrapone 3 Special	Chemical complex	Dragoco
Extrakt 52		Zschimmer
FG-10 Antifoam Simethicone Emulsion		Dow Corning
Finsolv SB		Finetex
Finsolv TN	C12-15 alkyl benzoate	Finetex
Firming Liposome		Collaborat
Fitobroside	Water/glycolipids/phospho- lipids/carbohydrates	Pentapharm
Fitoderm	Squalane	Centerchem
Flamenco Superpearl	120C cosmetics pigment	Mearl
Flexan 130	Sodium polystyrene sulfonate	National
Fluilan	Liquid lanolin	Croda
Foraha Oil		Keunen
Fragrance	Black Dragon II 0/23511	Dragoco
Fragrance	Chiara 0/238927	Dragoco
Fragrance	Solara 0/227632	Dragoco
Fragrance	PCV 1677	Givaudan
Fragrance	Rivalia 0/221212	Dragoco
Fragrance	Timbuktu 0/186901	Dragoco
Fragrance Bellefresh		Haarman
Fragrance J-5390		Bell
Fragrance	Limobain A. 116.830	Haarman
Fragrance	Men at Sport 61569	Haarman

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrance Q4696		Quest
Fragrance #S-5704		Fine Flav
Fragrance Tendresse 75418B		Haarman &
Fragrance #99189 "Twister"		Croon
G-4909		
Gafquat HS-100	Cationic copolymer	ISP
Gamma Orzanol		Keunen
Gantrez ES225, ES425	Vinyl ether polymer	ISP
Gelita Sol C	Hydrolyzed collagen	Dt. Gelatin
Gelwhite GP	White montmorillonite	ECC
Gemstone Moonstone G004	Cosmetic pearl powder	Mearl
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genamin CTAC	Cetrimonium chloride	Hoechst
Genamin DSAC	Distearyldimonium chloride	Hoechst
Genamin KSL	PEG-5 stearyl ammonium lactate	Hoechst
Genapol AMG	Magnesium PEG-3 cocamide sulfate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO Liquid, Paste	Sodium laureth sulfate	Hoechst
Genapol TSM	PEG-3 distearate, sodium laureth sulfate	Hoechst
Genapol ZRO Liquid	Sodium laureth sulfate	Hoechst
Generol 122, 122E-10		
Germaben II	Cosmetic preservative	Sutton

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Germaben II-E	Cosmetic preservative	ISP Sutton
Germall II	Diazolidinyl urea	ISP Sutton
Germall 115	Imidazolidinyl urea	ISP Sutton
Geropon AS-200		Rhone-Poul
Geropon SBFA-30		Rhone-Poul
Geropon TC-42		Rhone-Poul
Gorgonian Extract	Butylene glycol/sea whip extract	Lipo
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam E-20 Distearate	Methyl glucose sesquistearate	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesqui- stearate	Amerchol
Glucate DO	Methyl glucose dioleate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glycamil		Allied-Sig
Glycerol Monostearate		Keunen
Glycerox HE	PEG-7 glyceryl cocoate	Croda
Glydant	DMDM hydantoin	Lonza
Glydant Plus	DMDM hydantoin	Lonza
Glydant 40/700	DMDM hydantoin	Lonza

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hair Monster U800 025	Fragrance	dram Frag-
Hampene Na2T	Chelating agent	Hampshire
Hampene Na3T	Chelating agent	Hampshire
Hamamelis Water	Witch hazel	Dragoco
Hamp-ene 100	Tetrasodium EDTA chelating agent	Hampshire
Hampol OL	Chelating agent	Hampshire
HDK N20	Highly dispersed silicic acid	Wacker-
H.E. Chamomile	Anthemis nobilis (Chamomile extract)	PJ Cosmet-
H.E. Ginseng	Ginseng extract	PJ Cosmet-
Hetester PHA	Propylene glycol isoceteth-3 acetate	Berne1
Hexanediol Behenny1	Beeswax	Keunen
Hexetidine		Angus
Hispage1 200		
Hoechst Potassium Sorbate		Hoechst
Hoechst Sorbic Acid		Hoechst
Hombitec L5	Titanium dioxide	Sachtleben
Hostacerin CG		Hoechst
Hostacerin DGI	Polyglyceryl-2 sesquiosostearate	Hoechst
Hostacerin DGL	Polyglyceryl-2 PEG-10 laurate	Hoechst
Hostacerin DGMS	Polyglyceryl-2 stearate	Hoechst
Hostacerin DGS	Polyglyceryl-2-PEG-4 Stearate	Hoechst
Hostacerin T-3	Cetareth-3	Hoechst
Hostacerin WO		Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hostacerin WOL	Chemical complex	Hoechst
Hostaphat KL340N	Trilaureth-4 phosphate	Hoechst
Hostaphat KML	Laureth-4 phosphate, polyglyceryl-2, sesquistearate	Hoechst
Hostapon CT-Paste	Sodium methyl cocoyl taurate	Hoechst
Hostapon KCG	Sodium cocoyl glutamate	Hoechst
Hostapon SCI, SCID	Sodium cocoyl isethionate	Hoechst
Hubersorb 600		Huber
Hyasol-BT	Sodium hyaluronate	Pentapharm
Hydrofol Acid 1655CG	Fatty acid and glycerides	Sherex
Hydrolyzed Wheat Protein		VegeTech
Hydrosoy 2000/SF		Croda
Hydroviton	Chemicals complex	Dragoco
Hydrotriticum QL		Croda
Hydrotriticum WAA	Wheat amino acids	Croda
Hydrotriticum 2000	Wheat protein hydrolyzates	Croda
Hydroxy Polyester		Keunen
Hypan QT-100	Polyquaternium-31	Lipo
Hypan SA 100H		
Hypan SR 150H		
Hypure N	Sodium hypochlorite, 10% soln	Olin

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Igepal CO-630	Nonoxynol	ISP
Immucell	Glycoproteins	Pentapharm
Imwitor 370	Glyceryl stearate citrate	Huls
Imwitor 375	Glyceryl citrate/lactate/ linoleate/oleate	Huls
Imwitor 377	Glyceryl laurate/citrate/ lactate	Huls
Imwitor 780K	Isostearyl diglyceryl succinate	Huls
Imwitor 900	Glyceryl stearate	Huls
Imwitor 928	Glyceryl cocoate	Huls
Incrocas-40	PEG-40 castor oil	Croda
Incromectant LAMEA	Acetamide MEA/Lactamide MEA	Croda
Incromide LR	Lauramide DEA	Croda
Incromine Oxide C	Cocamidopropylamine oxide	Croda
Incronam 30	Cocamidopropyl betaine	Croda
Incroquat Behenyl HE	Behenamidopropyl hydroxyethyl dimonium chloride	Croda
Incroquat Behenyl TMS	Behentrimonium methosulfate/ cetearyl alcohol	Croda
Incroquat CTC-30	Cetrimonium chloride	Croda
Incroquat HO-80PG	Dioleoylamidoethyl hydroxy- ethylmonium methosulfate	Croda
Incroquat SDQ-25	Quaternary cosmetic conditioner	Croda
Iso-Adipate	Diisopropyl adipate	Dragoco
Isolan DO	Methylglucose dioleate	Goldschmidt
Isolan GI-34	Polyglyceryl-4 isostearate	Goldschmidt
Isolan GO-33	Polyglyceryl-3 oleate	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Isopropyl Isostearate		Unichema
Isostearic Acid		Unichema
Ivarlan AWS	PPG-12 PEG-65 lanolin oil	Brooks
Irgasan DP300	Triclosan bacteriostat	Ciba-Geigy
Jaguar C14S	Guar hydroxypropyltrimonium chloride	Rhone-Poul
Jaguar C-162	Guar gum	Rhone-Poul
Jaguar HP-60	Hydroxypropyl guar	Rhone-Poul
Jordapon ACI-30	Ammonium cocoyl isethionate	PPG
Jordapon CI-UP	Sodium cocoyl isethionate	PPG
Jordapon CI-60/ CI-75	Sodium cocoyl isethionate/ stearic acid	PPG
K80-D22		Keunen
Kaolin 2457		
Karion F Liquid		E.Merck
Kathon CG/ CG100	Methylchloroisoithiazolinone/ methylisoithiazolinone	Rohm & Haas
Keltrol CG-T/F	Xanthan gum	Kelco
Kerasol		Croda
Kera-Tein 1000 AS	Ethyl ester of hydrolyzed keratin	Maybrook
Kessco Cetyl Alcohol		Stepan
Kessco EGMS		Stepan
Kessco Ethylene Glycol Distearate		Stepan
Kessco GMS-Pure		Stepan

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Kessco GMS S.E./A.S.		Stepan
Kessco ICS		Stepan
Kessco IPM		Stepan
Kessco IPP		Stepan
Kessco Octyl Isononanoate		Stepan
Kessco PEG 400 Dilaurate		Stepan
Kessco PEG 400 DL		Stepan
Kessco PEG 6000 DS		Stepan
Kessco-653	Fatty ester	Stepan
Kester Wax 82		Keunen
Killitol	Butylene glycol/glycerin/chlorophenesin/methylparaben	Collabora
Klearol	White mineral oil	Witco
Klucel G	Hydroxypropyl cellulose	Aqualon
Kuikui Nut Oil		Oils Aloha
Lactil	Chemicals complex	Goldschmidt
Lactomide	Water/phospholipids/ceramides	
Lameform TGI		
Lanapene		Lanaetex
Lanesta S	Isopropyl myristate	Lanaetex
Laneto-50	PEG-75 lanolin	RITA
Lanette-0	Cetearyl alcohol	Henkel
Lanette 16	Cetyl alcohol	Henkel
Lanocerin	Lanolin wax	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lanol 37T		Seppic
Lanolin USP		RITA
Lanolin USP X-TRA Deo		RITA
Lasemul 92AE		
Lathanol LAL	Foaming agent	Stepan
Lexamine S-13	Cationic emulsifier	Inolex
Lexemul	Cosmetic emulsifier	Inolex
Lexemul 515	Cosmetic emulsifier	Inolex
Lexgard M	Methyl paraben	Inolex
Lexgard P	Propyl paraben	Inolex
Lipex 102	Shea butter	Lipo
Lipex 106	Illipe butter	Lipo
Lipex 203	Mango kernal oil	Lipo
Lipex 205	Canola oil	Lipo
Lipocol C	Cetyl alcohol	Lipo
Lipocol C-10		Lipo
Lipocol 0/95		Lipo
Lipocol S-2		Lipo
Lipocol S-10/S-20	Poloxyethylene fatty ether	Lipo
Lipo Fruit Acid Complex	Glycolic acid (and) tamarind extract	Lipo
Lipogard	Squalane (and) Ubiquinone	Pentapharm
Lipo GMS 450	Glyceryl stearate	Lipo
Lipolan 31	Lanolin derivative	Lipo
Lipol PG 855		Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipomulse 165	Glyceryl stearate/PEG-100 stearate	Lipo
Liponate DPC-6/GC	Fatty ester	Lipo
Liponate IPM	Fatty ester	Lipo
Liponate IPP	Fatty ester	Lipo
Liponate NPGC-2	Neopentylglycol dicaprylate/dicaprate	Lipo
Liponate SPS	Fatty ester	Lipo
Liponate TDTM	Fatty ester	Lipo
Liponic EG-1	Glycereth-26	Lipo
LipoPearl Green		Lipo
Lipopeg 6000 DS	PEG-150 distearate	Lipo
Lipoquat R	Fatty acid amide ethosulfate	Lipo
Liposorb L-20	Sorbitan ester	Lipo
Lipo Stearic Acid		Lipo
Lipovol MOS-70	Natural vegetable oil	Lipo
Lipovol PAL	Natural vegetable oil	Lipo
Lipovol SAF	Safflower oil	Lipo
Lipovol SES	Sesame oil	Lipo
Lipowax D	Cetearyl alcohol/ceteareth-20	Lipo
Lipowax G	Stearyl alcohol/ceteareth-20	Lipo
Lipowax NI	Self-emulsifying wax	Lipo
Lipowax P	Emulsifying wax, NF	Lipo
Liquapar Oil	Preservative	Sutton
Lovocryl-47	Octylacrylamide/acrylates butylaminoethyl methacrylate copolymer	National

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lunacera M	Hydrogenated microcrystalline wax	HBFuller
Luvimer Low VOC		BASF
Luvimer 36D		BASF
Luvimer 100P		BASF
Luviquat Mono CP	Polyquaternium	BASF
Luvisko1 K30/K90/ VA73E/VA73W/VA641	PVP	BASF
Luvitol EHO	Cetearyl octanoate	BASF
Macademia Nut Oil		Oils Aloha
Macol CPS/124	Polyoxyethylene fatty ether	PPG
Mafo CAB	Cocamidopropyl betaine	PPG
Mafo CSB-50	Cocamidopropyl hydroxy sultaine	PPG
Magnabrite	Stabilizing, suspending agent	AmColloid
Magnesium Stearate-D		Witco
Mapeg EGMS	Glycol stearate	PPG
Mapeg 6000 DS	PEG-150 distearate	PPG
Maprosyl 30		Stepan
Marlinat CM 100/80	Laureth-11 carboxylic acid	Huls
Marlinat 242/28	Sodium +laureth sulfate	Huls
Marlipal 1618/25	Ceteareth-25	Huls
Masil SF-V Fluid	Cyclomethicone	PPG
Masil 280	Dimethicone copolyol	PPG
Masil 656 Fluid	Silicone	PPG
Maypon 4C	Potassium cocoyl-hydrolyzed collagen	Inolex

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mazamide CMEA	Cocamide CMEA	PPG
Mazamide JT-128	Cocamide DEA	PPG
Mazamide SS-10	Soyamide DEA	PPG
Mazox CAPA	Cocamidopropyl amine oxide	PPG
MEA Borate and MIPA Borate		Mona
Mearlite GBU	Synthetic pearl pigment	Mearl
Mearlmica CF/SVA	Cosmetic mica powder	Mearl
Mearltalc TCA	Talc	Mearl
Medialan LD	Sodium lauroyl sarcosinate	Hoechst
Merquat 550	Polyquaternium-7	Calgon
Methocel E/E4M/ K100LV/40-100	Hydroxypropyl methylcellulose	Dow
Mica M-RP		Rona
Microcel E		Rona
Microcrystalline W445 Wax		Witco
Micro Titanium Dioxide MT-500B	Titanium dioxide	Tri-K
Microwhite 100		ECC
Miglyol Gel B	Caprylic/capric triglyceride/ stearalkonium hectorite/prop- ylene carbonate	Huls
Miglyol 810/812	Caprylic/capric triglyceride	Huls
Miglyol 818	Caprylic/capric/linoleic triglyceride	Huls
Miglyol 829	Caprylic/capric/diglyceryl succinate	Huls
Miglyol 840	Propylene glycol dicaprylate	Huls
Milfoil Extract		Kelisema

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mineral Colloid BP	Montmorillonite	ECC America
Mineral Oil and Lanolin Alcohol		Amerchol
Minosil		Pride Solv
Miracare BC-10		Rhone-Poul
Miracare CT-100		Rhone-Poul
Miracare MPC		Rhone-Poul
Miracare MS-1		Rhone-Poul
Miranol BT	Surfactant	Rhone-Poul
Miranol C2M-SF70%	Cocoamphocarboxyglycinate	Rhone-Poul
Miranol C2M-SF Conc.	Disodium cocoamphodipropionate	Rhone-Poul
Miranol Ultra	Surfactant	Rhone-Poul
Modulan	Acetylated lanolin	Amerchol
Monafax 160	Phosphate ester	Mona
Monafax 1214	Deceth-4-phosphate	Mona
Monamate CPA-40	Mild anionic detergent	Mona
Monamate LNT-40	Mild anionic detergent	Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 150-ADD	Cocamide DEA	Mona
Monamid 716	Lauramide DEA	Mona
Monamid 1089	Super fatty alkanolamide	Mona
Monamuls 60-35C		Mona
Monaquat TG	Quaternary phospholipid cpd.	Mona
Monaterge 1164	Sodium lauryl sulfate/disodium lauryl sulfosuccinate	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monateric CM-36S	Mild amphoteric emulsifier	Mona
Monateric 805	Disodium cocoamphodiacetate/ disodium cocamido MIPA-sulfo- succinate	Mona
Monateric 951A	Mild amphoteric emulsifier	Mona
Monawet MO-75E	Wetting agent	Mona
Monazoline CY	1-hydroxyethyl-2-caprylimid- azoline	Mona
Montan OV 68		Seppic
MPC-Milk Peptide Complex		Richter
M-Pyrol	n-Methyl Pyrrolidone	ISP
Mulgofen ON-870		Rhone-Poul
Myacide SP	2,4-dichlorobenzyl alcohol	Inolex
Myritol 318		
Myrj 52	Polyoxyethylene stearate	ICI
Myrj 52S	PEG-40 stearate	ICI
Myrj 59	PEG-100 stearate	ICI
Na-Hyaluronate Seluron Solution		Secol
Natipide II		Natterman
Natrosol Plus 330 CS/ 250HHR/250HHR CS/ 250HHX/250HR/250HR CS	Hydroxyethyl cellulose	Aqualon
Natural Beeswax		Rita
Naturechem EGHS	Castor oil derivative	CasChem

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Naturechem GMHS	Castor oil derivative	CasChem
Naturechem OHS	Cosmetic ingredient	CasChem
Neobee M-5	Caprylic/capric triglyceride	Stepan
Neobee M-20	Cosmetic oil	Stepan
Neodol 23-6.5	C12-C13 linear primary alcohol ethoxylate	Shell
Neo-Heliopan AV	Octyl methoxycinnamate	Haarman
Neo-Heliopan BB	Benzophenone-3	Haarman
Neo-Heliopan, Hydro	Phenylbenzimidazole sulfonic acid	Haarman
Neo-Heliopan MA	Menthyl anththranilate	Haarman
Neo-Heliopan OS	Octyl salicylate	Haarman
Neo-Heliopan E1000	Isoamyl-p-methoxycinnamate	Haarman
Neo-Heliopan 303	Octocryline	Haarman
N-Hance 3000	Cationic guar	Aqualon
Nimlesterol D	Mineral oil	Malmstrom
Ninol 30-LL	Alkylolamides	Stepan
Ninol 40-CO	Cocamide DEA	Stepan
Ninol 55-LL	Alkylolamide	Stepan
Ninol 96-SL	Alkylolamide	Stepan
Nipacide PX		Nipa
Nipagin M	Methyl paraben	Nipa
Nipaguard BPX		Nipa
Nipaguard DMDMH	DMDM hydantoin	Nipa
Nipasol	Propyl paraben	Nipa

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Nipastat	Microbiocide	Nipa
Nuosept C		Nipa
Nutrilan L	Hydrolyzed collagen	Henkel
Octopirox	Piroctone alamine	Hoechst
Ohlan	Hydroxylated lanolin	Amerchol
Omnirez 2000		ISP
Opatint	FD&C aluminum lake concentrate	Colorcon
Orange Wax		Keunen
Orgasol 2002D Nat Cos Nylon-12		Atochem
Orgasol 2002UD Nat Cos Nylon-12		Atochem
Oxetal VD 20		Zschimmer
Oxynex LM	Antioxidant	Zschimmer
Oxynex 2004	Antioxidant	Zschimmer
Oxypon 2145		Zschimmer
Oyster Nut Oil		Keunen
Ozokerite Wax		Int Wax
Ozokerite Wax		Keunen
Ozokerite Wax		Ross
Ozokerite White 170		
Ozokerite 64W		
Ozokerite #77W		
Ozokerite 160/164		Keunen
Ozokerite 164/170		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Panalane	Hydrogenated isobutylene	Amoco
Panalane L-14E	Hydrogenated isobutylene	Amoco
Paraffin Oil	Mineral oil	Merck
Paraffin 150/155		Keunen
Paraffin 160/165		Keunen
ParSol MCX	Octyl methoxycinnamate	Givaudan
ParSol 1789	UV-A sunscreen	Givaudan
Pationic ISL	Sodium isostearoyl lactylate	RITA
Pationic ISL/85	Sodium isostearyl lactylate 85%	RITA
Pationic SSL	Sodium stearoyl lactylate	RITA
Patlac IL	Isostearyl lactate	RITA
Patlac LA	Lactic acid	RITA
PCL Liquid		Dragoco
Peach Floral 92F/3235	Fragrance	Fragrance
Pearlescent Pigments		Rona
Pecosil CAP-1240		Phoenix
Pecosil PS-100	Dimethicone copolyol phosphate	Phoenix
Pecosil SMQ-40	Silicone quaternium-5	Phoenix
Pecosil SPB-1240	Silicone quaternium-6	Phoenix
PEG Carnauba		Keunen
Pelan Black		
Pemulen TR-1	Acrylates/C10-30 alkyl acrylate	Goodrich
Pemulen TR-2	Polymeric emulsifier	Goodrich
Pentalyn C	Synthetic resin	Hercules

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Pentavitin	Saccharide isomerate	Pentapharm
Peptein 2000	Hydrolyzed animal protein	Hormel
Perfecta	Petrolatum	Witco
Perfume	Courage 0/243101	Dragoco
Perfume 726096	Fragrance	Haarman
Permethyl 101A/102A/ 104A	Aliphatic hydrocarbon	Permethyl
Permulgin D	Custom blended wax	Keunen
Pg-3 Beeswax	Cera Bellina	Keunen
Phoenamid CD	Cocamide DEA	Phoenix
Phoenamid LD	Lauramide DEA	Phoenix
Phoenate SLES-70	Sodium laureth sulfate	Phoenix
Phoenate 3SDA	PEG-3 distearate	Phoenix
Phoenonip	Liquid preservative system	Nipa
Phoskadent Na211	Dental grade phosphate	BK-Laden-
Phospholipid EFA/GFA/ PTC/SV	Biomimetic phospholipid	Mona
Phosphoteric QL-38	Trisodium lauroampho PG acetate phosphate chloride	Mona
Phytaluronate	Locust bean gum	Pentapharm
Pilot SXS-40/SXS-96	Hydrotrope	Pilot
Pluracare F127		BASF
Plurafac C-17	Oxyethylated alcohol	BASF
PNC 400	Sodium carbomer	3V GmbH
Polawax	Emulsifying wax NF	Croda
Polawax A-31	Emulsifying wax NF	Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polestar 400A	Calcined clay	ECC America
Polybutene H-100		
Polyethylene 6A/9A		
Polymer JR400	Polyquaternium-10	Amerchol
Polypeptide LSN	Hydrolyzed collagen	Inolex
Polyquta 400/3000	Polyquaternium-10	RITA
Polysynlane	Hydrogenated polyisobutene	Polyester
PPG-36 Castor Oil		PPG
Pricerine 9083	Glycerine	Unichema
Prifac 2942	Myristic acid	Unichema
Pristerine 4904	Stearic acid	Unichema
Procetyl 10	Alkoxylated cetyl ether	Croda
Procol CS-20D		
Prodew 100	Sorbitol/sodium lactate/pro- line/sodium PCA/hydrolyzed collagen	Ajinomoto
Promois ECP	Collagen	RITA
Promois WS	Hydrolyzed soy protein	RITA
Promulgen D	Cetearyl alcohol/ceteareth-20	Amerchol
Pronalen Fruit Acid AHA-5 Lemon & Passion Fruit Conc.		Centerchem
Propellant A-46	Hydrocarbon propellant	PhillipsPet
Propylene Glycol/diazolidinyl urea/methylparaben/ propylparaben		Sutton
Protectan	Lactococcus lactis lysate	Richter
Purcellin Oil	Cetearyl octanoate/isopropyl myristate	Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Purcellin Oil 2/066210	Cetearyl octanoate	Dragoco
Purton SFD	Fatty acid alkanolamide	Zschimmer
PVP K-30	PVP	ISP
PVP/VA E-735	PVP/VA copolymer	ISP
Raffermin	Hydrolyzed soy flour	RITA
Reductine	Oat protein	RITA
Resyn 28-1310/ 28-2930/28-3307	Hair spray polymer	National
Revitalin-BT	Glycoproteins	Pentapharm
Rewoteric AM B14	Cocamidopropyl betaine	Witco
Rewoteric AM B14LS	Cocamidopropyl betaine	Witco
Rheolate 5000	Acrylate/Va copolymer	Rheox
Rhodafac RA-600	Deceth-4 phosphate	Rhone-Poul
Rhodapex ES	Ether sulfate	Rhone-Poul
Rhodaquat D261C/75		Rhone-Poul
Rhodigel	Xanthan gum	Vanderbilt
Rhodopol 23/50MD	Xanthan gum	Vanderbilt
Rice Bran Oil		Keunen
Ritabate-20	Polysorbate-20	RITA
Ritabate-60	Polysorbate-60	RITA
Ritabate-80	Polysorbate-80	RITA
Rita CA	Cetearyl alcohol	RITA
Ritacet-20	Ceteareth-20	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita Cetearyl Alcohol (50/50)		RITA
Rita Cetearyl Alcohol (70/30)		RITA
Ritaceti	Cetyl esters	RITA
Ritacetyl	Acetylated lanolin	RITA
Ritachol	Mineral oil/lanolin alcohol	RITA
Ritachol 1000	RITA Blend	RITA
Ritachol 2000	Cetearyl alcohol/polysorbate-60	RITA
Rita CTAC-605	Cetrimonium chloride	RITA
Ritaderm	Petrolatum/lanolin/sodium PCA/ polysorbate 85	RITA
Rita EGDS	Glycol distearate	RITA
Rita EGMS	Glycol stearate	RITA
Rita GMS	Glyceryl stearate	RITA
Rita HA C-I-C	Sodium hyaluronate	RITA
Ritahydrox	Hydroxylated lanolin	RITA
Rita IPM	Isopropyl myristate	RITA
Rita IPP	Isopropyl palmitate	RITA
Ritalan	Lanolin oil	RITA
Ritaloe 1X	Aloe vera gel	RITA
Ritaloe 200M	Aloe vera gel	RITA
Ritamide C	Cocamide DEA	RITA
Ritapan D	d-Panthenol	RITA
Ritapan DL	dl-Panthenol	RITA
Ritapeg 150 DS	PEG-150 distearate	RITA
Rita PEO-1	PEG-5M	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita PEO-3	PEG-23M	RITA
Ritapro 100	RITA blend	RITA
Ritapro-165	Glyceryl stearate/PEG-100 stearate	RITA
Ritapro 300	Cetearyl alcohol/ceteareth-20	RITA
Rita SA	Stearyl alcohol	RITA
Ritasil 190	Dimethicone copolyol	RITA
Ritasol	Isopropyl lanolate	RITA
Rita SSO	Sunflower seed oil	RITA
Rita Stac-80	Steartrimonium chloride	RITA
Ritasynt IP	Glycol stearate and others	RITA
Ritataine	Cocoamidopropyl betaine	RITA
Ritavena-5	Hydrolyzed oat flour	RITA
Ritawax	Lanolin alcohol	RITA
Ritawax ALA	Cetyl acetate/acetylated lanolin alcohol	RITA
Ritawax 15	Lanolin alcohol	RITA
Ritox 52	PEG-40 stearate	RITA
Ritox 59	PEG-100 stearate	RITA
Rona Pearl Pigment Combinations		Rona
Rosswax 15-1182	Wax	Ross
Rosswax 26-1152	Wax	Ross
Rosswax 1824	Wax	Ross
Rovisome Ace	Vitamin blend	RITA
Rovisome-AHA	Lactic acid	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rovisome C	ROVI blend	RITA
Rovisome HA	Lecithin/alcohol/sodium hyaluronate	RITA
Sansurf OMC	Chemical complex	Collabora-
Schercemol CO	Cetyl octanoate ester	Scher
Schercemol CP	Ester	Scher
Schercemol DID	Diisopropyl dimer dilinoleate	Scher
Schercemol 185	Ester	Scher
Selastin EL-10		Secol
Sericin		Pentapharm
SF-1204/SF1214	Dimethicone	DowCorning
Shea Butter		Keunen
Shebu WS	PEG-50 shea butter	RITA
Shellsol D40	Petroleum distillates	Shell
Shellsol T	Petroleum distillates	Shell
Shinju 100T	Synthetic pearl pigment	Mearl
Sicomet	Dyestuff	BASF
Sicomet Blue S42045	Dyestuff suspension 1%	BASF
Sicomet Red F12150		BASF
Silicone 7207		OSI Special
Siliconyl Beeswax		Keunen
Silk Mica		Rona
Silk'n Soluble Liquid		Dasco
Siltex M Super		Rona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Simchin Natural	Jojoba oil	RITA
Sipon ES2	Sodium laureth sulfate (2 mole)	Rhone-Poul
Sipon LT-6	TEA lauryl sulfate	Rhone-Poul
Sipon 201-10		Rhone-Poul
Softigen 701	Glyceryl ricinoleate	Huls
Softigen 767	PEG-6 caprylic/capric glycerides	Huls
Softisan 100	Hydrogenated coco-glycerides	Huls
Softisan 378	Caprylic/capric/stearic triglyceride	Huls
Softisan Gel	Complex of chemicals	Huls
Softisan 601	Glyceryl cocoate/hydrogenated coconut oil/cetareth-25	Huls
Softisan 645/649	Bis-diglyceryl polyacyl adipate-2	Huls
Solagum L		Seppic
Soltrol 100	C9-11 isoparaffin	Phillips
Solulan 16	Laneth-16/ceteth-16/oleth-16/ steareth-16	Amerchol
Solulan 98	Polysorbate 80/cetyl acetate/ acetylated lanolin alcohol	Amerchol
Solu-Soy EN25		Brooks
SS4267	Dimethicone/trimethyl-siloxy- silicate	GESilicone
Starfol OS	Difatty ester	Sherex
Stabileze XL-80W		ISP
Stabileze 06		ISP
Standamid KD	Cocamide DEA	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Standamid LD		Henkel
Standapol A	Ammonium lauryl sulfate	Henkel
Standapol ES1 (30%)	Sodium laureth sulfate	Henkel
Standapol ES-2	Sodium laureth sulfate	Henkel
Standapol T	TEA lauryl sulfate	Henkel
Standapol WAQ-LC	Sodium lauryl sulfate	Henkel
Standapol WAQ Spec.	Sodium lauryl sulfate	Henkel
Steol CA-130/CS-130/ CS-230/CS-330/CS-460	Alcohol ether sulfate	Stepan
Stepan-Mild BSB		Stepan
Stepan-Mild LSB		Stepan
Stepan-Mild SL3		Stepan
Stepanol AM	Ammonium lauryl sulfate	Stepan
Stepanol AM-V/ ME-Dry/WA-Extra	Alkyl sulfate	Stepan
Stepanol WAT	TEA lauryl sulfate	Stepan
Stepan TAB-2		Stepan
Sunett	Acesulfame K	Hoechst
Sunflower Oil		Lipo
Sunscreen Liposomes	Complex of chemicals	Collaborat-
Super Floss	Diatomaceous earth	Manville
Super Hartolan	Lanolin alcohol	Croda
Super Refined Wheat Germ Oil		Croda
Supersat AWS-4	PEG-20 hydrogenated lanolin	RITA
Supra Talc	Premium talc	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Syncrowax AW1-C	Synthetic wax	Croda
Syncrowax ERL-C	Synthetic wax	Croda
Syncrowax HGL-C	C18-36 acid triglyceride	Croda
Syncrowax HR-C	Synthetic wax	Croda
Synthetic Candelilla		Keunen
Tagat L	PEG-20 glyceryl laurate	Goldschmidt
Tagat O	PEG-30 glyceryl oleate	Goldschmidt
Talc 141		Whittaker
Talc 1625		
TEA Salicylate	TEA salicylate in propylene glycol	Haarman
Technocell 90DV		
Tech-O 11-070 Ster-O-Pro		Beacon CMP
Tech-O 11-075 Concentrated Oat Protein		Beacon CMP
Tegin	Glyceryl stearate S.E.	Goldschmidt
Tegin M	Glyceryl stearate	Goldschmidt
Teginacid C		Goldschmidt
Teginacid H	Glyceryl stearate/ceteth-20	Goldschmidt
Tegin EGS	Glycol distearate	Goldschmidt
Tegin M	Glyceryl stearate	Goldschmidt
Tego Alkanol 16	Cetyl alcohol	Goldschmidt
Tego Amid S18	Stearamidopropyl dimethylamine	Goldschmidt
Tego Betaine E/F/F50/ L7	Cocamidopropyl betaine	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tego Care 450	Polyglyceryl-3 methylglucose distearate	Goldschmidt
Tego Deo HY77	Zinc rincinoate/triethanol-amine/dipropylene glycol/lactic acid	Goldschmidt
Tego Glucosid L55	Lauryl glucoside/cocamido-propyl betaine	Goldschmidt
Tego Glucosid 1216	Lauryl glucoside	Goldschmidt
Tego Pearl N100	Glycol distearate/steareth-4	Goldschmidt
Tegosoft CI	Cetearyl isononanoate	Goldschmidt
Tegosoft CT	Caprylic/capric triglycerides	Goldschmidt
Tegosoft D0	Decyl oleate	Goldschmidt
Tegosoft GC	PEG-7 glyceryl cocoate	Goldschmidt
Tegosoft Liquid	Cetearyl octanoate	Goldschmidt
Tegosoft M	Isopropyl myristate	Goldschmidt
Tegosoft OP	Octyl palmitate	Goldschmidt
Tegosoft OS	Octyl stearate	Goldschmidt
Tegosoft P	Isopropyl palmitate	Goldschmidt
Tegosoft S	Isopropyl stearate	Goldschmidt
Tenox BHT	Antioxidant	Eastman
Tenox 4	Antioxidant	Eastman
Tensami 306	Casein/xanthan gum	AlbanMuller
Tensine	Wheat protein	RITA
Texapon L20M		Henkel
Texapon SBN		Henkel
Texapon T42	TEA lauryl sulfate	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Thioglycolate Trihydrate		Merck
Thioglycolic Acid		Witco
Timica Sparkle 110P	Cosmetic pearl powder	Rona
Timiron MP-24 Gold Karet	Interference Pigment	Rona
Timiron MP1001/MP1500	Titanium dioxide/mica	Rona
Timiron S.I. Pigments	Titanium dioxide/mica	Rona
Timiron Silk Red/ Starlight Colors	Mica/titanium dioxide	Rona
Timiron Super Pigments	Pearlescent pigments	Rona
Tioveil FIN	Titanium dioxide/C12-15 Alkyl Benzoate	Tioxide
Titanium Dioxide 110	Titanium dioxide/bismuth oxy- chloride	Presperse
Titanium Dioxide #3328		
Tris Amino	Tris (hydroxymethyl) amino- methane	Angus
Trisept M	Methylparaben	Tri-K
Trisept P	Propyl paraben	Tri-K
Tristat IU	Imidazolidinyl urea	Tri-K
Tritisol	Soluble wheat protein	Croda
Triton X-100	Octoxynol-9	Rohm&Haas
Trivent OC-G	Tridecyl neopentanoate	Trivent
Tween 20	Polysorbate 20	ICI
Tween 40	Polysorbate 40	ICI
Tween 60	Polysorbate 60	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tween 80	Polysorbate 80	ICI
Tylose CB 200	Cellulose gum	Hoechst
Tylose H1000	Hydroxyethyl cellulose	Hoechst
Ucare Polymer JR-125	Polyquaternium-10	UnionCarb
Ultraol 70 NF		
Ultrapure L	Petrolatum	Ultra
Ultrez 10		Goodrich
Unicide U-13	Imidazolidinyl urea	Lipo
Uninontan U-34	Water/propylene glycol/sodium citrate/lemon extract/cucumber extract	Lipo
Uniphen P-23	Phenoxyethanol/methylparaben/ethylparaben/propylparaben/butylparaben	Lipo
Unirep U-18		
Uvatone 2-6		
Uvinul M-40	Benzophenone-3	BASF
Uvinul MC80		BASF
UV-Titan M212	Titanium dioxide/alumina/glycerin/silica	Kemira
Van Gel B/C/ES/O	Magnesium aluminum silicate	Vanderbilt
Vanilla BB-36943		Ungerer
Vanseal CS	Cocoyl sarcosine surfactant	Vanderbilt
Vanseal NACS-30	Sodium lauroyl sarcosinate	Vanderbilt
Vanseal NALS-30	Sarcosinate surfactant	Vanderbilt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varion CADG/CADG LS/	Surfactant	Sherex
Varisoft TA-100	Hair rinse concentrate	Sherex
Varonic LI-48/LI-67/ 63-E-20	Nonionic wetting agent	Sherex
Vaseline White	Petrolatum white	Witco
Veegum/ HV/ K/ Pro/ Regular/ T/ Ultra	Magnesium aluminum silicate	Vanderbilt
Velvetex BA-35	Cocamidopropyl betaine	Henkel
Velvetex BK-35		Henkel
Versatyl-42	Hair spray polymer	National
Versene Powder/100	Tetrasodium EDTA chelating agent	Dow
Vibrant Splash 94F/2203	Fragrance	Fragrance
Vigilan AWS		Fanning
Vitamin-E-Acetate	Tocopheryl acetate	BASF
Vitamin F Forte CLR		Richter
Volpo CS20	Ethoxylated oleoyl ether	Croda
Volpo S-2	Steareth-2	Croda
Volpo S-10	Steareth-10	Croda
Volpo S-20	Steareth-20	Croda
Volpo 5	Oleth-5	Croda
Vybar-5013	Polymer	Petrolite

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Walnut Shells (AD-7B Type)		Agrashell
Waxenol 810		Wickhen
Wecobee S	Synthetic butter	Stepan
Wecobee SS	Synthetic cocoa butter	Stepan
Wheat Germ Oil		Rita
Wheat-Tein NL	Hydrolyzed wheat protein	Maybrook
White Fonoline	Petrolatum	Witco
White Protopet 1S	Petrolatum	Witco
Wickenol 152		CasChem
Wickenol 171		CasChem
Wickenol 550		CasChem
Witcamide 511	Alkanolamide surfactant	Witco
Witconate NIS	Sodium isethionate	Witco
Witconol APM	Nonionic surfactant	Witco
Xanthan Gum		Kelco
Yellow Protopet 2A	Petrolatum	Witco
Zetesol NL	Sodium lauryl ether sulfate	Zschimmer
Zetesol 856T	Fatty alcohol ether sulfate	Zschimmer
Zinc Omadine	Zinc pyrithione, 48%	Olin
Zinc Oxide Neutral		Haarman
Zinc Stearate #695		
Zusolat 1004	Alkyl polyethylene glycol ether	Zschimmer
Zusolat 1005/85	Alkyl polyethylene glycol ether	Zschimmer

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
18-B	Glycyrrhetic Acid Phytosome	
33-5198	Black Iron Oxide	Rona
43W1810	Ultramarine Blue	Rona
80/20	Bradpride Soap Base	Bradford
7054	Red Iron Oxide	Rona
7055	Yellow Iron Oxide	Rona
7133	Black Iron Oxide	Rona
43001	Manganese Violet	Rona

Section XIV

Suppliers' Addresses

- Agrashell Inc.
5934 Keystone Dr.
Bath, PA 18014
(215)-837-6705
- Ajinomoto USA, Inc.
Glenpoint Ctr. W.
500 Frank W. Burr Blvd.
Teaneck, NJ 07645
(201)-907-3244
- Akzo Chemicals, Inc.
300 South Riverside Plaza
Chicago, IL 60606
(312)-906-7500
- Albright & Wilson Americas
P.O. Box 26229
Richmond, VA 23260
(804)-550-4300/(800)-446-3700
- Allied Signal, Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-455-2000
- Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000
- American Colloid Co.
Hwy 212W
Belle Fourche, SD 57717
(605)-892-2591
- Amoco Chemical Co.
200 E. Randolph Dr.
Chicago, IL 60601
(312)-856-3200/(800)-621-4567
- Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(708)-215-8600/(800)-323-6209
- Aqualon
1313 N. Market St.
Wilmington, DE 19899
(302)-594-5000/(800)-345-8104
- Atotech North America
900 Milk St.
Cartaret, NJ 07008
(908)-541-4414
- BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072
- Bell Flavors & Fragrances, Inc.
500 Academy Dr.
Northbrook, IL 60062
(312)-291-8300/(800)-323-4387
- Bernel Chemical Co., Inc.
174 Grand Ave.
Englewood, NJ 07631
(201)-569-8934
- BK-Ladenburg Corp.
50 Spring St.
Cresskill, NJ 07626
(201)-567-9100/(800)-526-2688
- Brooks Industries, Inc.
70 Tyler Place
South Plainfield, NJ 07080
(908)-561-5200
- Calgon Corp.
P.O. Box 1346
Pittsburgh, PA 15230
(412)-777-8000
- Capital City Products Co.
525 W. First Ave.
Columbus, OH 43216
(614)-299-3131/(800)-848-1340

CasChem, Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem, Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

Colorcon, Inc.
Moyer Blvd.
West Point, PA 19486
(215)-699-7733

A & E Connock, Ltd.
Fordingsbridge,
Hunts, UK

Croda, Inc.
7 Century Dr.
Parsippany, NJ 07054
(201)-644-4900

Dow Chemical USA
2020 Dow Center
Midland, MI 48674
(800)-258-CHEM

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-4000

Dragoco, Inc.
10 Gordon Drive
Totowa, NJ 07512
(201)-256-3850

DuPont Co.
1007 Market St.
Wilmington, DE 19898
(800)-441-7515

Eastman Chemical Co.
P.O. Box 431
Kingsport, TN 37662
(615)-229-4006/(800)-EASTMAN

ECC America
5775 Peachtree-Dunwoody Rd.
Atlanta, GA 30342
(800)-843-3222

E. Merck
Darmstadt, Germany

Fanning Corp.
2450 W. Hubbard St.
Chicago, IL 60612
(312)-563-1234

Finetex, Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

Florida Food Products, Inc.
2231 W. Hwy 44
Eustis, FL 32726
(904)-357-4141

H.B. Fuller Co.
3530 N. Lexington Ave.
St. Paul, MN 55126
(612)-481-1588/(800)-468-6358

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Givaudan-Roure Corp.
100 DeLawanna Ave.
Clifton, NJ 07015
(201)-365-8000

Goldschmidt Chemical Corp.
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-445-1809

B.F. Goodrich Co.
9911 Brecksville Rd.
Cleveland, OH 44141
(216)-447-5000/(800)-331-1144

Haarman & Reimer Corp.
60 Diamond Rd.
Springfield, NJ 07091
(201)-912-5707/(800)-432-1559

Hampshire Chemical Co.
55 Hayden Ave.
Lexington, MA 02173
(617)-861-6600

Henkel Corp.
11501 Northlake Dr.
Cincinnati, OH 45299
(513)-530-7300/(800)-543-7370

Hercules, Inc.
Hercules Plaza
Wilmington, DE 19894
(800)-247-4372

Hoechst Celanese Corp.
3340 W. Norfolk Rd.
Portsmouth, VA 23703
(800)-483-7530/(800)-526-4960

Hoffman-LaRoche, Inc.
340 Kingsland St.
Nutley, NJ 07110
(201)-235-8080/(800)-526-0189

Hormel
P.O. Box 800
Austin, MN 55912
(507)-437-5676

J.M. Huber Corp.
Thornall St.
Edison, NJ 08837
(201)-549-8600

Huls America, Inc.
80 Centennial Dr.
Piscataway, NJ 08854
(908)-980-6946/(800)-526-0339

Hydrolabs, Inc.
27 E. 33 St.
Paterson, NJ 07514
(201)-345-5100

ICI Americas Inc.
Concord Pike & New Murphy Rd.
Wilmington, DE 19897
(302)-575-3034/(800)-822-8215

Inolex Chemical Co.
Jackson & Swanson Sts.
Philadelphia, PA 19148
(215)-271-0800/(800)-521-9891

ISP: International Specialty Prod
1361 Alps Rd.
Wayne, NJ 07470
(201)-628-3000/(800)-848-7659

Kelco Div.
Merck & Co., Inc.
8355 Aero Drive
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Kemira, Inc.
1170 Rte 22E
P.O. Box 6784
Bridgewater, NJ 08807
(201)-526-4644/(800)-4-KEMIRA

Koster-Keunen, Inc.
P.O. Box 447
90 Bourne Blvd.
Sayville, NY 11782
(516)-589-0456

Lanaetex Products, Inc.
151 3 Ave.
Elizabeth, NJ 07206
(908)-351-9700

Lipo Chemicals, Inc.
207 19th Ave.
Paterson, NJ 07504
(201)-345-8600

Lonza, Inc.
17-17 Rte. 208
Fair Lawn, NJ 07410
(201)-794-2400/(800)-777-1875

Mearl Corp.
41 E. 42 St.
New York, NY 10017
(212)-573-8500

Mona Industries Inc.
76 E. 24 St.
P.O. Box 425
Paterson, NJ 07544
(201)-345-8220

Morflex, Inc.
2110 High Point Rd.
Greensboro, NC 27403
(919)-292-1781

National Starch & Chemical Co.
10 FINDERNE AVE.
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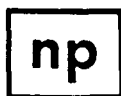
COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 7

by

Ernest W. Flick



**NOYES PUBLICATIONS
WILLIAM ANDREW PUBLISHING, LLC**

Norwich, New York, U.S.A.

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Library of Congress Catalog Card Number: 89-39099

ISBN 0-8155-1430-1

Printed in the United States

Published in the United States of America by
Noyes Publications/William Andrew Publishing, LLC
13 Eaton Avenue, Norwich, New York 13815

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data
(Revised for vol. 7)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55	1989	668'.55	89-39099
ISBN 0-8155-1218-X (v. 1)			
ISBN 0-8155-1306-2 (v. 2)			
ISBN 0-8155-1367-4 (v. 3)			
ISBN 0-8155-1383-6 (v. 4)			
ISBN 0-8155-1395-X (v. 5)			
ISBN 0-8155-1412-3 (v. 6)			
ISBN 0-8155-1430-1 (v. 7)			

To
the late Glenice and Wendell
and
Colby and Therese
and
Clayton and Madeleine

Preface

This book contains 576 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 7 of the Second Edition of this work; Volume 1 was published in 1989, Volume 2 in 1992, Volume 3 in early 1995, Volume 4 in late 1995, Volume 5 in 1996, and Volume 6 in 1998. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at no cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances. The 1996 market for cosmetic raw materials is estimated at \$2 billion.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 12 sections, with the number of formulations indicated in ().

- I. Antiperspirants and Deodorants (20)
- II. Baby Products (17)
- III. Bath and Shower Products (59)
- IV. Beauty Aids (97)
- V. Creams (75)
- VI. Hair Care Products (66)
- VII. Lotions (40)
- VIII. Shampoos (43)
- IX. Shaving Products (11)
- X. Soaps and Hand Cleaners (48)
- XI. Sun Care Products (72)
- XII. Miscellaneous (28)

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

- XIII. Trade-Named Raw Materials. Each raw material is listed with a brief chemical description and the name of the raw material supplier.
- XIV. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade-Named Raw Materials section.

The table of contents of the book is organized in such a way as to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

July 1999

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instruction, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I
Antiperspirants and
Deodorants

**Antiperspirant Gel
With 20% Active Al/Zr**

Ingredients:	Wt%
Phase A:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.40
Cyclomethicone (Abil B 8839)	13.80
Isopropyl Palmitate (Tegosoft P)	0.50
Dimethicone (Abil 50)	0.80
Dimethicone Copolyol (Abil B 8852)	0.80
Stearyl Heptanoate (Tegosoft SH)	0.75
Phase B:	
Aluminum Zirconium Tetrachlorohydrate Gly (46% solution)	43.50
SD Alcohol 40	2.50
Propylene Glycol	14.30
Water	10.65
Dipropylene Glycol	10.00

Procedure:

1. Add the raw materials of Phase A, mixing to uniformity at room temperature.
2. Add the raw materials of Phase B to a second vessel, mixing to uniformity. The active salt should be mixed to a clear, colorless solution.
3. Measure the refractive indices of both phases. Adjust Phase B with either propylene glycol or water to match the refractive index of Phase A. The refractive indices should agree to the fourth decimal place for total clarity.
4. Slowly stream Phase B into Phase A with slow (300rpm) multi-blade mixing. The addition rate should match the agitation, not allowing the water to pool on the emulsion surface. After the addition of the water phase is complete, increase the agitation rate to 1,200 rpm for a few minutes. This will build the viscosity of the mixture to a low viscosity, flowing gel.
5. Homogenize the mixture at a low rate. Mix until a firm (shearable) gel is obtained.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Deodorant Gel
With 25% Active ACH

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.40
Cyclomethicone (Abil B 8839)	13.80
Isopropyl Palmitate (Tegosoft P)	0.50
Dimethicone (Abil 50)	0.80
Phenyl Trimethicone (Abil AV 20)	0.50
Dimethicone Copolyol (Abil B 8852)	0.80
Stearyl Heptanoate (Tegosoft SH)	0.75
Phase B:	
Aluminum Chlorohydrate (50% solution)	50.00
SD Alcohol 40	4.00
Sorbitol	0.50
Propylene Glycol	13.95
Water	9.00
Dipropylene Glycol	3.00

Procedure:

1. Add the raw materials of Phase A, mixing to uniformity at room temperature.
2. Add the raw materials of Phase B to a second vessel, mixing to uniformity. The active salt should be mixed to a clear, colorless solution.
3. Measure the refractive indices of both phases. Adjust Phase B with either propylene glycol or water to match the refractive index of Phase A. The refractive indices should agree to the fourth decimal place for total clarity.
4. Slowly stream Phase B into Phase A with slow (300 rpm) multi-blade mixing. The addition rate should match the agitation, not allowing the water to pool on the emulsion surface. After the addition of the water phase is complete, increase the agitation rate to 1,200 rpm for a few minutes. This will build the viscosity of the mixture to a low viscosity, flowing gel.
5. Homogenize the mixture at a low rate. Mix until a firm (shearable) gel is obtained.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Enhanced Antiperspirant Stick

A smooth feeling, high payout stick incorporating a cost effective enhanced efficacy aluminum-zirconium active demonstrating optimal antiperspirant efficacy.

<u>Ingredients:</u>	<u>Wt%</u>
A. Reach AZP-908 SUF	20.0
B. Cyclomethicone (Pentamer)	50.5
C. Stearyl Alcohol	20.0
D. Promyristyl PM-3	5.0
E. PEG-8 Distearate	2.0
F. Talc, 325 mesh	1.0
G. Silica	1.5
H. Fragrance	q.s.

Procedure:

1. Add B to reaction vessel and heat to 65C.
2. Add D and E with moderate stirring.
3. Add C slowly, maintain 65C. Increase agitation and add A. Mix for 5 minutes.
4. Add F and mix 5 minutes.
5. Add G and mix 5 minutes.
6. Add H. Using slow to moderate stirring, cool to 55C and pour into stick casings.

Reduced VOC Antiperspirant Aerosol

This composition was formulated to meet the interim CARB (California Air Resources Board) regulations beginning 12/31/92. The use of a non-volatile ester provides a cleaner formula with reduced residue when compared to many marketed products.

<u>Ingredient:</u>	<u>Wt%</u>
A. Reach 103	12.5
B. Bentone Gel VS-5/PC	12.5
C. Diisopropyl Adipate	15.0
D. Perfume	q.s.
E. Isobutane	60.0

Procedure:

1. Combine B and C using an Eppenbach homomixer at 5000 rpm for 5 minutes.
2. Add A. Mix 10 minutes.
3. Add D and mix 5 minutes.
4. Place mixture in a suitable container and charge with E, as specified.

* Macrospherical 95 is a recommended alternative active.

SOURCE: Reheis, Inc.: Suggested Formulations

Enhanced Antiperspirant Suspension Roll-On

A dry roll-on that incorporates an enhanced efficacy aluminum-zirconium active that demonstrates optimal antiperspirant efficacy.

<u>Ingredients:</u>	Wt%
A. Reach AZZ-902	20.0
B. Bentone 38	2.7
C. SD Alcohol 40	1.8
D. Cyclomethicone (tetramer)	75.5
E. Fragrance	q.s.

Procedure:

1. Disperse B into D using Eppenbach Homomixer. Mix 20 minutes; maintain temperature 25-35C.
2. Add pre-mix of C and E; mix 5 minutes.
3. Add A and mix with moderate shear until uniform.
4. Pour into suitable containers.

Enhanced Efficacy Antiperspirant Suspension Roll-On

This formula employs an enhanced efficacy aluminum zirconium tetrachlorohydrate glycine in a superultrafine particle size distribution, which is the most popular form of the active. Hydrogenated polyisobutene is used to maintain viscosity behavior over time and to reduce whitening residue upon application.

<u>Ingredients:</u>	Wt%
A. Reach AZP 908 SUF	20.00
B. Bentone Gel VS-5/PC	13.50
C. Cyclomethicone (Tetramer)	35.25
D. Panalane L-14E (hydrogenated polyisobutene)	30.00
E. Silica	0.50
F. Fragrance	0.75

Procedure:

1. Mix B and C with overhead mixer for 10 minutes.
2. Add D and mix for 10 minutes.
3. Add A and mix for 15 minutes.
4. Add E and F. Mix for 10 minutes.
5. Homogenize for approximately 4 minutes and pour into suitable containers.

SOURCE: Reheis, Inc.: Suggested Formulations

Non Whitening Antiperspirant Cream

Ingredients:	Wt%
A Brij 721S, Steareth-21	3.2
Brij 72, Steareth-2	1.8
Atlas 1500, Glycerol monostearate	2.0
Cetyl alcohol, N.F.	5.0
Arlamol ISML, Isosorbide Laurate	2.5
Florasun 90, Hybrid Sunflower Seed Oil	0.5
Dow Corning 344 fluid, Cyclomethicone	4.0
B Water	23.8
C Rezal 36G, Aluminum zirconium tetrachlorohydroxylglycine (35% solution)	57.1
D Preservative, Dowicil 200	0.1

Preparation:

Heat (A) to 70C and (B) to 72C. Heat (C) to 60C. Add (B) to (A) with good agitation. When (AB) is uniform slowly add (C). Mix well. When temperature drops to 35C, add (D) and any water that was lost due to evaporation.
Formula CP 1178

Water-in-Oil Antiperspirant Cream

Ingredients:	Wt%
A Arlamol HD isohexadecane	14.7
Caprylic capric triglycerides	7.35
Arlamol E PPG 15 stearyl ether	7.35
Hydrogenated castor oil	2.0
Arlacel P135 PEG 30 dipolyhydroxystearate	4.0
B 50% aluminum chlorohydrate solution	40.0
Water	24.3
C Preservative	q.s.

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A), mix well, homogenize for a few minutes. Continue regular stirring to room temperature. Add preservative as per manufacturer's instructions. Replace water lost by evaporation.
Formula CP 1203

SOURCE: ICI Surfactants: Suggested Formulations

Oil-in-Water Roll-on Anti-Perspirant

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlatone 983	2.0
Brij 76	2.0
Arlamol HD	8.0
Arlamol S7	3.0
Arlamol M812	5.0
Loro1 C16*	0.5
B. Locron P*	20.0
C. Atlas G-2330	1.25
Propylene glycol	1.25
Preservatives	q.s.
Water	57.0
D. Perfume	q.s.

Manufacture:

1. Heat A and C separately to 70C.
2. Add A to C while stirring.
3. Homogenise the mixture.
4. Add B to this emulsion slowly while stirring.
5. Homogenise again.
6. Cool to 35C whilst stirring continuously.
7. Add perfume.

Comments:

Viscosity: 20,000 mPa s (Brookfield LVT, spindle E, 6 rpm)

Loro1 C16 (Cetyl Alcohol, INCI)-Henkel

Locron P (Aluminum Chlorohydrate, INCI)-Hoechst

Formulation F44-12-4

Clear Pumpable Antiperspirant

<u>Ingredients:</u>	<u>Wt%</u>
Alcohol, SDA Formula No. 40	50
Arlamol E pop 15 stearyl ether	5
Aluminum Chlorohydrate (50% solution)	40
Water, deionized	5

Preparation:

Dissolve Arlamol E polyoxypropylene 15 stearyl ether in alcohol at room temperature, and stir until clear. Slowly add aluminum chlorohydrate and water, stirring until clear. Package. Formulation AE-12

SOURCE: ICI Surfactants: Suggested Formulations

Roll-On Antiperspirant

<u>Raw Materials:</u>	<u>Wt%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)	8.50
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Softisan Gel (Bis-Diglyceryl Polyacyladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	2.00
B) Carbopol 980 Gel 1%	12.50
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	0.50
Locron L (Aluminum Chlorohydrate)	1.00
Preservative	q.s.
Water, up to	100.00
C) Deosafe Perfume 75 428 N/I	1.00

Preparation:

(A) is heated up to 50 degrees C and mixed.

(B) is mixed and heated up to the same temperature.

(B) is emulsified into (A).

At 40 degrees C, (C) is added.

Formulation 1.5X

Deo Antiperspirant Spray with Aerosol

<u>Raw Materials:</u>	<u>Wt%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)	2.00
Hydagen DEO (Triethyl Citrate (and) BHT)	2.00
Locron P (Aluminum Chlorohydrate)	3.00
Aerosil 200 (Silica)	0.10
Perfume	q.s.
B) Drivosol 35* (Propane, Isopropane, Butane)	q.s.

*Filling: Lotion: 8%

Drivosol: 92%, 3.5 bar

Preparation:

(A) is mixed together thoroughly.

Formulation 1.5W

SOURCE: Creanova Inc.: Suggested Formulations

Roll-on Antiperspirant Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol E pop 15 stearyl ether	4.00
Brij 721 poe 21 stearyl ether	0.76
Brij 72 poe 2 stearyl ether	3.24
B. Water, deionized	34.86
C. Preservative	q.s.
D. Aluminum Zirconium Tetrachlorohydrate GLY (35% solution)	57.14

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Add (C) between 50-60C. Add (D) at 45C. Stir to 35C and replace water lost by evaporation.

Formulation Notes:

The active ingredient is 20% of the formula.

Stability:

The formula is stable for at least four weeks at 5C, 40C, 50C, and four freeze-thaw cycles.

Viscosity:

The viscosity of the formula after one week at 25C was 1,760 cps. After eleven weeks it was 3,328 cps.

Formula AE-13

Antiperspirant Roll-on Lotion with Isosorbide Monolaurate

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol E pop 15 stearyl ether	3.0
Arlamol ISML isosorbide monolaurate	2.0
Brij 721 poe 21 stearyl ether	1.4
Brij 72 poe 2 stearyl ether	2.6
B. Water, deionized	51.0
C. Aluminum Zirconium Tetrachlorohydrate GLY (50% aqueous solution)	40.0
D. Preservative	q.s.

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) using a propeller stirrer. Add (C) to about 50C and (D) at 45C. At 35C replace water lost by evaporation and package.

Stability:

This formula is stable for at least four weeks at 5C, 25C, 40C and for four freeze-thaw cycles.

Viscosity:

The viscosity of the formula after one week at 25C was 2,960 cps. After four weeks it was 2,800 cps.

Formula AE-14

SOURCE: ICI Surfactants: Suggested Formulations

Roll-On Antiperspirants

Arlamol ISML, isosorbide monolaurate is also functional as an emollient in roll-on formulas due to its pleasant feel on the skin and compatibility with the active ingredients. The following formula illustrates its use with aluminum chlorohydrate.

ACH Formula

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol ISML, isosorbide monolaurate	3.0
Arlamol E, POP (15) stearyl ether	3.0
Brij 721, POE (21) stearyl ether	1.5
Brij 72, POE (2) stearyl ether	2.5
B. Water	49.0
C. Aluminum chlorohydrate (50% solution)	40.0
D. Preservative	1.0

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A using a propeller. Add C at about 50C and D at about 45C. At 35C add water to compensate for loss due to evaporation.

Stability:

The above formula is stable for at least four weeks at 40C and 50C and for at least four freeze-thaw cycles. It has a viscosity of 2240 cps. at 25C.

Al Zr Tetrachlorohydrate-Gly Formula

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol ISML, isosorbide monolaurate	4.0
Arlamol E, POP (15) stearyl ether	3.0
Brij 721, POE (21) stearyl ether	1.5
Brij 72, POE (2) stearyl ether	2.5
B. Water	48.0
C. Al Zr Tetrachlorohydrate-gly (50% aqueous solution)	40.0
D. Preservative	1.0

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A using a propeller. Add C at about 50C and D at about 45C. At 35C add water to compensate for loss due to evaporation.

Stability:

This formula is stable for at least four weeks at 5C, 25C, 40C, and for four freeze-thaw cycles.

SOURCE: ICI Surfactants: Arlamol ISML Suggested Formulations

Roll on Deodorant Emulsion

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.5
Eumulgin B 2/Ceteareth-20	1.0
Cetiol LC/Coco-Caprylate/Caprata	5.0
Cetiol OE/Dicaprylyl Ether	5.0
Hydagen C.A.T./Triethyl Citrate	2.0
II. Water, deion.	73.5
III. Carbopol 980 (2% sol.)	7.5
NaOH (1% sol.)	1.5
Preservative	q.s.
Viscosity, mPas: 4400 Brookfield, 23C	
pH-Value: 5	
<u>Preparation in the Laboratory:</u>	
1. Heat phase I to 85C and stir until homogeneous.	
2. Heat phase II to 85C and stir slowly into phase I, emulsify for 5 min.	
3. Allow the emulsion to cool with stirring, avoiding the incorporation of air.	
4. Add phase III at 30C.	
Formulation No.: 93/060/23	

Antiperspirant Spray

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.5
Eumulgin B2/Ceteareth-20	1.0
Cetiol LC/Coco-Caprylate/Caprata	5.0
Cetiol OE/Dicapryl Ether	5.0
II. Water, demin.	15.8
III. Water, demin.	48.7
IV. Locron L	20.0
Aluminum Chlorohydrate, Preservative, Perfume	q.s.
pH-Value: 4.2	
Viscosity, 23C, mPas, Brookfield: <100	
<u>Preparation in the Laboratory:</u>	
1. Heat phase I to 85C and stir until homogeneous.	
2. Heat phase II to 85C and stir slowly into phase I.	
3. Stir phase III (which is at room temperature) slowly into the hot emulsion I/II (80C).	
4. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid incorporation of air. Add phase IV at 30C.	
Formulation No.: F-1724/302	
SOURCE: Henkel KGaA: Suggested Formulations	

Stick Antiperspirants

Arlamol ISML, isosorbide monolaurate is an excellent choice for an emollient in antiperspirant systems. In stick formulas it provides a smooth, dry feel and shows dramatic improvement in anti-whitening and anti-flaking characteristics proven by panel studies. In the formula below containing aluminum chlorohydrate, the efficacy improved with the presence of Arlamol ISML vs. the control without it.

<u>Ingredients:</u>	<u>Wt%</u>
Cyclomethicone	45.0
Arlamol ISML, isosorbide monolaurate	10.0
Stearyl alcohol	15.0
Aluminum chlorohydrate powder	25.0
Hydrogenated castor oil	5.0

Suggested Preparation for Antiperspirant Sticks:

Heat Arlamol ISML, isosorbide monolaurate, stearyl alcohol, and hydrogenated castor oil to 70C or until completely melted. Slowly add antiperspirant active with stirring while maintaining 70C. When antiperspirant active is completely dispersed, remove from heat and continue stirring until temperature drops to 60C. At this point add the cyclomethicone (at 60C) to the mixture, stir well, add fragrance and pour into sticks just before mixture sets up. Cool rapidly to avoid any setting of dispersed antiperspirant active.

Excellent application, anti-whitening, and anti-flaking properties resulted with the following formula (compared to a control without Arlamol ISML emollient) containing aluminum zirconium tetrachlorohydrate-gly as the active ingredient. Efficacy studies were not determined.

<u>Ingredients:</u>	<u>Wt%</u>
Cyclomethicone	48.5
Arlamol ISML, isosorbide monolaurate	10.0
Al Zr Tetrachlorohydrate-gly	20.0
Stearyl alcohol	16.0
Hydrogenated castor oil	5.0
Fragrance	0.5

SOURCE: ICI Americas: ARLAMOL ISML Suggested Formulations

Section II

Baby Products

Baby Cream**Concept Statement:**

A rich emollient cream containing ISL for moisturizing properties suitable for baby skin.

<u>Ingredients:</u>	Wt%
1. Rita EGMS (Glycol Stearate)	9.00
2. Stearic Acid	2.00
3. Mineral Oil	8.00
4. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	1.00
5. Ritalan (Lanolin Oil)	1.00
6. Rita CA (Cetyl Alcohol)	0.50
7. Propylparaben	0.10
8. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00
9. Distilled/Deionized Water	73.60
10. Propylene Glycol	1.50
11. TEA 50%	0.90
12. Methylparaben	0.20
13. Germall II	0.20

Compounding Procedure:

Combine items 1-8 and heat to 70C. Combine items 9-13 and heat to 70C. Add oil to water and mix until cool.

Formulation Ref. No. 123-10

Baby Shampoo**Concept Statement:**

A super mild shampoo for gentle cleaning. Makes hair soft, shiny and easy to comb.

<u>Ingredients:</u>	Wt%
1. Distilled/Deionized Water	55.90
2. Sodium Lauryl Sulfate (28%)	30.00
3. Lauramide DEA	5.00
4. Ritapeg 150 DS (PEG-150 Distearate)	2.00
5. Ritabate-20 (Polysorbate-20)	2.00
6. Ritapan DL (Panthenol)	0.50
7. Methylparaben	0.10
8. Sucrose Cocoate	3.00
9. Sodium Chloride (25%)	1.00
10. Patlac LA (Lactic Acid)	0.50

Compounding Procedure:

Heat item 1 to 70C. Add items 2 to 8, in order, bringing the temperature back to 70C after each addition and stir until clear. Cool to 40C. Add item 9. Add item 10 to adjust pH between 6.5-7.0.

Formulation Ref. No. 123-11

SOURCE: Rita Corp.: Suggested Formulations

Baby Hair Conditioner Formulation

Natrosol HEC provides a rich appearance to this product by raising the viscosity from less than 100 to 3,400 cps (mPas).

This crystal-clear conditioner provides gentle conditioning, detangles, and allows easy wet and dry combing.

<u>Ingredients:</u>	<u>Wt%</u>
Natrosol 250HHR CS	1.0
Water	74.1
Cetrimonium chloride (25%)	12.2
Lauramine oxide (30%)	10.2
Polyquaternium-17 (62%)	1.5
Propylene glycol	1.0
Perfume, preservative	q.s. to 100.0

Procedure:

1. Disperse Natrosol in water with good agitation. Mix until fully dissolved.
2. Add the remaining ingredients in the order listed, mixing well between additions. (Brookfield viscosity at 30 rpm, 25C=3,420 cps [mPas])

SOURCE: Aqualon Division, Hercules Inc.: Suggested Formulation

Baby Shampoo

Clear, 14.9% active ingredient

<u>Raw Materials:</u>	<u>Wt%</u>
A: Genapol LRO liquid (Sodium Laureth Sulfate)	15.00
B: Genapol AMG (Magnesium PEG-3 Cocamide Sulfate)	20.00
Fragrance	0.30
Water	48.60
Dyestuff solution	q.s.
Preservative	q.s.
Extrapon chamomile special	2.00
Gelita Sol C (Hydrolyzed Collagen)	1.00
Genagen CAB (Cocamidopropyl Betaine)	12.00
C: Genapol L-3 (Laureth-3)	1.10

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

SOURCE: Hoechst Aktiengesellschaft: Formulation B I/4036

Baby Lotion**Concept Statement:**

A light baby lotion combining the emollience of Ritalan, Ritachol and Ritawax, with Pationic ISL, for additional moisturization.

Ingredients:

	<u>Wt%</u>
1. Rita GMS (Glyceryl Stearate)	3.00
2. Pationic SSL (Sodium Stearoyl Lactylate)	2.00
3. Ritalan (Lanolin Oil)	3.00
4. Ritachol (Mineral Oil and Lanolin Alcohol)	10.00
5. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	1.00
6. Propylparaben	0.10
7. Pationic ISL (Sodium Isostearoyl Lactylate)	2.00
8. Distilled/Deionized Water	74.70
9. Propylene Glycol	4.00
10. Methylparaben	0.20
11. Germall II	0.20
12. Fragrance	0.20

Compounding Procedure:

Combine ingredients 1-7 and heat to 70C. Combine water with ingredients 9-11 and heat to 70C. Add oil phase and mix until cool. Add ingredients 12.

Formulation Ref. No. 123-18B

Baby Lotion**Concept Statement:**

A light baby lotion containing Ritalan and Ritawax for emollience and Pationic ISL for moisturization.

Ingredients:

	<u>Wt%</u>
1. Rita CA (Cetyl Alcohol)	2.00
2. Rita GMS (Glyceryl Stearate)	2.50
3. Pationic SSL (Sodium Stearoyl Lactylate)	0.75
4. Ritalan (Lanolin Oil)	3.00
5. Ritachol (Mineral Oil and Lanolin Alcohol)	6.00
6. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	1.00
7. Pationic ISL (Sodium Isostearoyl Lactylate)	0.50
8. Methylparaben	0.20
9. Propylparaben	0.10
10. Distilled/Deionized Water	79.55
11. Propylene Glycol	4.00
12. Germall II	0.20
13. Fragrance	0.20

Compounding Procedure:

Combine items 1-9 and heat to 80C. Combine items 10-12 and heat to 80C. Add oil to water and mix until uniform. Allow to cool and add item 13.

Formulation Ref. No. 123-24

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Baby Lotion**Concept Statement:**

A light baby lotion combining the emollience of Ritalan, Ritachol and Ritawax, with Ritavena-5, to give a soft skin feel.

<u>Ingredients:</u>	<u>Wt%</u>
1. Rita GMS (Glyceryl Stearate)	1.00
2. Mineral Oil	9.00
3. Stearic Acid	2.00
4. Ritalan (Lanolin Oil)	3.00
5. Ritachol (Mineral Oil and Lanolin Alcohol)	1.00
6. Ritawax ALA (Cetyl Acetate and Acetylated Lanolin Alcohol)	1.00
7. Propylparaben	0.10
8. Distilled/Deionized Water	74.70
9. Ritavena-5 (Hydrolyzed Oat Flour)	2.00
10. Propylene Glycol	4.00
11. TEA (50%)	1.60
12. Methylparaben	0.20
13. Germall II	0.20
14. Fragrance	0.20

Compounding Procedure:

Combine ingredients 1-7 and heat to 70C. Heat 30% of the water portion to 90C and mix with ingredient 9 in blender. Combine remaining 70% of the water with ingredients 10-13 and heat to 70C. Add Ritavena-5 mixture and mix until uniform. Add oil phase and mix until cool. Add ingredient 14.

Formulation Ref. No. 123-9

Diaper Rash Ointment**Concept Statement:**

A soothing ointment to reduce the irritation of rashes, combining the emollient properties of Lanolin, Rita IPP and Rita SSO.

<u>Ingredients:</u>	<u>Wt%</u>
1. Petrolatum	39.20
2. Lanolin USP, X-tra Deo	14.30
3. Rita IPP (Isopropyl Palmitate)	14.30
4. Rita SSO (Sunflower Seed Oil)	3.60
5. Zinc Oxide	28.60

Compounding Procedure:

Combine items 1-4 and heat to 65C. Slowly add item 5 while mixing. If necessary, use high shear mixing and mix until uniform.

Formulation Ref. No. 123-12

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Baby Shampoo

A liquid shampoo which has a low order of eye irritation can be made by carefully selecting the detergents. In the following baby shampoo, the combination of anionic and amphoteric surfactants with G-4280 produces a formula which should be mild, effective and esthetically appealing.

<u>Ingredients:</u>	<u>Wt%</u>
A G-4280	20.0
Sodium trideceth sulfate	12.0
Lauroamphodiacetate	5.0
Cocamidopropyl hydroxysultaine	2.5
Sodium laureth-13 carboxylate	2.0
Water	53.5
Preservative	q.s.
B PEG-150 distearate	5.0
C Citric acid	q.s.

Preparation:

Mix (A) with gentle stirring and heat until homogeneous. Heat to around 60C and add (B) and continue stirring. When clear, cool and adjust pH to 6.8 with (C). Replace water lost by evaporation.
Formula HC-5

Baby Shampoo

Tween 20 Polysorbate 20 has been used as an effective anti-irritant for shampoos.

<u>Ingredients:</u>	<u>Wt%</u>
A Tween 20 polysorbate 20	6.0
Cocoamphodiacetate	6.0
Sodium lauryl sulfate	3.0
Sodium laureth sulfate	3.0
PEG-150 distearate	4.0
Propylene glycol	3.0
Water	75.0
B Citric acid	q.s.

Preparation:

Mix (A) with gentle stirring and heat until homogeneous. Adjust pH to 5.0 to 5.5 with (B).
Formula HC-6

SOURCE: ICI Surfactants: Suggested Formulations

Baby Shampoo**Concept Statement:**

A gentle shampoo containing Ritataine B and Pationic ISL for mildness and moisturization.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	47.10
2. Sodium Lauroamphoacetate	15.00
3. Sodium Trideceth Sulfate	10.00
4. Sodium Laureth Sulfate	5.00
5. Ritataine B (Cocamidopropyl Betaine)	4.00
6. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
7. Ritapeg 150 DS (PEG-150 Distearate)	0.50
8. PEG-80 Sorbitan Laurate	15.00
9. Glydant	0.20
10. Fragrance	0.20
11. Citric Acid	q.s.

Compounding Procedure:

Combine items 1-8 and heat to 70C. Mix until uniform and allow to cool. Add items 9 and 10. Adjust pH with item 11 to 6.0-6.5.

Formulation Ref. No. 123-22

Pearlized Baby Bath**Concept Statement:**

A pearlized body wash designed to be gentle for baby care, combining the mildness of Pationic ISL and Ritataine B.

Ingredients:

	<u>%Wt</u>
1. Distilled/Deionized Water	58.80
2. Pationic ISL (Sodium Isostearoyl Lactylate)	3.00
3. Sodium Trideceth Sulfate (30%)	25.00
4. Ritataine B (Cocamidopropyl Betaine)	5.00
5. Pearlizing Agent	5.00
6. Ritamide C (Cocamide DEA)	3.00
7. Glydant	0.20

Compounding Procedure:

Heat item 1 to 70C. Add items 2-7 while mixing. Mix until uniform and allow to cool.

Formulation Ref. No. 123-14A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Crystal Clear Baby Shampoo

Sandopan LS-24 and Sandobet SC are mild, multi functional surfactants. Sandobet SC, a mild amphoteric, is compatible with all ionic classes. Sandobet LS-24 is very mild and additionally acts as a hydrotrope to aid in formula stability. Sandopan LS-24 eliminates latent clouding and sludging which can be caused by adverse storage conditions. Velsan D8P-3 is an emollient ester which adds body, control and conditioning.

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	60.8
Monamid 716	3.0
Standopol ES-50	11.7
Sandobet SC liquid	21.0
Sandopan LS-24 gel	0.5
Dow 193 Surfactant	1.0
Germaben II	1.0
Velsan D8P-3 liquid	1.0
Fragrance	qs

Procedure:

Charge first four ingredients to vessel. Heat with stirring to 62C. When melted and homogeneous, add water. Cool to room temperature with stirring. Adjust pH to 5.5 with citric acid. Add Germaben II and Velsan D8P3 separately with stirring. Mix until homogeneous.

Properties:

pH: 5.5-6.0
 Viscosity: 1100 cps
 % Solids: 18
 Ross Miles Foam Height: 195/188
 REF: CL29-41: CHS-25

Acid Balanced Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Ammonium Lauryl Ether Sulfate	13.30
Sandopan DTC acid	5.50
Cocoamidopropyl Betaine	15.60
Deionized Water	qs
Fragrance	qs
Potassium Hydroxide (10%)	qs

Procedure:

Heat Ammonium Lauryl Ether Sulfate and water to 50-55C and stir until solubilized. Pre-mix Sandopan DTC acid and the Cocoamidopropyl Betaine 50-55C then add to main mix. Cool to room temperature, adjust pH to 5.0 with Potassium Hydroxide. Add water to bring up to 100%.

REF: CD21-281-2F: CHS-21

SOURCE: Clariant Corp.: Suggested Formulations

W/O Baby Cream

Formula SK-14 is a water-in-oil zinc oxide cream which functions well as a protective product. The formula may be modified to include Vitamin A, Vitamin D, antihistamines, analgesics, cod liver oil or Peru Balsam to provide a diaper rash treatment. This cream is exceptionally stable and spreads easily on the skin. The combination of Sorbitol Solution, USP and Arlancel 186 Glyceryl Oleate in the ratio of 9:1 forms a unique gel base emulsification system. It provides a water-in-oil emulsion which leaves an unusually nongreasy, nontacky film on the skin surface and imparts a high degree of water-repellency.

W/O Baby Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Arlancel 186	3.0
Sorbitol Solution, USP	27.0
B Mineral oil	10.0
Beeswax	1.0
Ceresin wax	1.0
C Zinc Oxide, USP	20.0
D Water	38.0
Preservative	q.s.

Preparation:

(A) Add the Sorbitol Solution slowly to the Arlancel 186 with continuous agitation at room temperature. Add (B) to (A) and heat to 70C. Add (C) and mix to uniform dispersion. Heat (D) to 72C. Add (D) to (A, B, C) and mix until room temperature is reached. Replace water lost by evaporation. Mill to improve smoothness and shelf life.

A typical mineral oil-based baby lotion is illustrated by Formula SK-14

Baby Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Mineral oil	20.0
Cetyl alcohol	5.0
Silicone Fluid, 1000 cs	5.0
Arlancel 60 Sorbitan Stearate	2.5
Tween 60 Polysorbate 60	7.5
B Water	60.0
Preservative	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A). Stir until cool. Replace water lost by evaporation.
Formula SK-15

SOURCE: ICI Surfactants: Suggested Formulations

Section III
Bath and Shower Products

After Bath/Shower Milky Lotion

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	87.5
A	Monalac MPL	2.0
A	Monalac MO	2.5
A	Glycerin	2.0
B	Monalac ML	3.0
B	Cetearyl Alcohol	2.0
B	Oleyl Alcohol	1.0

Procedure:

Heat both parts separately to 70C. Add Part B to Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust the pH to 5.0-6.0 then fill.

Physical Properties:

Appearance: Milky lotion
Formulation F-697

After Bath/Shower Soft Milky Creme

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	75.0
A	Monalac MPL	4.0
A	Monalac MO	5.0
A	Glycerin	4.0
B	Monalac ML	6.0
B	Cetearyl Alcohol	4.0
B	Oleyl Alcohol	2.0

Procedure:

Heat both parts separately to 70C. Add Part B to Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust the pH to 5.0-6.0 then fill.

Formulation F-698

SOURCE: Mona Industries, Inc.: Suggested Formulations

After-Shower Milky Lotion

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	87.5
A	Monalac MPL	2.0
A	Monalac MO	2.5
A	Glycerin	2.0
B	Monalac ML	3.0
B	Cetearyl Alcohol	2.0
B	Oleyl Alcohol	1.0

Procedure:

Heat both parts separately to 70C. Add Part B to Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust pH to 5.0-6.0 then fill.

After-Shower Soft Milky Creme

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	75.0
A	Monalac MPL	4.0
A	Monalac MO	5.0
A	Glycerin	4.0
B	Monalac ML	6.0
B	Cetearyl Alcohol	4.0
B	Oleyl Alcohol	2.0

Procedure:

Heat both parts separately to 70C. Add Part B and Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust pH to 5.0-6.0 then fill.

After-Shower Flowable Milky Creme/Lotion

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	72.0
A	Monalac MPL	4.0
A	Monalac MO	5.0
A	Monaquat SL-5	3.0
A	Glycerin	4.0
B	Monalac ML	6.0
B	Cetearyl Alcohol	4.0
B	Oleyl Alcohol	2.0

Procedure:

Heat both parts separately to 70C. Add Part B and Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust pH to 5.0-6.0 then fill.

SOURCE: Mona Industries, Inc.: Formulation F-726

Bath Gel

A more complex surfactant system has been selected for this pearlescent bath gel to provide thorough, yet gentle cleansing. Glucamate DOE-120 is used to thicken the product to a gel like consistency. The incorporation of Polyox WSR N-3000 ensures good slip and lubricating properties and improves foam feel. Glucam E-10 functions as a humectant. The bath gel produces a rich, creamy foam which rinses easily while leaving a soft, emollient feel on the skin.

<u>Ingredients:</u>	<u>Wt%</u>
Texapon NSO (Sodium Laureth Sulfate)	9.00
Plantaren 2000 (Decyl Glucoside)	1.00
Texapon SB-3 (Disodium Laureth Sulfosuccinate)	1.00
Dehyton G (Disodium Cocoamphodiacetate)	2.50
Euperlan PK 3000-AM	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	1.00
Deionized Water	82.70
Polyox WSR N-3000 (PEG-14M)	0.05
Glucam E-10 (Methyl Gluceth-10)	1.00
Sodium Chloride	0.75
Preservative and Fragrance	q.s.

Disperse Glucamate DOE-120 in part of the water with moderate agitation and gentle heating (45-50C). Remove heat. Add the surfactants. Adjust pH. Separately disperse Polyox WSR N-3000 in Glucam E-10. Add water. Add this premix to the surfactant system. Add preservative and fragrance. Adjust pH. Package.

Viscosity: 7,900 cps (20C, LVT, 3, 12 rpm)

pH: 6.5

Formulation E941-131-28

Shower Gel for Sensitive Gel

This pearlescent shower gel is based on a mild cleansing system thickened synergistically by the combination of Glucamate DOE-120 and lauryl glucoside. This shower gel has low washing active solids (WAS) of 6.0%. Ucare Polymer LK has been selected to provide protective conditioning. Glucam E-20 is used for emollience and humectance. This low WAS shower gel is intended for sensitive or dry skin. It cleanses gently and provides a soft, conditioned feel to the skin.

<u>Ingredients:</u>	<u>Wt%</u>
Standapol ES-2 (Sodium Laureth Sulfate)	4.00
Plantaren 1200 (Lauryl Glucose)	10.00
Euperlan PK 3000-AM	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucoside Dioleate)	0.75
Deionized Water	83.15
Glucam E-20 (Methyl Gluceth-20)	1.00
Ucare Polymer LK (Polyquatarnium-10)	0.10
Preservative and Fragrance	q.s.

Disperse Ucare Polymer LK in water with moderate agitation and gentle heating to 50C. Add Glucamate DOE-120 and continue heating until the Glucamate DOE-120 has dissolved. Add the surfactants. Add Glucam E-20. Add preservative and fragrance. Adjust pH to 6.5. Package.

Formulation E942-021-15

SOURCE: Amerchol: Suggested Formulations

Bath Gel with Vitamin E Moisturizing Beads

This sparkling blue bath gel creates luxurious foam, and features gelatin beads which contain Vitamin E and mineral oil to moisturize and nourish the skin.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	45.93
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	1.20
3. Propylene Glycol	6.00
4. Sodium Hydroxide (18%)	0.40
5. Sodium Laureth Sulfate/Standapol ES-3	30.00
6. Propylene Glycol, Diazolidinyl Urea, Methylparaben, Propylparaben/Germaben II	1.00
Part B:	
7. Deionized Water	5.00
8. Benzophenone-4/Uvinul MS-40	0.02
9. Disodium EDTA	0.10
Part C:	
10. Sodium Hydroxide (18%)	2.40
11. Cocoamidopropyl Betaine/Incronam 3	4.00
12. Fragrance/J9262	0.60
13. Polysorbate 20/Tween 20	0.80
14. White Beads w/Vitamin E/Lipopearls	1.00
15. FD&C Blue #1 (0.1%)	0.05
16. D&C Green #5 (0.1%)	1.50

Properties:

Color, Odor, Appearance: Viscous, clear blue gel with beads
 pH: 6.6-6.8
 Viscosity (cP): 5,500-6,500
 Yield Value (dynes/cm²): 300-400
 Clarity (%T): 50-60

Preparation Procedure:

1. Disperse Carbopol ETD 2020 in warm (40C) deionized water using rapid agitation. Reduce mixing speed after polymer is dispersed.
2. Add Propylene Glycol and Sodium Hydroxide. Allow any air to escape before pre-neutralizing. Mix until uniform. Add remaining ingredients in Part A in order.
3. Pre-combine Part B ingredients. Heat water to dissolve. Add Part B to Part A.
4. Add remaining ingredients in order to batch. Precombine fragrance and Tween 20 before adding to batch. Mix until uniform.

SOURCE: B.F. Goodrich Co.: Formulation C0076

Bath and Shower Cleanser

This high-foaming mild cleanser formulation is highly substantive to the skin and will leave a silky talc-like after-feel.

<u>Ingredient:</u>	<u>Wt%</u>
Water	45.0
Sodium Laureth (1) Sulfate (25%)	35.0
Sodium Lauryl Sulfate (30%)	10.0
Monalac MPL	2.0
Monalac MO	2.0
Monalac MAB	5.0
Sodium Chloride	1.0

Adjust the pH to 6.0
 Appearance: Clear Viscous Liquid
 Solids (%): 16
 Viscosity at 25C: 7200 cP

Features:

Lather and foam enhancement
 Extra conditioning for skin and hair
 Excellent viscosity building properties
 Contributes gentle cleansing
 Low irritation potential
 Cationic at acidic pH

Facial Cleanser

This formulation provides gentle and thorough cleansing, while providing a soft, clean feel to the skin.

<u>Ingredient:</u>	<u>Wt%</u>
Water	55.0
Sodium Chloride	1.0
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MO	2.0
Monalac MAB	5.0
Monalac MPL	2.0

Adjust the pH to 6.0
 Appearance: Clear viscous liquid
 Viscosity at 25C: 7200 cP
 Solids (%): 14

Features:

Lather and foam enhancement
 Extra conditioning for skin and hair
 Excellent viscosity building properties
 Contributes gentle cleansing
 Low irritation potential
 Cationic at acidic pH

SOURCE: Mona Industries, Inc.: MONALAC Suggested Formulations

Bath and Shower Gel

A gentle foaming bath and shower gel designed to thoroughly deep cleanse and refresh the skin without disturbing the skin's natural moisture balance.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized water	26.596
Polyquaternium-10/Ucare Polymer JR-125	0.200
Citric Acid	0.100
Tetrasodium EDTA/Hamp-ene 220	0.100
Methyl paraben	0.150
Sodium PCA/Ajidew N-50	1.000
Part B:	
Sodium Laureth Sulfate/Carsonol SLES-2	45.000
TEA-Cocoyl Glutamate/Amisoft CT-12	15.000
Cocamidopropyl Betaine/Lonzaine C	7.500
PEG-150 Distearate/Kessco PEG-6000 Distearate	0.700
Lauramide DEA/Monamid 716	3.000
Part C:	
Lavender Oil/Lavender Fleurs 40/42	0.200
Ext. D&C Violet No. 2 (0.1% Solution)	0.200
D&C Red No. 33 (1.0% Solution)	0.004
Methylchloroisothiazolinone (and) Methylisothiazolinone/ Kathon CG	0.050
Part D:	
Sodium Chloride	0.200

Procedure:

Disperse Ucare Polymer JR-125 into rapidly agitating deionized water. Heat to 70C. Add remaining Part A ingredients. Mix until uniform. Add Part B ingredients in given order. Mix at 70C until completely homogeneous. Cool to 40C. Add Part C ingredients. Mix well. Add Part D in increments as needed to obtain the desired viscosity. Continue mixing and cooling to 35C. Appearance: Clear, lavender liquid

pH @ 25C: 5.50-6.00

Viscosity: 7,000-12,000 cps (RVT: #5 @ 10rpm @ 25C)

SOURCE: Ajinomoto U.S.A., Inc.: Formula #60-0404-A

Body Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
A) Ammonium Lauryl Sulfate (1) (28.0% active)	13.0
Cocoamidopropyl Betaine (2) (35.0% active)	5.7
Polyquaternium-7 (3) (0.8% active)	4.0
Arlatone MAP Concentrate (4)	4.0
Water	q.s.
B) Sodium Chloride	0.5
C) 50% Potassium Hydroxide	q.s. to pH 7.0
D) Germaben II	q.s.

Preparation:

- *Stir (A), at room temperature, until the mixture is uniform.
- *Add (B) to (A) with moderate stirring.
- *Adjust the pH with (C).
- *Add (D).

Features:

- *Lubricious lather
- *Excellent cleansing
- *Smooth after feel
- *Amide free, low actives system

- (1) Stepanol AM, (2) Tego Betain L-7, (3) Flocare C 107,
(4) C9-15 Alkyl Phosphate.

Formula CP 1234

Simple Bath Gel

<u>Ingredients:</u>	<u>Wt%</u>
A) Ammonium Lauryl Sulfate (1) (28.0% active)	28.5
Cocoamidopropyl Betaine (2) (35.0% active)	7.1
Arlatone MAP Concentrate (3)	2.5
Water	q.s.
B) Sodium Chloride	1.0
C) 50% Potassium Hydroxide	q.s. to pH 6.5
D) Germaben II	q.s.

Preparation:

- *Stir (A), at room temperature, until the mixture is uniform.
- *Add (B) to (A) with moderate stirring.
- *Adjust the pH with (C).
- *Add (D).

Features:

- *Excellent foam
- *Amide free, low actives system
- *Smooth after feel
- *Feels good during washing

- (1) Stepanol AM (Stepan), (2) Tego Betain L-7 (Goldschmidt),
(3) C9-15 Alkyl Phosphate.

Formula CP1229

SOURCE: ICI Surfactants: Suggested Formulations

Clear Milk-Based Bubble Bath

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MAB	30.0
A	Monateric COAB	20.0
A	Monalac MO	4.0
A	Monalac MPL	3.0
A	Deionized Water	28.0
A	Sodium Laureth (2) Sulfate (26%)	15.0

Procedure:

Add in the order listed. Mix Part B well before adding to Part A. Adjust the pH to 6.0-6.5 and add desired preservatives, fragrances, etc.

Physical Properties:

Appearance: Clear yellow liquid

Viscosity at 25C: 6,000 cps

Formulation F-695

Opacified Milk-Based Bubble Bath

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MAB	30.0
A	Monateric COAB	20.0
A	Monalac MO	4.0
A	Monalac MPL	3.0
A	Deionized Water	22.5
A	Sodium Chloride	1.0
A	Sodium Laureth (2) Sulfate (26%)	13.0
B	Deionized Water	5.0
B	Esi-Cryl 11 Styrene-Acrylic Copolymer	1.5

Procedure:

Add in the order listed. Mix Part B well before adding to Part A. Adjust the pH to 6.0-6.5 and add desired preservatives, fragrances, etc.

Physical Properties:

Appearance: Opaque ivory white liquid

Viscosity at 25C: 720 cps

Formulation F-696

SOURCE: Mona Industries, Inc.: Suggested Formulations

Clear Shower Gel

<u>Raw Materials:</u>	<u>Wt%</u>
Texapon NSO/Sodium Laureth Sulfate	36.0
Plantacare K 55/Lauryl Glucoside (and) Cocamidopropyl Betaine	11.0
Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	5.0
Gluidin W 40/Hydrolyzed Wheat Gluten Hydrolyzed Wheat Protein	2.0
NaCl	0.25
Aqua, preservative	45.75

pH value: 5.5

Viscosity mPas: 4160

WAS (%): 16.9

Preparation in the Laboratory:

Mix all ingredients at room temperature. Adjust the pH value, then adjust the viscosity with salt.

Formulation No.: 94/193/227

Shower Bath

<u>Raw Materials:</u>	<u>Wt%</u>
Texapon NSO/Sodium Laureth Sulfate	40.0
Dehyton K/Cocamidopropyl Betaine	3.5
Plantacare 1200 UP/Lauryl Glucoside	8.0
Lamesoft PW 45	10.0
Methocel E4M Premium EP/Hydroxypropyl Methylcellulose	0.5
NaCl	
Water	38.0
Preservatives	n.B.
Viscosity mPas: 6000	
pH value: 5.5	

Preparation in the Laboratory:

Of Methocel E4M Premium EP and Water has to be manufactured a clear swelling. Texapon NSO, Dehyton K, Plantacare 1200 and Lamesoft PW 45 will be stirred homogeneous one after the other. With citric acid the pH value will be focused at 5.5. The viscosity tuning takes place with NaCl.

Formulation No. 96/056/7

SOURCE: Henkel KGaA: Suggested Formulations

Cream Body Shampoo

This pearlescent white cream contains Jordapon CI-75 Flake and Avanel S-150 CGN for mildness and soft skin, while providing voluminous silky lather.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	58.9
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.1
B	Na4EDTA	0.2
	Triethanolamine, 50%	0.1
C	Sodium C12-15 Pareth-15 Sulfonate/Avanel S-150 CGN	2.3
	Sodium Cocoyl Isethionate (and) Stearic Acid/Jordapon CI-75	27.0
	Ammonium Laureth Sulfate/Alfonic 1412-A	7.0
	Glycol Stearate/Mapeg EGMS	0.5
	Methyl Paraben	0.2
	Sodium Sulfate	2.5
D	Imidazolidinyl Urea/Germall 115	0.2
	Deionized Water	2.0
E	Fragrance	0.5
	Citric Acid, 50%	Q.S.

pH: 6.3-6.8

Viscosity: 20,000 cps (Brookfield #3 @ 1.5 rpm)

Appearance: Viscous pearlescent lotion

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water at ambient temperature. With good propellor mixing, add the part B ingredients and agitate for at least 20 minutes to ensure complete hydration. Add the part C ingredients and heat to 65C. When uniform, cool to 40C and add part D (premixed). Add the fragrance and adjust the pH. The product is initially a nonviscous liquid which develops into a soft paste after standing at room temperature.

Formulation F-108

Powdered Bath Foam

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Sodium Sesquicarbonate/Crex	78.0
B	Cocamide DEA/Mazamide JT-128	2.0
	Glycerin	2.0
C	Fragrance	Q.S
	Dyes	Q.S.
D	Sodium Cocoyl Isethionate/Jordapon CI Powder	15.0
E	Maltodextrin/Maltrin M-100	3.0

Procedure:

Add part A to a ribbon blender or P-K V-blender. Premix part B ingredients, spray onto part A with agitation. Follow with the part C ingredients. Add the Jordapon CI Powder and maltodextrin, blend until uniform.

Formulation E-104

SOURCE: PPG Industries, Inc.: Suggested Formulations

Creamy Bath Oil

This unusual bath oil is an emulsion which blooms in the bath, releasing emollients throughout the water. The viscosity is low, yet the system is stable because of the blend of effective S-Maz and T-Maz emulsifiers.

Part:	Ingredient/Trade Name:	Wt%
A	Demineralized Water	41.19
	Na4EDTA	0.20
	Nonoxynol-9/Maco1 NP-9.5	0.01
	Magnesium Aluminum Silicate/Veegum HV	0.60
	Xanthan Gum/Kelzan	0.10
	Propylene Glycol	6.00
	Methyl Paraben	0.20
B	Petrolatum/Perlatum 410 CG	35.00
	Mineral Oil/Drakeol 9	2.00
	Sorbitan Stearate/S-Maz 60	2.00
	Polysorbate 60/T-Maz 60	4.00
	Polysorbate 80/T-Maz 80	3.00
C	Demineralized Water	5.00
	Triethanolamine	0.30
	Citric Acid	0.20
	Imidazolidinyl Urea/Germall 115	0.20

Procedure:

Mix part B ingredients in the main vessel, heating to 75-80C. In another vessel, blend the part A ingredients with good agitation. Predissolve the methyl paraben in the propylene glycol to speed this step. Warm part A to 75-80C and mix well for 30 minutes to ensure hydration of the Veegum and xanthan gum. With high shear mixing (e.g. a rotor-stator type), add part A to part B to form the emulsion. Maintain good mixing while cooling the batch to below 50C. Blend the Part C ingredients and add to the batch, adjusting the final pH to 6.0-6.5

Formulation G-104

Floating Bath Oil

A teaspoon of this oil spreads a thin film of emollients over the bath water, providing the skin with a very effective moisturizing treatment.

Part:	Ingredient/Trade Name:	Wt%
A	PPG-30 Cetyl Ether/Maco1 CA-30 P	15.0
	PEG-8 Dioleate/Mapeg 400 DO	1.0
	Isopropyl Palmitate/Propal	39.0
	Fragrance	1.0
	Dyes (oil soluble)	Q.S.
B	Mineral Oil/Drakeol 9	44.0

Appearance: Clear, water-white nonviscous oil

Procedure:

Blend the part A ingredients at room temperature. When uniform and clear, add the mineral oil and mix until uniform.

Formulation G-201

SOURCE: PPG Industries, Inc.: Suggested Formulations

Creamy Shower Gel

<u>Ingredients:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate	2.37
Water	52.28
Tetrasodium EDTA	0.10
Sodium Laureth Sulfate (28% 2M. E.O.)	25.00
Sodium Lauryl Sulfate (28%)	10.00
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.25
DATEM (Amilan GST 40)	2.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.00
Cocamidopropyl Betaine (Tego Betaine F 50)	5.00
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	2.00
Preservatives	Q.S.
Sodium Chloride	Adjust to desired viscosity
Citric Acid (10%)	Adjust to pH 5.5-6.0 if needed

Procedure:

1. Dissolve Sodium Cocoyl Isethionate in warm water at 60C.
2. Add Sodium Lauryl Sulfate, Sodium Laureth Sulfate.
3. Cool to 40C.
4. Add remaining ingredients in order as listed, stirring between each addition.
5. Cool to 30-35C. Add Tego Pearl N 100 and preservatives.
6. Adjust pH and viscosity.

Creamy "2 in 1" Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Glycol Distearate (Tegin EGS)	2.50
Myristic Acid	4.00
Jojoba Oil	5.00
Sodium Laureth Sulfate (28% 2M. E.O.)	45.00
Water	10.00
Phase B:	
Water	19.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.00
Phase C:	
Propylene Glycol (and) PEG-55 Propylene Glycol Oleate (Antil 141L)	2.50
Fragrance, Preservative, etc.	Q.S.
Phase D:	
Cocamidopropyl Betaine (Tego Betaine F 50)	10.00

Procedure:

1. Heat Phase A to approximately 70C while mixing (above the melting point of Tegin EGS).
2. Heat the ingredients of Phase B to the same temperature as Phase A.
3. Stir Phase B into Phase A. Cool to 40C.
4. Add Phase C. Mix well. Avoid air entrapment.
5. Add Phase D with stirring. Avoid air entrapment.

SOURCE: Goldschmidt Chemical Corp.: **Suggested Formulations**

Creme Body Wash with Emollients

This luxurious body wash is rich in foam and moisturizing, creating a smooth, elegant after feel to the skin. Its mildness is the result of surfactant selection and low salt level.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	49.59
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	0.80
3. Sodium Hydroxide (18%)	0.10
Part B:	
4. Deionized Water	10.00
5. Guar Hydroxypropyltrimonium Chloride/Hi-Care 1000	0.30
6. Disodium EDTA	0.05
Part C:	
7. Methyl Gluceth-20 Benzoate/Finsolv EMG-20	2.50
8. Tocopheryl Acetate/Vitamin E Acetate	0.20
9. Cetyl Alcohol	1.00
10. Dimethicone/Dow Corning 200 Fluid, 5000 cs	0.50
11. Sodium Laureth Sulfate (2 mole, 53%)/Standapol ES-250	15.00
12. Cocoamphoacetate (32%)/Miranol Ultra	8.50
13. Ammonium Cocoyl Isethionate (30%)/Jordapon ACI-30G	10.00
Part D:	
14. Phenoxyethanol, Methylparaben, Butylparaben, Ethylparaben, and Propylparaben/Phenonip	0.50
15. Fragrance/Bell Fragrance #J-7820, "Sporty"	0.50
16. D&C Violet #2 (1.0%)/Bell Fragrance #J-7820	0.06
17. Sodium Hydroxide (18%)	0.40

Properties:

Color, Odor, Appearance: Creamy, light lavender gel

Actives (%): 13.67

pH: 6.1-6.5

Viscosity (cP): 7,500-10,500

Yield Value (dynes/cm²): 200-400

Preparation Procedure:

- Part A: 1. Disperse Carbopol ETD 2020 in warm deionized water.
2. Reduce mixing speed, mix for 20 minutes. 3. Partially neutralize with NaOH (18%). 4. Mix 30 minutes or until uniform.
- Part B: 5. Disperse Hi-Care 1000 in a side vessel (NOTE: Polymer will not swell yet).
6. Add Disodium EDTA. When polymer swells, add Part B to Part A. (NOTE: Part B will become very thick if it is not added after swelling begins.) Mix until uniform.
- Part C: 7. Add 8% of Standapol and all of Jordapon to main batch. Mix slowly to avoid air entrapment.
8. In a side vessel, melt the following ingredients: Finsolv EMG, Vitamin E, Cetyl Alcohol, and Dimethicone at 75C.
9. Add 7% Standapol to melted oil phase, hold heat at 65C until uniform. Add Miranol Ultra to side oil phase, maintaining temperature.
10. Add side oil/surfactant phase to main batch. 11. Mix until uniform. Do not overmix. 12. Add the following ingredients in order with mixing: Phenonip, fragrance, and color.
13. Adjust pH with NaOH (18%) to 6.1-6.5.

SOURCE: B.F. Goodrich Co.: Formulation C0073

Economy Shower Gel

Designed for mildness and value, this basic body cleanser delivers a thick, rich lather. The Carbopol polymer prevents the silicone oil from creaming.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	65.016
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	0.90
3. Sodium Hydroxide (18%)	0.12
Part B:	
4. Deionized Water	8.00
5. Guar Hydroxypropyltrimonium Chloride/Hi-Care 1000	0.10
6. Disodium EDTA	0.05
Part C:	
7. Sodium Laureth Sulfate/Standapol ES-250	18.00
8. Cocoamphoacetate (32%)/Miranol Ultra	5.00
9. Dimethicone/Dow Corning 200 Fluid, 5000 cs	0.70
10. Phenoxyethanol, Methylparaben, Butylparaben, Ethylparaben and Propylparaben/Phenonip	0.50
11. Fragrance/Bell Fragrance #J-7820, "Sporty"	0.50
12. FD&C Yellow #5 (1.0%)	0.055
13. FD&C Blue #1 (1.0%)	0.009
14. Sodium Hydroxide (18%)	1.05

Properties:

Color, Odor, Appearance: Green gel
 Actives (%): 11.14
 pH: 6.1-6.5
 Viscosity (cP): 5,000-8,000
 Yield Value (dynes/cm²): 125-225
 Stability: Passes 28 days at 45C

Preparation Procedure:**Part A:**

1. Disperse Carbopol ETD 2020 in warm deionized water.
2. Reduce mixing speed, mix for 20 minutes.
3. Partially neutralize with NaOH (18%).
4. Mix 30 minutes or until uniform.

Part B:

5. Disperse Hi-Care 1000 in a side vessel (NOTE: Polymer will not swell yet).
6. Add Disodium EDTA. When polymer swells, add Part B to Part A. (NOTE: Part B will become very thick if it is not added after swelling begins.)

Part C:

7. Reduce mixing speed, add the following ingredients to batch in order with mixing: Standapol ES 250, Miranol Ultra. Mix until smooth.
8. Add the following ingredients in order with mixing: Dimethicone, Phenonip, fragrance, and color. ES250, Miranol Ultra. Mix until smooth.
9. Adjust pH with NaOH (18%) to 6.1-6.5.

SOURCE: B. F. Goodrich Co.: Formulation C0074

European Style Bath Gel

<u>Ingredients:</u>	<u>Wt%</u>
Water	54.9
Tetrasodium EDTA	0.1
Sodium Laureth Sulfate (28% 2M. E.O.)	25.0
Cocamidopropylamine Oxide (Aminoxid WS 35)	8.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.3
Jojoba Oil	0.2
PEG-20 Glyceryl Stearate (Tagat S2)	1.0
Citric Acid	to pH 6.0
Natural Extracts	0.5
Fragrance	Q.S.
Preservative	Q.S.
Color	Q.S.
Cocamidopropyl Betaine (Tego Betaine F)	9.0
Sodium Chloride (25% Solution)	Q.S.

Procedure:

1. Dissolve the Tetrasodium EDTA in the water.
2. Add ingredients in order, mixing between additions. Avoid air entrapment.
3. Slowly mix in the PEG-18 Glyceryl Oleate/Cocoate.
4. Add the Cocamidopropyl Betaine.
5. Adjust viscosity with the 25% solution of Sodium Chloride.

NOTE: For a pearlized formula substitute the following for part of the water:

Cocamidopropyl Betaine (and) Glycol Distearate (and)	
Cocamide MEA (and) Cocamide DEA (Tego Pearl B-48)	3.00%

Blooming Emollient Bath Oil

This is a quick blooming bath that will accept a high fragrance loading. The Dimethicone Copolyol and PEG-25 Glyceryl Trioleate contribute substantially to the emolliency and are major factors in blooming effect.

<u>Ingredients:</u>	<u>Wt%</u>
Dimethicone Copolyol (Abil B 8852)	10.00
PEG-25 Glyceryl Trioleate (Tagat T0)	13.00
Avocado Oil	20.00
Mineral Oil	40.00
Caprylic/Capric Triglycerides (Tegosoft CT)	10.00
Isopropyl Myristate (Tegosoft M)	7.00

Procedure:

Add the ingredients in order. Mix well between additions.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Exfoliating Body Scrub

This mild gently foaming body scrub includes jojoba beads to exfoliate and cleanse, leaving the skin feeling smoother.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	54.88
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	1.10
Triethanolamine (99%)	0.10
Disodium EDTA/Versene NA	0.05
Part B:	
Propylene Glycol	1.50
Diazolidinyl Urea, Propylene Glycol, Methylparaben, Propylparaben/Germaben II	1.20
Part C:	
Disodium Laureth Sulfosuccinate/Mackanate EL	13.00
Disodium Dimethicone Copolyol Sulfosuccinate/ Mackanate DC-30	5.00
Polysorbate 20/Tween 20	1.50
Cocamidopropyl Betaine/Incronam 30	3.00
Sodium Lauryl Ether Sulfate 1 (3 mole, 30%)/ Standapol ES-3	4.00
Part D:	
Triethanolamine (99%)	1.45
Fragrance/99411 Fruit Blend	0.22
Hydrogenated Jojoba Oil/Gypsy Rose Florabeeds	3.00

Properties:

Appearance: Bright red gel
 pH: 6.0-6.5
 Viscosity (cP): 7,200-8,200
 Yield Value (dynes/cm²): 300-350
 Clarity (%T): 50-60

Preparation Procedure:

1. Disperse Carbopol ETD 2020 polymer in deionized water and allow to hydrate.
2. Partially neutralize the dispersion with TEA in Part A; mix until homogeneous.
3. Add disodium EDTA and mix until homogeneous.
4. Combine ingredients in Part B, and add to Part A; mix until homogeneous.
5. Add the surfactants in Part C individually to Part A/B with slow continuous mixing.
6. Add the TEA in Part D to complete the neutralization; mix until homogeneous.
7. Add the remaining ingredients individually with continuous, slow mixing.

SOURCE: B.F. Goodrich Co.: Formulation C0063

Foaming Bath Oil

A mild and rich-foaming bath additive, ideal as a fragrance vehicle

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>	
A	Demineralized Water	58.7	
	Na4EDTA	0.2	
	Imidazolidinyl Urea/Germall 115	0.2	
	Ammonium Cocoyl Isethionate/Jordapon ACI-30G	13.3	
	Methyl Paraben	0.2	
	Ammonium Laureth Sulfate/Alfonic 1412-A	16.7	
	Cocamidopropyl Betaine/Mafo CAB	5.7	
	Cocamide DEA/Mazamide JT-128	2.0	
	B	PEG-7 Glyceryl Cocoate/Macol 159	3.0
		Fragrance	Q.S.
C	Citric Acid	Q.S.	
	Ammonium Chloride	Q.S.	

pH: 6.5-7.0

Appearance: Clear, straw-colored liquid

Procedure:

Add the part A ingredients in order to the main vessel, mixing until uniform. Premix the part B components and add to the main mix. When clear and uniform, adjust pH and viscosity with part C ingredients.

Formulation E-105

Foaming Bath Oil

An easily-fragranced soluble bath oil, which also provides foaming.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Demineralized Water	65.4
	Na4EDTA	0.2
	Imidazolidinyl Urea/Germall 115	0.2
	Ammonium Cocoyl Isethionate/Jordapon ACI-30 G	12.0
	Methyl Paraben	0.2
	Cocamidopropyl Amine Oxide/Mazox CAPA	2.0
	B	Polysorbate 20/T-Max 20
Fragrance		Q.S.
C	Citric Acid	Q.S.
	Ammonium Chloride	Q.S.

pH: 6.5-7.0

Appearance: Clear, straw-colored liquid

Procedure:

Add the part A ingredients in order to the main vessel, mixing until uniform. Premix the part B components and add to the main mix. When clear and uniform, adjust pH and viscosity with Part C ingredients.

Formulation E-106

SOURCE: PPG Industries, Inc.: Suggested Formulations

Gentle Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
Water	22.3
Monafax MAP-230	25.0
Sodium Laureth-2 Sulfate	38.5
Monateric CLV	13.2
Cerasynt IP	1.0

Procedure:

Blend in order listed, heat to 65C and mix sufficiently. Stir cool until pearl develops. Add fragrance, color, preservative, and package.

Appearance: White pearled liquid

pH: 7.5

Solids: 26%

Viscosity: 8,000 cp

Formulation F-678

Economical Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
Water	80
Monaterge 779	15
Monafax MAP-230	5

Procedure:

Blend in order listed at room temperature, adjust to pH 6.5-7.0, add fragrance, color, preservative and package.

Appearance: Clear liquid

Solids: 17%

Viscosity: 2,425 cp

Formulation F-679

Clear Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
Water	19.8
Ammonium Laureth (1) Sulfate (26%)	57.7
Monafax MAP-230	12.5
Plantaren 2000	10.0

Procedure:

Blend in order listed. Adjust pH to 6.5 with 50% citric acid. Add fragrance, color, preservative, and package.

Appearance: Clear viscous liquid

Viscosity: 12,500 cP

Solids: 25%

Formula F-681

SOURCE: Mona Industries, Inc.: Suggested Formulations

Low Cost Body Wash

A rich, high foaming, oil-free body wash which cleanses while leaving the skin with a soft smooth feel.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	68.45
1	Uniphen P-23	0.30
2	Keltrol/Xanthan Gum	0.25
3	Liponic EG-1/Glycereth-26	0.75
4	Lipo Stearic Acid	2.00
4	Lipopeg 4-S/PEG-8 Stearate	1.50
4	Lipocol L-4/Laureth-4	1.00
4	Liponate NPGC-2	1.00
4	Lipopeg 6000 DS/PEG-150 Distearate	0.50
5	Plantaren PS-100	20.00
5	Standamid LD/Lauramide DEA	3.00
6	Deionized Water	1.00
6	Unicide U-13/Imidazolidinyl Urea	0.25

Procedure:

1. Heat Sequence #1 to 78C on overhead mixer at medium/high speed.
2. Slowly add Sequence #2 to Sequence #1 with medium/high speed mixing until completely hydrated. Hold temperature at 78C.
3. Add Sequence #3 at medium/high speed.
4. Heat premixed Sequence #4 to 80C until clear and add to main batch at medium/high speed. Cool to 65C.
5. At 65C, add Sequence #5 ingredients in order of addition while mixing at medium/low speed. Cool to 35C.
6. At 35C, add premixed Sequence #6 at medium/low speed.

Specifications:

pH: 6.7+-0.2

Viscosity: LVT #4 @ 12 rpm = 23,750 +-10%

SOURCE: Lipo Chemicals Inc.: Formulation No. 977

Mild Bubble Bath

<u>Ingredients:</u>	<u>Wt%</u>
Bio-Terge AS-40	20.0
Alpha-Step MC-48	5.0
Ninol LMP	3.0
Tetrasodium EDTA	0.2
Citric acid	Q.S.
Sodium Chloride	Q.S.
D.I. water	Q.S. to 100.0

Mixing Procedure:

Heat water to 50-60C. Add first two components and EDTA, mixing well after each addition. Add LMP, mixing until clear. Cool to 25C. Adjust pH to 6.0-7.0 with Citric Acid. Add fragrance, dye and preservative as desired. Adjust to desired viscosity with Sodium Chloride.

Typical Properties:

Appearance: Clear, liquid
 Viscosity: 200 cps @ 1.5% sodium chloride
 1100 cps @ 2.0% sodium chloride

Comment:

Stable for 3 weeks at 42C, 2 months at 25C, and through 3 freeze/thaw cycles.

SOURCE: Stepan Co.: Formulation No. 583

After Bath Talc

<u>No.</u>	<u>Phase</u>	<u>Ingredient:</u>	<u>Wt%</u>
1	A	Talc	92.50
2	B	Perfume Oil	5.00
3	B	PPG-20 Methyl glucose ether	1.50
4	B	Oils of Aloha Macadamia Nut Oil	1.00

Manufacturing Procedure:

Phase A: Hold on side.

Phase B: Combine all ingredients and when uniform, blend into Phase A (talc.).

Here the Oils of Aloha Macadamia Nut Oil helps the talc spread and cuts down on the dry feeling of the skin. Leaves a nice smooth feel.

SOURCE: Oils of Aloha: Suggested Formulation

Milk Bath Gel

<u>Ingredients:</u>	<u>Wt%</u>
Water	42.6
Kelzan S	0.4
Sodium Laureth Sulfate (26%)	35.0
Sodium Lauryl Sulfate (28%)	10.0
Monalac MAB	5.0
Monalac MPL	2.0
Monalac MO	2.0
Sodium Chloride	1.0
Monalac ML	2.0

Procedure:

Blend ingredients in the order listed while heating to 60C. Stir cool to 40C, add fragrance, color and preservative as needed. Adjust pH to 6.0-6.5.

Appearance: White Lotion
Viscosity: 18,000 cP

Formulation F-690

Body Wash for Sensitive Skin

<u>Ingredients:</u>	<u>Wt%</u>
Monafax MAP 230	32.25
SLES (2) (26%)	49.50
Monateric CLV	17.00
Cerasynt IP	1.25

Procedure:

Blend ingredients; heat to 70C. Stir cool to 40C. Add fragrance, color and preservative as required.

Physical Properties:

Appearance: Pearled Lotion
Viscosity: 4,000 cP

Formulation F-692

SOURCE: Mona Industries, Inc.: Suggested Formulations

Milk Enriched Bath and Shower Cleanser (Clear)-B

<u>Raw Material:</u>	<u>Wt%</u>
Water	46.0
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MPL	2.0
Monalac MO	2.0
Monateric COAB	10.0
Monalac MAB	5.0

Procedure:

Add in the order listed and adjust pH to 6.0

Physical Properties:

Appearance: Clear liquid

Viscosity at 25C (cP): 96,000

Milk Enriched Bath and Shower Cleanser (Clear)-C

<u>Raw Material:</u>	<u>Wt%</u>
Water	45.0
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MPL	2.0
Monalac MO	2.0
Fragrance	1.0
Monateric COAB	10.0
Monalac MAB	5.0

Procedure:

Add in the order listed and adjust pH to 6.0

Physical Properties:

Appearance: Clear liquid

Viscosity at 25C (cP): 97,000

Milk Enriched Bath and Shower Cleanser (Clear)-D

<u>Raw Material:</u>	<u>Wt%</u>
Water	44.5
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MPL	2.0
Monalac MO	2.0
Sodium Chloride	0.5
Fragrance	1.0
Monateric COAB	10.0
Monateric MAB	5.0

Procedure:

Add in the order listed and adjust pH to 6.0

Physical Properties:

Appearance: Clear liquid

Viscosity at 25C (cP): 8,000

SOURCE: Mona Industries, Inc.: Formulation F-715

Milk Enriched Bath and Shower Cleanser (Clear)-E

<u>Raw Material:</u>	<u>Wt%</u>
Water	40.5
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MPL	2.0
Monalac MO	2.0
Sodium Chloride	0.5
Fragrance	1.0
Monateric COAB	10.0
Monalac MAB	5.0
Monasil PLN	4.0

Procedure:

Add in the order listed and adjust pH to 6.0

Physical Properties:

Clear liquid

Viscosity at 25C (cP): 5,600

Formulation F-715

Milk Enriched Bath and Shower Cleanser (Clear)

<u>Raw Material:</u>	<u>Wt%</u>
Water	44.5
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MPL	2.0
Monalac MO	2.0
Sodium Chloride	0.5
Fragrance	1.0
Monateric COAB	10.0
Monalac MAB	5.0

Procedure:

Add in the order listed and adjust pH to 6.5 to 7.5.

Physical Properties:

Appearance: Clear liquid

Viscosity at 25C (cP): 8,000 to 50,000 varies with pH & %
fragrance

Formulation F-718

SOURCE: Mona Industries, Inc.: Suggested Formulations

Milk Enriched Body Cleanser

This viscous high foaming formulation utilizes the foam stabilization, mild cleansing and conditioning properties of Monalac MO.

<u>Ingredient:</u>	<u>Wt%</u>
Water	22.0
Sodium Laureth (2) Sulfate (28%)	40.0
Sodium Lauryl Sulfate (30%)	25.0
Monalac MO	10.0
Monalac MPL	2.0
Sodium Chloride	1.0

Adjust the pH to 5.5.

Features of Monalac MO:

Lather and foam enhancement
 Extra conditioning for skin and hair
 Excellent viscosity building properties
 Contributes gentle cleansing
 Low irritation potential
 Cationic at acidic pH

Gel Conditioning Body Cleanser

This high foaming conditioning formulation provides gentle and thorough cleansing, while imparting a soft, smooth and clean after-feel.

<u>Ingredient:</u>	<u>Wt%</u>
Water	55.0
Sodium Chloride	1.0
Sodium Laureth (2) Sulfate (25%)	35.0
Monalac MAB	5.0
Monalac MPL	2.0
Monamid CMA	2.0

Adjust the pH to 6.0

Appearance: Clear viscous liquid

Viscosity at 25C: 51000 cP

Solids (%): 14

Features of Monalac MAB:

Effective conditioning to skin and hair
 Provides mild cleansing
 High foaming primary surfactant
 Excellent viscosity building properties
 Anti-irritant for anionics and cationics
 Compatible with all surfactant types

SOURCE: Mona Industries, Inc.: Suggested Formulations

Moisturizing Shower Lotion

This shower lotion is based on a mild cleansing system thickened by Glucamate DOE-120. Cremerol HMG and Glucam E-20 are incorporated for moisturization and humectance. Promulgen D provides creaminess. Ucare Polymer JR-30M is added for long-lasting conditioned skin feel.

<u>Ingredients:</u>	<u>Wt%</u>
Texapon NSO (Sodium Laureth Sulfate)	20.00
Dehyton K (Cocamidopropyl Betaine)	15.00
Ucare Polymer JR-30M (Polyquaternium-10)	0.10
Deionized Water	60.05
Promulgen D (Cetearyl Alcohol and Cetareth-20)	1.00
Glucam E-20 (Methyl Gluceth-20)	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	1.50
Cremerol HMG (Hydroxylated Milk Glycerides)	1.00
Timiron MP-1001 Supersheen (Mica and Titanium Dioxide)	0.35
Triethanolamine	q.s.
Preservative and Fragrance	q.s.

Procedure:

Heat half of the water to 75C and add Promulgen D. Disperse the Ucare Polymer JR-30M in the other half while heating to 45-50C. Add Glucamate DOE-120 and Cremerol HMG to the Ucare solution. Once a uniform solution has formed, add to the Promulgen solution with gentle agitation. Add remaining ingredients, mixing until uniform. Cool to 35C while stirring. Adjust pH to 6.5. Package.

Performance Data:

Viscosity: 23,500 cps (20C, LVT, 4, 12 rpm)
pH: 6.5

SOURCE: Amerchol: Formulation E931-063-5

Moisturizing Self-Emulsifying Bath Oil (With AHA-Ester)

<u>Raw Materials:</u>	<u>Wt%</u>
Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	13.00
Miglyol 812 (Caprylic/Capric Triglyceride)	18.00
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	25.00
Softisan 645 (Bis-Diglyceryl Polyacyladipate-1)	10.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	10.00
Mineral Oil	22.00
Aloe Vera Lipo Quinone Extract (Aloe Vera)	2.00
Color	q.s.
Fragrance	q.s.

Preparation:

All ingredients are mixed together and stirred until homogeneous.

SOURCE: Creanova Inc.: Formulation 5.2A (3)

Moisturizing Shower Lotion

This shower lotion is based on a mild cleansing system thickened by Glucamate DOE-120. Cremerol HMG and Glucam E-20 are incorporated for moisturization and humectance. Promulgen D provides creaminess. Ucare Polymer JR-30M is added for long-lasting conditioned skin feel.

Viscosity: 23,500 cps pH: 6.5

Ingredients:

	Wt%
Texapon NSO (Sodium Laureth Sulfate)	20.00
Dehyton K (Cocamidopropyl Betaine)	15.00
Ucare Polymer JR-30M (Polyquaternium-10)	0.10
Deionized Water	60.05
Promulgen D (Cetearyl Alcohol (and) Cetareth-20)	1.00
Glucam E-20 (Methyl Gluceth-20)	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	1.50
Cremerol HMG (Hydroxylated Milk Glycerides)	1.00
Timiron MP-1001 Supersheen (Mica (and) Titanium Dioxide)	0.35
Triethanolamine	q.s.
Fragrance and Preservative	q.s.

Procedure:

Heat half of the water to 75C and add Promulgen D. Disperse the Ucare Polymer JR-30M in the other half while heating to 45-50C. Add Glucamate DOE-120 and Cremerol HMG to the Ucare solution. Once a uniform solution has formed, add to the Promulgen solution with gentle agitation. Add remaining ingredients, mixing until uniform. Cool to 35C while stirring. Adjust pH to 6.5.

Note: Texapon NSO is 28% active, max. 0.6% salt; Dehyton K is 30% active, 4.5 to 5.5% salt.

Shower Gel with Low Washing Active Solids

Alkyl polyglucose functions as the primary surfactant in this shower gel which has low washing active solids (WAS). Ucare Polymer LK has been selected to provide protective conditioning. Glucam E-20 is used for emollience and humectance. This low WAS shower gel is intended for sensitive or dry skin. It cleanses gently and provides a soft, conditioned feel to skin.

Viscosity: 5,300 cps pH: 6.5

Ingredients:

	Wt%
Texapon NSO (Sodium Laureth Sulfate)	4.00
Plantaren 1200 (Lauryl Polyglucose)	10.00
Euperlan PK 3000-AM (Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine)	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	0.75
Deionized Water	83.15
Glucam E-20 (Methyl Gluceth-20)	1.00
Ucare Polymer LK (Polyquaternium-10)	0.10
Preservative and Fragrance	q.s.

Procedure:

Disperse Ucare Polymer LK in the water with gentle heating (45-50C). Add Glucam DOE-120. Stop heating. Add surfactants. Add Glucam E-20. Add preservative and fragrance. Adjust pH.

SOURCE: Amerchol: Formulations E931-063-5 & E942-021-15

Opacified Bath & Shower Liquid

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	40.0
A	Sodium Chloride	1.0
A	Sodium Lauryl Sulfate (30%)	10.0
A	Monalac MPL	2.0
A	Monalac MO	2.0
A	Sodium Laureth (2) Sulfate (26%)	35.0
A	Monalac MAB	5.0
B	Deionized Water	4.0
B	Esi-Cryl 11 Styrene-Acrylic Copolymer	1.0

Procedure:

Add in the order listed. Mix Part B well before adding to Part A. Adjust the pH to 6.0-6.5 and add desired preservatives, fragrances, etc.

Physical Properties:

Appearance: Opaque White Liquid
 Viscosity at 25C: 12,000 cps
 Formulation F-693

Opacified Bath & Shower Liquid Gel

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	30.0
A	Sodium Chloride	1.0
A	Sodium Lauryl Sulfate (30%)	20.0
A	Monalac MPL	2.0
A	Monalac MO	2.0
A	Sodium Laureth (2) Sulfate (26%)	35.0
A	Monalac MAB	5.0
B	Deionized Water	4.0
B	Esi-Cryl 11 Styrene-Acrylic Copolymer	1.0

Procedure:

Add in the order listed. Mix Part B well before adding to Part A. Adjust the pH to 6.0-6.5 and add desired preservatives, fragrances, etc.

Physical Properties:

Appearance: Opaque White Liquid Gel
 Viscosity at 25C: 80,000 cps
 Formulation F-694

SOURCE: Mona Industries, Inc.: Suggested Formulations

Pearlized Bath Salts
Yellow Green

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Coarse Salt Crystals	99.00
Mica (and) Titanium Dioxide/Timiron Super Green	0.999
FD&C Blue #1 Aluminum Lake C39-4433	0.001
Phase B:	
PVP/VA Copolymer/Luvisko1 VA641	0.40
Isopropanol	3.60
Fragrance	q.s.

Procedure:

Combine Phase A with gentle tumbling agitation. Combine Phase B. When homogeneous, spray onto Phase A with continuous tumbling agitation. Evaporate solvent via vacuum or tray drying.
Formula SD2-13-5

Pearlized Bath Salts
Sea Green

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Coarse Salt Crystals	99.00
Mica (and) Titanium Dioxide/Timiron Super Green	0.99
FD&C Blue #1 Aluminum Lake C39-4433	0.01
Phase B:	
PVP/VA Copolymer/Luvisko1 VA641	0.40
Isopropanol	3.60
Fragrance	q.s.

Procedure:

Combine Phase A with gentle tumbling agitation. Combine Phase B. When homogeneous, spray onto Phase A with continuous tumbling agitation. Evaporate solvent via vacuum or tray drying.
Formula SD2-13-4

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Shower and Bath Gel

<u>Ingredients:</u>	<u>Wt%</u>
A) Ammonium Lauryl Sulfate (1) (28.0% active)	28.5
Cocoamidopropyl Betaine (2) (35.0% active)	7.1
Polyquaternium-7 (3) (0.8% active)	4.0
Arlatone MAP Concentrate (4)	2.5
Water	q.s.
B) Sodium Chloride	0.5
C) 50% Potassium Hydroxide	q.s. to pH 7.0
D) Germaben II	q.s.

Preparation:

- *Stir (A), at room temperature, until the mixture is uniform.
- *Add (B) to (A) with moderate stirring.
- *Adjust the pH with (C).
- *Add (D).

Features:

- *Lubricious lather
- *Excellent cleansing
- *Smooth after feel
- *Amide free

(1) Stepanol AM (Stepan), Tego Betain L-7 (Goldschmidt), Flocare C107 (SNF Floerger), C9-15 Alkyl Phosphate

Viscosity: 11,100 cPs (Brookfield LVT, spindle 4, 30 rpm)

Stability: 21.0C (70F): 1 week
 35.0C (95F): 1 week
 46.0C (115F): 1 week

F/T: 4 freeze/thaw cycles.

SOURCE: ICI Surfactants: Formulation CP1233

Shower Gel

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CS-22	80.0
Cocamide DEA	5.0
Butylene glycol	3.0
Sodium benzedrine	0.2
Methyl paraben	0.2
Water	balance
B: Hydroxypropyl cellulose	1.2
C: Fragrance	q.s.

Procedure

Dissolve (A) at 70-80C with stirring. Cool (A) to 50-60C and disperse/dissolve (B) and (C) in (A). Cool to room temperature.

pH: 6.8

Viscosity: 3960 mPa.s at 25C

Formula CSB-02

Shower Gel

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CK-11	20.0
Tween-20	1.0
Cocamide DEA	3.0
1,3-Butylene glycol	4.0
KOH	1.4
Methylparaben	0.2
Water	balance
B: Hydroxypropyl cellulose	1.0

pH: 6.5

Viscosity: 1000 mPa.s

Procedure:

Dissolve (A) ingredients at 70-80C. Add (B) with stirring to (A) and cool down immediately. Cool to 30C.

Formula CK-B-003

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Shower Gel

This mild shower gel has good viscosity and foaming properties and leaves a velvety feel on the skin. Velsan P8-3 liquid is a water soluble emollient ester with a silky dry emolliency that is non-greasy. Sandopan DTC acid liquid is a multi-functional surfactant that can increase cationic deposition if a cationic conditioner is used. It also acts as a hydrotrope and performs well in hard water. Sandopan DTC acid liquid and Sandobet SC liquid are both very mild surfactants.

<u>Ingredients:</u>	<u>Wt%</u>
Standapol ES-3	46.40
Sandobet SC liquid	10.00
Sandopan DTC acid liquid	5.60
Lauramide DEA	3.30
Velsan P8-3 liquid	2.00
Glucamate DOE 120	1.70
Germaben II	1.00
Versene NA	0.10
Deionized Water	qs

Procedure:

Hydrate Glucamate DOE 120 and Versene NA in all of the Deionized water. In a separate vessel, add remaining ingredients in order. Combine the two phases and adjust pH to 6.0.

Properties:

pH: 6.0

Appearance: Clear, slightly yellow, viscous gel

Viscosity: 8,500 cps (Brookfield LVT viscometer, Spindle #3, 6 rpm)

Ref: CL30-3: CHS-52

Water White Shower Gel

Adds a velvety feel to the skin. This crystal clear shower gel has good viscosity and foaming characteristics.

<u>Ingredients:</u>	<u>Wt%</u>
Standapol ES-3	41.25
Sandopan DTC acid	10.00
Lauramide DEA	3.30
Velsan P8-3 liquid	2.00
Glucamate DOE-120	1.70
Germaben II	1.00
Versene NA	0.10
Fragrance	qs
Deionized Water	40.70 qs

Procedure:

Hydrate Glucamate DOE-120 and Versene NA in all of the Deionized Water. In a separate vessel, add the remaining ingredients in order mixing well after each addition. Combine the two phases and mix well. Adjust pH=6.0.

Properties:

pH: 6.0

Viscosity: 8500 cps

% Solids: 29

REF: CL30-3: CHS-51

SOURCE: Clariant Corp.: Suggested Formulations

2 in 1 Creamy Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
A) Arlatone DUO	20.0
Water	69.5
Xanthan Gum (1)	0.1
B) Water	5.0
Triethanolamine	0.6
C) Arlatone MAP Concentrate (2)	2.5
D) Dimethicone (3)	2.0
E) Quaternium-15 (4)	q.s.

Preparation:

*Heat water to 80-85C, disperse xanthan gum and the Arlatone DUO with moderate agitation while maintaining temperature above 80C.

*Heat and stir (B) to 80C.

*Add (C) to (B) slowly with good agitation maintaining 80C until clear.

*Add (B/C) at 50C to (A) at 50C with moderate stirring.

*Add (D) and (E) to (A/B/C) mixture below 40C with moderate stirring.

*Stir to room temperature and add any water lost due to evaporation.

Features:

*Feels good during washing

*Moisturizing after feel

*Excellent cleansing

(1) Keltrol (Kelco), C9-15 Alkyl Phosphate, (3) Dow Corning 200 Fluid (Dow Corning), (4) Dowicil 200 (Dow Corning)

SOURCE: ICI Surfactants: Formula CP1231

Section IV

Beauty Aids

AHA-Clarifying Face Mask**Formula Profile:**

Veegum F is used in this face mask. This formulation is for all skin types and takes advantage of the absorbing and cleansing properties of purified Bentonite. This formula contains humectants that will improve the residual skin feel. The surfactant aids in the rinsability of the dried mask.

Ingredients:

	<u>Wt%</u>
A: Water	44.75
Veegum F (Magnesium Aluminum Silicate)	7.0
B: Glycerin	5.0
Butylene Glycol	3.0
Vanclay (Kaolin)	20.0
Talc (Cosmetic Grade)	5.0
Vanseal NALS-30 (Sodium Lauroyl Sarcosinate)	5.0
C: Preservative	qs
D: Glycolic Acid	7.0
E: Fragrance	qs
F: Triethanolamine	3.25
Citric Acid	Adjust pH to 3.7+-0.2
	qs

Procedure:

- Step 1: Sift Veegum F into an established vortex in water. Veegum F will need approximately 60 minutes for hydration using a homogenizer or up to 3 hours using a prop mixer. Additional energy, such as an increase in mixing intensity or water temperature, will reduce hydration time. The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum F and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.
- Step 2: Add remaining water phase ingredients listed in Part B.
- Step 3: Add Part C-Preservative.
- Step 4: Add Part D-AHA-Glycolic Acid.
- Step 5: Add Part E-Fragrance.
- Step 6: Adjust pH to 3.7 with Part F.

Product Specifications:

Viscosity: Brookfield LVT DVII Spindle #TF @ 0.3 RPM: 1,000,000+-
100,000 cps

pH: 3.5-3.9

This formula produces a stable product that passes 3 month stability testing at RT, 5C, 38C, 50C and 3 cycle F/T.

SOURCE: R.T. Vanderbilt Co., Inc.; Formula No. 471

Aloe Vera Gel Moisturizer

This clear aloe vera gel, thickened with Carbopol ETD 2020, is an excellent gel for soothing sunburn and other skin irritations and may promote healing.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	88.20
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/Carbopol ETD 2020	0.80
DMDM Hydantoin/Glydant	0.30
Sodium Hydroxide (18%)	0.60
Part B:	
Deionized Water	5.00
Dimethicone Copolyol Wax/Silwax WS	1.00
Disodium EDTA/Versene NA	0.20
Aloe Vera Gel (40:1)/Aloe Vera Gel DC 40	2.50
Sodium Hydroxide (18%)	1.00
D&C Green No. 8 (1.0%)	0.20
D&C Green No. 5 (0.1%)	0.20

Properties:

Appearance: Thick, brilliant green gel
 pH: 7.0-7.5
 Viscosity (cP): 45,000-60,000
 Clarity (%T): 75-82

Preparation Procedure:**Part A:**

1. Disperse Carbopol ETD 2020 polymer in deionized water (20-50C). Mix until polymer is dispersed.
2. Add Glydant.
3. Partially neutralize Carbopol and water mixture with NaOH. Mix until smooth.

Part B:

1. In a side vessel, heat water to 50-55C, add Silwax WS (pre-melt). Mix until well dispersed.
2. Dissolve disodium EDTA in mixture.
3. Add aloe (40:1) to mixture.
4. Add NaOH (18%) to mixture.
5. When mixture is uniform, add Part B to Part A. Mix until uniform.
6. Add desired color.
7. Adjust final pH to 6.5-7.0 with sodium hydroxide (18%) for optimum clarity.

SOURCE: B.F. Goodrich Co.; Formulation C0062

Amphoteric Facial Cleanser

<u>Ingredients:</u>	<u>Wt%</u>
Water	85.95
Tetrasodium EDTA	0.10
Citric Acid (25% Solution)	to pH 6.0
Dimethicone Propyl-PG Betaine (Abil B 9950)	1.25
Caprylamido/Capramidopropyl Betaine (Tego Betaine 810)	7.50
Propylene Glycol	2.00
Butylene Glycol	2.00
PEG-7 Glyceryl Cocoate (Tegosoft GC)	0.75
Sodium Lactate (and) Sodium PCA (and) Glycine (and) Fructose (and) Urea (and) Niacinamide (and) Inositol (and) Sodium Benzoate (and) Lactic Acid (Lactil)	0.45
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.

Procedure:

Mix ingredients in order given.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

O/W-Moisturizing Milk

<u>Raw Materials:</u>	<u>Wt%</u>
A: Hostaphat KL 340 N (Trilaureth-4 Phosphate)	1.00
Hostacerin DGS (Polyglyceryl-2 PEG-4 Stearate)	4.00
Mineral oil, low viscosity	3.00
Cetiol V (Decyl Oleate)	4.00
Walnut oil	4.00
Isopropyl isostearate	4.00
Antioxidant	q.s.
B: Carbopol 980 (Carbomer)	0.30
C: Aquamollin BC pdr.h.c. (Ethylene Diamine Tetra-acetic Acid Sodium Salt)	0.10
Citric acid (10%)	0.25
Glycerin	3.00
Caustic soda solution (10%)	1.20
Water	69.85
Preservative	q.s.
D: Collagen KD	5.00
Fragrance	0.30

Procedure:

1. Melt A at ca. 70C, then add B.
2. Heat C to ca. 70C.
3. Stir 2 into 1 and stir until cool.
4. At ca. 35C add the components of D to 3.
5. Homogenize the emulsion.

SOURCE: Hoechst Aktiengesellschaft: Formula A VI/3015

Anhydrous Deep Penetrating Vitamin Gel**Formulating Design and Advantages:**

Light, smooth, and quick penetrating best describes this gel. Use of this gel will diminish the signs of aging by conditioning and treating the skin with anti-inflammatory agents. The activity comes from phytosterol and bioflavonides in Deodorized Orange Wax. This class of chemicals is also a strong anti-oxidant which will scavenge free radical thereby preventing potential premature aging.

Raw Materials:

	<u>Wt%</u>
Silicone Oil 556	56.0
Isopropyl Palmitate	5.0
Fitoderm-Vegetal Squalane	10.0
Hexanediol Behenyl Beeswax	14.0
Rice Bran Oil	2.0
Deodorized Orange Wax	10.0
Vitamin A Palmitate	0.5
Vitamin E	0.5
K80-D22	2.0

Procedure:

Melt and mix all components to 75C, cool to 60C and pour into container.

Adaptation of Formula and Its Influence on the Product:

Different oils may be used, the gel consistency can be regulated by changing the concentration of K80-D22 according to the desired result.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Gel with Thiosome (P)Raw Materials:

	<u>Wt%</u>
a) Hispagel 200	20.00
Keltrol, 1% aqueous solution	30.00
Water, distilled	40.70
Phenonip	0.30
Cetiol J 600	4.00
b) Thiosome (P)	5.00

Manufacture:

- a) Mix well at room temperature;
- b) Stir in.
 Perfume

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formula

Blackstar Eye Shadow

INCI Name/Trade Name:	Wt%
Phase A:	
Talc/Supra A	25.70
Lithium Stearate	2.50
Kaolin 2457	5.00
Calcium Silicate/Microcel E	0.50
Bismuth Oxychloride/Biron B-50	3.00
Methyl Paraben	0.20
Propyl Paraben	0.10

Phase B:	
Iron Oxides (and) Mica/Colorona Blackstar Colors	50.00

Phase C:	
Mineral Oil (and) Lanolin Alcohol/Amerchol L-101	11.00
Lanolin Alcohol/Super Hartolan	1.00
White Petrolatum	1.00

Procedure:

Combine Phase A. Pulverize with a hammer mill, passing twice through a 0.027" herring bone screen. Add Phase B with gentle agitation. Combine Phase C. Heat to 70C. Spray onto batch while agitating bulk. Pass entire batch through a jump gap, Formula AS1-3

Eye Shadow with Timiron MP-60, MP-65

INCI Name/Trade Name:	Wt%
Phase A:	
Talc/Supra A	24.10
Lithium Stearate	2.50
Kaolin 2457	5.00
Calcium Silicate/Microcel E	0.50
Bismuth Oxychloride (and) Carmine/Bicrona Carmine	2.00
Bismuth Oxychloride/Biron B-50	2.60
Methyl Paraben	0.20
Propyl Paraben	0.10

Phase B:	
Mica (and) Iron Oxides (and) Titanium Dioxide/Timiron MP-60, MP-65	50.00

Phase C:	
Mineral Oil (and) Lanolin Alcohol/Amerchol L-101	11.00
Lanolin Alcohol/Super Hartolan	1.00
White Petrolatum	1.00

Procedure:

Combine Phase A. Pulverize with a hammer mill, passing twice through a 0.027" herring bone screen. Add Phase B with gentle agitation. Combine Phase C. Heat to 70C. Spray onto batch while agitating bulk. Pass entire batch through a jump gap.

Formula AS1-5

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Body Mask With Liposilt Green

A non-drying body mask for skin cleansing and nourishment. The Liposilt Green is the source of nutrients which yields nourishment and leaves the skin with a smooth soft appearance.

<u>Seq:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	37.33
2	Keltrol/Xanthan Gum	0.12
2	Mineral Colloid BP/Montmorillonite	0.10
3	Uniphen P-23	0.60
3	Lipopeg 6000-DS/PEG-150 Distearate	0.05
4	Liposilt Green/Silt	30.00
5	Lipomulse 165/Glyceryl Stearate (and) PEG-100 Stearate	5.00
5	Lipo GMS-450/Glyceryl Stearate	3.00
5	Lipovol SES/Sesame Oil	15.00
6	Kaolin	7.50
7	Deionized Water	1.00
7	Unicide U-13/Imidazoliny Urea	0.30

Procedure:

1. Heat Sequence #1 to 78C using overhead mixer at medium speed.
2. Dry mix Sequence #2, add slowly to Sequence #1 and mix until completely hydrated. Maintain temperature at 78C.
3. Add Sequence #3 in order of addition to batch using overhead mixer at medium speed. Maintain temperature at 78C.
4. Add Sequence #4 to batch under homomixer. Hold temperature 78C.
5. Heat and melt at 80C Sequence #5 and add to batch on homomixer. Switch to sweep blade on overhead mixer and cool to 42C.
6. At 42C add Sequence #6 and mix until thoroughly dispersed. Cool to 35C.
7. At 35C add premixed Sequence #7 to batch and cool to 25C.

Specifications:

pH: 6.0+-0.2

Viscosity: T-D @ 3.0 rpm=36,000 cps+-10%

The enhancement of epidermal cell renewal in formulation has been confirmed.

SOURCE: Lipo Chemicals Inc.: Formulation No. 870

Cleansing Gel
(Wash off type)

<u>Raw Materials:</u>	<u>Wt%</u>
A: Emalex O.T.G.	56.4
Emalex CC-168	5.0
Emalex OD-25 JJ	16.0
Butyl paraben	0.2
 B: Glucam E-10	 4.0
Glycerin	1.7
Sorbitol (70% aq.)	9.0
Water	7.3
Methyl paraben	0.1
Colorant	q.s.
 C: Perfume	 0.3

Procedure:

Dissolve (A) and (B) up at 80C and add (B) to (A) gradually. Cool down the mixture with gentle stirring and add perfume at 50C. Cool down to below 45C with stirring.

Note:

This formula produces gel at 45-50C.

If water content reduces by evaporation during production, gel cannot be obtained. Prevent water evaporation or compensate water content in advance.

Formula A-390-18

Make up Remover
(wash off type)

<u>Raw Materials:</u>	<u>Wt%</u>
Acylglutamate CT-12	40.0
Acylglutamate CK-11	8.0
Acylglutamate CA	8.0
Squalane	21.0
Amiter LGOD-5	21.0
Sodium Chloride	1.5
Methyl paraben	0.2
Butyl paraben	0.1
Fragrance	0.2

Procedure:

Dissolve all ingredients (except fragrance) at 80C with stirring. Cool down with gentle stirring. Add fragrance at 40C and continue to cool to room temperature.

Formula No. MRJ-11

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Cleansing Oil

<u>Ingredients:</u>	<u>Wt%</u>
Macadamia Oil	10.0
Vegetable Oil (Panacete 810)	10.0
P.O.E. (30) Sorbitol Tetraoleate	13.0
Vitamin E	0.2
Perfume	q.s.
Mineral Oil-70	56.8

Milk Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A) P.O.E. Sorbitan Monostearate	2.0
Sorbitan Monostearate	1.0
Stearic Acid	2.0
Cetanol	0.25
Polysynlane	7.0
Macadamia Oil	3.0
Butyl Paraben	0.1
B) Glycerin	3.0
Xanthan Gum (2% sol)	10.0
Methyl Paraben	0.1
Dist. Water	71.55
C) Perfume	q.s.

Procedure of Milk Lotion:

1. Heat A and B, up to 80C.
2. Add B to A, and continue to mix until down to around 40C.
3. Add C.

Remarks:

P.O.E. = polyoxyethylene
q.s. = quantum sufficit

A typical prescription example of Polysynlane for cleansing oil and milk lotion. As a facial cleanser Polysynlane is more efficient than general cleansing creams on the market, leaving an appropriate oil base which helps soften the skin.

This milk lotion is designed for dry skin, but is available for normal skin by adjusting the contents of the base oil.

SOURCE: Polyester Corp.; Suggested Formulations

Clear Facial Cleansing Gel

A clear, mild, foaming facial cleanser designed to provide stable suspension of added abrasive articles. The Jordapon ACI-30G provides excellent foaming, gentle cleansing, and a soft, smooth afterfeel on the skin.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	50.00
	Nonoxynol-9/Macol NP-9.5	0.01
	Carbomer/Carbopol 1342	1.00
B	Deionized Water	20.00
	TEA Lauryl Sulfate/Stepanol WAT	3.50
	Methyl Paraben	0.15
	Imidazolidinyl Urea/Germall 115	0.15
	PEG-150 Distearate/Mapeg 6000 DS	0.50
C	Ammonium Cocoyl Isethionate/Jordapon ACI-30G	16.80
	Soyamide DEA/Mazamide SS-10	1.50
	Cocamide DEA/Mazamide JT-128	1.50
	Na4EDTA	0.10
D	Deionized Water	3.39
	Triethanolamine	1.40

pH: 6.3-6.8

Viscosity: Brookfield #4 @ 25C

(shear sensitive) very low shear: 166,000 cps @ 0.3 rpm
 low shear: 56,400 cps @ 1.5 rpm
 medium shear: 21,700 cps @ 6 rpm
 moderate shear: 7,620 cps @ 30 rpm

Appearance: Clear, viscous yellow liquid

Procedure:

Disperse the carbomer in the part A water plus Macol NP-9.5, stirring for about 20 minutes. In a separate vessel, premix the part B ingredients, heating to 65C to dissolve the Mapeg 6000 DS. Add part B to part A with good agitation. Add the part C ingredients in order. Premix the part D ingredients and add to adjust the pH and thicken the product.

SOURCE: PPG Industries, Inc.: Formulation K-107

Concealing Stick**Formulating Design and Advantages:**

This product covers fine facial lines and blemishes naturally, leaving a flexible barrier which also retains moisture and conditions the skin. Cera Bellina (Pg-3 Beeswax) is used as a pigment disperser which makes this formulation easier and thereby avoiding the expense of milling.

Raw Materials:

	<u>Wt%</u>
Phase A:	
Castor Oil	27.3
Petrolatum, White	22.0
Synthetic Candelilla	10.0
Isopropyl Palmitate	6.0
Carnauba Wax	5.0
Deodorized Orange Wax	5.0
Jojoba Wax	4.0
Paraffin Wax 130/135	1.5
Ozokerite 170	1.0
Squalane	1.0
Vitamin E	0.5
Phase B:	
Cera Bellina (Pg-3 Beeswax)	9.0
Titanium Dioxide	5.0
Cosmetic Tan Iron Oxide	1.5
Brown Iron Oxide	0.2
Phase C:	
Liquapar	1.0

Procedure:

Heat and mix Phase B till pigments are evenly dispersed. Weigh Phase A and individually add to Phase B while mixing. Heat A&B till homogeneous, add Phase C, cool and pour at 60C.

Adaptation of Formula and its Influence on the Product:

By reducing the wax concentration this product can be poured into a compact tray. Large variations can be made in wax and oil concentrations that are incorporated in stick products and still produce a similar finished product.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Creamy Liquid Make-Up

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Ceteareth-15 and Glyceryl Stearate (Tego Care 215)	2.20
Cetyl Alcohol (Tego Alkanol 16)	1.75
Stearoxy Dimethicone (Abil Wax 2434)	0.25
Octyl Stearate (Tegosoft OS)	3.00
Octyl Palmitate (Tegosoft OP)	3.00
Isoeicosane	5.00
Caprylic/Capric Triglyceride (Tegosoft CT)	5.00
Phase B:	
Water	60.60
Preservatives	Q.S.
Glycerin	1.00
Butylene Glycol	3.00
Phase C:	
Carbomer 941	0.20
Octyl Palmitate (Tegosoft OP)	0.80
Phase D:	
Titanium Dioxide	9.00
Mica	2.00
Talc	2.00
Iron Oxides	1.20
Phase E:	
Sodium Hydroxide (10%)	to pH 6.0
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C. Mix well.
2. Heat the ingredients of Phase B to 80C. Mix well to dissolve preservatives.
3. Add B to A or A to B with mixing. Cool to 60-65C.
4. Continue mixing. Add Phase C.
5. Homogenize.
6. While homogenizing, add pigments.
7. After homogenization, cool to 40-45C with sweep mixing.
8. Adjust pH. Fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Dark Beige Makeup with Tego Care 450

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	2.0
Almond Oil	2.0
Cyclomethicone	3.5
Cetyl Dimethicone (Abil Wax 9801)	1.0
Caprylic/Capric Triglycerides (Tegosoft CT)	4.0
Iron Oxides	1.5
Titanium Dioxide	6.0
Phase B:	
Glycerin	2.0
Water	76.6
Phase C:	
Carbomer 941	0.2
Isopropyl Palmitate (Tegosoft P)	0.8
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Preservative	Q.S.
Fragrance	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C. Disperse Iron Oxides and Titanium Dioxide into Phase A with sufficient agitation.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B with agitation.
4. Homogenize.
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize.
6. Cool to 35-40C with stirring.
7. Add Phase D/E. Stir.
8. Mix until viscosity profile is obtained.

Facial Cleaner and Toner

<u>Ingredients:</u>	<u>Wt%</u>
Water	83.40
Tetrasodium EDTA	0.10
Aloe	1.00
Allantoin	0.30
PEG-6 Caprylic/Capric Glycerides (Tegosoft GMC 6)	1.50
Caprylamido/Capramidopropyl Betaine (Tego Betaine 810)	3.70
Lactil	2.00
Organic Extracts	2.00
Propylene Glycol	1.00
SDA Alcohol 40	5.00
Preservatives	Q.S.
Color	Q.S.
Fragrance	Q.S.

Procedure:

Mix ingredients in order, mixing until clear.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Deep Extra Body Conditioner**Formulating Design and Advantages:**

This formula utilizes the gelling properties of the Hexanediol Behenyl Beeswax in a silicone oil and the conditioning effects of Bee's Milk.

<u>Raw Materials:</u>	<u>Wt%</u>
Oil Phase A:	
Emulsifying Wax NF	3.0
Silicone Oil 245	2.5
Silicone Oil 556	2.0
Hexanediol Behenyl Beeswax	1.0
Lecithin	1.0
Water Phase B:	
Carbopol 940 (2% solution)	10.0
Sodium Lauryl Sulfate	0.5
Triethanolamine	0.1
Cocamide	0.1
Silk Powder	0.1
Marine Dew	0.1
Silk Soluble Liquid	0.1
Water (Distilled)	68.3
Phase C:	
Bee's Milk	10.0
Germaben II	1.0
Fragrance	0.2

Procedure:

Mix and heat water phase to 70-75C. Melt oil phase and add to water phase at 70-75C under agitation. Continue mixing while cooling. At 45C add Phase C and pour into container at 35C.

Adaptation of Formula and its Influence on the Product:

Changes in the actives and the conditioners are straight forward, simple replacements. Gafquat's would be a class of conditioners would fit this formula well.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Emollient Liquid Make-Up**Formulating Design and Advantages:**

Conceals minor skin imperfections, yet moisturizes, giving skin a soft dewy finish. This product has tremendous endurance through very vigorous activities.

<u>Raw Materials:</u>	<u>Wt%</u>
Phase A:	
Xanthan Gum	0.33
Cellulose Gum	0.23
Water (Distilled)	50.55
Triethanolamine	0.70
PEG 1450	2.35
Methyl Paraben	0.28
Propylene Glycol	1.88
Polysorbate 60	0.47
Phase B:	
Titanium Dioxide	8.44
Brown Iron Oxide	2.35
Yellow BC Iron Oxides	0.94
Orange Wax	6.10
Cera Bellina	4.69
Phase C:	
Octyl Palmitate	6.57
Silicone 245	2.00
Isopropyl Palmitate	6.10
Hydrogenated Castor Oil	1.41
Isostearic Acid	1.50
Jojoba Oil	0.94
Propylene Glycol Stearate	1.89
Propyl Paraben	0.28

Procedure:

Disperse pigments in the Orange Wax and Cera Bellina in a beaker with a glass stirring rod, allow to solidify. Repeat so-as-to breakup visible agglomerations. Mix and heat to 75C Phase C until uniform, add to Phase B under agitation, maintaining the temperature till homogeneous. Add the mixed and melted Phase B and C to the mixed and melted Phase A. Continue mixing while cooling, pour into containers at approximately 50C.

Adaptation of Formula and its Influence on the Product:

Sunscreens, vegetable oils and branched oils can be substituted in minor amounts since products such as these are sensitive to small changes that will affect stability.

SOURCE: Koster Keunen Inc.: Suggested Formulations

Ester Based Lipstick

Ingredients:	Wt%
Phase A:	
Glyceryl Stearate (Tegin M)	40.00
Caprylic/Capric Triglycerides (Tegosoft CT)	3.00
Cetearyl Octanoate (Tegosoft Liquid)	3.00
Mineral Oil	4.00
Castor Oil	19.50
Cetyl Dimethicone (Abil Wax 9814)	0.50
Petrolatum	6.00
Carnauba	5.00
Ozokerite	2.00
Microcrystalline Wax	2.00
Phase B:	
Pigments in Castor Oil)	15.00
Castor Oil)	
Phase C:	
Antioxidants	Q.S.
Fragrance	Q.S.
Flavor	Q.S.

Procedure:

1. Melt together the ingredients of Phase A (80-90C). Mix until uniform.
2. Add the pigment grinds and the remaining Castor Oil.
3. Add Phase C.
4. Mold.

Sheer Liquid Foundation

Ingredients:	Wt%
Phase A:	
Iron Oxides (micronized/silicone treated)	1.60
Titanium Dioxide (micronized/silicone treated)	6.00
Talc (silicone treated)	4.00
Cyclomethicone	9.00
Cetearyl Octanoate (Tegosoft Liquid)	2.00
Polydecene	3.00
Phase B:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.80
Cyclomethicone	9.00
Phenyl Trimethicone (Abil AV 20)	1.00
Fragrance	Q.S.
Phase C:	
Propylene Glycol	6.00
Water	54.35
Sodium Chloride	1.25
Preservatives	Q.S.

Procedure:

1. Mix Phase A. Mill.
2. Mix Phase B. Add to Phase A.
3. Mix Phase C, add slowly to A/B.
4. Homogenize.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Eye Contour Balm**Formulating Design and Advantages:**

This product is designed to reduce the signs of aging and fatigue around the eyes. The product's activity comes from Barley Beta Glucan which helps promote the healing of skin through the reduction of irritation. Deodorized Orange Wax moisturizes and protects the skin from the sun due to the strong antioxidant properties.

Raw Materials:

	<u>Wt%</u>
<u>Oil Phase:</u>	
Oyster Nut Oil	2.0
Siliconyl Beeswax	5.0
Rice Bran Oil	2.0
Safflower Oil	6.0
Deodorized Orange Wax	2.0
Isostearic Acid	1.5
Isopropyl Palmitate	1.0
Vitamin E	0.5
Isostearic Acid	2.5
Cetylstearyl Alcohol	1.5
Squalane	1.0
Isopropyl Palmitate	2.0
Hydroxy Polyester	1.2
Liquapar	0.4
<u>Water Phase:</u>	
Water (Deionized)	76.1
Allantoin	1.0
Magnesium Aluminum Silicate	1.2
Sodium Borate	0.8
Methyl Paraben	1.2
Xanthan Gum	1.2
Barley 1-3 Beta Glucan 70%	0.2

Procedure:

Weigh out ingredients for Water Phase. Heat to 80C while mixing vigorously (without adding air). Heat Oil Phase to 80C while mixing. Add Oil Phase to Water Phase under rapid agitation. Cool to room temperature.

Adaptation of Formula and its Influence on the Product:

Natural preservatives may be substituted for the synthetics in the formula. Different oils may be substituted.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Eye Cream

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
H2O	79.80
Carbopol 934	0.35
Phase B:	
Product SE-100 (Glyceryl Stearate & PEG-100 Stearate)	3.00
Petrolatum	3.50
Super Hartolan	2.40
Lanolin	2.00
Hest CSO (Cetearyl Octanoate)	1.70
Hest IS-2-O (Isoceteareth-2 Octanoate)	1.40
Hest L-2-O (Laureth-2 Octanoate)	1.40
Cocoa Butter	1.70
Phase C:	
H2O, Deionized	1.00
TEA 99%	0.75
Phase D:	
Germaben II E	1.00

Specifications:

pH: 7.50

Visc. #4/12: 40,000 cps

Procedure:

1. In a stainless steel kettle, disperse Carbopol 934 into H2O using a lightnin' type mixer.
2. When completely dispersed and free of lumps, heat to 75C while mixing.
3. In a separate kettle, combine Phase B and heat to 75C while mixing.
4. At 75C, add Phase B to Phase A. Mix until uniform.
5. Add premixed Phase C. Mix well.
6. Cool to below 40C and add Phase D.

SOURCE: Heterene, Inc.: Formulation HC94-147

Facial Scrub

No.	Phase:	Ingredient:	Wt%
1	A	Carbomer	15.00
2	A	Deionized water	57.75
3	A	Propylene glycol	2.50
4	A	Aloe vera gel	0.25
5	B	Cyclomethicone	5.00
6	B	Oils of Aloha Macadamia Nut Oil	2.50
7	B	Stearic Acid XXX	3.50
8	B	Emulsifier	1.00
9	B	Isopropyl myristate	10.00
10	C	Triethanolamine 99%	1.00
11	D	Polyethylene AC-9A	1.50
12	E	Preservative	QS

Manufacturing Procedure:

Phase A: Disperse Carbopol into water while heating to 75C.
Add Propylene glycol and Aloe vera gel.

Phase B: Heat oil phase to 75C. Add to water phase.

Phase C: Add Triethanolamine to oil/water mixture. Cool to 40C.

Phase D: Add Polyethylene AC-9A.

Phase E: Add preservative.

Carbomer is the suspending agent. This scrub is designed for people with oily skin and needs to have a drying effect. Uses two very dry emollients-cyclomethicone and isopropyl myristate. They leave a dry feeling skin. The Oils of Aloha Macadamia Nut Oil leaves the skin with a fresh, moist afterfeel. Kukui nut oil would also work very well in this formula.

SOURCE: Oils of Aloha: Suggested Formulation

Clear Facial Cleanser

Moderately priced formula. Very mild facial cleanser that conditions the skin while it cleans.

Viscosity: 600 to 1100 cps pH: 6.0

Ingredients:

	Wt%
Deionized Water	65.12
Sodium Cocoyl Isethionate (80% active)	2.50
Ammonium Lauryl Sulfate (33% active)	13.32
Cocamidopropyl Betaine (35% active)	14.29
Ucare Polymer LR-400 (Polyquaternium-10)	0.10
Sodium Xylenesulfonate (40% active)	1.25
Ucon 50-HB-660 (PPG-12-Buteth-16)	0.02
Glucam E-10 (Methyl Gluceth-10)	1.00
Glucquat 125 (Lauryl Methyl Gluceth-10 Hydroxypropyl Dimonium Chloride)	2.00
DMDM Hydantoin	0.40

Procedure:

Add the sodium xylenesulfonate to the water with stirring. Continue stirring while sprinkling in the Ucare Polymer LR-400. Once the polymer is completely dispersed, heat to 70C. When the polymer is hydrated, add the sodium cocoyl isethionate, cocamidopropyl betaine and ammonium lauryl sulfate, in that order, waiting for each to dissolve before adding the next. Once uniform, add the remaining ingredients one at a time in the order shown. Allow to cool to at least 40C, then add preservative.

SOURCE: Amerchol: Formulation T82-267-5

Facial Wash with Salicylic Acid

<u>Ingredients:</u>	<u>Wt%</u>
Water	44.0
Sodium C14-16 Olefin Sulfonate	40.0
Monalac MAB	10.0
Phospholipid GLA	2.0
Sodium Chloride	2.0
Salicylic Acid	2.0

Adjust pH to 3.0-3.5
 Viscosity 13,500 cps
 Clear Viscous Fluid

Procedure:

Add first three ingredients with mild heat. Sequentially, blend in remaining ingredients, then add fragrance, color and package.

Formulation F-685

Milk Enriched Facial Cleanser (Clear)

<u>Raw Material:</u>	<u>Wt%</u>
Water	55.00
Sodium Laureth (2) Sulfate (25%)	35.00
Monalac MPL	2.00
Monalac MO	2.00
Sodium Chloride	1.00
Fragrance	qs
Monalac MAB	5.00

Procedure:

Add in the order listed and adjust pH to 6.5 to 7.5.

Physical Properties:

Appearance: Clear Liquid
 Viscosity at 25C (cP): 5,000 to 10,000 varies with pH

Formulation F-723

SOURCE: Mona Industries, Inc.: Suggested Formulations

Foaming Facial Cleanser

<u>Raw Materials:</u>	<u>Wt%</u>
Amisoft CT-12S (30%)	33.0
Cocamide DEA (Amisol CDE)	2.0
Butylene Glycol	5.0
PEG-40 Hydrogenated Castor Oil PCA Isostearate (Pyroter CPI-40)	2.0
Ajidew N-50 (50%)	1.0
Methyl paraben	0.2
Sodium benzoate	0.2
Water	qs

1. All ingredients dissolve at 70-80C with stirring.
2. Cool down to 30C.

pH: 5.5

Viscosity: 6.1 mPa-s (B type\No. 1\30 rpm\30 sec.\25C)
Formula SP-01

Skin Tonic

<u>Raw Materials:</u>	<u>Wt%</u>
Ajidew N-50	3.0
Allantoin	0.1
L-Serine	0.5
Dipotassium Glycyrrhizinate	0.1
Butylene glycol	2.0
Methyl paraben	0.05
Ethanol	8.0
Water	86.25

Procedure:

Dissolve the above ingredients except ethanol at 70-80C and cool down to 50C. Add ethanol to the solution and cool down to room temperature.

Formula No. L-100

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Glistening Body Cologne

This formula is a soft, shimmering fragrance lotion with Velsan D8P-3 liquid which leaves the skin luxuriously soft.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Isopropyl Palmitate	4.00
Stearic Acid	1.00
Mineral Oil	2.00
Velsan D8P-3 (1)(Isopropyl PPG-2 Isodeceth-7 Carboxylate)	3.00
Glyceryl Monostearate	1.50
Propyl Paraben	0.10
Timica (2) (Mica and Titanium Dioxide)	3.00
Phase B:	
Deionized Water	74.65
Glycerin	5.00
Carbopol 941 (3) (Carbomer-941)	0.25
Triethanolamine 99%	1.00
Dow Corning 200 Fluid (4) (Dimethicone)	2.00
Dimethicone Copolyol	0.20
Phase C:	
Fragrance	2.50
Dye	qs

Procedure:

Heat Phase A to 77C. Separately heat Phase B to 77C. Add Phase A to Phase B. Cool with stirring to 45C. Add Phase C, continue cooling and stirring to 40C.

Appearance: White pearly lotion

pH: 7.0+-0.3

Viscosity: 3300+-500 cps

Notes:

(1) Clariant Corp.

(2) Mearl Corp.

(3) BF Goodrich

(4) Dow Corning

SOURCE: Clariant Corp.: Technical Bulletin CMP-09/Ref: CL15-19C

Light Face Fluid with Emulgade PL 68/50

<u>Component:</u>	<u>Wt%</u>
I Emulgade PL 68/50/Cetearyl Glucoside (and) Cetearyl Alcohol	2.7
Monomuls 60-35C/Hydrogenated Palm Glycerides	1.6
Cetiol J 600/Oleyl Erucate	3.0
Myritol 331/Cocoglycerides	4.0
Cetiol OE/Dicaprylyl Ether	2.0
Baysilon M 350/Dimethicone	0.5
Copherol 1250/Tocopheryl Acetate	1.0
II Glycerin 86%	3.0
Carbopol 5984/Carbomer	0.05
KOH 5%	0.2
III Water	79.95
Preservative/Perfume	q.s.
Viscosity mPas: 15,600	

Preparation in the Laboratory:

Heat phase I to 80C. Heat phase II to 80C and add the oil phase while stirring. Allow the emulsion to cool with stirring. The stirring rate must be selected in such a way that the emulsion is kept in continual motion without developing a so-called "stirring cone". Add the 2% Carbopol swelling at 50C. Neutralization at 40C. Add preservative and perfume at room temperature.

Formulation No.: 96/164/4

Facial Cleansing Gel with Gluadin WQ

<u>Component:</u>	<u>Wt%</u>
Plantacare PS 10/Sodium Laureth Sulfate (and) Lauryl Glucoside	12.0
Gluadin WQ/Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein	2.0
NaCl	2.0
Water	84.0
Preservative/Perfume	q.s.

pH-Value: 5.6

WAS: 8.0

Viscosity Brookfield mPas, RVT, 20C, Rotor 4, 10 rpm: 6,000

Preparation in the Laboratory:

Mix ingredients at room temperature

Hint: Kind and amount of perfume may influence the viscosity of the product.

Formulation No.: 94/138/40

SOURCE: Henkel KGaA: Suggested Formulations

Lipcare

<u>Component:</u>	<u>Wt%</u>
I Myritol 318/Caprylic/Capric Triglyceride	14.0
Myritol PC/Propylene Glycol Dicaprylate Dicaprate	6.5
Ultra Lanrol HP 2074/Lanolin Oil	2.7
IPP/Isopropyl Palmitate	13.0
Candelilla Cera	7.0
Lunacera M/Microcrystalline wax	2.7
Carnauba Cera	1.0
Cera Alba	4.3
Lanolin	7.5
Monomuls 60-35C/Hydrogenated Palm Glycerides	3.7
Controx KS	0.05
Hombitec L5/Titanium dioxide	5.4
Ricinus communis/Castor oil	22.15
II Hydagen CMF/Chitosan Glycolate	10.0

Preparation in the Laboratory:

1. Melt the components listed under I at 80-85C and stir until the pigments are completely incorporated. Homogenize once with a triple roll press and heat up again to 80-85C. 2. Add the ingredients of phase II one after the other and stir for 5 minutes at 80C. Pass mixture twice more through the triple roll press and melt again at approx. 80C. 3. For a pearl-shine lipstick add the pearler and stir until homogeneous. 4. Cast with stirring into the moulds. Allow to cool down to approx. 30C and keep in the refrigerator over night.

Formulation No.: 94/056/146

Lipstick

<u>Component:</u>	<u>Wt%</u>
I Myritol 318/Caprylic/Capric Triglyceride	14.0
Myritol PC/Propylene Glycol Dicaprylate/Dicaprate	6.0
Eutanol G/Octyldodecanol	17.0
Candelilla Wax	5.0
Carnauba Wax	7.0
Bienenwachs 8100	5.0
Dehymuls PGPH/Polyglyceryl-2 Dipolyhydroxystearate	4.0
Monomuls 90 L 12/Glyceryl Laurate	3.0
Castor oil	18.0
Color pigments	q.s.
II Hydagen CMF/Chitosan Glycolate	10.0
Copherol F1300/Tocopherol	2.0

Preparation in the Laboratory:

1. Melt the components listed under I at 80C and stir until homogeneous. 2. Add components listed under II at room temperature. Stir for 5 minutes at 80C. 3. Homogenise twice with a triple roll press and heat up again to 80C. 4. Add phase III. Stir until homogeneous and immediately pour the formulation hot in the form and allow them to cool down over night.

Formulation No. 94/056/181

SOURCE: Henkel KGaA: Suggested Formulations

Liposome Emulsion

This light, milky white emulsion contains liposomes that deliver Evening Primrose Oil, which are rich in gamma-linolenic acid and provide excellent moisturizing and softening benefits.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Pemulen TR-1	0.25
Carbomer/Carbopol Ultrez 10	0.20
Octyl Stearate/Cetiol 868	8.00
Mineral Oil	10.00
Part B:	
Deionized Water	75.55
Glycerin	2.00
Part C:	
Sodium Hydroxide (18%)	0.50
Part D:	
Phenoxyethanol (and) Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben/Phenonip	0.50
Lecithin (and) Evening Primrose Oil/Brooksme EPO	3.00

Properties:

pH: 6.2-6.6

Viscosity (cP): 11,000-14,000

Appearance: Milky-white emulsion

Preparation Procedure:

1. Combine the ingredients of Part A in the container that will hold the final product. Mix the ingredients well to disperse the polymers.
2. Combine the ingredients of Part B and mix until homogeneous.
3. Add 3/4 of Part B to Part A slowly with strong mixing. Mix for about 15 minutes to swell the polymers.
4. When the emulsion is smooth and white, add part of the sodium hydroxide and bring the pH to about 7.0. Continue mixing until smooth and uniform.
5. Slowly add the remainder of Part B with moderate mixing.
6. Add remaining sodium hydroxide.
7. Add the preservative and mix until uniform. Add the liposomes using slow agitation to avoid rupturing liposomes. Mix until uniform.

SOURCE: B.F. Goodrich Co.: Formula P0050

Lipstick**Formulating Design and Advantages:**

This red lipstick has a creamy texture and is long wearing. The lipstick is very stable, although it has a high oil concentration. Cera Bellina allows for high coloration without large pigment load and imparts a satin like feel to the lips.

Raw Materials:

	Wt%
1. Cera Bellina (Pg-3 Beeswax)	16.70
2. Candelilla	3.10
3. Ozokerite 160/164	4.20
4. Carnauba #1 Yellow	1.20
5. Castor Oil	45.70
6. Paraffin Oil	16.30
7. Isopropyl Palmitate	6.20
8. Jojoba Oil	1.00
9. Vitamin E	0.50
10. D&C Red #7	4.00
11. Escalol 507	0.75
12. Titanium Dioxide	0.25
13. Propyl Paraben	0.10

Procedure:

Add 1, 10, and 13 into a vessel large enough that will allow the other components to be added after the Cera Bellina (Pg-3 Beeswax) and pigments have been melted (75C) and mixed together with the intention of breaking down as many of the visible agglomerations. After the visible agglomerations have been separated add 2, 3 and 4 to the dispersion while mixing. Increase the temperature slightly if needed to melt the carnauba. Then the remainder of the components can be added and mixed at a temperature of 70C. After the product is homogeneous, use a shear mixer at low speed for 45 to 60 minutes, maintaining a similar temperature.

Adaptation of Formula and its Influence on the Product:

Other oils natural or synthetic can easily be substituted to meet the formulator's needs, cost, availability, etc. without significantly changing the characteristics. Higher melting points can easily be achieved with only slight alterations in wax concentration. Biologically active compounds are easily incorporated into the formulas. Depending on the desired color and the blend of pigments used, there will be a need for small ingredient concentration changes in the formula due to the pigment's effect on the gelling properties of the mixture.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Lipstick

<u>Component:</u>	<u>Wt%</u>
I. Myritol 318 Caprylic/Capric Triglyceride	14.0
Myritol PC Propylene Glycol Dicaprylate/Dicaprate	6.0
Eutanol G Octyldodecanol	17.0
Candelilla Cera	7.0
Carnauba Cera	5.5
Cera Alba	6.5
Generol 122 N Soya Sterol	2.5
Dehymuls PGPH Polyglyceryl-2 Dipolyhydroxystearate	4.0
Monomuls 90 L 12 Hydrogenated Palm Glycerides	3.0
Ricinus communis Castor oil	18.0
Color pigments	q.s.
II. Hydagen CMF Chitosan Glycolate	10.0
III. Copherol F 1300 Tocopherol	2.0

Preparation in the Laboratory:

1. Melt the components listed under I at 80-85C and stir until the pigments are completely incorporated. Homogenise once with a triple roll press and heat up again to 80-85C. 2. Add the ingredients of phase II one after the other and stir for 5 minutes at 80C. Pass mixture twice more through the triple roll press and melt again at approx. 80C. 3. For a pearl-shine lipstick add the pearliser and stir until homogeneous. 4. Cast with stirring into the moulds. Allow to cool down to approx. 30C and keep in the refrigerator over night.

Formulation No.: 94/056/178

Lipstick

<u>Component:</u>	<u>Wt%</u>
I. Myritol 318 Caprylic/Capric Triglyceride	14.0
Myritol PC Propylene Glycol Dicaprylate/Dicaprate	6.0
Eutanol G Octyldodecanol	17.0
Candelilla Cera	5.5
Carnauba Cera	7.0
Bienenwachs 8100 Cera Alba	6.5
Generol 122 N Soya Sterol	2.5
Dehymuls PGPH Polyglyceryl-2 Dipolyhydroxystearate	4.0
Monomuls 90 L 12 Hydrogenated Palm Glycerides	3.0
Castor oil	18.0
Color pigments	q.s.
II Hydagen CMF Chitosan Glycolate	10.0
III Copherol F 1300 Tocopherol	2.0

Preparation in the Laboratory:

1. Melt the components listed under I. at 80-85C and stir until the pigments are completely incorporated. Homogenise once with a triple roll press and heat up again to 80-85C. 2. Add the ingredients of phase II one after the other and stir for 5 minutes at 80C. Pass mixture twice more through the triple roll press and melt again at approx. 80C. 3. For a pearl-shine lipstick add the pearliser and stir until homogeneous. 4. Cast with stirring into the moulds. Allow to cool down to approx. 30C and keep in the refrigerator overnight.

Formulation No.: 94/056/179

SOURCE: Henkel KGaA: Suggested Formulations

Lipstick

<u>Raw Materials:</u>	<u>Wt%</u>
A: Castor oil	30.0
D&C Red #7	3.0
Amihope LL	1.0
Mica	12.0
TiO ₂	4.0
B: Castor oil	22.4
Candelilla	5.7
Carnauba	1.8
Cerecin	4.0
Myritol 318	9.0
Mineral oil	2.0
Propylparaben	0.1
Eldew CL-301	5.0

Procedure:

Mix (A) pigments with Amihope LL in a high speed mixer for several minutes, then disperse the treated pigments in castor oil with triple roll mill.

Dissolve all (B) ingredients with heating and add to (A) in triple roll mill. Mold and cool down.

Formula LP-205

Lipstick

<u>Ingredients:</u>	<u>Wt%</u>
A: Castor oil	55.0
Candelilla wax	4.8
Carnauba wax	2.0
Ozokerite	4.0
Caprylic/capric triglyceride	15.0
Eldew CL-301	5.0
B: Mica	7.4
Yellow iron oxide	2.2
D&C Red #7	3.0
Amihope LL	1.6

Procedure:

Mix (A) ingredients at 80C. Mix (B) ingredients in a turbo mixer until a fine & homogeneous dispersion is obtained. Add (B) to (A) and mix until uniform, then pour into molds.

Features:

Eldew CL-301 improves spreadability, gloss and vividness of colors in lipsticks.

Formula LP-203

SOURCE: Ajinomoto U.S.A., Inc.: Eldew CL-301 Applications

Lipstick with Miglyol Gel

<u>Raw Materials:</u>	<u>Wt%</u>
A) Miglyol Gel B (Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate)	10.00
Dynacerin 660 (Oleyl Erucate)	5.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	10.00
Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	6.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	6.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5.00
Lanolin Oil	10.00
Beeswax	7.00
Candelilla Wax	8.00
B) Rewopal PIB 1000 (Polyisobutene)	22.00
Lanolin Wax	10.00
Sodium Stearate	1.00
Antioxidants	q.s.
C) Color	10.00
Fragrance	0.50

Preparation:

(A) is melted and stirred until homogeneous. (B) is melted and added to (A). (C) is added, and the mass is poured into molds.

Formulation 2.2B(1)

Creamy Lipstick Base (With AHA-Ester)

<u>Raw Materials:</u>	<u>Wt%</u>
Imwitor 370 (Glyceryl Cocoate/Citrate/Lactate)	5.00
Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	8.00
Softisan 100 (Hydrogenated Coco-Glycerides)	28.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	15.00
Dynacerin 660 (Oleyl Erucate)	12.00
Castor Oil	15.00
Beeswax/Carnauba Wax	17.00
Antioxidants	q.s.

Preparation:

All ingredients are melted together at about 75 degrees C.

Formulation 2.2R

SOURCE: Creanova Inc.: Suggested Formulations

Lip Stick with Softisan Gel

<u>Raw Materials:</u>	<u>Wt%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacyladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	4.50
Dynacerin 660 (Oleyl Erucate)	2.50
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	5.50
Softisan 100 (Hydrogenated Cocoglycerides)	27.00
Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
White Soft Paraffin	9.00
Hard Paraffin	14.00
Beeswax	10.50
B) Color	10.00
Fragrance	1.00

Preparation:

(A) is melted and stirred until homogeneous. (B) is added, and it is poured into molds.

Formulation 2.2M(2)

Lip Care Stick with SPF ca.6

<u>Raw Materials:</u>	<u>Wt%</u>
A) Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	11.00
Softisan 649 (Bis-Diglyceryl Polyacyladipate-2)	4.00
Beeswax	9.00
Candelilla Wax	4.00
Paraffin Oil	2.00
Castor Oil	56.00
Sachtotec LA 10 (Zinc Oxide)	6.00
Eusolex 6007 (octyl Dimethyl PABA)	4.00
Timiron Silk Red (Mica (and) Titanium Dioxide)	7.00
B) Fragrance	q.s.
Antioxidants	q.s.

Preparation:

(A) is heated up to 80 degrees C, and stirred until homogeneous. (B) is added, and the mass is poured into molds.

Formulation 2.2Q

SOURCE: Creanova Inc.: Suggested Formulations

Lipstick with Timiron MP-60, MP-65

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Castor Oil	7.00
D&C Red #7 Calcium Lake/C19-011 Rubine Lake	1.50
D&C Red #6 Barium Lake (and) Rosin/C19-022 Light Rubine Lake	1.50
Phase B:	
Castor Oil	33.70
Candellila Wax	5.70
Carnauba Wax	1.80
Ozokerite Wax #77W	1.50
Microcrystalline Wax #214	3.00
Caprylic/Capric Triglyceride/Myritol 318	16.00
Mineral Oil 90 SUS/Blandol	2.00
Octyldodecyl Stearoyl Stearate/Ceraphyl 847	5.00
Octyl Dodecanol/Eutanol G	5.00
Hydroxylated Lanolin/OHlan	1.00
Methyl Paraben	0.20
Propyl Paraben	0.10
Phase C:	
Mica (and) Iron Oxides (and) Titanium Dioxide/ Timiron MP-60, MP-65	15.00

Procedure:

Combine Phase A. Stir with a high intensity mixer until homogeneous. Pass across a three roll mill until agglomerates are reduced to less than 25 um. Combine Phase B. Heat to 80-85C with Lightnin' mixer agitation, stirring until clear. Add Phase A. Add Phase C, maintaining agitation until dispersed. Pour into ambient temperature molds at 72-74C.

Formula AS1-9

Blackstar Lipstick

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Castor Oil	39.40
Candellila Wax	6.30
Carnauba Wax	2.00
Ozokerite Wax #77W	1.80
Microcrystalline Wax #214	3.30
Caprylic/Capric Triglyceride/Myritol 318	17.70
Mineral Oil 90 SUS/Blandol	2.20
Octyldodecyl Stearoyl Stearate/Ceraphyl 847	5.55
Octyldodecanol/Eutanol G	5.55
Hydroxylated Lanolin/OHlan	1.10
Methyl Paraben	0.20
Propyl Paraben	0.10
Phase B:	
Iron Oxides and Mica/Colorona Blackstar Colors	15.00

Procedure:

Combine Phase A. Heat to 80-85C with Lightnin' mixer agitation, stirring until clear. Add Phase B, maintaining agitation until dispersed. Pour into ambient temperature molds at 72-74C.

Formula AS1-7

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Liquid Crystal Make-Up

<u>Ingredients:</u>	<u>Wt%</u>
A) Water	58.70
Arlatone 2121, Sorbitan Stearate (and) Sucrose	
Cocoate	2.50
Glycerin	4.00
B) Ultrafine Titanium Dioxide, Titanium Dioxide	12.00
Yellow Iron Oxide, Iron Oxide	2.00
Red Iron Oxide, Iron Oxide	0.40
Black Iron Oxide, Iron Oxide	0.25
C) Xanthan Gum	0.15
D) Arlamol S7, Cyclomethicone (and) PPG-15 Stearyl Ether	20.00
E) Preservative, Quaternium-15	Q.S.

Preparation Method:

- 1) Heat and stir (A) to 80C.
- 2) Blend (B) well at room temperature.
- 3) Slowly add (B) at RT to (A) at 80C with good agitation.
- 4) When the temperature of (AB) drops to 75C, add (C) with moderate stirring.
- 5) When (ABC) is uniform, add (D) to (ABC) and homogenize for a few minutes (until temperature drops to 65C).
- 6) Return to propeller stirring and continue stirring until temperature drops to 45C. At this point add (E) and any water lost due to evaporation. Switch to sweep type agitation and stir to room temperature.

Formula CP1207

Water-in-Oil Make-up

<u>Ingredients:</u>	<u>Wt%</u>
A) Arlancel P135, PEG-30 Dipolyhydroxystearate	2.00
Arlamol S7, Cyclomethicone (and) PPG-15 Stearyl Ether	6.00
Arlamol HD, Isohexadecane	12.00
B) Atlas G-2330, Sorbeth-30	4.00
MgSO4-7H2O, Magnesium Sulfate	0.70
Water	60.65
C) Ultrafine Titanium Dioxide, Titanium Dioxide	12.00
Yellow Iron Oxide, Iron Oxide	2.00
Black Iron Oxide, Iron Oxide	0.25
Red Iron Oxide, Iron Oxide	0.40
D) Preservative, Quaternium-15	Q.S.

Preparation Method:

- 1) Heat and stir (A) to 75C.
- 2) Heat and stir (B) to 85C.
- 3) Blend (C) well at room temperature.
- 4) Slowly add (B) to (A) with good agitation.
- 5) After (A) & (B) are mixed begin adding (C) at room temperature to (AB) using propeller agitation.
- 6) Homogenize (ABC) for a few minutes and then switch back to sweep type agitation and stir to room temperature. Add (D) to (ABC) at any temperature below 50C.

Formula CP1208

SOURCE: ICI Surfactants: Suggested Formulations

Liquid Foundation with Extender W

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	48.92
Hydroxylated Lecithin/Alcolec Z-3	0.10
Phase B:	
Mica (and) Titanium Dioxide/Extender W	4.84
Mica/Mica MRP	4.61
Mica (and) Red Iron Oxide/Transparent Red	2.40
Mica (and) Iron Oxides/Transparent Yellow Ochre	1.90
Mica (and) Black Iron Oxide/Transparent Black	0.25
Phase C:	
Propylene Glycol	4.00
Magnesium Aluminum Silicate/Veegum	1.00
Phase D:	
Propylene Glycol	4.00
Cellulose Gum/CMC 7H3SF	0.15
Phase E:	
Deionized Water	5.00
Triethanolamine 99%	1.00
Phase F:	
Sucrose Cocoate/Crodesta SL40	1.50
Methyl Paraben	0.20
Disodium EDTA	0.05
Phase G:	
Propylene Glycol Dicaprylate Dicaprate/Edenol 302	10.00
Isostearyl Stearoyl Stearate/Hetester ISS	2.00
Sorbitan Monolaurate/Arlacel 20	2.50
Cetyl Alcohol	1.25
Stearic Acid	1.50
Oleic Acid	0.50
BHA	0.05
Propyl Paraben	0.10
Phase H:	
DMDM Hydantoin 55%/Glydant	0.18
Deionized Water	2.00

Procedure:

Water Phase: Combine the ingredients of Phase A. Mix until homogeneous. Add Phase B, homogenizing until no undispersed pigment remains. Combine and add Phase C. Homogenize and heat to 90C for 15 minutes. Cool to 75C. Combine and add Phase D and Phase E, maintaining homogenizer agitation until no undispersed particles remain. Add Phase F.

Oil Phase: Combine the ingredients of Phase G separately from the water phase. Heat to 75-80C with propeller agitation until homogeneous.

Emulsification: Add oil phase to water phase with homogenizer agitation. Maintain temperature and homogenization for 15 minutes. Cool to 45C with moderate agitation. Combine and add Phase H. Cool to 30C.

SOURCE: Rona/EM Industries, Inc.: Formula EM3-39-1

Liquid Foundation with Low Lustre Pigment

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	52.92
Hydroxylated Lecithin/Alcolec Z-3	0.10
Phase B:	
Low Lustre Pigment/Rona	10.00
Phase C:	
Propylene Glycol	4.00
Magnesium Aluminum Silicate/Veegum	1.00
Phase D:	
Propylene Glycol	4.00
Cellulose Gum/CMC 7H3SF	0.15
Phase E:	
Deionized Water	5.00
Triethanolamine 99%	1.00
Phase F:	
Sucrose Cocoate/Crodesta SL40	1.50
Methyl Paraben	0.20
Disodium EDTA	0.05
Phase G:	
Propylene Glycol Dicaprylate Dicaprate/Edenol 302	10.00
Isostearyl Stearoyl Stearate/Hetester ISS	2.00
Sorbitan Monolaurate/Arlace1 20	2.50
Cetyl Alcohol	1.25
Stearic Acid	1.50
Oleic Acid	0.50
BHA	0.05
Propyl Paraben	0.10
Phase H:	
DMDM Hydantoin 55%/Glydant	0.18
Deionized Water	2.00

Procedure:

Water Phase: Combine the ingredients of Phase A. Mix until homogeneous. Add Phase B, homogenizing until no undispersed pigment remains. Combine and add Phase C. Homogenize and heat to 90C for 15 minutes. Cool to 75C. Combine and add Phase D and Phase E, maintaining homogenizer agitation until no undispersed particles remain. Add Phase F.

Oil Phase: Combine the ingredients of Phase G separately from the water phase. Heat to 75-80C with propeller agitation until homogeneous.

Emulsification: Add oil phase to water phase with homogenizer agitation. Maintain temperature and homogenization for 15 minutes. Cool to 45C with moderate agitation. Combine and add Phase H. Cool to 30C.

SOURCE: Rona/EM Industries, Inc.: Formula EM3-21-4

Liquid Makeup Formulation-2

<u>Ingredients:</u>	<u>Wt%</u>
MAS Type IA	1.00
Deionized Water	53.00
Triethanolamine	0.75
Glycereth-26	10.50
Pigment Blend	5.29
Isopropyl Isostearate	9.06
Mineral Oil (and) Lanolin Alcohol	6.50
Isopropyl Palmitate	4.00
Isopropyl Myristate	2.50
Hydrogenated Soy Glyceride	2.10
Stearic Acid	1.60
Diocetyl Adipate (and) Octyl Stearate (and) Octyl Palmitate	2.10
Cocoyl Sarcosine	1.00
Lithium Stearate	0.10
Preservative	0.50

Brookfield Viscosity @ 12 rpm, cps:

After Aging 1 Day: 2000
 After Aging 1 Week: 1300
 After Aging 4 Weeks: 1200

Yield Value, Dynes/Sq. Cm.: 90

Formula pH:

After Aging 1 Day: 6.1
 After Aging 1 Week: 6.2
 After Aging 4 Weeks: 6.2

Stability Observations:

After Aging 1 Week @ Room Temp.: OK
 After Aging 4 Weeks @ Room Temp.: OK

After Aging 1 Week @ 6C: OK
 After Aging 4 Weeks @ 6C: OK

After Aging 1 Week @ 38C: OK
 After Aging 4 Weeks @ 38C: OK

After Aging 1 Week @ 50C: OK
 After Aging 4 Weeks @ 50C: Separation

SOURCE: R.T. Vanderbilt Co., Inc.: Suggested Formulations

Long Lasting Lipstick

<u>Component:</u>	<u>Wt%</u>
I. Myritol 318 Caprylic/Capric Triglyceride	13.0
Myritol PC Propylene Glycol Dicaprylate Dicaprate	6.0
Ultra Lantrol HP 2074 Lanolin Oil	2.5
IPP Isopropyl Palmitate	12.0
Candelilla Cera	6.5
Lunacera M Microcrystalline Wax	2.5
Carnauba Cera	1.0
Cera Alba	4.0
Lanolin	7.0
Antaron WP 660	1.0
Generol 122N Soybean Sterol	3.5
Controx KS	0.05
Titanium Dioxide	0.5
Ricinus communis Castor oil	19.95
Color pigments	n.B./q.s.
II. Hydagen CMF Chitosan Glycolate	10.0

1. Melt the components listed under I at 80-85C and stir until the pigments are completely incorporated. Homogenise once with a triple roll press and heat up again to 80-85C. 2. Add the ingredients of Phase II one after the other and stir for 5 minutes at 80C. Pass mixture twice more through the triple roll press and melt again at approx. 80C. 3. For a pearl-shine lipstick add the pearliser and stir until homogeneous. 4. Cast with stirring into the moulds. Allow to cool down to approx. 30C and keep in the refrigerator overnight.

Formulation No.: 94/056/151

Care Lipstick

<u>Component:</u>	<u>Wt%</u>
I. Myritol 318 Caprylic/Capric Triglyceride	14.0
Myritol PC Propylene Glycol Dicaprylate Dicaprate	6.5
Ultra Lantrol HP 2074 Lanolin Oil	2.7
IPP Isopropyl Palmitate	13.0
Candelilla Cera	7.0
Lunacera M Microcrystalline Wax	2.7
Carnauba Cera	1.0
Cera Alba	4.3
Lanolin	7.5
Monomuls 60-35C Hydrogenated Palm Glycerides	3.7
Controx KS	0.05
Homobitec L5 Titanium dioxide	5.4
Ricinus communis Castor oil	22.15
II. Hydagen CMF Chitosan Glycolate	10.0

1. Melt the components listed under I at 80-85C and stir until the pigments are completely incorporated. Homogenise once with a triple roll press and heat up again to 80-85C. 2. Add the ingredients of phase II one after the other and stir for 5 minutes at 80C. Pass mixture twice more through the triple roll press and melt again at approx. 80C. 3. For a pearl-shine lipstick add the pearliser and stir until homogeneous. 4. Cast with stirring into the moulds. Allow to cool down to approx. 30C and keep in the refrigerator overnight.

Formulation No.: 94/056/146

SOURCE: Henkel KGaA; Suggested Formulations

Luxurious Makeup (W/O)

<u>Ingredients:</u>	<u>Wt%</u>
A: Veegum	1.2
Water	37.9
Magnesium Sulfate	0.4
B: Talc	5.5
Kaolin	1.5
Titanium Dioxide	5.0
Iron Oxides	3.0
C: Mineral Oil Light	15.0
Polysynlane	8.0
Ritachol	8.0
Lanapene	7.0
70% Sorbitol Solution	5.0
Witcamide 511	1.5
Preservatives	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continuously until smooth (for detailed preparation recommendations, see Veegum smooth). Grind B and add to A, mixing until uniform. Add A and B to C and mix until smooth and uniform.

Packing:

This formula is a fluid lotion suitable for dispensing from a standard liquid makeup bottle.

Comments:

This formula constitutes an economical, cold process W/O emulsion stabilized by the use of Veegum. It is an elegant moisturizing makeup for dry skin. Veegum serves to not only stabilize the emulsion and help control viscosity, but also to insure uniform color throughout the product with no color streaking or settling. By formulating the pigments into the internal phase, where they are suspended by the Veegum, the stability of the emulsion itself insures that no pigment settling can occur.

The makeup spreads smoothly with a rich, non-greasy feel, leaving a uniform pigment film plus the effective emollients and moisturizers of the external phase. This formula would be a suitable base for a line of luxurious makeups for the mature woman with dry skin problems. The CTFA adopted name for Veegum is magnesium aluminum silicate.

SOURCE: Polyester Corp.: Suggested Formulation

Makeup Remover
(Wash off type)

<u>Raw Materials:</u>	<u>Wt%</u>
Acylglutamate CT-12	28.0
2-Alkyl-N-Carboxymethyl-N-hydroxyethyl Imidazolidinium Betaine	28.0
Coconut fatty acid diethanolamide	5.0
Glycerin	1.8
Ajidew N-50	1.0
Lauryl monophosphoric acid	2.0
Triethanolamine	1.0
Ethylene glycol distearate	2.0
Citric acid	1.2
Pyroter CPI-40	1.5
Pyroter CPI-60	1.5
Methylparaben	0.2
Perfume	0.2
Water	balance

Procedure:

Dissolve triethanolamine and glycerin in water and heat up to 60C, then add lauryl monophosphoric acid gradually. Add the other ingredients and dissolve at 70C. Cool down to room temperature with stirring.

pH: 5.2

Viscosity: 2600 cps

Formula MRW-08

Makeup Remover
(wash off type)

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate HS-11	4.0
Water	23.8
Methyl paraben	0.2
B: Mineral oil	70.4
Glyceryl monostearate S.E.	1.5
Butyl paraben	0.1

Procedure:

Dissolve (A) by heating at 80-85C and cool down to 30C quickly. Mix (B) at 25C with stirring. Add (B) to (A) slowly with homogenizing. Cool down to 10C with stirring.

Formula MRE-06

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Make-up Remover (Liquid Crystal Gel)

MRJ-R1 contains much oil and water.

As MRJ-R1 uses gentle anionic surfactant, we feel very refreshed after washing our skin.

<u>Raw Materials:</u>	<u>Wt%</u>
A: Amisoft CT-12S (30%)	21.6
Amisoft CK-11	2.9
NaCl	1.4
Water	qs
Preservative	qs
B: PEG-10 Glyceryl Triisostearate (Emalex GWIS-310)	5.8
PEG-20 Glyceryl Triisostearate (Emalex GWIS-320)	23.0
Mineral Oil (Silkol P55) (viscosity 29 cPs)	26.9
Octyldodecanol	3.8
Preservative	qs
Fragrance	qs

1. Heat A to 50-60C and stir up until it completely becomes uniform.
2. Heat B to 50-60C and stir up until it completely becomes uniform.
3. Add A slowly to B and stir up.
4. Start vacuuming (700 mm Hg) and cooling down to 30C.
Formula No. MRJ-R3

Make up Remover

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate HS-21	2.2
Isostearic acid	6.7
B: Mineral oil	77.7
Emalex GWIS-320	6.7
Emalex GWIS-330	6.7

Procedure:

Dissolve (A) and (B) at 80C. Add (A) to (B) with stirring. Cool down to room temperature.

Formula No. MRJ-07

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Mascara

This mascara eyelash makeup cream applies beautifully from an automatic mascara unit containing a brush for application. The urethane polymer (Avalure UR 450 polymer) contributes bulk and adherence to the eyelashes allowing for a long-lasting plump look. It also eliminates the need for any of the other gums such as gum arabic in the product.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	59.50
2. Methylparaben NF	0.10
3. Hydroxypropyl Methyl Cellulose/Methocel 40-202	0.20
4. Triethanolamine (99%)	2.80
5. DL-Panthenol USP	0.50
6. Urethane Polymer/Avalure UR 450 Polymer	6.00
7. PVP-K30	2.00
Part B:	
8. Iron Oxides/C33-7734 Cosmetic Black	2.00
Part C:	
9. Stearic Acid/Emersol 132	5.50
10. Bayberry Wax	1.80
11. Glyceryl Stearate/Protachem GMS-450	1.70
12. Beeswax, White	4.50
13. Carnauba Wax, Prime #1 Yellow, Refined Flakes	2.70
14. WW Gum Rosin	1.80
15. Propylparaben NF	0.10
Part D:	
16. Simethicone/Mirasil SM	0.10
17. Wheat Germ Oil/Lipovol WGO	0.10
18. Phenonip	0.10
19. Germaben II	0.50

Preparation Procedure:**Part A:**

1. Add the deionized water to a suitable kettle and begin heating the water to 40C. Add the methylparaben and mix until dissolved.
2. Turn the heat off and add the Methocel. Mix until uniformly dispersed and until no lumps appear.
3. Add the triethanolamine and mix until the gum is hydrated and clear.
4. Add the Panthenol and mix until dissolved.
5. Add the Avalure UR 450 polymer and continue mixing until the mixture is uniform.
6. Add the PVP powder and mix until all of the powder is in solution and Part A is uniform. Maintain the temperature but raise it to 75C just before combining with Parts B & C.

Part B & C:

7. Mix all of the ingredients of Part C (oil phase) in a suitable kettle and melt to 75C.
8. When all of Part C has been melted, add the pigment of Part B to it and mix until the pigment is completely wetted/uniform.
9. Continue mixing and begin cooling and at 50C add Simethicone, Wheat Germ Oil and preservatives. Continue cooling to RT.

SOURCE: BF Goodrich Specialty Chemicals: Formulation A0002

Moisturizing Milk Creme with Monasil PCA

This formulation provides a high degree of substantivity and conditioning. It helps to minimize or alleviate dry skin conditions while leaving a smooth non-greasy after-feel.

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MPL	3.0
A	Monaquat SL-5	5.0
A	Water	57.7
A	Potassium Hydroxide (45%)	0.2
A	Monasil PCA	4.0
B	Monafax MAP 160	0.5
B	Monalac ML	20.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	2.0

Procedure:

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

Appearance: High moisturizing milky creme

Formulation F-717

Pump Dispensible Luxurious Body Moisturizer

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Deionized Water	71.3
A	Monalac MPL	4.0
A	Monalac MO	5.0
A	Monaquat SL-5	3.0
A	Glycerin	4.0
B	Monalac ML	6.0
B	Cetearyl Alcohol	4.0
B	Oleyl Alcohol	2.0
C	Fragrance	0.2
C	Preservative	0.5

Procedure:

Heat both parts (A and B) separately to 70C. Add Part B to Part A and homogenize well at 70-75C. Stir cool with minimal aeration to 40-45C and add fragrance, preservative, etc. Adjust the pH to 5.0-6.0 then fill.

Odor and Appearance: Pleasantly scented, pump dispensible, milky creme/lotion

Formulation F-730

SOURCE: Mona Industries, Inc.: Suggested Formulations

**Moisturizing Milk Creme Lotion F-712 with Silicone PLN
and High Fragrance Level**

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MPL	5.0
A	Monaquat SL-5	5.0
A	Water	55.7
A	Potassium Hydroxide (45%)	0.2
A	Monasil PLN	4.0
B	Monafax MAP 160	0.5
B	Monalac ML	20.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	2.0
C	Fragrance	2.0
C	Preservative	0.5

Procedure:

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

Physical Properties:

Appearance: Flowable high moisturizing milky lotion
Formulation F-712

**Flowable Moisturizing Milk Creme F-713 with High
Fragrance Level**

<u>Part:</u>	<u>Raw Material</u>	<u>Wt%</u>
A	Monalac MPL	5.0
A	Monaquat SL-5	5.0
A	Water	59.7
A	Potassium Hydroxide (45%)	0.2
B	Monafax MAP 160	0.5
B	Monalac ML	20.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	2.0
C	Fragrance	2.0
C	Preservative	0.5

Procedure:

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

Physical Properties:

Appearance: High moisturizing flowable milky creme.
Formulation F-713

SOURCE: Mona Industries, Inc.: Suggested Formulations

Nonionic Liquid Makeup

<u>Ingredients:</u>	<u>Wt%</u>
A: Veegum	0.75
Keltrol	0.15
Water	67.10
Glycerin	4.00
Citric acid	0.30
B: Talc	5.00
Titanium dioxide	5.00
Iron oxides	3.70
C: Ritachol	5.00
Crodamol MM	2.50
Polysynlane	2.00
Oleyl alcohol	2.00
Cosmowax	2.00
Tween 85	0.05
Preservative	q.s.

Procedure:

Add the dry blend of Veegum and Keltrol to the water slowly, agitating continuously with the highest shear available until smooth. Add the glycerin and citric acid and mix until smooth. Mix B (grind if necessary) until homogeneous. Add B and A and mix until uniform. Heat A and B to 60-65C. Heat C to 60-65C. Add C to A and B and mix until cool.

Moisturizing Skin Milk

<u>Ingredients:</u>	<u>Wt%</u>
Polysynlane	6.0
I.P.M.	4.0
Lanolin Wax	1.0
Stearic Acid	2.5
Cetanol	0.5
Glyceryl Mono Stearate	1.0
PEG-200 Mono Stearate	1.5
Solulan 16	1.0
Triethanolamine	0.3
Propylene Glycol	6.0
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulations

Oil-in-Water Hydro-Gel for Sensitive Skin (Page 1)

The following formulation illustrates the outstanding versatility of Arlatone 2121 compared with classic HLB-type emulsifiers. Two different formulations are mixed together to obtain an end formulation with outstanding lightness, smoothness and stability. This type of formulation, with a low oil phase and an extended amount of bound moisture, fits very well in this new concept of "gel-creams".

Oil-in-Water Hydro-Gel for Sensitive Skin

<u>Ingredients:</u>	<u>Wt%</u>
A Oil-in-water moisturising milk F41-5-16A	50.0
B Hydrating gel F41-5-16B	50.0

Manufacture:

Mix both formulations at room temperature.

Comments:

Viscosity: 16,692 mPa s (Brookfield LVT, spindle D, 6 rpm)

Energy input is related to final formulation viscosity.

Formulation F41-5-16

The separate components are:

Hydrating Gel

<u>Ingredients:</u>	<u>Wt%</u>
A Water	89.3
Alpantha	0.4
B Atlas G-2330	10.0
Preservative	q.s.
C Carbopol ETD 2001*	0.3
D NaOH (30% solution)	to pH 6.5-7

Manufacture:

1. Mix A at room temperature.

2. Add B whilst stirring.

3. Slowly add C and stir until a homogeneous solution is obtained

4. Neutralise product by adding D.

Comments:

Viscosity: 42,120 mPa s (Brookfield LVT, spindle C, 6 rpm)

*Carbopol ETD 2001 (Carbomer, INCI)-BF Goodrich

Formulation F41-5-16B

SOURCE: ICI Americas: Suggested Formulations

Oil-in-Water Hydro-Gel for Sensitive Skin (Page 2)
Oil-in-water Moisturizing Milk

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol M812	2.0
Finsolv TN*	4.0
Eutanol G*	2.0
Laurex CS*	1.5
Lanolin alcohol	1.0
Jojoba oil	0.5
 B Arlatone 2121	 2.0
Butylene glycol	3.0
Preservative	q.s.
Water	78.8
 C Keltrol*	 0.2
 D Ethanol	 5.0

Manufacture:

1. Disperse Keltrol in cold water whilst stirring.
2. Heat oil phase to 75C.
3. Heat water phase to 85C.
4. Slowly add the oil phase to the water phase whilst stirring intensively.
5. Homogenise the mixture intensively at 75C for one minute.
6. Allow to cool whilst stirring moderately.
7. Add ethanol below 40C.
8. Cool to room temperature.

Comments:

Viscosity: 3,120 mPa s (Brookfield LVT, spindle B, 6 rpm)
 Energy input is related to final formulation viscosity.

*Finsolv TN (C12-C15 Alkyl Benzoate, INCI)-Finetex
 Eutanol G (Octyldodecanol, INCI)-Henkel
 Laurex CS (Cetearyl Alcohol, INCI)-Albright & Wilson
 Keltrol (Xanthan Gum, INCI)-Kelco

SOURCE: ICI Surfactants: Formula F41-5-16A

Oil-in-Water Milk with "Natural" Preservative

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol HD	3.0
Arlamol E	3.0
Avocado oil	5.0
Wheat germ oil*	2.0
Sunflower oil	5.0
Anti-oxidant	q.s.
B Carbopol 5984* (3% solution)	5.0
Rhodopol SC*	0.15
Glycerol	3.0
Arlatone 2121	3.5
Demineralised water	53.35
Propylene glycol	2.0
C NaOH (30%)	to pH 6-6.5
D Ethanol	15.0

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Add phase D at +50C and control pH.
6. Cool to 35C whilst stirring moderately.
7. Add heat-sensitive ingredients whilst stirring moderately.

Comments:

Viscosity: 12,400 mPa s (Brookfield LVT, spindle E, 6 rpm)
 Energy input is related to final formulation viscosity.
 Ethanol is incorporated as "natural" preservative.

*Wheat germ oil-Sinerga

Carbopol 5984 (Carbomer, INCI)-BF Goodrich
 Rhodopol SC (Xanthan Gum, INCI)-Rhône Poulenc

SOURCE: ICI Surfactants: Formulation F41-5-11

Oil-in-Water Moisturising Milk

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol HD	10.0
Paraffin oil perliquidum*	2.0
Almond oil	2.0
Avocado oil	2.0
Vitamin E acetate*	1.0
Anti-oxidant	
B Arlatone 2121	3.0
Propylene glycol	2.5
Preservative	q.s
Water	70.0
C Carbopol 934* (2% w/w a.i.)	7.5
D NaOH (10% w/w in solution)	to pH 6.5

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Add phase D at +-50C and control pH.
6. Cool to 35C whilst stirring moderately.
7. Add heat-sensitive ingredients whilst stirring moderately.

Comments:

Viscosity: 14,670 mPa s (Brookfield LVT, spindle D, 6 rpm)
Energy input is related to final formulation viscosity.

*Paraffin oil perliquidum (Mineral Oil, INCI)-Merck
Vitamin E acetate (Tocopheryl Acetate, INCI)-Roche
Carbopol 934 (Carbomer 934, INCI)-BF Goodrich

SOURCE: ICI Surfactants: Formulation F41-5-6

Powder Eyeshadow

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Italian Talc/Supra Talc	9.70
Bismuth Oxychloride/Biron LF-2000	20.00
Calcium Silicate/Microcel E	1.00
Nylon-12/Orgasol 2002 UD Nat Cos	5.00
Manganese Violet 43001	15.00
Ultramarine Blue 43W1810	15.00
Black Iron Oxide C33-5198	2.00
Mica M-RP	15.00
Magnesium Myristate	9.00
Methyl Paraben	0.20
Propyl Paraben	0.10

Phase B:	
Octyldodecyl Stearoyl Stearate/Ceraphyl 847	6.95
Polyglyceryl-3 Diisostearate/Emerest 2452	0.50
Cetyl Palmitate	0.50
Tocopherol (and) Ascorbyl Palmitate/Oxyxyn LM	0.05

Procedure:

Combine the pigments and fillers with tumbling agitation. Pulverize using a hammer mill twice through an 0.027" screen. Combine the oil phase. Heat to 70C until homogeneous. Spray onto batch while agitating.
Formula P4-25-1

Eye Shadow

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Talc 141	19.10
Lithium Stearate	2.50
Kaolin 2457	5.00
Calcium Silicate/Microcel E	0.50
Bismuth Oxychloride (and) Carmine/Bicrona Carmine	2.60
Bismuth Oxychloride/Biron B-50	2.00
Methyl Paraben	0.20
Propyl Paraben	0.10

Phase B:	
Mica (and) Iron Oxide/Colorona Passion Orange	55.00

Phase C:	
Mineral Oil (and) Lanolin Alcohol/Amerchol L-101	11.00
Lanolin Alcohol/Super Hartolan	1.00
White Petrolatum	1.00

Procedure:

Combine Phase A. Pulverize with a hammer mill, passing twice through a 0.027" herring bone screen. Add Phase B with gentle agitation. Combine Phase C. Heat to 70C. Spray onto batch while agitating bulk. Pass entire batch through a jump gap.
Formula P3-79-3

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Pressed Powder

<u>Raw Materials:</u>	<u>Wt%</u>
Talc Supra A	53.54
Nylon-12	10.00
Lecithin treated sericite	10.00
Lecithin treated mica	10.00
Amihope LL	5.00
Zinc stearate	3.00
Isopropyl lanolate	2.70
Hydroxylated lanolin	1.50
Isopropyl isostearate	1.20
Eldew CL-301	1.00
Butyl stearate	0.60
Germall II	0.30
Methylparaben	0.20
Propylparaben	0.10
Cosmetic brown 3277	0.34
Cosmetic Brown 1985	0.32
Cosmetic brown 1654	0.18
D&C red 30 lake	0.02
Formula PP-EL01	

Pressed Powder

<u>Raw Materials:</u>	<u>Wt%</u>
Talc Supra A	52.49
Nylon-12	9.80
Lecithin trereated sericite	9.80
Lecithin treated mica	9.80
Amihope LL	4.90
Zinc stearate	2.94
Isopropyl lanolate	2.65
Hydroxylated lanolin	1.47
Isopropyl isostearate	1.18
Eldew CL-301	2.95
Butyl stearate	0.59
Germall II	0.29
Methylparaben	0.20
Propylparaben	0.10
Cosmetic brown 3277	0.33
Cosmetic brown 1985	0.31
Cosmetic brown 1654	0.18
D&C red 30 lake	0.02
Formula PP-EL03	

SOURCE: Ajinomoto U.S.A., Inc.: Eldew CL-301 Applications

Pressed Powder

<u>Raw Materials:</u>	<u>Wt%</u>
Talc Supra A	53.54
Nylon-12	10.00
Lecithin treated sericite	10.00
Lecithin treated mica	10.00
Amihope LL	5.00
Zinc stearate	3.00
Isopropyl lanolate	2.70
Hydroxylated lanolin	1.50
Isopropyl isostearate	1.20
Eldew CL-301	1.00
Butyl stearate	0.60
Germall II	0.30
Methyl paraben	0.20
Propyl paraben	0.10
Cosmetic brown 3277	0.34
Cosmetic brown 1985	0.32
Cosmetic brown 1654	0.18
D&C red 30 lake	0.02
Formula PP-EL01	

Lipstick

<u>Raw Materials:</u>	<u>Wt%</u>
A: Castor oil	60.0
Candelilla wax	4.8
Carnauba wax	2.0
Ozokerite	4.0
Caprylic/capric triglyceride	15.0
B: Mica	7.4
Yellow iron oxide	2.2
D&C Red #7	3.0
Amihope LL	1.6

Procedure:

Mix (A) ingredients at 80C. Mix (B) ingredients in a turbo-mixer until a fine & homogeneous dispersion is obtained. Add (B) to (A) and mix until uniform, then pour into molds.
Formula LP-203B

SOURCE: Ajinomoto U.S.A., Inc.: Amihope LL Applications

Purifying Clay Face Mask**Formulating Design and Advantages:**

This product removes imbedded impurities which smooths skin, cleans pores, brings a glow and removes dulling cells for a finer texture so skin has a radiant glow.

<u>Raw Materials:</u>	<u>Wt%</u>
Phase A:	
102 Magnabrite HV	4.5
Xanthan Gum	0.2
Water (Distilled)	63.2
Glycerin	4.0
Aloe Vera Gel	0.5
Propylene Glycol	1.5
Tween 60	0.6
Methyl Paraben	0.5
Phase B:	
Emulsifying Wax NF	5.0
Cetylstearyl Alcohol	0.5
Kester Wax K-48	2.0
Propyl Paraben	0.5
Phase C:	
Cera Bellina (Pg-3 Beeswax)	4.5
Green Chromium Oxide	0.5
Titanium Dioxide	2.0
Phase D:	
Titanium Dioxide	4.0
670 Bentonite NFBC	6.0

Procedure:

Heat and mix till homogeneous, Phase A to 80C. Heat and mix Phase B to 80C. Heat and mix Phase C till pigments are dispersed. Mix Phase B with Phase C, add BC to A at 80C under agitation. When emulsified, sprinkle a mixed Phase D into the AB&C phase and continue mixing till thoroughly dispersed, allow to cool while mixing. Pour at 55-60C.

Adaptation of Formula and its Influence on the Product:

Changes in clay concentration will reduce or increase drying time on the skin, which also changes the respective purifying qualities toward the skin. Moisturizing agents and/or other actives can be added to enhance the properties of this product.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Rejuvenating Skin Gel (Aqueous)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Allantoin/Rona	0.20
Sorbitol/Hystar CG	5.00
Methyl-4-hydroxybenzoate	0.17
Water, demineralized	qs to 100.00
Phase B:	
Carbomer/Carbopol 940	1.20
Water, demineralized	38.80
Phase C:	
Tromethamine/Tris Amino	1.80
Water, demineralized	13.20
Phase D:	
Water, Lecithin, Dipalmitoyl Hydroxyproline, Phenoxy-ethanol, Tall Oil Sterol, Linoleic Acid, Tocopherol, Sodium Ascorbate, Methylparaben, Butylparaben, Ethylparaben, Propylparaben, Mannitol/ASC III/Rona	4.00

Procedure:

Dissolve Phase A. Disperse Carbopol 940 in the water of Phase B and homogenize. Dissolve the Tromethamine in the water of Phase C. Combine Phases B and C and homogenize. Incorporate Phase A while stirring and homogenize. Finally, incorporate Phase D and homogenize again.

Notes:

Yellowish-opaque gel

Viscosity: 63,000 cps (Brookfield RVT, Sp. C, 5 rpm) at 24C

SOURCE: Rona/EM Industries, Inc.: Formula 32-33/E

Replenishing Milk Cleanser

This cleanser is formulated specifically for facial skin. Its gentle cleansing and foaming properties are achieved without the use of soap-based ingredients and it is oil free. The Cremerol HMG improves the rub-in of the product and the texture of the foam and leaves a smooth afterfeel. Added emollience and moisturization is contributed by the cationic film-forming ability of Ucare Polymer JR-30M which leaves a lasting smoothness to the skin despite rinsing. Glucamate DOE-120 works synergistically with the other surfactants to build viscosity, improve foam and act as an anti-irritant.

Directions for Use: Wet hands and face. Work a small amount of cleanser in your hands to produce a lather. Massage lather into face, and then rinse.

Viscosity: 2,500 cps pH: 6.8-7.2

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	35.0
Miracare 2MCAS (Cocoamphodiacetate (and) Sodium Lauryl Sulfate (and) Sodium Laureth Sulfate (and) Propylene Glycol)	35.0
Ucare Polymer JR-30M (1% aqueous) (Polyquaternium-10)	20.0
Cocamide DEA	2.0
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	3.0
Glycol Distearate	1.5
Glucam E-10 (Methyl Gluceth-10)	3.0
Cremerol HMG (Hydroxylated Milk Glycerides)	0.5
Preservative	q.s.
Citric Acid	q.s.

Procedure:

In a separate premix container, prepare a 1% solution of Ucare Polymer JR-30M using the standard preparation method for this raw material. In the main container, add the Miracare 2MCAS and water and mix with moderate to slow agitation with a sweep blade. Heat to 70-80C. When uniform, slowly add the formula weight of the Ucare solution to the surfactant. When uniform, dissolve remaining ingredients in the order listed, waiting for each to dissolve before adding the next. Keep heating with adequate agitation for 10-15 minutes. Cool to room temperature and adjust pH with citric acid to 6.8-7.2.

SOURCE: Amerchol: Formulation T74-52-1

Skin Cleanser

This is an opaque lotion formula which is soap-free. Foaming and cleansing of oily skin is provided by the Avanel S-35 CG, while a blend of emollient ingredients soften dry areas.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	10.00
	Methyl Cellulose/Methocel A4M	0.10
B	Deionized Water	32.00
C	Sodium Octoxynol-2 Ethane Sulfonate/ Avanel S-35 CG	45.00
	Sodium Benzoate	0.20
	Tetrasodium EDTA	0.10
D	Petrolatum	5.00
	Octoxynol-3	1.30
	Mineral Oil	1.30
	Lanolin Alcohol	0.50
	Oleyl Alcohol	0.50
	Cocamide DEA/Mazamide 80	1.25
E	Imidazolidinyl Urea/Germall 115	0.25
	Deionized Water	0.25
F	Fragrance	Q.S.
	Citric Acid or TEA to pH 6.0-7.0	Q.S.

Procedure:

Heat the part A water to >80C. Disperse the methyl cellulose in the hot water with good agitation. Add the part B water as ice or as freezing cold water. Hold the batch temperature <5C for 30-40 minutes to get complete hydration of the methyl cellulose. Add the part C ingredients in order and heat the batch to 65-70C. Blend the part D ingredients in a side vessel, heating to 65-70C. Add part D to the batch with rapid agitation to form the emulsion. Maintain this agitation as the batch is cooled to 40-45C. Blend the part E ingredients in a side vessel and add to the batch. Add the fragrance and adjust the pH to 6.0-7.0.

SOURCE: PPG Industries, Inc.: Formulation K-105

Skin Cleanser

This is an opaque lotion formula which is soap-free. Foaming and cleansing of oily skin is provided by Avanel S-35 CG and Mafo CAB, while a blend of emollient ingredients soften dry areas.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	47.70
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.10
	Tetrasodium EDTA	0.10
	Triethanolamine	0.05
B	Sodium Octoxynol-2 Ethane Sulfonate/ Avanel S-35 CG	32.00
	Cocamidopropyl Betaine/Mafo CAB	10.00
C	Petrolatum	5.00
	Lanolin Alcohol	0.50
	PEG-7 Glyceryl Cocoate/Mazon 159	1.30
	Cetearyl Alcohol (and) Ceteareth-20/Macol 124	2.00
	Cocamide DEA/Mazamide 80	1.25
D	Preservative	Q.S.
	Fragrance	Q.S.
	Citric Acid or TEA to pH 6.0-7.0	Q.S.

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water at ambient temperature by mixing for >10 minutes. Add the tetrasodium EDTA and the TEA to raise the pH above 8.5 and initiate hydration of the hydroxypropyl methylcellulose. Mix for at least 20 minutes while heating the batch to 60-65C. Add the part B ingredients in order, maintaining the batch at 60-65C. Blend the part C ingredients in a side vessel, heating to 60-65C. Add part C to the batch with rapid agitation to form the emulsion. Maintain this agitation as the batch is cooled to 40-45C. Add the preservative and fragrance, and adjust the pH to 6.0-7.0.

SOURCE: PPG Industries, Inc.: Formulation K-106

Skin Gel(O/W)
with ASC III

<u>Raw Materials:</u>	<u>Wt%</u>
A Almond oil (Sweet Almond (Prunus Amygdalus Dulcis) Oil	7.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	4.00
Oxynex K liquid (Art. No. 108324) (PEG-8 (and) Tocopherol (and) Ascorbyl Palmitate (and) Ascorbic Acid (and) Citric Acid)	0.50
Luvitol EHO (Cetearyl Octanoate)	4.50
Eutanol G (Octyldodecanol)	5.00
Cetiol V (Decyl Oleate)	5.00
 B Sorbitol F liquid (Art. No. 102993)	 4.00
Tris(hydroxymethyl)-aminomethane (Art. No. 108386) (Tromethamine)	0.40
Preservatives	q.s
Water, demineralized	ad 100.00
 C Pemulen TR-1 (Acrylates/C10-30 Alkyl Acrylate Cross-polymer)	 0.40
Water, demineralized	29.60
 D ASC III (Art. No. 110154) (Lecithin (and) Dipalmitoyl Hydroxyproline (and) Beta-Sito-Sterol (and) Linoleic Acid (and) Tocopherol (and) Sodium Ascobate (and) Mannitol	 4.00

Procedure:

Disperse the Pemulen TR-1 in the water of phase C and let swell. Incorporate phase B into phase C while homogenizing. Dissolve phase A and add small amounts to phases B/C during homogenization. Add phase D and homogenize again.

Note:

pH23C=6.3

Viscosity 21,000 mPas (Brookfield RVT, spindle C, 5 rpm) @ 23C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)

0.15% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 14-37/G

Skin Rejuvenating Emulsion

The Glucate SS/Glucamate SSE-20-based emulsion has an enriched oil phase with moisturizers and emollients such as Cremerol HMG. This composition provides a long-lasting softness to the skin. Kytamer PC has superior humectant properties.

Viscosity: 6,300 cps (20C, LVT, 3, 12 rpm)

pH: 5.5 to 6.5

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Glucate SS (Methyl Glucose Sesquistearate)	1.50
Glucamate SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	1.50
Promulgen D (Cetearyl Alcohol (and) Cetareth-20)	2.00
Glyceryl Stearate	1.00
Cetearyl Octanoate	6.00
Squalane	4.00
Cremerol HMG (Hydroxylated Milk Glycerides)	1.00
Phase B:	
Kytamer PC (Chitosan PCA)	0.15
Deionized Water	q.s.
Glucam P-10 (PPG-10 Methyl Glucose Ether)	1.00
Phase C:	
Saccharide Isomerate	1.00
Preservative	q.s.

Procedures:

Disperse the Kytamer PC with gentle heating (approx. 50C). Heat phase A and phase B to 75C and add phase B to phase A. Cool while stirring to 35C. Add other ingredients. Adjust pH.

SOURCE: Amerchol: Formulation E952-101-2

Cleansing Emulsion for Towelettes (With AHA Ester)

<u>Raw Materials:</u>	<u>Wt%</u>
Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	1.00
Ampholyt JB 130K (Cocamidopropyl Betaine)	1.00
Preservative	q.s.
Water	up to 100.00

Preparation:

All ingredients are mixed together at high speed with Ultra Turrax.

SOURCE: Creanova Inc.: Formulation 1.4F

Skin Smoother Gel**Concept Statement:**

A skin smoothing gel containing Rita HA C-1-C and Tensine to help cover wrinkles and fine lines.

<u>Ingredients:</u>	<u>Wt%</u>
1. Distilled/Deionized Water	70.15
2. Acritamer 940 (Carbomer)	0.50
3. SD Alcohol 40	10.00
4. Methylparaben	0.10
5. Distilled/Deionized Water	10.00
6. Diazolidinyl Urea	0.15
7. Rita PEO-3 (PEG-23M)	0.50
8. Ritasil 190 (Dimethicone Copolyol)	1.00
9. Rita HA C-1-C (Sodium Hyaluronate)	2.00
10. NaOH 20%	1.10
11. Tensine (Wheat Protein)	5.00
12. FD & C Blue #1 @ 1%	q.s.
13. Fragrance	q.s.

Compounding Procedure:

Disperse item 2 in item 1. Neutralize with item 10. Dissolve item 4 in item 3 and add to gel. Dissolve items 6 and 7 in item 5, add items 8 and 9 and add to gel. Add items 11-13 and mix until uniform.

Formulation Ref. No. 123-16C

Liposome Serum**Concept Statement:**

A heavy load liposome serum containing Rovisome C, Tensine, and Raffermine for facial firming attributes.

<u>Ingredients:</u>	<u>Wt%</u>
1. Distilled/Deionized Water	63.75
2. Rovisome C (Magnesium Ascorbyl Phosphate & Lecithin)	20.00
3. Tensine (Wheat Protein)	5.00
4. Raffermine (Hydrolyzed Soy Flour)	3.00
5. Glycerine	5.00
6. Rita PEO-3 (PEG-23M)	3.00
7. DMDM Hydantoin	0.25

Compounding Procedure:

Disperse item 6 in item 1. Mix until uniform. Add items 2-5 and item 7 and mix.

Formulation Ref. No. 123-55B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Sparkling Skin Moisturizing Fluid with Microcapsules

This is a fluid containing attractive moisturizing beads in a light, greaseless aqueous base which exhibits sparkling clarity and smooth feel.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Glycerin	2.50
Hydrogenated Starch Hydrolysate (70%)/Hystar CG	2.50
Methylparaben	0.10
Part B:	
Deionized Water	83.35
Carbomer/Carbopol ETD 2050	0.25
Part C:	
Deionized Water	10.00
Sodium Hydroxymethyl Glycinate/Suttocide A	0.30
PVP (K30)	0.10
Disodium EDTA	0.05
Benzophenone-4	0.05
Part D:	
Mineral Oil in Gelatin Microcapsules/LipoPearls	0.80

Properties:

pH: 5.3-6.0

Viscosity (cP) at 25C: 1,500-3,000

Yield Value: 140-200

Clarity (%T): 90-94

Preparation Procedure:

1. Part A: Using agitation, dissolve methylparaben in a mixture of the glycerin and Hystar using shear.
2. Part B: In a separate vessel, disperse Carbopol ETD 2050 polymer into the vortex of rapidly agitating water. When dispersed, reduce agitation and mix until homogeneous.
3. Add Part A to Part B (Carbopol dispersion).
4. In a separate vessel, blend Part C ingredients. Mix until homogeneous.
5. Using paddle-type agitation, add Part C to Part B. Mix to produce a clear fluid.
6. Using paddle type agitation, add Part D to neutralized fluid until microcapsules are well dispersed.

SOURCE: B.F. Goodrich Co.: Foamulation C0055

Super Moisturizing Gel

This clear gel provides moisture to the skin. The addition of Hypan SA 100H in this formulation helps stabilize the viscosity of the product while adding to the clarity of the gel, eliminates tackiness and leaves the skin with an elegant feel. Lipo/DNS Completech MBAC-EA helps smooth out the skin and eliminate wrinkles in the area of the eye.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Wt%</u>
1	Deionized Water	21.75
1	Methylparaben	0.25
2	Liponic EG-1	5.00
2	Hypan SA-100H	0.10
3	Carbopol ETD 2001 (2% Aq. Disp'n.)	30.00
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.60
5	Lubragel MS	25.00
6	Deionized Water	1.00
6	Unicide U-13	0.30
7	Hylacure, 1% Sol'n	5.00
8	Deionized Water	8.50
8	DNS Completech MBAC-EA	1.50

Procedure:

1. Premix Sequence #1 with overhead mixer while heating to 80C until Methylparaben is solubilized.
2. Premix Sequence #2 and add to Sequence #1 at 80C on overhead mixer using medium/high agitation.
3. Add Sequence #3 to batch holding temperature at 80C.
4. Premix Sequence #4 and add to batch at 80C mixing with overhead mixer at medium speed until completely hydrated without (fish eyes) noticed (approximately 20 minutes). Cool to 70C.
5. Add Sequence #5 without heating to batch held at 70C with medium speed on overhead mixer. Reduce temperature to 35C.
6. At 35C add premixed Sequence #6 to batch at low speed while cooling to 25C.
7. At 25C add Sequence #7 to batch at low speed.
8. Premix Sequence #8 until into solution and add to batch while mixing at low speed with sweep blade.

SOURCE: Lipo Chemicals, Inc.: Formulation No. 867

Timiron Silk Color Corrector

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Ceteareth-6 (and) Stearyl Alcohol/Cremophor A6	1.00
Ceteareth-25/Cremophor A25	1.00
Glyceryl Monostearate, Pure	2.50
Cetearyl Octanoate/Luvitol EHO	7.00
Mineral Oil Light 90 SUS/Blando1	3.00
Cetyl Alcohol	1.50
Dimethicone/100cs./Dow Corning 200 Fluid	0.10
Propyl Paraben	0.10
Phase B:	
Deionized Water	73.05
Glycerine USP	3.00
Methyl Paraben	0.20
Titanium Dioxide (and) Mica/Timiron Silk Green	5.00
Phase C:	
Fragrance	0.25
Phase D:	
Imidazolidinyl Urea/Germall 115	0.30
Deionized Water	2.00

Procedure:

Heat Phase A and Phase B separately to 70-75C with stirring. When homogeneous, the water phase is added to the oil phase at 70-75C with propeller mixer agitation. After maintaining temperature for 15 minutes, cool to 55C. Homogenize. Continue to cool to 45C with stirring. Add Phase C and combined Phase D. Cool to 30C.

Notes:

The Timiron Silk Green color corrector is used under makeup to hide red blotchy areas on the face. Timiron Silk Gold will mask bluish discolorations, and combined with Timiron Silk Red, provide a brighter appearance to the complexion.

SOURCE: Rona/EM Industries, Inc.: Formula EM3-45-1

Under Eye Gel**Concept Statement:**

A skin smoothing gel containing Rita HA C-1-C and Tensine to help cover wrinkles and fine lines.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	70.15
2. Acritamer 940 (Carbomer)	0.50
3. SD Alcohol 40	10.00
4. Methylparaben	0.10
5. Distilled/Deionized Water	10.00
6. Diazolidinyl Urea	0.15
7. Ritasil 190 (Dimethicone Copolyol)	1.00
8. Rita HA C-1-C (Sodium Hyaluronate)	2.00
9. NaOH 20%	1.10
10. Tensine (Wheat Protein)	5.00

Compounding Procedure:

Disperse item 2 in item 1. Neutralize with item 9. Dissolve item 4 in item 3 and add to gel. Dissolve item 6 in item 5, add items 7 and 8 and add to gel. Add item 10 and mix until uniform. Formulation Ref. No. 123-7A

Skin Smoother Gel**Concept Statement:**

A skin smoothing gel containing Rita HA C-1-C and Tensine to help cover wrinkles and fine lines.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	70.15
2. Acritamer 940 (Carbomer)	0.50
3. SD Alcohol 40	10.00
4. Methylparaben	0.10
5. Distilled/Deionized Water	10.00
6. Diazolidinyl Urea	0.15
7. Ritasil 190 (Dimethicone Copolyol)	1.00
8. Rita HA C-1-C (Sodium Hyaluronate)	2.00
9. NaOH 20%	1.10
10. Tensine (Wheat Protein)	5.00
11. FD&C Blue #1 @ 1%	q.s.
12. Fragrance	q.s.

Compounding Procedure:

Disperse item 2 in item 1. Neutralize with item 9. Dissolve item 4 in item 3 and add to gel. Dissolve item 6 in item 5, add items 7 and 8 and add to gel. Add items 10, 11 and 12 and mix until uniform. Formulation Ref. 123-7B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Undereye and Spot Concealer Makeup

This undereye and spot concealer makeup can be applied either from an automatic unit containing a brush for application or from a tube with a narrow opening. The urethane polymer contributes to the long lasting film forming properties while providing improved adhesion to the spot or area being covered. It is also a good substitute for the pigment suspending capabilities of colloidal clay, so common to these types of products.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	58.95
2. Methylparaben NF	0.10
3. Hydroxypropyl Methyl Cellulose/Methocel 40-202	0.20
4. Triethanolamine (99%)	1.00
5. DL-Panthenol USP	0.30
6. Urethane Polymer/Avalure UR 445 Polymer	2.50
7. Glycereth-26/Protachem GL-26	4.50
Part B:	
8. Mica/Sericite GMS-4C	5.00
9. Kaolin 2457	0.50
10. Titanium Dioxide 3328 USP Anatase type	3.20
11. Iron Oxides/C33-7715 Cosmetic Brown	0.50
12. Iron Oxides/C33-7738 Cosmetic Russet	0.10
13. Iron Oxides/C33-7773 Cosmetic Yellow	0.40
14. Iron Oxides/C33-7775 Cosmetic Red	0.10
15. Iron Oxides/C33-7734 Cosmetic Black	0.05
Part C:	
16. Stearic Acid/Emersol 132	3.00
17. Glyceryl Stearate/Protachem GMS-450	3.00
18. Isopropyl Palmitate/Protachem IPP	2.00
19. Octyldodecyl Neo-Pentanoate/Elfac 1205	1.00
20. Octyldodecanol/Eutanol G	2.00
21. Grape Seed Oil/Lipovol G	0.50
22. Jojoba Oil/Lipovol J	3.00
23. Propylparaben	0.10
Part D:	
24. Cyclomethicone/Dow Corning 245 Fluid	7.00
25. Tocopheryl Acetate/Vitamin E Acetate	0.10
26. Retinyl Palmitate/Vitamin A Palmitate	0.10
27. Aloe Extract/Actiphyte of Aloe Vera	0.10
28. Germaben II Preservative	0.50

Properties:

Color, Odor, Appearance: Pigmented, moderately thick cream
with slight wax-like odor

pH: 7.5-8.0

Viscosity cp at 25C: 5,000-6,000

SOURCE: BF Goodrich Specialty Chemicals: Formulation A0003(Cont)

Undereye and Spot Concealer Makeup (Continued)

Preparation Procedure:

Part A:

1. Add the deionized water to a suitable kettle and then add the methylparaben.
2. Heat the water to 35C to dissolve the methylparaben and then add the methocel.
3. Continue mixing until the methocel is dispersed and no lumps appear.
4. Add the triethanolamine and mix until the solution is clear. Add the Panthenol and mix until dissolved.
5. Add the Avalure UR 445 polymer and mix until it is dispersed and a colloidal white solution occurs.
6. Add the Glycereth-26 and heat to 75C.

Part B:

7. Mix all of the powders together and mill if necessary until the blend is uniform and no streaks or particles of pigment are present.
8. Add this powder blend to Part A and mix until ready to combine with Part C.

Part C:

9. Mix all of the ingredients of Part C in a suitable vessel and heat to 75C.
10. After all of the ingredients are completely melted, add Part C to Parts A & B and continue mixing until the emulsion forms.

Part D:

11. Begin cooling the combined batch to 70C and add the cyclomethicone. Mix well to insure that the cyclomethicone is brought into the emulsion and is uniformly dispersed. Continue cooling and mixing.
12. Add vitamins at 45C and mix well.
13. Add aloe and mix well.
14. Add the Germaben II and continue cooling to room temperature.

SOURCE: BF Goodrich Specialty Chemicals: Formulation A0003

Water-in-Oil Milk

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlace1 582	4.0
Arlatone T	1.0
Arlamol HD	8.0
Paraffin oil	5.5
Isopropyl myristate	7.0
B: Atlas G-2330	1.25
Propylene glycol	1.25
MgSO4-7H2O	0.7
Preservatives	q.s.
Water	71.3
C: Perfume	q.s.

Manufacture:

1. Heat A and B to 65C separately.
2. Add B to A whilst stirring thoroughly.
3. Homogenise.
4. Cool to 35C with continuous homogenisation.
5. Add perfume.

Comments:

Viscosity: 22,000 mPas (Brookfield LVT, spindle E, 6 rpm)
Formulation F44-12-1

Oil-in Water Tropic Milk

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlatone 983	1.1
Brij 76	1.0
Arlamol HD	2.0
Arlamol S7	3.0
B: Atlas G-2330	1.25
Propylene glycol	1.25
Preservatives	q.s.
Carbopol 934 (a)	0.3
Demineralsed water	90.1
C: Perfume	q.s.
(a) Neutralise the mixture with sodium hydroxide solution to pH 6.5	

Manufacture:

1. Heat A and B separately to 70C.
2. Add A to B while stirring.
3. Homogenise.
4. Neutralise with a 30% NaOH solution to pH 6.5.
5. Cool to 35C whilst stirring continuously.
6. Add C.

Comments:

Viscosity: 34,000 mPas (Brookfield LVT, spindle F, 6 rpm)
This very light emulsion is low in oil phase and emulsifier content and gives a strong cooling effect on the skin.
Formulation F44-12-5

SOURCE: ICI Surfactants: Suggested Formulations

Water-in-Oil-in-Water Face Moisturiser
(2-Step Production)

<u>Ingredients:</u>	<u>Wt%</u>
Primary Emulsion W1/O:	
A Arlacel 1690	3.3
Atlas SCS 2054	3.0
Arlamol HD	15.0
Arlamol M812	14.0
B Water	64.7
Preservative	q.s.
Secondary Emulsion W1/O/W2 (50/50):	
A Primary Emulsion W1/O	50.0
B Arlatone 2121	5.0
Preservative	q.s.
Water	44.6
Keltrol*	0.4

Manufacture:**Primary Emulsion W1/O:**

1. Slowly add B to A whilst stirring thoroughly (at room temperature).
2. Homogenise the mixture intensively for 5 minutes.

Secondary Emulsion W1/O/W2:

1. Heat B (without the Keltrol) to 80C.
2. Disperse the Keltrol in B whilst stirring thoroughly (keep the temperature at 80C).
3. Slowly add A to B whilst stirring thoroughly.
4. Allow to cool to room temperature whilst stirring gently.

Comments:

Viscosity: 15.900 mPa s (Brookfield LVT, spindle D, 6 rpm)
 *Keltrol (Xanthan Gum, INCI)-Kelco

SOURCE: ICI Surfactants: Formulation F41-5-17

Waterproof Special Effects Mascara

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
C9-11 Isoparaffin/Soltrol 100	30.95
Polyethylene 6A	11.00
Candelilla Wax	4.50
Hydroxylated Lanolin/OHlan	0.25
Phase B:	
Pentaerythrityl Rosinate/Pentalyn C	2.00
C9-11 Isoparaffin/Soltrol 100	5.00
Phase C:	
Methyl Parabens	0.20
Propyl Parabens	0.10
Phase D:	
Zinc Stearate	1.00
Phase E:	
Petroleum Distillates (and) Quaternium-18 Hectorite (and) Propylene Carbonate/Bentone Gel SS71	35.00
Phase F:	
Pearl Pigment/Rona	10.00

Procedure:

Prepare Phase B in advance; combine in a closed vessel. Heat to 65-70C with constant Lightnin' mixer agitation until clear. Combine Phase A in a closed vessel. Heat to 90-95C with Lightnin' mixer agitation. When clear, add to remaining phases in order, insuring that each is fully dispersed before proceeding. Cool to 30C with sidesweep agitation. At 55C, check for solvent loss and adjust if necessary.

Note:

Pearl Pigment Combinations:

A: Dichrona BG

B: Colorona Dark Blue

C: Colorona Magenta

D: Colorona Majestic Green

E: Colorona Dark Blue

SOURCE: Rona/EM Industries, Inc.; Formula AN251

Section V

Creams

All Purpose Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil #70	21.6
Paraffin (mp 42-44C)	8.0
Cetyl alcohol	5.0
Ceresin	10.0
Tocopheryl acetate	0.2
Allantoin	0.2
Sorbitan stearate	2.0
Polysorbate-20	3.0
B: Ajidew N-50	3.0
Propylene glycol	2.0
Preservatives	q.s.
Water	balance

Procedure:

Heat (A) and (B) respectively to 80-85C and dissolve all ingredients. Add (B) gradually to (A) with stirring. Cool to 40C with stirring.

pH: 5.4

Formula No. SY-19-1

Cold Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil	20.0
Paraffin	9.0
IPP	3.0
Cetyl alcohol	1.0
Lanolin hydrogenated	2.0
Ceresin	10.0
Sorbitan stearate	2.7
Polysorbate-80	2.3
B: Ajidew N-50	3.0
Preservatives	q.s.
Water	balance

Procedure:

Heat (A) and (B) respectively to 80-85C and dissolve all ingredients. Add (B) gradually to (A) with stirring. Cool to 40C with stirring.

Formula No. SC-74

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Anti-Cellulite Cream**Formulating Design and Advantages:**

Actives specifically developed to reduce the signs and quantity of cellulite are incorporated into this quick penetrating, non-greasy cream. The use of Hexanediol Behenyl Beeswax allows for a stable emulsion using a high concentration of low viscosity oils. Orange Wax in this formula is also an active due to similar chemistry. The claims for Centerchem's anti-cellulite products are based on groups of chemicals which are also found in Orange Wax, for example; Steroids, Flavonones, Flavonols and Cinnamates.

Raw Materials:

	<u>Wt%</u>
Phase A:	
Hexanediol Behenyl Beeswax	3.0
Glycol Stearate	4.0
Glycerol Monostearate	3.0
Orange Wax	4.0
Isopropyl Palmitate	2.0
Silicone Oil 556	2.0
Emulsifying Wax NF	2.0
Cetareth-20	1.5
Eucalyptus Oil	0.5
Caprylic/Capric Triglyceride	2.5
Phase B:	
Water (Distilled)	50.1
Carbopol 940	0.2
Glycerin	3.0
Pronalan Anticellulite	10.0
Ivy Extract	5.0
Seaweed Extract	5.0
Triethanolamine	0.2
Aloe Vera Gel	1.0
Germaben II	1.0

Procedure:

Heat Phase A to 75 to 80C. Heat and mix Phase B to 75C. Emulsify by adding Phase A to Phase B. Add the preservative and mix while cooling. Pour into containers at 40C.

Adaptation of Formula and its Influence on the Product:

There is room for changing this product by the use of other actives which produce similar claims. The use of other plant oils will not dramatically alter the finished product. Worth mentioning is the ability of Orange Wax to mask the aroma of the eucalyptus oil producing a product of low fragrance.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Antiwrinkle Night Cream**Concept Statement:**

A non-greasy night cream containing Pationic SBL to moisturize and smooth skin, and Tensine and Reductine to reinforce skin firmness.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	58.00
2. Propylene Glycol	5.00
3. Mineral Oil	12.00
4. Lanolin X-Tra Deo	2.00
5. Petrolatum	5.00
6. Butylated Hydroxyanisole	0.10
7. Pationic SBL (Sodium Behenoyl Lactylate)	2.00
8. Ritacetyl Alcohol 50/50 (Cetearyl Alcohol)	3.50
9. Rita SA (Stearyl Alcohol)	1.50
10. Phenonip	0.50
11. Fragrance	q.s.
12. Tensine (Wheat Protein)	5.00
13. Reductine (Oat Protein)	5.00

Compounding Procedure:

Mix items 1 and 2 and heat to 80C. Combine items 3 to 9 and heat to 80C. Add oil phase to water phase and homogenize. Cool to 35C and add items 10 to 13.

Formulation Ref. No. 122-81B

Cleansing Cream**Concept Statement:**

A cleansing cream with Pationic SCL to provide skin moisture and smoothness, and a pleasant feel.

Ingredients:

	<u>Wt%</u>
1. Pationic SCL (Sodium Cocoyl Lactylate)	0.50
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	1.60
3. Rita GMS (Glyceryl Stearate)	4.00
4. Mineral Oil	20.00
5. Ritachol (Mineral Oil and Lanolin Alcohol)	4.00
6. Distilled/Deionized Water	67.40
7. Glycerine	5.00
8. DMDM Hydantoin	0.20

Compounding Procedure:

Combine items 1-5 and heat to 80C. Combine items 6 and 7 and heat to 80C. Add oil phase to water phase. Cool to 35C and add item 8.

Formulation Ref. No. 120-205A

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Cold Cream (O/W)

<u>Ingredients:</u>	<u>Wt%</u>
Polysynlane	32.0
Mineral Oil	4.0
Paraffin Wax	4.0
I.P.M.	8.0
Beeswax	3.0
Lanolin	8.0
Propylene Glycol	4.0
Potassium Hydroxide	0.3
Arlacel 40	2.5
P.O.E. Sorbitol Beeswax	1.0
Stearic Acid	1.5
Perfume & Preservatives	q.s.
Water	ad. 100.0

Hand Cream

<u>Ingredients:</u>	<u>Wt%</u>
Glyceryl Monostearate (S.E.)	4.0
Stearic Acid TP	4.0
Cetyl Alcohol	2.0
Lanolin	2.0
Polysynlane	4.0
Propylene Glycol	3.0
Triethanolamine	1.0
Preservatives	0.2
Water & Perfume	ad. 100.0

Ointment Cream

<u>Ingredients:</u>	<u>Wt%</u>
Cetyl Alcohol	3.5
Stearyl Alcohol	7.0
Sodium Lauryl Sulfate	2.0
Polysynlane	8.5
Sesame Oil	5.0
Glycerine	5.0
Preservative	0.2
Water & Perfume	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulations

Cream

Formula SK-8b is a glossy cream with medium-high viscosity and is made with a high content of mineral oil and stearyl alcohol. Viscosity control is excellent, and this emollient formulation could make a cold cream, moisturizer, or skin cleanser. The formulation is thermally stable.

<u>Ingredients:</u>	<u>Wt%</u>
A Light mineral oil	15.0
Stearyl alcohol	5.0
Brij 721 Steareth-21	2.5
Brij 72 Steareth-2	2.5
B Water, deionized	74.8
C Preservative	q. s.
D Fragrance	0.2

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) and agitate with propeller. Add (C) below 50C and (D) at 35C. Add water to replace that lost by evaporation. Homogenize.
Formula SK-8b

Oil-in-Water High Mineral Oil Cream

This formula is a very viscous, glossy cream with excellent phase stability for at least eight weeks at 5C, 40C, 50C, and room temperature, and at least five freeze-thaw cycles.

<u>Ingredients:</u>	<u>Wt%</u>
A Light mineral oil	70.0
Brij 721	3.7
Brij 72	3.3
B Water, deionized	22.7
Carbomer 934	0.1
C Sodium hydroxide solution, 10% aqueous	0.1
D Preservative	q. s.
E Fragrance	0.1

Preparation:

Heat (A) to 70C and (B) to 72C. Add (A) to (B) slowly with moderate anchor type agitation. Add (C). Add (D) about 50C. Add (E) at 35C and replace water lost by evaporation.
Formula SK-10

SOURCE: ICI Surfactants: Suggested Formulations

Cream, O/W, with MPC-Milk Peptide Complex

<u>Raw Materials:</u>	<u>Wt%</u>
a) Emulgade SE	8.50
Lanette O	3.00
Myritol 318	4.00
Cetiol OE	2.00
Cetiol J 600	3.00
Phenonip	0.30
b) Water, distilled	63.90
Phenonip	0.30
Karion F liquid	5.00
c) Water, distilled	9.38
Na3-Citrate x 2H2O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 70C.
- b) Bring to approx. 70C and add to a).
Continue stirring until cream has cooled to approx. 30C.
- c) Dissolve at room temperature and add to ab) with stirring.
Perfume, homogenize.

Cream, O/W, with Protectan

<u>Raw Materials:</u>	<u>Wt%</u>
a) Cutina MD	4.00
Cutina CP	4.00
Eumulgin B1	1.00
Eumulgin B2	1.00
Cetiol B	5.00
Phenonip	0.30
b) Water, distilled	70.40
Phenonip	0.30
Carbopol 940	0.50
Triethanolamine	0.50
Glycerin	3.00
c) Protectan	10.00

Manufacture:

- a) Melt and bring to approx. 70C.
- b) Bring to approx. 70C and stir into a).
Continue stirring until cooled to approx. 30C.
- c) Stir in.
Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Cream, Type O/W

<u>Raw Materials:</u>	<u>Wt%</u>
A: Arlamol HD	10.00
Arlamol M 812	5.00
Stearyl alcohol	5.00
Arlacel 60	2.00
Phenonip	0.30
B: Water, distilled	60.30
Phenonip	0.30
G-2330	1.50
Keltrol	0.10
Arlatone 2121	5.50
C: Glycoderm (P)	10.00

Manufacture:

- A: Melt and bring to approx. 70C.
 B: Bring to approx. 70C and add to A with stirring.
 Continue stirring until cooled to approx. 30C.
 C: Stir in.
 Perfume, homogenize

Cream O/W for Daycare of Oily Skin

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eumulgin 286	3.00
Cetiol J 600	5.00
Phenonip	0.30
B: Water, distilled	60.00
Carbopol 934	1.50
C: Water, distilled	18.40
Phenonip	0.30
Triethanolamine	1.50
D: Thiosome (P)	10.00

Manufacture:

- Disperse b) with rapid stirring at room temperature until free from lumps. Heat to approx. 70C and add to a) with stirring. Continue stirring until cooled to approx. 30C; add c) and d).
 Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Suggested Formulations

Cream, Type O/W, with Phytodermin

<u>Raw Materials:</u>	<u>Wt%</u>
a) Emulgade 1000 NI	8.00
Novata AB	2.00
Lanette O	2.00
Cetiol OE	8.00
Cetiol J 600	7.00
Phenonip	0.30
b) Water, distilled	62.40
Phenonip	0.30
Glycerin	5.00
c) Phytodermin	5.00

Manufacture:

- Melt and bring to approx. 70C.
 - Bring to approx. 70C and add to a) with stirring. Continue stirring until cooled to approx. 30C.
 - Stir in.
- Perfume, homogenize.

Cream, Type W/O, with Phytodermin

<u>Raw Materials:</u>	<u>Wt%</u>
a) Arlancel 1689	3.50
Paraffinum subliquidum	8.00
Arlamol HD	6.00
Miglyol 812	2.00
Isopropyl myristate	2.00
Phenonip	0.30
b) Water, distilled	62.90
Phenonip	0.30
Glycerin	4.00
Magnesium sulfate	0.50
c) Phytodermin	10.00
d) Aerosil R 972	0.50

Manufacture:

- Add b) to a) with stirring at room temperature (25-30C).
Add c) and d) to ab). Perfume, roll.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Emollient Cream

Glucate SS/Glucamate SSE-20 is used as the basic nonionic emulsifier system. Glucam E-10 is added for its humectance in this excellent white cream base formula.

Viscosity: 100,000 to 120,000 cps

pH: 5.5 to 6.5

<u>Ingredients:</u>	<u>Wt%</u>
Oil Phase:	
Glucate SS (Methyl Glucose Sesquistearate)	1.0
Glucamate SSE-20 (PEG-20 Methyl Glucose Sesquistearate)	2.0
Squalane	7.0
Glyceryl Stearate	1.5
Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate	8.0
Cera Alba	3.0
Water Phase:	
Glucam E-10 (Methyl Gluceth-10)	1.5
Deionized Water	q.s.
Preservative	

Procedures:

Heat both phases to 85C and add the water phase to the oil phase. Cool while stirring to 35C. Add other ingredients. Adjust pH.

Note: Homogenization is recommended.

SOURCE: Amerchol: Formulation E952-093-6

O/W Basic Cream with AHA-Esters

<u>Raw Materials:</u>	<u>Wt%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)	16.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Imwitor 370 (Glyceryl Stearate Citrate)	7.00
Antioxidant	q.s.
B) Glycerin	5.00
Preservative	q.s.
Water	up to 100.00
C) Fragrance	q.s.

Preparation:

(A) is heated up to 70 degrees C. (B) is brought to the same temperature and emulsified into (A). The cream is cooled while stirring, and at about 30 degrees C. the fragrance is added.

SOURCE: Creanova Inc.: Formulation 1.1R(1)

Face Cream

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
H ₂ O, Deionized	79.30
Carbopol 934	0.20
Propylene Glycol	2.00
Phase B:	
Hest IS-2-0 (Isosteareth-2 Octanoate)	5.00
Product SE-100 (Glyceryl Stearate & PEG-100 Stearate)	4.00
Hetan SS (Sorbitan Stearate)	2.50
Lanolin	1.60
Hest CSO (Cetearyl Octanoate)	3.00
Hetoxol J (Cetearyl Alcohol & Ceteareth-20)	0.60
Hest L-2-0 (Laureth-2 Octanoate)	0.30
Phase C:	
Sodium Hydroxide (10% Solution)	0.50
Phase D:	
Germaben IIE	1.00

Specifications:

pH: 6.50

Visc. #4/12: 26,000 cps

Procedure:

1. In a stainless steel kettle, disperse Carbopol 934 into H₂O using a lightnin' type mixer.
2. When completely dispersed and free of lumps, add propylene glycol and heat to 75C while mixing.
3. In a separate kettle, combine Phase B and heat to 75C while mixing.
4. At 75C, add Phase B to Phase A. Mix until uniform.
5. Add Phase C. Mix well.
6. Cool to below 40C and add Phase D.

SOURCE: Heterene, Inc.: Formulation HC 94-148

High Gloss Cream, Type O/W, with Liposomes

<u>Raw Materials:</u>	<u>Wt%</u>
A) Dynacerin 660 (Oleyl Erucate)	7.00
Imwitor 370 (Glyceryl Stearate Citrate)	5.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/ Oleate)	5.00
Imwitor 928 (Glyceryl Cocoate)	3.00
Miglyol 812 (Caprylic/Capric Triglyceride)	2.00
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	2.00
Softisan 601 (Glyceryl Cocoate (and) Hydrogenated Coconut Oil (and) Ceteareth-25)	4.00
Macadamia Nut Oil	3.00
Shea Butter	3.00
Finsolv TN (C12-15 Alkyl Benzoate)	3.00
Hombitec H (Titanium Dioxide)	1.00
Volatile Silicone Oil 344	0.20
B) Keltrol F (Xanthan Gum)	0.50
Methocel K 100 LV Premium (Methyl Cellulose)	0.50
Glycerin	5.00
Preservative	q.s.
Water	up to 100.00
C) Tocopherol Acetate	0.30
Fragrance	0.30
Natipide II (Water (and) Alcohol (and) Lecithin)	3.00

Preparation:

(A) is heated to about 70 degrees C. To form (B), Keltrol and Methocel are dispersed in water and stirred until homogeneous. (B) is brought to the same temperature and emulsified into (A). (C) is added at 30 degrees C.

Formulation 1.1T

Cream with Citric Acid Ester and Glycerol

<u>Raw Materials:</u>	<u>Wt%</u>
A) Imwitor 370 (Glyceryl Stearate Citrate)	3.00
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/ Oleate)	2.00
Miglyol 812 (Caprylic/Capric Triglyceride)	5.00
Imwitor 900 (Glyceryl Stearate)	4.00
Soft Paraffin	5.00
Cetyl Alcohol	4.00
B) Keltrol F (Xanthan Gum)	0.50
Glycerol	5.00
Preservative	q.s.
Water	up to 100.00

Preparation:

(A) is warmed up to ca. 70 degrees C. (B) is mixed until homogeneous, heated up to the same temperature, and emulsified into (A).

Formulation 1.1U

SOURCE: Creanova Inc.: Suggested Formulations

High Gloss Cream, Type W/O, with Almond Oil

<u>Raw Materials:</u>	<u>Wt%</u>
A) Softisan Gel (Bis-Diglyceryl Polyacyladipate-1 (and) Propylene Glycol Dicaprylate/Dicaprate (and) Stearalkonium Hectorite (and) Propylene Carbonate)	10.00
Miglyol 840 (Propylene Glycol Dicaprylate/ Dicaprate)	10.00
Dynacerein 660 (Oleyl Erucate)	2.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.00
Almond Oil	2.00
Shea Butter	2.00
B) Magnesium Sulfate	2.00
Preservative	q.s.
Water	up to 100.00
C) Tocopheryl Acetate	0.30
Perfume "Olivia"	0.30

Preparation:

(A) is warmed up to ca. 75 degrees C and stirred. (B) is brought to the same temperature and emulsified into (A). (C) is added at 30 degrees C.

Formulation 1.2M (1)

Care Cream with Skin Protection

<u>Raw Materials:</u>	<u>Wt%</u>
A) Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/ Oleate)	5.00
Imwitor 960K (Glyceryl Stearate SE)	5.00
Miglyol 812 (Caprylic/Capric Triglyceride)	7.00
Softigen 701 (Glyceryl Ricinoleate)	3.00
Cetyl Alcohol	2.00
B) Sorbitol	5.00
Natrosol 250 HR (Hydroxyethyl Cellulose)	0.30
Preservative	q.s.
Water	up to 100.00
C) Fragrance	q.s.

Preparation:

(A) is heated up to 75 degrees C. (B) is heated up to the same temperature and emulsified into (A). At 30 degrees C, (C) is added.

Formulation 1.1V

SOURCE: Creanova Inc.: Suggested Formulations

Light Moisturizing Cream for Dry Skin

Ultra light weight moisturizing cream. Leaves the skin with a soft satiny feel from the Liponate NPGC-2. Lipo/DNS Completech MBAC-DS helps control the oiliness of the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	63.35
1	Methylparaben	0.25
1	Trisodium EDTA	0.05
2	Carbopol 2984 (2% sol'n)	17.50
3	Liponate NPGC-2	4.00
3	Lipomulse 165	1.50
3	Lipocol C/Cetyl Alcohol	0.60
3	Propylparaben	0.10
3	Butylparaben	0.05
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.35
5	Deionized Water	1.00
5	Unicide U-13/Imidazolidinyl Urea	0.25
6	Deionized Water	8.50
6	Completech MBAC-DS	1.50

Procedure:

1. Heat Sequence #1 to 75C. Mix with overhead mixer at medium speed until all ingredients are completely into solution.
2. Heat Sequence #2 to 75C and add to Sequence #1 with medium agitation (holding temperature at 75C).
3. Mix Sequence #3 together and heat to 75C, then add to batch with medium/high agitation.
4. Premix Sequence #4 ingredients and add to batch at 70-75C. Switch to moderate sweep and cool slowly to 35C.
5. At 35C add Sequence #5 to batch with low/medium speed on sweep until temperature cools to 25C.
6. Premix Sequence #6 together until completely into solution and then add to batch on sweep mixer.

SOURCE: Lipo Chemicals Inc.: Formulation No. 822

Light Night Cream

Designed for normal to oily skin, this emulsion features a light, dry feel.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Pemulen TR-2	0.25
Carbomer/Carbopol Ultrez 10	0.50
Laneth-5 (and) Ceteth-5 (and) Oleth-5 (and) Steareth-5/ Solulan 5	1.00
Mineral Oil/Drakeol 21	10.00
Octyl Stearate/Cetiol 868	8.00
Part B:	
Glycerin/Pricerine 9083	2.00
Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben/Phenonip	2.00
Deionized Water	77.20
Part C:	
Sodium Hydroxide Solution (18% w/w)	0.40
Part D:	
Fragrance/Fruity Floral Scent NY-16	0.15

Properties:

pH: 5.0-5.1

Viscosity (cP) at 25C: 55,000-60,000

Appearance: Creamy white viscous emulsion

Preparation Procedure:

1. Combine Part A ingredients. Heat until completely liquid and mix until homogeneous. Add the powdered polymers to the liquid and mix until completely dispersed.
2. Combine Part B ingredients and mix until solution is complete. Add Part A to Part B with good mixing until the polymers hydrate well (about 15 minutes).
3. Add neutralizer slowly until thickening is observed. While the emulsion is still of mixable consistency, increase mixing until the emulsion is creamy white and homogeneous.
4. Finish by adding the fragrance and remaining neutralizer and mixing until homogeneous.

SOURCE: B.F. Goodrich Co.: Formulation P0053

Moisturizing Cream Cold Process W/O

Ingredients:	Wt%
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Isopropyl Myristate (Tegosoft M)	5.0
Silica (Degussa R812)	0.5
Phase B:	
Water	77.9
Sodium Chloride	0.8
Hydroxyethyl Cellulose (Tylose H2O)	0.8
Preservatives	Q.S.
Perfume	Q.S.
Color	Q.S.

Procedure:

1. Mix the oils of Phase A together. Add the fumed silica to the oil phase with adequate agitation and ventilation. Mix well.
2. Dissolve the Hydroxyethyl Cellulose into the vortex of the agitating water phase. Allow the cellulose to fully hydrate prior to adding the sodium chloride. Mix until uniform.
3. Add Phase B slowly into Phase A with agitation.
4. Homogenize.
5. Preservatives, perfume and color can be added upon forming the emulsion.

**Barrier Cream
Cold Mix Formula**

Ingredients:	Wt%
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Decyl Oleate (Tegosoft DO)	5.0
Caprylic/Capric Triglycerides (Tegosoft CT)	5.0
Isopropyl Myristate (Tegosoft M)	5.0
Silica	0.5
Phase B:	
Sodium Citrate (solution)*	20.0
Water	58.7
Hydroxyethylcellulose	0.8
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.

*100 G Sodium Citrate/1 liter water.
pH adjusted to 5.0 with Citric Acid.

Procedure:

1. In a vessel, blend together the ingredients of Phase A until uniform.
2. In a separate vessel, disperse the Hydroxyethylcellulose into the water.
3. Add the Phase B slowly to Phase A with agitation.
4. Add Phase C, mix until dispersed.
5. Homogenize and dispense.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Moisturizing Day Cream

This emulsion utilizes Glucate SS/Promulgen D as the emulsifier pair. Cremerol HMG provides moisturization. Glucam E-20 and BioCare Polymer BHA-10 are incorporated for humectance and skin hydration. Ucon Fluid AP has specific emollient properties.

Viscosity: 100,000 to 120,000 cps

pH: 5.5 to 6.5

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Glucate SS	1.00
Promulgen D	1.50
Cetearyl Octanoate	6.00
Cyclomethicone	1.50
Cera Alba	1.50
Cremerol HMG	2.00
Octyl Methoxycinnamate	1.50
Butyl Methoxydibenzoylmethane	0.75
Ucon Fluid AP	1.50
Phase B:	
Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.20
Deionized Water	q.s.
Glucam E-20	2.00
Phase C:	
Biocare Polymer BHA-10	1.00
Tocopheryl Acetate	0.10
Phase D:	
Triethanolamine	q.s.
Preservative	

Procedures:

Disperse the carbomer in the water and add Glucam E-20. Heat phase A and phase B to 75C and add phase B to phase A. Add the triethanolamine while mixing and cool to 35C. Add other ingredients. Readjust the pH.

SOURCE: Amerchol: Formulation E952-095-6

Moisturizing Milk Creme with Monasil PLN

This formulation provides a high degree of substantivity and conditioning. It helps to minimize or alleviate dry skin conditions while leaving a smooth non-greasy after-feel.

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MPL	5.0
A	Monaquat SL-5	5.0
A	Water	57.2
A	Potassium Hydroxide (45%)	0.2
A	Monasil PLN	4.0
B	Monafax MAP 160	0.5
B	Monalac ML	20.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	3.0

Procedure:

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

Physical Properties:

Appearance: Milky white

Formulation F-732

Moisturizing Milk Creme

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Water	61.2
A	Potassium Hydroxide (45%)	0.2
A	Monafax MAP 160	0.5
A	Monalac MPL	5.0
A	Monaquat TG	5.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	3.0
B	Monalac ML	20.0

Procedure:

Separately combine ingredients of both phases in the order listed and heat to 75C. Add (B) to (A) and homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative if required then adjust pH to 6.0-6.5 and fill.

Physical Properties:

Appearance: Milky white

Formulation F-731

SOURCE: Mona Industries, Inc.: Suggested Formulations

Moisturizing Milk Creme Variation

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Monalac MPL	3.0
Monaquat SL-5	5.0
Water	60.2
Potassium Hydroxide (45%)	0.2
Part B:	
Monafax MAP 160	0.5
Monalac ML	20.0
Cetearyl Alcohol (Alfol 1618CG)	5.1
Isopropyl Palmitate	2.0
Monasil PCA	1.5
Part C:	
Fragrance	2.0
Germaben II	0.5

Procedure:

- 1) Combine ingredients in both phases separately.
- 2) Heat both separately to 75C.
- 3) Add Part B to Part A and homogenize for at least 15 minutes.
- 4) Stir cool, with minimal aeration to 45C.
- 5) Add fragrance, color, and preservative (Part C).
- 6) Adjust pH to 6.0-6.5, then fill.

Typical Properties:

Physical Appearance: Viscous Milky Lotion
 Viscosity: 9,000 cP

Moisturizing Milk Creme

This high moisturizing formulation helps to minimize or alleviate dry skin conditions while leaving a smooth non-greasy after-feel.

<u>Ingredient:</u>	<u>Wt%</u>
Part A:	
Monalac MPL	5.0
Monaquat TG	5.0
Water	61.2
Potassium Hydroxide (45%)	0.2
Part B:	
Monafax MAP 160	0.5
Monalac ML	20.0
Cetearyl Alcohol	5.1
Isopropyl Palmitate	3.0

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

SOURCE: Mona Industries, Inc.: Suggested Formulations

Moisturizing Skin Cream

An elegant and rich moisturizing cream based on the NMF (Natural Moisturizing Factor) concept of ProdeW 100.

<u>Ingredient:</u>	<u>Wt. %*</u>
A: Deionized Water	59.60
Veegum HV, Magnesium Aluminum Silicate	1.00
Triethanolamine, 99%	2.40
Rhodigel, Xanthan Gum	0.20
B: Squalane (Fitoderm)	6.00
Cetyl Palmitate	4.00
Dioctyl Maleate	8.00
Propylene Glycol Isostearate	4.00
Pentaerythrityl Tetrapelargonate	4.00
Dimethicone (100 cs.)	0.80
Hydrogenated Soy Glyceride	1.00
Stearyl Alcohol	1.00
Stearic Acid	5.00
C: Sorbitol (and) Sodium Lactate (and) Proline (and) Sodium PCA (and) Hydrolyzed Collagen (ProdeW 100) Preservative	3.00 q.s.

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer at 5000 rpm. Weigh and dry blend the Veegum HV and Rhodigel, add them slowly to the water and continue mixing for 20 minutes. Begin heating to 65C. Add the remaining Part A ingredients and continue mixing at 5000 rpm. Weigh the Part B ingredients into another vessel. Mix and heat to 70C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to produce a small vortex. Cool while mixing to 35C and add the Part C ingredients in order, mixing each for 5 minutes. Continue cooling and package at 25-30C.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from Centerchem, Inc.

Multi-functional Day Cream**Formulating Design and Advantages:**

This Bee's Milk formulation creates a barrier that effectively replenishes moisture, softens and imparts radiance. This will combat dry skin caused by variations in humidity and will help to minimize the signs of aging.

Raw Materials:

	<u>Wt%</u>
Water Phase I:	
Bermocol E 481	0.4
Glycerine	2.7
Water (Distilled)	52.1
Triethanolamine	0.2

Oil Phase:

Nikkol Lecinol S-10-M	2.1
Squalane	7.9
Macadamia Nut Oil	4.3
Borage Oil	2.9
Vitamin E	0.3
Vitamin A Palmitate	0.3
Kester Wax-62	1.0
Glycerol Monostearate	0.2
Ozokerite 158/160	0.3
Hexanediol Behenyl Beeswax	0.3
Phytoglycolipid	4.0
Liquapar	1.0

Water Phase II:

Bee's Milk	20.0
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Procedure:

Mix and heat Water Phase I components to 75C. Add all the oil phase components, heat till 75C and mix. Add slowly the Water Phase I to the Oil Phase under agitation (approx. 700 rpm) maintaining mixing a temperature of 75C for 5 minutes (make sure that mixing does not exceed 800 rpm's, as a phase inversion will occur). Allow to cool to 50-55C, add Water Phase II at room temperature, under moderate agitation (approx. 200 rpm's), continue mixing for 5 minutes and pour into container.

Adaptation of Formula and Its Influence on the Product:

Sunscreens are easily incorporated to give this product an SPF of 6-8 by using Escalol 507 at approximately 5% and reducing the concentration of water and/or oils.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Night Cream

<u>Ingredients:</u>	<u>Wt%</u>
Polysynlane	15.0
Paraffin Wax	2.0
Lanolin Oil	4.0
Hydrogenated Lanolin	6.0
Beeswax	3.0
Stearic Acid	1.5
Glyceryl Monostearate	2.5
I.P.M.	6.0
PEG-200 Mono Stearate	2.0
Potassium Hydroxide	0.2
Preservatives & Perfume	q. s.
Water	ad. 100.0

Enriched Night Cream (W/O)

<u>Ingredients:</u>	<u>Wt%</u>
AL Lanolate	0.6
Lanolin Alcohol	2.5
Mineral Oil	7.5
Paraffin Wax	2.5
Polysynlane	12.0
I.P.M.	6.0
Olive Oil	1.0
Dehymuls E	2.5
Propylene Glycol	6.0
Perfume & Preservatives	q. s.
Water	ad. 100.0

Liquid Night Cream

<u>Ingredients:</u>	<u>Wt%</u>
Polysynlane	15.0
Glyceryl Mono-Stearate	1.5
Lantrol	3.5
Stearic Acid	2.5
Cetanol	0.5
Tegin P	2.5
PEG-200 Mono Stearate	1.0
Solulan C-24	0.7
Triethanolamine	0.3
Veegum R	0.5
Perfume & Preservatives	q. s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulations

Night Cream

No.	Phase:	Ingredient:	Wt%
1	A	Deionized water	43.45
2	A	Sodium borate	0.70
3	A	Glycerine	2.00
4	A	Xanthan gum	0.30
5	A	Tetrasodium EDTA	0.10
6	B	Cetearyl alcohol	2.00
7	B	Sorbitan sesquioleate	2.00
8	B	Glyceryl stearate	5.00
9	B	Oils of Aloha Macadamia Nut Oil	8.00
10	B	Vitamin E acetate	0.20
11	B	Beeswax	12.00
12	B	Mineral oil	15.00
13	B	Octyl palmitate	8.00
14	C	Preservative mixture	1.00
15	D	Fragrance	0.25

Manufacturing Procedure:

Phase A: Heat to 75C.

Phase B: Heat to 75C. Add to Phase A. Cool to 40C.

Phase C: Add to above cooled mixture.

Phase D: Add to above cooled mixture along with Phase C.
Homogenize.

This formula is meant to be left on the skin and to have a heavier film so that it lasts all night. This is a water-in-oil emulsion and the principal emulsifiers are Sorbitan sesquioleate and a combination of sodium borate and beeswax. This combination of oils gives proper weight and feel. Could be all Macadamia Nut Oil, but it might be expensive. This formulation can also be used as a make-up remover for lipstick and eye makeup.

Facial Cleansing Cream

No.	Phase:	Ingredient:	Wt%
1	A	Deionized water	54.00
2	A	Glycerine	6.00
3	B	Mineral oil	15.00
4	B	Oils of Aloha Macadamia Nut Oil	5.00
5	B	Oils of Aloha Kukui Nut Oil	5.00
6	B	Cetyl alcohol	2.00
7	B	C12-15 alcohols benzoate	2.00
8	B	Glyceryl stearate	10.00
9	B	Polysorbate 60	1.00
10	C	Preservative	QS

Manufacturing Procedure:

Phase A: Heat water and glycerine phase to 75C.

Phase B: Heat oil phase to 75C. Add to water phase. Cool to 40C.

Phase C: Add preservative.

SOURCE: Oils of Aloha: Suggested Formulations

Night Cream W/O with Regeneration Effect

Component:	Wt%
I Dehymuls PGPH/Polyglyceryl-2 Dipolyhydroxystearate	4.0
Lameform TGI/Polyglyceryl-3 Diisostearate	2.0
Bienenwachs 8100/Cera Alba	2.0
Zincum N 29/Zinc Stearate	2.0
Traubenkernel/Vitis Vinifera	1.0
Myritol 312/Caprylic/Capric Triglycerides	3.0
Cetiol SN/Cetearyl Isononanoate	8.0
Cetiol OE/Dicaprylyl Ether	5.0
Copherol 1250/Tocopheryl Acetate	3.0
Vitamin A Palmitate	0.2
II Water	63.3
1,4-Butylene Glycol	5.0
MgSO ₄ -7H ₂ O	1.0
III Collapuron DAK/Desamidocollagen	0.5
Preservative/Perfume	q.s.

Viscosity, Brookfield, mPas: 112,500

Preparation in the Laboratory:

1. Melt the components listed under I at 80-85C and stir until a homogeneous mixture results. 2. Heat the components listed under II to 80-85C and add to phase I with stirring/homogenizing. Stir for 5 minutes at this temperature. 3. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid incorporation of air. Homogenize at 65-55C by means of a suitable dispersion unit (e.g. Ultra Turrax) in order to improve stability and structure. Add the single components listed under III at 30C. Allow to cool to 30C.

Hint:

Duration and intensity of homogenization influence the viscosity.

SOURCE: Henkel KGaA: Formulation No. 96/030/3

Night Foundation Cream

This cream exhibits an elegant, highly emollient feel. It is suitable for a night cream, a foundation cream or an all-purpose body cream.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	U.S.P. White Mineral Oil	6.0
	Cetyl Alcohol	10.0
	Sodium C12-C15 Pareth-3 Sulfonate/Avanel S-30	2.0
B	Propylene Glycol	5.0
	Methyl Paraben	0.25
	Deionized Water	76.75
	Color & Perfume	As Desired

pH: About 6.8

Appearance: Non-pourable, viscous cream

Procedure:

Heat part A to 70C and part B to 75C. Add part A to part B with moderate to high agitation, including side-scraping motion. Mix for a few minutes, then cool rapidly to 30C. Emulsion will invert to give a viscous water-in-oil emulsion.

Formulation J-28

All Purpose Cream, Hand & Body Cream

This emulsion is similar to the J-28, but is less lipophilic (more hydrophilic). It leaves a smooth, non-sticky feel to the skin and is extremely mild.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	U.S.P. White Mineral Oil	6.0
	Cetyl Alcohol	10.0
	Sodium C12-C15 Pareth-15 Sulfonate/	
	Avanel S-150 CGN	4.0
B	Propylene Glycol	5.0
	Methyl Paraben	0.25
	Deionized Water	74.75
	Color & Perfume	As Desired

pH: About 6.8

Appearance: Non-pourable, viscous cream

Procedure:

Heat part A to 70C, and part B to 75C. Add part A to part B with moderate to high agitation, including side-scraping motion. Mix for a few minutes, then cool rapidly to 30C. Emulsion will invert to give a viscous water-in-oil emulsion.

Formulation J-47

SOURCE: PPG Industries, Inc.: Suggested Formulations

Oil-in-Water Dimethicone Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Silbione oil 70047/V350*	20.0
B Arlatone 2121	5.5
Glycerol	4.0
Preservative	q.s
Water	70.35
C Rhodopol SC*	0.15

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stirring moderately.
6. Add heat-sensitive ingredients while stirring moderately.

Comment:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

Comments:

Viscosity: 78,000 mPa s (Brookfield LVT, spindle E. 1.5 rpm)
Energy input is related to formulation viscosity.

*Keltrol (Xanthan Gum, INCI)-Kelco

SOURCE: ICI Surfactants: Formulation F41-5-9

Oil-in-Water Natural Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Sunflower oil	20.0
Anti-oxidant	q.s.
B Arlatone 2121	5.5
Glycerol	4.0
Preservative	q.s.
Water	70.3
C Rhodopol SC*	0.15

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stirring moderately.
6. Add heat-sensitive ingredients whilst stirring moderately.

Comment:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure, moderate stirring is recommended. Intensive stirring can break down the lamellar structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

SOURCE: ICI Surfactants: Formulation F41-5-10

Oil-in-Water Night Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Paraffin oil perliquidum*	20.0
Arlamol HD	10.0
Arlamol M 812	5.0
Wheat germ oil*	3.0
Vitamin E acetate*	2.0
Arlacel 60	2.0
Anti-oxidant	q.s.
B Arlatone 2121	5.5
Glycerol	4.0
Preservatives	q.s.
Water	48.4
C Keltrol*	0.1
D Perfume	q.s.

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stiring moderately.
6. Add heat-sensitive ingredients whilst stirring moderately.

Comment:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure, moderate stirring is recommended. Intensive stirring can break down the lamellar structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

- * Paraffin oil perliquidum (Mineral Oil, INCI)-Merck
- Wheat germ oil-Sinerga
- Vitamin E acetate (Tocopheryl Acetate, INCI)-Roche
- Keltrol (Xanthan Gum, INCI)-Kelco

Formulation F41-5-1

SOURCE: ICI Surfactants: Suggested Formulations

Oil-in-Water Volatile Silicone Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol S7	20.0
B Arlatone 2121	5.5
Glycerol	4.0
Preservative	q.s.
Water	70.35
C Rhodopol SC*	0.15

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stirring moderately.
6. Add heat-sensitive ingredients whilst stirring moderately.

Comments:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure, moderate stirring is recommended. Intensive stirring can break down the lamellar structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

Comments:

Viscosity: 37,440 mPa s (Brookfield LVT, spindle E, 1.5 rpm)
Energy input is related to final formulation viscosity.

*Rhodopol SC (Xanthan Gum, INCI)-Rhone Poulenc

SOURCE: ICI Surfactants: Formulation F41-5-7

Oil-in-Water Volatile Silicone Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol S7	40.0
B Arlatone 2121	5.5
Glycerol	4.0
Preservative	q.s.
Water	50.4
C Keltrol*	0.1

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stirring moderately.
6. Add heat-sensitive ingredients whilst stirring moderately.

Comment:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure, moderate stirring is recommended. Intensive stirring can break down the lamellar structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

Comments:

Viscosity: 62,400 mPa s (Brookfield LVT, spindle E, 1.5 rpm)
Energy input is related to final formulation viscosity.

*Keltrol (Xanthan Gum, INCI)-Kelco

SOURCE: ICI Surfactants: Suggested Formulations

Optimal Face CreamRaw Materials:

	<u>Wt%</u>
I. Emulgade SE (Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate)	4.0
Cutina MD (Glyceryl Stearate)	1.0
Lanette O (Cetearyl Alcohol)	1.0
Baysilon M 350 (Dimethicone)	0.5
Cetiol PGL (Hexyldecanol (and) Hexyldecyl Laurate)	7.0
Myritol 312 (Caprylic/Capric Triglycerides)	3.0
Cetiol OE (Dicaprylyl Ether)	4.0
Copherol 1250 (Tocopheryl Acetate)	0.5
II. D-Panthenol	1.0
Glycerin 86%	5.0
Water	71.5
III. Carbopol 980 (Carbomer)	0.2
Cetiol PGL (Hexyldecanol (and) Hexyldecyl Laurate)	1.0
IV. KOH, 20%	0.3
Perfume/Preservative	q.s.

Viscosity: 100,000

Preparation in the Laboratory:

Melt the components listed under I at 80-85C and stir until a homogeneous mixture results. Heat the components listed under II to 80-85C and add to phase I with stirring/homogenizing. Add phase III (Carbopol mixed with oil) into the hot emulsion and homogenise immediately by means of a suitable dispersion unit (Ultra Turrax). Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid the incorporation of air. Add the single components listed under IV at 40C. Allow to cool to 30C.

SOURCE: Henkel KGaA: Formulation no.: 96/036/2

Rejuvenating Skin (O/W) Cream

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Glyceryl Stearate, PEG-100 Stearate/Arlacel 165	10.00
Caprylic/Capric Triglyceride/Mirlyol 318	20.00
Cetyl alcohol/Crodacal C-70	3.00
Lanolin/Corona PNL Lanolin	3.00
PEG-8 (and) Tocopherol (and) Ascorbyl Palmitate (and) Ascorbic Acid (and) Citric Acid/Oxyplex K Liquid	0.05
Phase B:	
Sorbitol/Hystar CG	2.00
Glycerin	1.20
Methyl-4-hydroxybenzoate	0.15
Propyl-4-hydroxybenzoate	0.05
Water, demineralized	q.s. to 100.00
Phase C:	
Water, Lecithin, Dipalmitoyl Hydroxyproline, Phenoxyethanol, Tall Oil Sterol, Linoleic Acid, Tocopherol, Sodium Ascorbate, Methylparaben, Butyl- paraben, Ethylparaben, Propylparaben, Mannitol/ ASC III/Rona	4.00

Procedure:

Heat Phase A to 75C, Phase B to 80C. Add Phase B slowly to Phase A while stirring. Homogenize and cool down while stirring. Add Phase C to 35C.

Notes:

Viscosity: 260,000 cps (Brookfield RVT, Sp. C, 5 rpm) at 24C

SOURCE: Rona/EM Industries, Inc.: Formula 13-06/K

Shower Cream**Concept Statement:**

A smooth, moisturizing, pearlescent shower cream with a unique silky skin feel from Polyquta 400, Promois Silk and Promois Milk.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	31.90
2. Polyquta 400 (Polyquaternium 10)	1.00
3. Propylene Glycol	5.00
4. Sodium Lauryl Sulfate	24.00
5. Ammonium Lauryl Sulfate	24.00
6. Ritataine (Cocamidopropyl Betaine)	6.40
7. Lauramide DEA	3.00
8. Rita EGMS (Glycol Stearate)	2.00
9. Promois Silk-1000 (Hydrolyzed Silk)	0.10
10. Promois Milk (Hydrolyzed Casein)	0.10
11. Citric Acid (50% Solution)	q.s.
12. Sodium Chloride (25% Solution)	2.00
13. Phenoxyethanol	0.50
14. Fragrance	q.s.
15. D&C Red No. 33	q.s.
16. FD&C Yellow No. 5	q.s.

Compounding Procedure:

Heat item 1 to 75C. Slowly add items 3 and 12 until dispersed very well. While mixing, add items 3-8. Adjust pH to 6.5 using item 11. Cool to 40C. Add items 9, 10, and 13-16.

Formulation Ref. No. 124-29B

Emollient Cream**Concept Statement:**

An elegant white, creamy emulsion incorporating Pationic SCL, with excellent feel and moisturizing benefits.

Ingredients:

	<u>Wt%</u>
1. Pationic SCL (Sodium Cocoyl Lactylate)	0.50
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	1.60
3. Rita GMS (Glyceryl Stearate)	4.00
4. Rita IPP (Isopropyl Palmitate)	5.00
5. Capric/Caprylic Triglyceride	10.00
6. White Petrolatum	5.00
7. Glycerine	3.00
8. Acritamer 501E (Carbomer) (3% aq. soln.)	3.34
9. Distilled/Deionized Water	67.06
10. Phenonip	0.50

Compounding Procedure:

Combine items 1 to 6 and heat to 80C. Combine items 7 to 9 and heat to 80C. Adjust water phase to pH of 6.5. Add oil phase to water phase while mixing. Homogenize at 60-80C. Cool to 35C with slow agitation and add item 10.

Formulation Ref. No. 124-23

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Shower Cream**Concept Statement:**

A smooth, moisturizing, pearlescent shower cream with a unique silky skin feel from Polyquta 400, Promois Silk and Promois Milk.

Ingredients:

	<u>Wt%</u>
1. Distilled/Deionized Water	33.90
2. Polyquta 400 (Polyquaternium 10)	1.00
3. Propylene Glycol	3.00
4. Sodium Lauryl Sulfate	24.00
5. Ammonium Lauryl Sulfate	24.00
6. Ritataine (Cocamidopropyl Betaine)	6.40
7. Lauramide DEA	3.00
8. Rita EGMS (Glycol Stearate)	2.00
9. Promois Silk-1000 (Hydrolyzed Silk)	0.10
10. Promois Milk (Hydrolyzed Casein)	0.10
11. Citric Acid (50% Solution)	q.s.
12. Sodium Chloride (25% Solution)	2.00
13. Phenoxyethanol	0.50
14. Fragrance	q.s.
15. D&C Red No. 33	q.s.
16. FD&C Yellow No. 5	q.s.

Compounding Procedure:

Heat item 1 to 75C. Slowly add items 3 and 12 until dispersed very well. While mixing, add items 3-8. Adjust pH to 6.5 using item 11. Cool to 40C. Add items 9, 10 and 13-16.

Formulation Ref. No. 124-29C

Emollient Skin Cream**Concept Statement:**

An elegant, smooth cream formulated with Pationic SBL, to provide natural moisture and softening.

Ingredients:

	<u>Wt%</u>
1. Pationic SBL (Sodium Behenoyl Lactylate)	1.50
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	3.00
3. Rita GMS (Glyceryl Stearate)	2.60
4. Rita IPP (Isopropyl Palmitate)	5.00
5. Capric/Caprylic Triglyceride	10.00
6. White Petrolatum	5.00
7. Glycerine	3.00
8. Distilled/Deionized Water	67.40
10. Phenonip	0.50

Compounding Procedure:

Combine items 1 to 6 and heat to 80C. Combine items 7 and 8 and heat to 80C. Add oil phase to water phase while mixing. Homogenize at 60-80C. Cool to 35C with slow agitation and add item 9.

Formulation Ref. 124-24

SOURCE: R.I.T.A. Corp.: Suggested Formulations

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil	19.0
Cetyl alcohol	4.0
Propylene glycol stearate	1.0
Glyceryl stearate	3.0
PEG-10 stearate	2.0
PEG-40 stearate	1.0
Butylparaben	0.1
Amihope LL	3.0
B: Acylglutamate HS-11	0.3
Butylene glycol	5.0
Methylparaben	0.2
Water	balance

Procedure:

Dissolve (A) (disperse Amihope LL) & (B) at 80-85C.
Add (B) to (A) with stirring and cool to room temperature with homomixer stirring.

Note:

Amihope LL provides smooth and silky touch. Acylglutamate HS-11 is used as an emulsifier to stabilize the emulsions.
Formula SC-1306 L

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil #70	8.0
IPP	2.0
Stearyl alcohol	2.0
Cetyl alcohol	0.5
Glyceryl stearate	0.5
Ceteareth-20	1.0
Propylparaben	0.1
B: Methylparaben	0.1
Ajidew N-50	4.4
Carbomer 940 (1% solution)	10.0
Water	balance
C: Sodium hydroxide solution (10%)	10.5

Procedure:

Heat (A) at 75-80C to dissolve. Heat (B) at 80C. Stir (A) with high speed homomixer and add (B), then add (C) immediately. Stir all ingredients at 3000 rpm for 3 minutes. Cool to room temperature.

Formula No. 2L-116

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eldew CL-301	5.0
Squalane	15.0
Hydrogenated coco-glycerides (Emalex STG-R)	4.0
Polyglyceryl-2 oleate	1.0
Polyglyceryl-2 stearate	4.0
B: Acylglutamate HS-11	0.4
Butylene glycol	5.0
Methyl paraben	0.2
Water	balance

Procedure:

Dissolve (A) & (B) at 80-85C. Add (B) to (A) with stirring and cool to room temperature with homomixer stirring.

Note:

Eldew CL-301 contributes to improve spreadability and moisturizing properties of a cream. It reduces stickiness and occlusiveness of emulsions. Acylglutamate HS-11 works as an emulsifier to stabilize the emulsion.

Formula No. MC-1

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil	19.0
Cetyl alcohol	4.0
Propylene glycol stearate	1.0
Glyceryl stearate	3.0
PEG-10 stearate	2.0
PEG-40 stearate	1.0
Butyl paraben	0.1
Amihope LL	3.0
B: Acylglutamate HS-11	0.3
Butylene glycol	5.0
Methyl paraben	0.2
Water	balance

Procedure:

Dissolve (A) (disperse Amihope LL) and (B) at 80-85C. Add (B) to (A) with stirring and cool to room temperature with homomixer stirring.

Note: Amihope LL provides smooth and silky touch. Acylglutamate is used as an emulsifier to stabilize the emulsions.
Formula SC-1306L

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil	8.0
Isopropyl palmitate	2.0
Stearyl alcohol	2.0
Cetyl alcohol	0.5
Glyceryl monostearate	0.5
POE(20) Cetyl ether	1.0
Propyl paraben	0.1
 B: ProdeW 400	 4.4
Carboxy vinyl polymer (0.5% aq.)	20.0
Water	balance
Methyl paraben	0.1
 C: Sodium hydroxide (1% aq.)	 4.0

Procedure:

Dissolve ingredients (A) with stirring at 75-80C. Dissolve ingredients (B) at 80C. Mix (A) with homomixer and add (B) to emulsify and add (C) immediately and mix with 3000 rpm stirring for 3 minutes.

After emulsifying, cool down to room temperature.

Formula 2LP-131

Emollient Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eldew CL-301	5.0
Squalane	15.0
Hydrogenated Coco-glycerides	4.0
Polyglyceryl-2 Oleate	1.0
Polyglyceryl-2 Stearate	4.0
 B: Butylene Glycol	 5.0
Methyl paraben	0.2
Acylglutamate HS-11	0.4
Water	65.4
Formula MC-1	

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Soft Cream

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol ISML, isosorbide monolaurate	4.00
Stearyl alcohol	1.00
Arlamol E, POP (15) stearyl ether	1.00
Dimethicone, 250 cs.	0.50
Brij 700, POE (100) stearyl ether	2.25
Brij 72, POE (2) stearyl ether	2.25
B. Water	88.05
Carbomer 934	0.40
C. Sodium hydroxide (10% aqueous)	0.40
D. Preservative	0.10
E. Fragrance	0.05

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A slowly with moderate agitation. Add C. Add D below 50C. Add E at 35C and add water to compensate for loss due to evaporation.

Comments:

This cream has a low emollience. It is non-greasy and has a very pleasant afterfeel. It is relatively inexpensive since it contains nearly 90% water.

This formula is stable for at least three months at 5C, 40C and 50C and for at least six freeze-thaw cycles.

Emollient Skin Cream

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlamol ISML Isosorbide Laurate	4.00
Stearyl alcohol	1.00
Arlamol E	1.00
Silicone oil, 350 cs.	0.50
Brij 700 Steareth-100	2.25
Brij 72 Steareth-2	2.25
B: Water	88.20
Carbomer 934	0.40
C: Sodium hydroxide solution, 10% aqueous	0.40
D: Preservative	q.s.
E: Fragrance	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C). Add (D) below 50C. Add (E) at 35C and replace water lost by evaporation.

Formula SK-4

SOURCE: ICI Surfactants: Suggested Formulations

Soft Cream, Type W/O

<u>Raw Materials:</u>	<u>Wt%</u>
A: Dehymuls PGPH	7.00
Lameform TGI	3.00
Beeswax	5.00
Isopropyl myristate	10.00
Myritol 318	5.00
Cetiol 868	5.00
Phenonip	0.30
Oxyplex LM	0.10
B: Water, distilled	49.30
Phenonip	0.30
Karion F liquid	5.00
C: Glycoderm (P)	10.00

Manufacture:

A: Melt and bring to approx. 75C.

B: Bring to approx. 75C and add to A with stirring.
Continue stirring until cooled to approx. 30C.

C: Stir in.
Perfume, roll.

Cream, Type O/W

<u>Raw Materials:</u>	<u>Wt%</u>
A: Emulgade SE	3.00
Cetiol LC	5.00
Cetiol SB 45	2.00
Lanette 18	3.00
Phenonip	0.30
B: Water, distilled	71.60
Phenonip	0.30
Glycerin	3.00
Carbopol 954	0.30
C: KOH 10%	1.50
D: Glycoderm (P)	10.00

Manufacture:

A: Melt and bring to approx. 70C.

B: Bring to approx. 70C and add to A with stirring.
Continue stirring until cooled to approx. 50C.

C: Add.
Continue stirring until cooled to approx. 30C.

D: Stir in.
Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Suggested Formulations

Ultra-Moisturizing Skin Cream**Formula Profile:**

The synergistic mixture of Veegum Ultra and Carbopol will create a thick rich cream that will have the Carbomer feel without the tack. Veegum Ultra will improve stability and maintain viscosity of the product through its stability cycle. The emollients in the oil phase and humectants in the water phase will support lasting residual skin feel and moisturization.

Ingredients:

	Wt%
A: Water	81.1
Veegum Ultra (Magnesium Aluminum Silicate)	0.5
Carbomer (Carbopol 934)	0.5
B: Glycerin	3.0
Butylene Glycol	2.0
C: Cetyl Alcohol	1.0
Glyceryl Monostearate SE (Dermacare MS SE)	3.0
Caprylic/Capric Triglyceride (Neobee M-5)	5.0
C12-15 Octanoate (Finester EH-25)	1.0
Dimethicone (DC-200 fluid-350 cts)	1.0
Steareth-2 (Brij 72)	0.83
Steareth-21 (Brij 721)	0.83
D: Preservative	qs
E: Fragrance	qs
F: Triethanolamine	0.24
Citric Acid Adjust pH to 5.6+/-0.3	qs

Procedure:

Step 1. Dry blend Veegum Ultra and Carbopol 934 in Part A. (Dry blending reduces the clumping of Carbopol and allows for the simultaneous introduction of ingredients). Sift the powder into an established vortex in the water. Veegum Ultra will be completely hydrated within 15 minutes. Allow about 45 minutes for Carbomer hydration.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 70C-75C.

Step 3: Once hydration process is completed, add remaining water phase ingredients from Part B to Step 2.

Step 4: Blend oil phase ingredients in Part C and heat the oil phase to 70C-75C.

Step 5: When both phases are at 70C-75C, add oil phase in Step 4 to water phase Step 2.

Step 6: Cool to 45C. Add Part D-Preservative to Step 2.

Step 7: Add Part E-Fragrance to Step 2.

Step 8: Cool to 35C. Adjust pH to 5.6 with Part F.

Product Specifications:

Viscosity: Brookfield LVT: 425,000+/-25,000 cps after 24 hours.

pH: 5.3-5.9

This formula produces a stable emulsion that passes 3 month stability at RT, 5C, 38C, 50C and 3 cycle F/T.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 489

Ultra-Moisturizing Skin Cream**Formula Profile:**

The synergistic mixture of Veegum Ultra and Carbopol will create a thick, rich cream that will have the great Carbomer feel without the tack. Veegum Ultra will improve stability and maintain the viscosity of the product. The emollients in the oil phase and the humectants in the water phase will support lasting residual skin feel and moisturization.

Ingredients:

	Wt%
A: Water	81.44
Veegum Ultra (Magnesium Aluminum Silicate)	0.25
Carbomer (Carbopol 934)	0.25
B: Glycerin	3.0
Butylene Glycol	2.0
C: Cetyl Alcohol	1.0
Glyceryl Monostearate SE (Dermacare MS SE)	3.0
Caprylic/Capric Triglyceride (Neobee M-5)	5.0
C12-15 Octanoate (Finester EH-25)	1.0
Dimethicone (DC-200 fluid-350 cts)	1.2
Steareth-2 (Brij 72)	0.83
Steareth-21 (Brij 721)	0.83
D: Preservative	qs
E: Fragrance	qs
F: Triethanolamine	0.2
Citric Acid	qs
	Adjust pH to 5.6+/-0.3

Procedure:

Step 1: Dry blend Veegum Ultra and Carbopol in Part A. (Dry blending reduces the clumping of Carbopol and allows for the simultaneous introduction of ingredients). Sift the powder into an established vortex in the water. Veegum Ultra will be hydrated within 15 minutes. Allow about 45 minutes for the Carbopol slurry to hydrate completely.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 70-75C.

Step 3: Once the hydration process is completed, add remaining water phase ingredients from Part B to Step 2.

Step 4: Blend oil phase ingredients in Part C and heat the oil phase to 70-75C.

Step 5: When both phases are at 70-75C, add oil phase in Step 4 to water phase Step 2.

Step 6: Cool to 45C. Add Part D-Preservative to Step 2.

Step 7: Add Part E-Fragrance to Step 2.

Step 8: Cool to 35C. Adjust pH with Part F.

Product Specifications:

Viscosity: Brookfield LVT DVII, Spindle #TF @ 0.3 RPM: 300,000+-30,000 cps after 24 hours.

pH: 5.3-5.9

This formula produces a stable emulsion and passes 3 month stability testing at RT, 5C, 38C, 50C and 3 cycle F/T.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No 474

Ultra-Moisturizing Skin Cream**Formula Profile:**

The synergistic mixture of Veegum Ultra and Carbopol Ultrez 10 will create a thick rich cream that will have the great Carbomer feel without the tack. Veegum Ultra will improve stability and maintain the viscosity of the product. The emollients in the oil phase and the humectants in the water phase will support lasting residual skin feel and moisturization.

Ingredients:

	Wt%
A: Water	81.14
Veegum Ultra (Magnesium Aluminum Silicate)	0.5
Carbomer (Carbopol Ultrez 10)	0.5
B: Glycerin	3.0
Butylene Glycol	2.0
C: Cetyl Alcohol	1.0
Glyceryl Monostearate SE (Dermacare MS SE)	3.0
Caprylic/Capric Triglyceride (Neobee M-5)	5.0
C12-15 Octanoate (Finester EH-25)	1.0
Dimethicone (DC-200 fluid-350 cts)	1.0
Steareth-2 (Brij 72)	0.83
Steareth-21 (Brij 721)	0.83
D: Preservative	qs
E: Fragrance	qs
F: Triethanolamine	0.2
Citric Acid	Adjust pH to 5.6+/-0.3

Procedure:

Step 1: Dry blend Veegum Ultra and Carbopol Ultrez 10 in Part A. (Dry blending allows for the simultaneous introduction of ingredients, even though these raw materials do not have to be added simultaneously). Sift the powder into an established vortex in the water. The Veegum Ultra and Carbopol Ultrez 10 will be hydrated within 15 minutes.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 70C-75C.

Step 3: Once the hydration process is completed, add remaining water phase ingredients from Part B to Step 2.

Step 4: Blend oil phase ingredients in Part C and heat the oil phase to 70C-75C.

Step 5: When both phases are at 70C-75C, add oil phase in Step 4 to the water phase Step 2.

Step 6: Cool to 45C. Add Part D-Preservative to Step 2.

Step 7: Add Part E-Fragrance to Step 2.

Step 8: Cool to 35C. Adjust pH with Part F.

Product Specifications:

Viscosity: Brookfield LVT DVII, Spindle #TF @ 0.3 RPM: 300,000+-30,000 cps after 24 hours

pH: 5.3-5.9

This formula produces a stable emulsion and passes 3 month stability testing at RT, 5C, 38C, 50C and 3 cycle F/T

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 475

Vanishing Cream

<u>Ingredients:</u>	<u>Wt%</u>
A. Arlamol ISML, isosorbide monolaurate	10.0
Stearyl alcohol	4.0
Dimethicone, 350 cs.	0.5
Arlamol E, polyoxypropylene (15) stearyl ether	3.0
Brij 700, polyoxyethylene (100) stearyl ether	2.0
Brij 72, polyoxyethylene (2) stearyl ether	3.0
B. Water	72.9
Sorbitol Solution USP	4.0
Carbomer 934	0.2
C. Sodium hydroxide (10% aqueous)	0.2
D. Preservative	0.1
E. Fragrance	0.1

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A with moderate agitation. Add C. Add D below 50C. Add E to 35C and add water to compensate for loss due to evaporation.

In this formula Arlamol ISML, isosorbide monolaurate is the primary emollient complemented by Arlamol E, POE (15) stearyl ether. Stearyl alcohol is the viscosity builder, and silicone oil eliminates "soaping." Brij 700, POE (100) stearyl ether and Brij 72, POE (2) stearyl ether were chosen because of their excellent emulsifier properties for Arlamol ISML, isosorbide monolaurate.

The above formula is stable at 5C, R.T., and 40C, for three months. It is also stable for at least six freeze-thaw cycles.

Emollient Cream

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlamol E pop 15 stearyl ether	20.0
Arlasolve 200 Liquid (72% active) poe 20 isohexadecyl ether	1.1
Brij 72 poe 2 stearyl ether	7.2
Stearyl alcohol, USP	2.0
B: Carbomer 934	0.2
Water, deionized	69.3
C: NaOH (10% w/w aqueous)	0.2
D: Perfume and preservative	q.s.

Preparation:

Disperse the Carbomer 934 in the water. Heat (A) to 70C and (B) to 72C. Add (B) to (A) with good agitation. Add (C). Add (D) between 35-40C. Pour about 35C.

Formulation AE-16

SOURCE: ICI Surfactants: Suggested Formulations

Water-in-Oil Cream

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlachel 582	2.5
Arlatone T	0.5
Arlamol HD	12.0
Magnesium stearate	0.5
Beeswax	1.5
Candelilla wax	0.5
Isopropyl myristate	6.0
Almond oil	3.0
Dimethicone 100 mPa s	0.5
Oxynex 2004*	0.05
Aerosil R972*	0.5
B: Atlas G-2330	1.25
Propylene glycol	1.25
Glycerol	1.5
MgSO ₄ -7H ₂ O	0.5
Preservatives	q.s.
Water	67.95
C: Perfume	q.s.

Manufacture:

1. Heat A and B separately to 80C.
2. Add B to A slowly whilst stirring intensively.
3. Homogenise for 1 minute.
4. Cool to 50C whilst stirring intensively.
5. Homogenise for 1 minute.
6. Cool to room temperature whilst stirring intensively.

Comments:

Note that the emulsion is made with an extremely small amount of emulsifier. To compensate for this, very intensive homogenisation is essential. The silica is added for rheological purposes and improves the skin-feel.

Viscosity: 300,000 mPa s (Brookfield LVT, spindle F, 1.5 rpm)

*Oxynex 2004 (Antioxidant preparation)-Merck
Aerosil R972 (Silica Dimethyl Silylate, INCI)-Degussa

SOURCE: ICI Surfactants: Formulation F44-12-2

W/O Basic Cream

<u>Raw Materials:</u>		<u>Wt%</u>
A) Miglyol 812 (Caprylic/Capric Triglyceride)		7.00
Imwitor 780K (Isostearyl Diglyceryl Succinate)		6.00
Imwitor 928 (Glyceryl Cocoate)		3.00
Vaseline, white (Petrolatum)		9.00
Elfacos ST 9 (PEG-45/Dodecyl Glycol Copolymer)		4.00
Elfacos C 26 (Hydroxyoctacosanyl/Hydroxystearate)		5.00
B) Preservative		q.s.
Water	up to	100.00
C) Fragrance		q.s.

Preparation:

(A) is heated up to 75 degrees C. (B) is brought to the same temperature and emulsified into (A). The cream is cooled while stirring, and at about 30 degrees C, the fragrance is added.
Formulation 1.2P

Skin Protective Cream with Silicone Fluid (With AHA-Ester)

<u>Raw Materials:</u>		<u>Wt%</u>
A) Imwitor 370 (Glyceryl Cocoate/Citrate/Lactate)		8.00
Miglyol 812 (Caprylic/Capric Triglyceride)		10.00
Phenyl Dimethicone		5.00
B) Keltrol F (Xanthan Gum)		0.30
Preservative		q.s.
Water	up to	100.00
C) Fragrance		q.s.

Preparation:

(A) is heated up to 75 degrees C. (B) is stirred together and heated up to the same temperature and emulsified into (A). At about 35 degrees C, (C) is added.
Formulation 1.1W

SOURCE: Creanova Inc.: Suggested Formulations

W/O Cream with Eldew

<u>Ingredients/Trade Name:</u>	<u>Wt%</u>
Part A:	
Di-(Cholesteryl, behenyl, octyldodecyl) N-Lauroyl-L-glutamic acid ester/Eldew CL-301	2.0
Cetearyl Octanoate	8.0
C12-15 Alkyl Benzoate	5.0
Phenoxyethanol	0.60
Tocopheryl Acetate	0.05
Part B:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate	5.00
Cetyl Dimethicone	2.00
Part C:	
Deionized Water	68.55
Sodium Chloride	0.80
Glycerin (99.5%)	5.00
Partially Deacetylated Chitin (1.0%)/Marine Dew PC-100	2.00
Part D:	
Methylparaben	0.20
Butylene Glycol	0.80

Procedure:

Pre-melt Part A at 50C. Add Part B to Part A. Pre-melt Part D by heating to 50C. Add to Part C. Slowly add Part C and D mixture to Parts A and B with high shear mixing.

Appearance: White, smooth, shiny lotion

pH: 6.00-6.50

Viscosity: 20,000 cps (RVT #6 @ 10rpm @ 25C)

Hand Cream

<u>Raw Materials:</u>	<u>Wt%</u>
(O) Liquid Paraffin (#70)	10.0
Cetyl Alcohol	5.0
Nikkol WCB	5.0
Isopropyl Myristate	5.0
Glyceryl Monostearate (Self Emulsifying Type)	2.9
Polyoxyethylene (20) Cetyl Ether	2.1
(W) Ajidew N-50	3.0
Water	67.0
Preservative	q.s.

Procedure:

1. Heat (O) and (W) to 80C. 2. Add (W) to (O) slowly with stirring 3. Cool to 40C with stirring.

pH: 5.2

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

W/O Light Cream

<u>Ingredients:</u>	<u>Wt%</u>
A) Arlancel P-135, PEG-30 Dipolyhydroxystearate	4.0
Arlamol S7, Cyclomethicone (and) PPG-15 stearyl ether	6.0
Arlamol HD, Isohexadecane	12.0
Castor wax, Hydrogenated castor oil	2.0
B) Atlas G-2330, Sorbeth-30	4.0
MgSO ₄ -7H ₂ O, Magnesium sulfate	0.7
Water	71.3
Preservative	q.s.
C) Perfume	q.s.

Procedure:

Heat (A) and (B) to 75C. Slowly add (B) to (A) while stirring vigorously. Homogenize thoroughly for 1 minute. Allow to cool to <45C while stirring. Homogenize thoroughly for 1 minute. Allow to cool to 35C while stirring vigorously. Add perfume and allow to cool to room temperature.

Comments:

Viscosity: 44,000 mPa s
(Brookfield LVT/spindle E/rpm 6)

Formula CP 1194

W/O Light Moisturizing Cream
90% Internal Phase

<u>Ingredients:</u>	<u>Wt%</u>
A) Arlancel P-135, PEG-30 Dipolyhydroxystearate	1.0
Arlamol S7, Cyclomethicone (and) PPG-15 stearyl ether	3.0
Arlamol HD, Isohexadecane	6.0
B) Atlas G-2330, Sorbeth-30	4.5
MgSO ₄ -7H ₂ O, Magnesium sulfate	0.8
Water	84.7
Preservative	q.s.
C) Perfume	q.s.

Procedure:

Heat (A) and (B) to 75C to 85C. Slowly add (B) to (A) while stirring intensively. Homogenize thoroughly for 1 minute. Allow to cool to <35C while stirring. Add perfume.

Comments:

Viscosity: 111,540 (after 1 month) mPa s
(Brookfield LVT/spindle E/rpm 1.5)

Formula CP 1192

SOURCE: ICI Surfactants: Suggested Formulations

Section VI
Hair Care Products

Aerosol Fine Fragrance Mousse

This formula provides a quick breaking foam which elegantly delivers fragrance with a dry talc-like after feel due to the emolliency of Veslan P8-3 liquid. Cartaretin F-4 provides hair and skin substantivity while Sandoxylate SX-424 contributes fragrance solubilization and fast breaking foam.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Sandoxylate SX-424	1.00
Fragrance	1.00
Phase B:	
Deionized Water	81.10
Velsan P8-3 liquid	5.00
SD-40-2 Alcohol	11.20
Phase C:	
Cartaretin F-4	0.50
Dimethicone Copolyol	0.20

Procedure:

Pre-mix Phase A. In a separate vessel, add ingredients of Phase B, mixing well after each addition. Add Phase A, mix and add Phase C. Adjust pH=7.0 with Citric Acid. Fill cans and charge with propellant.

Typical Ratio: Propellant A-46: 4.0%
Concentrate: 96.0

Appearance: Clear liquid

pH: 7-8

Ref.: CL11-31-1 & CMP-07

Men's Finishing Fragrance Mousse

This formula provides a quick-breaking foam which elegantly delivers fragrance and nice after feel due to the emolliency of Velsan P8-3 liquid. Cartaretin F-4 provides hair and skin substantivity while Sandoxylate SX-424 contributes fragrance solubilization and fast breaking foam.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Sandoxylate SX-424	1.00
Fragrance	1.00
Phase B:	
Deionized Water	81.10
Velsan P8-3 liquid	5.00
SD-40-2 Alcohol	11.20
Phase C:	
Cartaretin F-4	0.50
Dimethicone Copolyol	0.20

Procedure:

Pre-mix Phase A. In a separate vessel, add ingredients of Phase B, mixing well after each addition. Add Phase A, mix and add Phase C. Adjust pH=7.0 with Citric acid. Fill cans and charge with propellant.

Typical Ratio: Propellant A-46: 4.0%
Concentrate: 96.0%

Appearance: Clear liquid

pH: 7-8

Ref: CL11-31-1 & CMP-08

SOURCE: Clariant Corp.: Suggested Formulations

Aerosol Fragrance Mousse

This formula provides a quick breaking foam which elegantly delivers fragrance and a nice after feel due to the emolliency of Velsan P8-3 liquid. Cartaretin F-4 provides hair and skin substantivity while Sandoxylate SX-424 contributes fragrance solubilization and fast breaking foam.

CL9-201:

Ingredients:

	<u>Wt%</u>
Phase A:	
Sandoxylate SX-424	0.60
Fragrance	0.20
Phase B:	
Deionized Water	85.00
Velsan P8-3 liquid	0.60
SD-40-2 Alcohol	11.20
Dimethicone Copolyol	0.20
Phase C:	
Cartaretin F-4	2.20

Procedure:

Pre-mix Phase A. In a separate vessel, add ingredients of Phase B, mixing well after each addition. Add Phase A, mix and add Phase C. Adjust pH-7.0 with Citric acid. Fill cans and charge with propellant.

Typical Ratio: Propellant A-46: 4.0%
Concentrate 96.0%

CL9-267:

Ingredients:

	<u>Wt%</u>
Phase A:	
Sandoxylate SX-424	0.60
Fragrance	0.20
Phase B:	
Deionized Water	85.30
Velsan P8-3 liquid	2.50
SD-40-2 Alcohol	11.20
Dimethicone Copolyol	0.20

Procedure:

Pre-mix Phase A. In a separate vessel, add ingredients of Phase B, mixing well after each addition. Add Phase A, mix and add Phase C. Adjust pH-7.0 with Citric acid. Fill cans and charge with propellant.

Typical Ratio: Propellant A-46: 10.0%
Concentrate: 90.0%

SOURCE: Clariant Corp.: Ref. CMP-04/Ref. CL9-201, 267

Blow-Dry Styling Lotion

This clear, water white, pump spray provides excellent curl retention and body. Diaformer Z-SM produces a clear, flexible film on the hair. Sandoxylate SX-424 functions as a fragrance solubilizer and Sandopan LS-24 is an excellent hydrotrope.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-SM (Methylacrylol Ethyl Betaine/Methacrylates Copolymer)	2.00
Deionized Water	80.00
Dow Corning 193 (Dimethicone Copolyol)	0.20
SD 40 Alcohol	17.00
Sandopan LS-24 gel (Sodium Laureth-13 Carboxylate)	0.20
Sandoxylate SX-424 (PPG-2 Isodeceth-12)	0.40
Fragrance and Preservative	qs

Procedure:

Add water to vessel. With mixing, add Dow Corning 193, SD 40 Alcohol, Diaformer Z-SM and Sandopan LS-24 in order. Mix well after each addition. Premix Sandoxylate SX-424 and fragrance. Add to batch with mixing. Add preservative with mixing.

Appearance: Clear, water white liquid
Formula CHF-10/REF: CL24-95

Water Based Pump Hair Spray

Diahold A-503 requires no neutralization in formulation and its high water compatibility allows formulation of low VOC hair sprays. This water based hair spray uses Diahold A-503 to provide a clear glossy film and a strong hold.

<u>Ingredients:</u>	<u>Wt%</u>
Diahold A-503 (AMP-Acrylates Copolymer)	7.00
Deionized Water	91.50
Dow Corning 190 (Dimethicone Copolyol)	0.30
Lauramide DEA	0.30
Glycerine	0.20
Propylene Glycol	0.40
Fragrance and Preservative	qs

Procedure:

Add water to vessel. With mixing, add Dow Corning 190, Lauramide DEA, Diahold A-503, Glycerine, and Propylene Glycol in order. Mix well after each addition. Add Fragrance and Preservative with mixing.

Properties:

pH: 6.5-7.0

Appearance: Clear, water white liquid
Formula CHF-11/REF: CL24-74

SOURCE: Clariant Corp.: Suggested Formulations

Clarifying and Volumizing Hair Mask**Formula Profile:**

This mask formulation is for all hair types and takes advantage of the absorbing and cleansing properties of Bentonite. The extra fine grind of Veegum F is a mechanical volumizing aid in hair masks. This formula contains glycerin that will improve residual feel and improve the shine of hair. The surfactant aids in the rinsability of the dried mask.

<u>Ingredients:</u>	Wt%
A: Water	47.8
Veegum F (Magnesium Aluminum Silicate)	7.0
B: Glycerin	5.0
Vanclay (Kaolin)	30.0
Talc (Cosmetic Grade)	5.0
Vanseal NALS-30 (Sodium Lauroyl Sarcosinate)	5.0
C: Preservative	qs
D: Fragrance	qs
E: Triethanolamine	0.2
Citric Acid Adjust pH to 6.0+-0.5	qs

Procedure:

Step 1: Sift Veegum F into an established vortex in water. Veegum F will need approximately 60 minutes for hydration using a homogenizer or up to 180 minutes using a prop type mixer. Additional energy, such as an increase in mixing intensity or water temperature, will reduce hydration time.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum F and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Add remaining water phase ingredients listed in Part B.

Step 3: Add Part C-Preservative.

Step 4: Add Part D-Fragrance.

Step 5: Adjust pH to 6.0 with part E.

Product Specifications:

Viscosity: Brookfield LVT DVII Spindle #TF @ 0.3 RPM: 1,000,000+-
100,000 cps

pH: 5.5-6.5

This formula produces a stable emulsion that passes 3 month stability testing at RT, 5C, 38C, 50C and 3 cycle F/T

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 473

Clear Conditioning Hair Fluid
(This is a moderate viscosity fluid)

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.15
Cyclomethicone (Abil B 8839)	15.20
Phenyl Trimethicone (Abil AV-20)	2.15
Quaternium-80 (Abil Quat 3272)	1.10
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	5.40
Fragrance	Q.S.
Phase B:	
Water	27.50
Preservatives	Q.S.
Propylene Glycol	38.50
Hexylene Glycol	4.00
Glycerin	3.00
Sodium Chloride	1.00

Procedure:

1. Combine the ingredients of Phase A together. Determine the refractive index.
2. Dissolve the preservatives and Sodium Chloride into the water of Phase B.
3. Add the remaining ingredients to Phase B. Determine the refractive index.
4. Match the refractive index of Phase B to Phase A using water or propylene glycol, depending on the direction needed.
5. Add Phase B slowly to Phase A while homogenizing. (Avoid air entrapment).

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Antidandruff Hair Tonic

<u>Ingredients:</u>	<u>Wt%</u>
A: Octopirox (Piroctone Olamine)	0.10
B: Ethyl alcohol	35.00
C: Fragrance	0.30
Emulsogen EL (PEG-36 Castor Oil)	0.60
D: Water	63.20
Genamin KSL (PEG-5 Stearyl Ammonium Lactate)	0.30
D-Panthenol	0.50
E: Citric acid----->pH 5.0-6.0	q.s.

Procedure:

1. Dissolve A in B.
2. Stir 1 into mixture C.
3. Stir mixture D into 2.
4. Finally adjust the pH with E.

SOURCE: Hoechst Aktiengesellschaft: Formula B III/3006

Clear Conditioning Hair Gel

<u>Ingredients:</u>	Wt%
Phase A:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.00
Cyclomethicone (Abil B 8839)	14.00
Phenyl Trimethicone (Abil AV-20)	2.20
Quaternium-80 (Abil Quat 3272)	0.80
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	5.00
Fragrance	Q.S.
Phase B:	
Water	28.20
Preservatives	Q.S.
Propylene Glycol	40.00
Hexylene Glycol	4.00
Glycerin	3.00
Sodium Chloride	0.80

Procedure:

1. Combine the ingredients of Phase A together. Determine the refractive index.
2. Dissolve the preservatives and Sodium Chloride into the water of Phase B.
3. Add the remaining ingredients to Phase B. Determine the refractive index.
4. Match the refractive index of Phase B to Phase A using water or propylene glycol, depending on the direction needed.
5. Add Phase B slowly to Phase A while homogenizing. (Avoid air entrapment).

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Cream Rinse

<u>Raw Materials:</u>	Wt%
A: Genamin EQ	2.00
Hostacerin T-3 (Cetareth-3)	1.00
Cetyl alcohol	1.50
Jojoba oil	1.50
B: Water	93.20
Panthenol	0.50
Preservative	q.s.
C: Fragrance	0.30
Dyestuff solution	q.s.
D: Citric acid----->pH 4.0	q.s.

Procedure:

1. Melt A at 75C.
2. Stir 2 into 1.
3. Heat B to 75C.
4. Stir until cool.
5. At ca. 40C add the components of C to 4.
6. Finally adjust the pH with D.

SOURCE: Hoechst Aktiengesellschaft; Formula B II/1061

Clear Extra Conditioning Hair Gel

Ingredients:	Wt%
Phase A:	
Dimethicone Copolyol (and) Cyclomethicone (Abil EM 97)	2.00
Cyclomethicone (Abil B 8839)	17.00
Phenyl Trimethicone (Abil AV-20)	2.50
Quaternium-80 (Abil Quat 3272)	1.50
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	6.50
Isopropyl Palmitate (Tegosoft P)	0.50
Fragrance	Q.S.
Phase B:	
Water	31.00
Preservatives	Q.S.
Propylene Glycol	31.00
Hexylene Glycol	4.00
Glycerin	3.00
Sodium Chloride	1.00

Procedure:

1. Combine the ingredients of Phase A together. Determine the refractive index.
2. Dissolve the preservatives and Sodium Chloride into the water of Phase B.
3. Add the remaining ingredients to Phase B. Determine the refractive index.
4. Match the refractive index of Phase B to Phase A using water or propylene glycol, depending on the direction needed.
5. Add Phase B slowly to Phase A while homogenizing. (Avoid air entrapment).

SOURCE: Goldschmidt Chemical Co.: Suggested Formula

Cream Rinse

Raw Materials:	Wt%
A: Genamin STAC (Steartrimonium Chloride)	2.50
Hostacerin DGS (Polyglyceryl-2 PEG-4 Stearate)	2.00
Cetyl stearyl alcohol	3.20
Mineral oil, high viscosity	1.00
B: Water	91.00
Preservative	q.s.
C: Fragrance	0.30
Dyestuff solution	q.s.
D: Citric acid---->pH 4.0	q.s.
1. Melt A at ca. 75C.	
2. Heat B to ca. 75C.	
3. Stir 2 into 1.	
4. Stir until cool.	
5. At ca. 35C add the components of C to 4.	
6. Finally adjust the pH with D.	

SOURCE: Hoechst Aktiengesellschaft: Formula B II/1057

Clear Gel Activator/Conditioner

This is a clear rinsing curl activator used to bring out the natural curl of the hair. It also contains humectants, detackifiers and conditioners.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water	57.65
Carbomer 940	0.50
Triethanolamine	2.25
Phase B:	
Glycerin	32.20
Propylene Glycol	5.00
Dimethicone Copolyol (Abil B 88183)	1.00
Dimethicone Copolyol (Abil B 8851)	1.00
Quaternium-80 (Abil Quat 3272)	0.40
Phase C:	
Color, Fragrance, Preservative	Q.S.

Procedure:

Disperse the Carbomer into the water and mix until completely clear. Add the Triethanolamine and mix well. Mix Phase B and add slowly to Phase A while mixing. Add Phase C with mixing.

Ethnic Hair Care
Extra Conditioning Conditioner

<u>Ingredients:</u>	<u>Wt%</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW 12)	50.0
Cyclomethicone	30.5
Isohexadecane or Mineral Oil	8.0
Octyl Palmitate (Tegosoft OP)	3.0
Octyl Stearate (Tegosoft OS)	3.0
Phenyl Trimethicone (Abil AV 20)	5.0
Quaternium-80 (Abil Quat 3474)	0.5

Procedure:

Combine all ingredients in order with mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Clear Silicone Hair Gel

<u>Ingredients:</u>	<u>Wt%</u>
Oil Phase:	
Cetyl Dimethicone Copolyol (Abil EM-90)	1.60
Cyclomethicone	7.20
Isopropyl Myristate (Tegosoft M)	3.60
Cetyl Dimethicone (Abil Wax 9801)	1.80
Dimethicone (50 cs)	1.80
Water Phase:	
Water	39.00
Propylene Glycol	42.50
Sodium Chloride	2.50
Preservatives	Q.S.

Procedure:

1. Mix the ingredients of the oil phase and the water phase separately at room temperature.
2. Measure the refractive indices of each phase. These must be identical to achieve optimum clarity. If necessary, adjust the refractive index of the water phase with additional propylene glycol.
3. Add the water phase to the oil phase slowly with strong shear. Mix until water phase is fully dispersed.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Cream Rinse

<u>Raw Materials:</u>	<u>Wt%</u>
A: Genamin KSL (PEG-5 Stearyl Ammonium Lactate)	6.00
Hostaphat KL 340 N (Trilaureth-4 Phosphate)	1.50
Cetylstearyl alcohol	3.80
Mineral oil, high viscosity	2.00
B: Water	86.40
Preservative	q.s.
C: Fragrance	0.30
Dyestuff solution	q.s.
D: Citric acid-----> pH 4.0	q.s.

Procedure:

1. Melt A at ca. 75C.
2. Heat B to ca. 75C.
3. Stir 2 into 1.
4. Stir until cool.
5. At ca. 35C add the components of C to 4.
6. Finally adjust the pH with D.

SOURCE: Hoechst Aktiengesellschaft: Formula B II/1049

Creme Rinse

<u>Ingredients:</u>	<u>Wt%</u>
Water	86.80
Hydroxyethyl Cellulose	0.70
Glycol Distearate	2.00
Cetyl Alcohol	2.50
Monaquat TG	6.70
Phospholipid EFA	0.30
Monasil PDM	0.96
Oleic Acid	0.04

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60C and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5-5.0 with 50% citric acid. Add color, fragrance and preservatives as required. Continue agitation and cooling until pearl develops.

Formulation Properties:

Physical Appearance: White pearly lotion
Formulation F-703

Clear Gel Hair Conditioning Rinse

<u>Ingredients:</u>	<u>Wt%</u>
Water	87.90
Monafax MAP-230	4.10
Monateric LMAB	7.15
Monaquat ISIES	0.85

Procedure:

Blend in order listed at room temperature, adjust to pH 7, add fragrance, color, preservative, and package.
Appearance: Clear viscous liquid
Formulation F-680

Hair Conditioner

<u>Ingredients:</u>	<u>Wt%</u>
0.5% Hydroxyethylcellulose in water	93.0
Cetyl Alcohol	3.0
Monasil PLN	4.0

Viscosity: 2000 cps
Opaque Viscous Liquid

Procedure:

Hydrate HEC in water, then add remaining ingredients in order with sufficient heat to melt cetyl alcohol. Add fragrance, preservative, and then package.
Formulation F-684

SOURCE: Mona Industries, Inc.: Suggested Formulations

Creme Rinse

<u>Ingredients:</u>	<u>Wt%</u>
Water	86.80
Hydroxyethyl Cellulose	0.70
Glycol Distearate	2.00
Cetyl Alcohol	2.50
Monaquat SL-5	6.70
Phospholipid EFA	0.30
Monasil PDM	0.96
Oleic Acid	0.04

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60C and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5-5.0 with 50% citric acid. Add color, fragrance and preservative as required. Continue agitation and cooling until pearl develops.

Physical Appearance: White pearled lotion
Formulation F-708

Hair Relaxer

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Phospholipid SV	3.0
Propylene Glycol	3.0
45% KOH	5.0
Water	50.0
Part B:	
Cetyl Alcohol	4.0
Monafax MAP 160	3.0
Petrolatum	20.0
Mineral Oil	10.0
Monasil PCA	2.0

Procedure:

Heat A & B separately to 65C. Slowly add B to A with homogenization and continue blending for an appropriate time. Stir cool to 40-45C, add fragrance and package.

Typical Properties:

Viscosity: 400,000 cP
pH: 13
Formulation F-706

SOURCE: Mona Industries, Inc.: Suggested Formulations

Creme Rinse

<u>Ingredient:</u>	<u>Wt%</u>
Water	86.75
Hydroxyethyl Cellulose	0.70
Glycol Distearate	2.00
Cetyl Alcohol	2.50
Monaquat TG	6.70
Phospholipid EFA	0.30
Monasil PDM	1.00
Oleic Acid	0.05

Procedure:

Charge water, carefully add Natrosol 250 HHR with good agitation. Heat to 50-60C and add remaining ingredients and continue heating to 70C. Cool to 45C and adjust pH to 4.5-5.0 with 50% citric acid. Add color, fragrance and preservative as required. Continue agitation and cooling until pearl develops.

Formulation Properties:

Physical Appearance: Pearlescent pearled lotion

Monasil PCA Hair Relaxer

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Phospholipid SV	3.0
Propylene Glycol	3.0
45% KOH	5.0
Water	50.0
Part B:	
Cetyl Alcohol	4.0
Monafax MAP 160	3.0
Petrolatum	20.0
Mineral Oil	10.0
Monasil PCA	2.0

Procedure:

Heat A & B separately to 65C. Slowly add B to A with homogenization and continue blending for an appropriate time. Stir cool to 40-45C, add fragrance and package.

Typical Properties:

Viscosity: 400,000 cP/pH: 13

SOURCE: Mona Industries, Inc.: Suggested Formulations

Ethnic Hair Care
Amphoteric Shampoos
 (Cold Process)
 Clear

<u>Ingredients:</u>	<u>Wt%</u>
Tetrasodium EDTA	0.1
Water	51.1
Sodium Lauryl Sulfate	20.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.0
Dimethicone Propyl PG Betaine (Abil B 9950)	0.5
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 88183)	0.5
PEG-30 Glyceryl Laurate (Tagat L)	0.5
Cocamidopropyl Betaine (Tego Betaine F)	25.0
Citric Acid (25% Solution)	to pH 6
Fragrance	Q.S.
Sodium Chloride (25% Solution to adjust viscosity)	Q.S.

Procedure:

1. Mix ingredients in order.
2. Adjust viscosity with Sodium Chloride.

Pearled

<u>Ingredients:</u>	<u>Wt%</u>
Tetrasodium EDTA	0.1
Water	48.1
Sodium Lauryl Sulfate	20.0
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.0
Dimethicone Propyl PG Betaine (Abil B 9950)	0.5
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 88183)	0.5
PEG-30 Glyceryl Laurate (Tagat L)	0.5
Cocamidopropyl Betaine (Tego Betaine F)	25.0
Citric Acid (25% Solution)	to pH 6
Fragrance	Q.S.
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Sodium Chloride (25% Solution to adjust viscosity)	Q.S.

Procedure:

1. Mix ingredients in order.
2. Adjust viscosity with Sodium Chloride.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Ethnic Hair Glosser/Extra Conditioning

This water-in-oil formula based on a silicone polymeric emulsifier is designed for use as a leave in conditioner to give gloss and body especially for hair which has been chemically treated.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A: Oil Phase:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Petrolatum	6.0
Mineral Oil	10.0
Cetyl Dimethicone (Abil Wax 9801)	2.0
Octyl Palmitate (Tegosoft OP)	3.5
Isopropyl Palmitate (Tegosoft P)	3.0
Lanolin Oil	3.0
Phenyl Trimethicone (Abil AV 20)	2.0
Quaternium-80 (Abil Quat 3474)	0.5
Phase B:	
Fragrance	Q.S.
Phase C: Water Phase:	
Water	64.3
Sodium Chloride	0.7
Glycerin	3.0
Preservatives	Q.S.

Procedure:

1. Blend the components of Phase A together--heating to 50C. Mix until fully dispersed.
2. Cool to 40-45C with agitation - add fragrance.
3. In a separate vessel, mix the components to Phase C together.
4. Add Phase C to Phase A/B slowly with slow lightning mix. Mix until all water is incorporated into the oil phase.
5. Homogenize.

Ethnic Pump Spray Conditioner

<u>Ingredients:</u>	<u>Wt%</u>
Water	82.2
Propylene Glycol	7.5
Glycerin	7.5
Dimethicone Copolyol (Abil B 88183)	2.0
Quaternium-80 (Abil Quat 3272)	0.5
Panthenol	0.2
Tocopherol Acetate (Vitamin E)	0.1
Preservatives	Q.S.

Procedure:

Combine all ingredients in order with mixing.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Brushing Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Amihope LL	0.5
POE (20) sorbitan monolaurate	1.5
Pyroter GPI-25	1.0
Propylene glycol	2.0
B: Stearyl alcohol	0.5
Carbopol 941 (0.5 wt% solution)	15.0
Water	balance
Preservatives	0.2
C: ProdeW 100 or 200	0.2
Ethanol	5.0

Procedure:

Mix (A) ingredients and add (B) to (A). Heat up to 70-80C with stirring. Cool down the mixture to 50C and add (C), then cool down to room temperature.

NOTE: Non-cationic antistatic formulation. Smooth combing obtained due to the lubricity of Amihope LL.

Formula BR-02

Hair Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Glycereth-25 PCA Isostearate (Pyroter GPI-25)	1.2
PEG-40 Hydrogenated castor oil PCA Isostearate (Pyroter GPI-40)	3.5
Octyldodecanol	0.1
B: ProdeW 400	1.5
1,3-Butylene glycol	5.0
Methyl paraben	q.s.
Water	balance
C: Ethanol	10.6
Carboxymethyl cellulose	0.6
Perfume	q.s.

Procedure:

Mix all ingredients (A) and (B) at 60-70C with stirring respectively. Add (B) to (A) with stirring. Add Carboxymethyl cellulose and cool to 40C. Add ethanol and perfume and cool with stirring to 30C.

Formula HLP-141

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Hair Conditioner Lotion

This lotion is typical of a modern rinse-off formula but has excellent freeze-thaw stability.

<u>Ingredients:</u>	<u>Wt%</u>
A Brij 721	1.3
Cetyl alcohol	0.9
Stearyl alcohol	0.6
Stearalkonium chloride	0.5
B Water, deionized	96.7

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) with moderate agitation. Cool while agitating to 40C. Replace water lost by evaporation and package.

Formula HC-10

Hair Conditioner Gel

Demonstrates the use of Forestall in a surfactant gel which would be a good hair dressing. The formula is a clear (micro-emulsion), "ringing" gel.

<u>Ingredients:</u>	<u>Wt%</u>
A Mineral oil	11.0
Arlasolve 200L Isoceteth-20	27.8
Brij 93 Oleth-2	6.0
B Water	41.8
Propylene glycol	5.0
Sorbitol Solution, USP	7.0
Forestall	1.4

Preparation:

Heat (A) and (B) to 90C. Add (B) to (A) with gentle stirring. Cool to 80C and add make-up water. Stir until uniform and pour while still fluid.

Formula HC-11

SOURCE: ICI Surfactants: Suggested Formulations

Hair Dressing
W/O Cold Process

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Cetyl Dimethicone Copolyol (Abil EM-90)	2.0
Mineral Oil	7.3
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Cyclomethicone	5.0
Polyglyceryl-4 Isostearate (Isolan GI 34)	1.0
Cetearyl Isononanoate (Tegosoft CI)	1.5
Cetyl Octanoate (Tegosoft CO)	0.8
Quaternium-80 (Abil Quat 3272)	0.5
Fragrance	Q.S.
Phase B:	
Water	72.9
Propylene Glycol	3.0
Glycerin	1.2
Sodium Chloride	0.8
Preservatives	Q.S.
<u>Procedure:</u>	
1. Mix the ingredients of Phase A together.	
2. Dissolve the Sodium Chloride into the water. Add the Glycerin and Propylene Glycol. Mix until clear.	
3. Add the preservatives.	
4. Add Phase B to Phase A slowly with soft propeller mixing. Maintain, at all times, a creamy appearance.	
5. Homogenize.	

Ethnic Hair Care
Leave-In Moisturizing/Sheen

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Tetrasodium EDTA	0.1
Water	77.9
Oleth-20	2.0
Dimethicone Copolyol (Abil B 88183)	3.0
Quaternium-80 (Abil Quat 3272)	0.5
Glycerin	15.0
Phase B:	
PEG-30 Glyceryl Laurate (Tagat L)	1.5
Fragrance	Q.S.
Preservative	Q.S.
<u>Procedure:</u>	
1. Add the water, Oleth-20, heat to 40C. Mix until clear.	
2. Add the remaining ingredients of Phase A mixing each until clear.	
3. Add the fragrance to the Tagat L. Mix well - add to Phase A.	
4. Cool with mixing - add preservatives.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Hair Relaxers

These formulations for a hair relaxer give a stable composition with a very desirable consistency. They can be easily worked through the hair and will remain until reacted. The products are extremely mild with minimal skin irritation.

Hair Relaxer D-51

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Petrolatum (USP)	23.0
	Mineral Oil	14.0
	Cetearyl Alcohol	5.5
B	Tetrasodium EDTA, 40%	0.1
	Propylene Glycol	5.5
	Sodium C12-C15 Pareth-15 Sulfonate/ Avanel S-150 CGN	3.65
	PEG 60 Lanolin	0.25
	Sodium Hydroxide, 50%	4.1
	Hydrolyzed Animal Protein/Lexein QX 300	0.25
	Perfume	0.1
	Deionized Water	43.55

Hair Relaxer D-52

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Petrolatum (USP)	23.0
	Mineral Oil	14.0
	Cetearyl Alcohol	5.5
B	Tetrasodium EDTA, 40%	0.05
	Propylene Glycol	5.5
	Sodium C12-C15 Pareth-3 Sulfonate/Avanel S-30	3.65
	PEG 60 Lanolin	0.25
	Sodium Hydroxide, 50%	4.1
	Hydrolyzed Animal Protein/Lexein QX 300	0.25
	Perfume	0.1
	Deionized Water	43.55

Procedure:

Heat the petrolatum to 80C and add the mineral oil. Continue heating with slow agitation. When the petrolatum is completely melted, add the cetearyl alcohol. Maintain temperature at 80C and continue stirring. To the deionized water, add the tetrasodium EDTA, propylene glycol, Avanel S-150 CGN or S-30 and PEG 60 lanolin with mixing. Heat to 80C. With vigorous agitation, add Part A to Part B. Stir for 15 minutes. Cool to 40C. Add the sodium hydroxide, animal protein and perfume. (NOTE: At this stage, the formula is separated and resembles cottage cheese. This will be corrected as the batch is finished.) Mix the batch while cooling to a temperature of about 20C using an external ice bath. The sides of the vessel must be freed of product while mixing.

SOURCE: PPG Industries, Inc.; Formulations D-51 and D-52

Hair and Scalp Conditioner

This conditioner leaves the hair with a shine and softness, while providing the moisturization needed by both the hair and scalp.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	58.70
2	Keltrol/Xanthan Gum	0.15
2	Veegum/Magnesium Aluminum Silicate	0.15
3	Uniphen P-23	0.50
3	Lipamide MEAA (75%)/Acetamide MEA	1.00
3	Liponic EG-1/Glycereth-26	1.00
4	Ultrapure L/White Petrolatum USP	8.00
4	Avocado Oil	12.00
4	Lipo GMS 450/Glyceryl Stearate	1.50
4	Lipopeg 6000 DS/PEG-150 Distearate	1.00
4	Lipowax P/Emulsifying Wax, NF	0.50
4	Lipocol C/Cetyl Alcohol	0.50
4	Lipolan R/Lanolin Oil	5.00
4	Lipovol MOS-70*	10.00

*Patent #4,659,573

Procedure:

1. Mix Sequence #1 on overhead mixer while heating to 78C.
2. Dry mix Sequence #2 ingredients and add slowly to Sequence #1 at 78C with medium agitation. Mix until completely hydrated.
3. Add Sequence #3 to batch in order of addition, while holding temperature at 78C.
4. Mix Sequence #4 together while heating to 80C until completely melted and add to batch at medium speed. Cool to 60C.
5. At 60C, switch to sweep blade and mix at low speed. Cool to 25C.

Specifications:

pH: 6.33+-0.2

Viscosity: LVT-F @ 1.5 rpm=185,00 cps +-10%

SOURCE: Lipo Chemicals Inc.: Formulation No. 1016

Hair Styling Cream with Natural Oils & Conditioners

This styling cream contains natural oils to provide moisturization and shine. This light emulsion can be used to style and define hair without leaving a heavy greasy feel. This formula also contains cationic conditioners to provide excellent static control and feel, and a sunscreen to help protect the hair from UV damage.

Ingredient/Trade Name:

	<u>Wt%</u>
Part A:	
1. Meadowfoam Seed Oil/EmCon Limnathes Alba	3.00
2. Apricot Kernel Oil/Super Refined Apricot Kernel Oil	3.00
3. Phenyl Trimethicone/Dow Corning 556 Fluid	2.00
4. C12-15 Alkyl Benzoate/Finsolv TN	2.00
5. Glyceryl Stearate/Cerasynt SD	2.00
6. Octyl Methoxycinnamate/Neo Heliopan AV	4.00
7. Tocopheryl Acetate/Radical Scavenger Vitamin E Acetate	0.50
8. Acrylates/C10-30 Alkyl Acrylates Crosspolymer/ Pemulen TR-1	0.25
9. Carbomer/Carbopol Ultrez 10	0.15
Part B:	
10. Deionized Water	78.92
11. PVP (100%)/Luviskol K90 Powder	1.00
13. Triethanolamine (99%)	0.38
Part C:	
14. PEG-20 Almond Glycerides/Crovol A-40	0.20
15. Linoleamidopropyl PG-Dimonium Chloride Phosphate/ Phospholipid EFA	0.30
16. Cocodimonium Hydroxylpropyl Hydrolyzed Wheat Protein/Hydrotriticum QM	0.30
17. Fruity Floral Fragrance/Fragrance #A42017	1.00
18. Propylene Glycol (and) Methylparaben (and) Propyl- paraben (and) Diazolidinyl Urea/Germaben IIE	1.00

Properties:

Appearance: Thick, glossy, creamy emulsion

pH: 6.0-6.8

Viscosity (cP): 20,000-40,000

Preparation Procedure:

- Part A: Combine all oil phase ingredients, heat mixture to 60-65C, mix until uniform. Disperse Pemulen TR-1 and Carbopol Ultrez 10 polymers in oil phase. Mix until powders are dispersed well.
- Part B: Disperse PVP K-90 in deionized water (55-60C). Mix until polymer is hydrated. Add triethanolamine to solution.
- Add Part A to Part B. Both phases should be at 55-60C. Mix until no lumps remain and batch is uniform, maintaining a temperature of 55-60C.
- Part C: Add Crovol A-40 to batch. NOTE: Batch may invert to a water in oil emulsion (batch will look curdled). Keep mixing and cool batch to 40-45C. Keep mixing until batch reinverts to an oil-in-water emulsion (extra shear agitation may be necessary if the batch has still not reinverted at 40C)
- Part C: After the batch has cooled to 40-45C and inversion is complete, add remaining Part C ingredients. Mix til uniform.

SOURCE: B.F. Goodrich Co.: Formulation P0048

Hair Styling Gel

Diaformer Z-301 provides excellent hold, clear films, and does not flake. This water white, clear formulation has good viscosity initially and over time. This formula can be easily removed from the hair by shampooing.

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	95.75
Carbopol 941 (Carbomer 941)	0.40
Triethanolamine 99%	0.40
Diaformer Z-301 (Methacryloyl Ethyl Betaine/Methacrylates Copolymer)	3.35
Fragrance and Preservative	qs

Procedure:

Add Carbopol 941 to water and mix until a homogeneous viscous liquid develops. Add Triethanolamine to neutralize the Carbopol 941. Mix well. Add Diaformer Z-301 and other ingredients one at a time mixing well after each addition. Adjust pH as desired.

Properties:

Appearance: Water white, clear gel
 pH: 6.0
 Viscosity: 12,500-13,000 cps
 Formula CHF-16/REF: CL24-101

Hard Hold Hair Spray

This hard hold hair spray uses Diaformer Z-AT for its excellent curl retention and hold. Diaformer Z-AT also helps to reduce static and improve manageability when the hair is combed. This formulation also meets 80% VOC requirements by incorporating almost 13% water.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-AT (Methacryloyl Ethyl Betaine/Methacrylates Copolymer)	17.50
Deionized Water	12.70
Dow Corning 190 (Dimethicone Copolyol)	0.10
SD 40 Alcohol	69.50
Lauramide DEA	0.10
Fragrance and Preservative	qs

Procedure:

Add Diaformer Z-AT to the alcohol mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Appearance: Clear, slightly yellow liquid
 Formula CHF-17/REF: CL27-35

SOURCE: Clariant Corp.: Suggested Formulations

Hair Styling Gel

Illustrates a hair styling gel based on a Carbomer resin and polyvinylpyrrolidone.

<u>Ingredients:</u>	<u>Wt%</u>
A Carbomer 940	0.33
Sorbitol Solution, USP	2.00
SDA-40 Ethanol, 25% aqueous	72.85
B Arlasolve 200 Liquid/Gel	0.40
Water/denatured alcohol, SDA Formula No. 40, 75/25 Weight % mixture	23.07
Vinylpyrrolidone/vinyl acetate copolymer	1.00
Triethanolamine	0.35
Perfume	q.s.

Preparation:

Part (A): Mix Sorbitol Solution with water/alcohol blend. Disperse Carbomer 940 in the Sorbitol Solution water/alcohol blend using high speed propeller agitation. Allow the air bubbles to disperse.

Part (B): Add the Arlasolve 200 Liquid/Gel to the perfume with gentle agitation. Add the water/alcohol solution, PVP/VA, and triethanolamine in that order, stirring after each addition to insure solution. Add (B) to (A) with very slow agitation.

Caution! Ethanol is very flammable!

Formula HC-4

Neutralizing Lotion

A typical bromate neutralizing lotion is represented. Viscosity is controlled by blending surfactants.

<u>Ingredients:</u>	<u>Wt%</u>
A Sodium bromate	12.0
Brij 30 Laureth-4	4.5
Polyglycol palmitic amide	4.5
Water	79.0
Preservative	q.s.
B Acetic acid, glacial	q.s.

Preparation:

Add the sodium bromate to water. Stir with heat until dissolved. Add the remainder of (A). Heat to 70-75C. Agitate continually until cooled to room temperature. Adjust pH to 6.5-7.0 with (B). Replace water lost by evaporation. Package.
Formula HC-18

SOURCE: ICI Surfactants: Suggested Formulations

Hair Styling Mousse

Diaformer Z-SM provides hold as well as conditioning on the hair. Its natural looking hold is flexible and bouncy. Sandoxylate SX-424 acts as a fragrance solubilizer and Elfugin AKT 300 is a corrosion inhibitor.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-SM (Methacryloyl ethyl betaine/Methacrylates Copolymer)	4.00
Deionized Water	78.05
Dow Corning 193 (Dimethicone Copolyol)	0.25
SD 40 Alcohol	17.00
Sandoxylate SX-424 (PPG-2 Isodeceth-12)	0.45
Fragrance	0.10
Elfugin AKT liq 300 (Sodium C13-15 Pareth-8 Butyl Phosphate and Sodium C13-15 Pareth-9 Phosphate)	0.10
Preservative	qs

Procedure:

Add water to vessel. With mixing, add Dow Corning 193, SD 40 Alcohol, and Diaformer Z-SM in order. Mix well after each addition. Premix Sandoxylate SX-424 and Fragrance and add to batch with mixing. Add Elfugin AKT and Preservative one at a time with mixing.

Aerosolize in the ratio of 95% concentrate to 5% A-70 propellant.

Notes:

Clariant has worked with Seaquist Valve to develop recommendations for valves. Their recommended valve system for CHF-09 is as follows:

Button: Long Skirt/Long Spout//Stem: 2x0.020", 0.333" stem length
 Gasket: Buna-N 0.042"/Cup: Alum. CC, Ep.Top/Bottom, Cut gasket
 Spring: 0.020" SS Body: Tailless

In addition, they also tested and found four specific gaskets to be compatible with this formulation. They are in the NS-20 series: Buna-N #100 and #102, Buna-P #150 and Butyl #501. CHF-09/Ref: CL24-95

Crystal Clear Hair Styling Gel

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	96.78
Carbopol 1342 (Acrylates/C10-30 Alkyl Acrylate Cross-polymer)	0.61
Triethanolamine 99%	0.20
Diaformer Z-301 (Methacryloyl Ethyl Betaine/Methacrylates Copolymer)	1.60
Fragrance and Preservative	qs

Procedure:

Sprinkle Carbopol 1342 into rapidly agitating cold water. Mix well until thoroughly dispersed. With mixing, add Triethanolamine to neutralize the Carbopol 1342. Add Diaformer Z-301 and other ingredients one at a time with mixing. Adjust pH as desired.

Properties:

Appearance: Water white, clear gel

Viscosity: 36,000-40,000 cps

CHF-07/Ref: CL24-66

SOURCE: Clariant Corp.: Suggested Formulations

Hydrogen Peroxide Emulsions

Hydrogen peroxide emulsions are listed below, based on 6% hydrogen peroxide content. Other levels should be tolerated but should be carefully evaluated. Viscosity can be varied by adjusting the levels of fatty alcohols, fatty acid, and emulsifier.

Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Cetyl alcohol	6.0
Brij 721 Steareth-21	5.0
Silicone oil, 350 cs.	0.5
B Water, deionized	66.3
C Hydrogen peroxide, 27% dilution grade	22.2

Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Cetyl alcohol	3.0
Brij 721 Steareth-21	3.0
Silicone oil, 350 cs.	0.5
B Water, deionized	66.3
Sorbitol Solution, USP	5.0
C Hydrogen peroxide, 27% dilution grade	22.2

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C) below 45C and stir to 35C. Replace water lost by evaporation and adjust pH to between 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Comments:

After four weeks at room temperature the above cream formula has a viscosity of about 17,600 cps. The emulsion stability is good for at least four weeks at 50C and for at least four freeze-thaw cycles.

After four weeks at room temperature the lotion formulation has a viscosity of 5,600 cps. The emulsion is physically stable at 50C for at least four weeks and four freeze-thaw cycles. After three months at room temperature the H2O2 content was almost 5%.

SOURCE: ICI Surfactants: Formula HC-13

Hydrogen Peroxide Lotion

The formula listed below departs in that a combination of stearic acid and fatty alcohols is used to achieve the desired consistency. Also phenacetin, a stabilizer, and N-hydroxyethyl-ethylenediaminetriacetic acid, a chelating agent, are included to promote stability of the hydrogen peroxide.

<u>Ingredients:</u>	Wt%
A Stearic acid, triple pressed	10.00
Stearyl alcohol	0.50
Cetyl alcohol	1.00
Brij 721	5.00
Silicone oil, 350 cs.	0.50
B Water	60.56
N-hydroxyethylethylenediamine-triacetic acid	0.20
Phenacetin	0.04
C Hydrogen peroxide, 27% dilution grade	22.20
D Phosphoric acid (10% C.P.)	9.50

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C) below 45C and stir to 35C. Replace water lost by evaporation and adjust pH to between 3.5-4.0 with dilute phosphoric acid (10% C.P.). Package in suitable container for possible evolution of oxygen.

Comments:

After five weeks at room temperature the viscosity of the lotion was 10,200 cps. The emulsion was stable for at least five weeks at 50C and for at least four freeze-thaw cycles. After three months at room temperature the hydrogen peroxide content was 5%.

Formula HC-14

Styling/Conditioning Mousse

A prototype styling/conditioning mousse is shown. It includes Forestall as a conditioner, a silicone copolymer to improve wet combing and polymeric resin for setting.

<u>Ingredients:</u>	Wt%
A Forestall	1.4
Brij 721	0.5
Amodimethicone (and) Nonoxynol-10 (and) Tallow-trimonium chloride	0.1
Water	78.0
B Vinylcaprolactam/PVP/Dimethylaminoethyl methacrylate copolymer	5.0
Ethanol, SDA-40	10.0
C Hydrocarbon Propellant A-46	5.0

Preparation:

Heat (A) to 70C with stirring until uniform. Cool to 40C. Add (A) to (B) with stirring. Pack in suitable aerosol containers and pressurize with (C) at room temperature.

Caution: Ethanol is very flammable!

Formula HC-12

SOURCE: ICI Surfactants: Suggested Formulations

Medium Hold, 80% VOC Pump Hair Spray

Diaformer Z-A provides a medium hold in this clear, water white spray. It also reduces static and improves manageability when the hair is combed. Its clear, flexible film gives a natural looking hold while offering excellent curl retention.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-A (Methacrylol Ethyl Betaine/Methacrylates Copolymer)	5.00
Dow Corning 190 (Dimethicone Copolyol)	0.20
Lauramide DEA	0.10
SD 40 Alcohol	75.00
Fragrance and Preservative	qs
Deionized Water	qs

Procedure:

Add Diaformer Z-A to the alcohol mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Appearance: Clear, water white liquid

Formula CHF-12/REF: CL24-76

Firm Hold, 80% VOC Pump Hair Spray

Diahold A-503 is easily formulated into a firm hold spray. This anionic polymer requires no in-process neutralization. Its good compatibility with water and superior curl retention produce a clear water white spray with excellent hold.

<u>Ingredients:</u>	<u>Wt%</u>
Diahold A-503 (AMP-Acrylates Copolymer)	7.00
Dow Corning 190 (Dimethicone Copolyol)	0.20
Lauramide DEA	0.10
SD 40 Alcohol	75.00
D-Panthenol	0.05
Fragrance and Preservative	qs
Deionized Water	qs

Procedure:

Add Diahold A-503 to the alcohol mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Appearance: Clear, water white liquid

Formula CHF-13/REF: CL24-74

SOURCE: Clariant Corp.: Suggested Formulations

Mild Fortified Hair Conditioner

This formulation provides a high degree of substantivity and conditioning. It helps to minimize damaged hair while leaving the hair soft and manageable.

<u>Ingredients:</u>	<u>Wt%</u>
Water	90.5
Cetearyl Alcohol	3.0
Monalac MPL	2.0
Monaquat SL-5	2.5
Glycerin	2.0

Adjust the pH to 5.0
 Appearance: White milky liquid
 Viscosity at 25C: 800 cP

Features of Monalac MPL:

Long lasting conditioning
 Highly substantive on skin and hair
 Smooth silky after-feel
 Unusually mild cleanser properties
 Multifunctional surfactant
 Low irritation potential

Hair Conditioner

<u>Ingredients:</u>	<u>Wt%</u>
0.5% Hydroxyethylcellulose in water	93.0
Cetyl Alcohol	3.0
Monasil PLN	4.0

Viscosity: 2000 cps
 Opaque Viscous Liquid

Procedure:

Hydrate HEC in water, then add remaining ingredients in order with sufficient heat to melt cetyl alcohol. Add fragrance, preservative, and then package.

Features of Monasil PLN:

Water soluble
 High silicone content
 Highly substantive
 Non irritating
 Long lasting silky after-feel
 Multifunctional surfactant properties

SOURCE: Mona Industries, Inc.: Suggested Formulations

Permanent Wave Lotion

One obvious application for Forestall is in home permanents as a deodorizer/conditioner. The following example is a basic formula without optional ingredients like opacifiers or thickeners.

<u>Ingredients:</u>	<u>Wt%</u>
A Forestall soyaethyl morpholinium ethosulfate	1.4
Brij 35 Laureth-23	2.0
Water	80.1
B Ethanolamine	9.5
C Thioglycolic acid	7.0

Preparation:

Mix (A) with gentle heat if necessary until uniform. Add (B). Add (C). Adjust pH to 9.0-9.5 with additional ethanolamine or thioglycolic acid.
Formula HC-15

Neutralizing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Forestall soyaethyl morpholinium ethosulfate	1.4
Brij 35	2.0
Water	92.3
Stabilizer	q.s.
B Hydrogen peroxide, 35%	4.3
C Phosphoric acid	q.s.

Preparation:

Mix (A) with gentle heat until uniform. Add (B) at 25C. Adjust pH to 4.0-5.0 with (C). Optional stabilizers may include sequestrants or antioxidants.
Formula HC-16

SOURCE: ICI Surfactants: Suggested Formulations

Spray Hair Gel

This clear gel has excellent pump spray quality, with moderate hold and little tack on hair under humid conditions. Carbopol Ultrez 10 gives a very clear gel which suspends air bubbles, yet thins when pumped through the sprayer to give a fine mist.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	29.70
Carbomer/Carbopol Ultrez 10	0.30
Part B:	
Glycerin	2.00
Methylparaben	0.20
Part C:	
Deionized Water	59.37
PVP/VA copolymer/Luviskol VA-73W	8.00
Triethanolamine (99%)	0.12
DMDM Hydantoin/Glydant	0.20
Disodium EDTA/Versene NA	0.01
Part D:	
PEG-45 Palm Kernel Glycerides/Crovol PK-70	0.10

Properties:

pH: 5.3-5.6

Viscosity (cP): 8,000-10,000

Clarity (%T): 89.0-95.0

Preparation Procedure:

1. Part A: Disperse Carbopol Ultrez 10 polymer by sprinkling on the surface of warm (25-45C) deionized water. No mixing required.
2. After the polymer is wetted (no dry white powder visible), mix slowly at low speed.
3. Mix Part B ingredients with heat until paraben is dissolved.
4. Add Part B to Part A with moderate agitation.
5. Mix Part C ingredients until they are dissolved.
6. Add Part C to Parts A and B with moderate agitation.
7. Premelt Crovol PK-70 and add to batch.
8. Add small additional amounts of TEA until gel is clear (pH 5.3-5.6).

Special Instructions:

In this formulation, a PVP/VA (70:30) copolymer in aqueous solution is required to maintain optimum clarity at up to 4% resin solids. Additionally, the best clarity will be obtained when the pH is maintained between 5.3-5.6. Special care should be taken to not exceed this pH.

Additional hold can be obtained by the incorporation of PVP K90 (BASF) at 0.5% to Part B without a reduction of gel clarity.

The viscosity can be lowered by adding very small quantities of Na₂ EDTA (0.01% increments) if so desired.

Note:

Recommended sprayer is Calmar Mark IV high pressure, 1.8 lb. precompression spring, Wt 25 Actuator orifice (Calmar, Inc.).

SOURCE: B.F. Goodrich Co.: Formulation 0003

Spray-On Conditioner

<u>Ingredients:</u>	<u>Wt%</u>
Water	93.35
Tetrasodium EDTA	0.10
Propylene Glycol	2.00
Glycerin	1.25
Quaternium-80 (Abil Quat 3272)	0.30
DL-Panthenol	0.50
Dimethicone Copolyol (Abil B 88183)	1.00
Sucrose Cocoate (Tegosoft LSE 65K)	0.50
PEG-30 Glyceryl Laurate (Tagat L)	1.00
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

Combine ingredients in order, mixing between additions.

Spray Detangler

This product is sprayed onto the hair to make combing of wet or dry hair easier.

<u>Ingredients:</u>	<u>Wt%</u>
Water	87.3
Propylene Glycol	8.0
Cocamidopropyl Betaine (Tego Betaine L-7)	3.0
PEG-7 Glyceryl Cocoate (Tegosoft GC)	1.0
Dimethicone Copolyol (Abil B 8852)	0.7
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

Blend the ingredients in order, mixing between additions until the formula is clear.

Comb Through Glosser

<u>Ingredients:</u>	<u>Wt%</u>
Cyclomethicone (and) Dimethiconol (and) Dimethicone (Abil OSW-12)	68.0
Phenyl Trimethicone (Abil AV-20)	20.0
Dimethicone (500 cs)	2.0
Dimethicone (1000 cs)	10.0
Fragrance	Q.S.

Procedure:

Combine ingredients in order - mixing well.

Caution: Traces of water will cause turbidity.

SOURCE: Goldschmidt Chemical Corp.; Suggested Formulations

Temporary Hair Color Gel W/Sunscreen

INCI Name/Trade Name:	Wt%
Phase A:	
Deionized Water	10.35
Disodium EDTA	0.05
Glycerin	2.00
SD 40 Alcohol	20.00
Mica (and) Titanium Dioxide (and) Iron Oxide/Colorona Red Gold	5.00
Phase B:	
Carbomer (2% aq. solution)/Carbopol 981	50.00
Phase C:	
Deionized Water	3.00
Triethanolamine (99%)	1.50
Phase D:	
Deionized Water	5.00
Triethanolamine (99%)	1.10
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	2.00

Procedure:

Combine Phase A ingredients sequentially under slow counter rotation agitation. Add Phase B. Mix slowly. Add combined Phase C. Maintain slow agitation until batch appears smooth and homogeneous. Combine Phase D ingredients sequentially; mix to clarity; add to batch slowly. Mix batch to uniformity. Formula EUS2-71-3

Blackstar Hair Gel

INCI Name/Trade Name:	Wt%
Phase A:	
Deionized Water	18.00
Glycerine	2.00
SD 40 Alcohol	10.00
Disodium EDTA	0.05
Iron Oxides (and) Mica/Colorona Blackstar Colors	5.00
Phase B:	
Carbomer/1% Carbopol 940 solution	50.00
Phase C:	
Triethanolamine 99%	0.75
Deionized Water	2.20
Phase D:	
SD 40 Alcohol	10.00
PVP/VA E-735	2.00

Procedure:

Combine Phase A with propeller agitation. When homogeneous, add the remaining phases in order with stirring. Formula ASI-11-1

SOURCE: Rona/EM Industries, Inc.: Suggested Formulations

Washable Crew Cut Wax

This formula was developed to provide good grooming, color, odor, high melting point, and rapid washability. Hair brushes stay clean and the user gets a light shampoo simply by standing under the shower.

<u>Ingredients:</u>	<u>Wt%</u>
Tallow glycerides	15.0
Tween 60	20.0
Arlacel 165 glycerol monostearate and PEG-100 stearate	30.0
Brij 58 Ceteth-20	30.0
Paraffin wax	5.0

Preparation:

Heat all ingredients together at 70C and agitate. Cast into molds and cool.

Formula HC-3

Clear Hair Conditioner Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Hydroxyethyl cellulose, 3% aqueous	40.0
B Forestall soyaethyl morpholinium ethosulfate	1.4
Water	58.6

Preparation:

Prepare (A) in advance by dispersing hydroxyethyl cellulose in water to yield a 3% solution. Prepare solution (B). Add (B) to (A) with stirring until homogeneous.

Formula HC-8

Cream Hair Rinse

Forestall can also be used effectively in an opacified "cream rinse" lotion like the one shown below.

<u>Ingredients:</u>	<u>Wt%</u>
Cetyl alcohol	1.5
Brij 721 Steareth-21	1.0
Forestall soyaethyl morpholinium ethosulfate	1.4
Water	96.1

Preparation:

Heat to 70C with stirring until uniform. Cool with stirring and add make-up water at 50C.

Formula HC-9

SOURCE: ICI Surfactants: Suggested Formulations

Water-in-Oil Hair Dressing Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Mineral oil	20.0
Ceresin wax	2.0
Beeswax	2.0
Arlacel 186 Glyceryl Oleate and Propylene Glycol	2.0
Sorbitol Solution, USP	18.0
B Water	56.0
Preservative	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with continuous agitation. Continue stirring until cream cools to room temperature. Replace water lost by evaporation. Mill to produce maximum smoothness and stability.

Formula HC-1

Formula HC-2 is an example of an oil-in-water hair dressing lotion. Two percent lanolin added to Formula HC-2 improved grooming and stability. No change in emulsifier content or ratio is required.

Oil-in-Water Hair Dressing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Mineral oil	35.0
Microcrystalline wax	5.0
Arlacel 60 Sorbitan Stearate	2.0
Tween 60 Polysorbate 60	3.0
B Water	55.0
Preservative	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with moderate stirring. Stir to 35C and replace water lost by evaporation.

Formula HC-2

SOURCE: ICI Surfactants: Suggested Formulations

55% VOC Pump Hair Spray

This 55% VOC hair spray incorporates Diaformer Z-400. This deodorized polymer is well suited to lightly fragranced products. It provides a medium hold in this crystal clear, water white spray. Velsan P8-3 acts as a non-greasy superfatting agent.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-400 (Methacryloyl Ethyl Betaine/Methacrylates Copolymer)	4.00
SD 40 Alcohol	40.00
Velsan P8-3 (Isopropyl C12-15 Pareth-9 Carboxylate)	0.50
Fragrance and Preservative	qs
Deionized Water	qs

Procedure:

Add Diaformer Z-400 to the alcohol mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Appearance: Clear, water white liquid
Formula CHF-14/REF: CL24-76

80% VOC Aerosol Hair Spray

Diaformer Z-AT provides excellent curl retention and hold in this 80% VOC aerosol hair spray. In addition, it provides some conditioning, reduces static, and improves manageability when the hair is combed.

<u>Ingredients:</u>	<u>Wt%</u>
Diaformer Z-AT (Methacryloyl Ethyl Betaine/Methacrylates Copolymer)	3.60
Deionized Water	19.60
Dow Corning 190 (Dimethicone Copolyol)	0.20
SD 40 Alcohol	75.00
Lauramide DEA	0.10
Fragrance and Preservative	qs

Procedure:

Add Diaformer Z-AT to the alcohol mixing well. Add water with mixing. Add remaining ingredients one at a time with mixing.

Aerosolize in the ratio of 80 parts concentrate to 20 parts propellant.

Appearance: Clear, water white liquid
Formula CHF-15/REF: CL24-95

SOURCE: Clariant Corp.: Suggested Formulations

Section VII

Lotions

Body Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
H2O, Deionized	76.70
Keltrol T	0.60
Tetrasodium EDTA	0.20
Phase B:	
Hest G-7-TO (Glycereth-7 Trioctanoate)	4.00
Hetlan AC (Cetyl Acetate & Acetylated Lanolin Alc.)	3.30
Hetoxamate SA-40 (PEG-40 Stearate)	1.65
Hetoxol STA-2 (Steareth-2)	0.55
Glyceryl Stearate	1.65
Petrolatum	0.75
Hest MS (Myristyl Stearate)	0.70
Hest CSO (Cetearyl Octanoate)	3.65
Hest L-2-O (Laureth-2 Octanoate)	5.00
Lecithin	0.25
Phase C:	
Germaben II E	1.00
Specifications:	
pH: 6.75	
Visc. #3/12: 5000 cps	

Procedure:

1. In a stainless steel kettle, disperse Keltrol T into H2O using a lightnin' type mixer.
2. When completely dispersed, add Tetrasodium EDTA and heat to 75C.
3. In a separate kettle, combine Phase B and heat to 75C.
4. Add Phase B to Phase A while mixing until uniform.
5. Cool to below 40C and add Phase C.

SOURCE: Heterene, Inc.: Formula HL 94-146`

Milk Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Liquid Petrolatum	
Amiter LG-OD	4.7
Propylene Glycol Monostearate	2.2
POE (5) Hydrogenated Castor Oil (Emalex HC-5)	0.4
POE (5) Glyceryl Monostearate (Emalex GM-5)	1.3
Butylparaben	2.8
Amihope LL	0.1
	3.0
B. Acylglutamate HS-11	
1,3-Butylene Glycol	0.3
Methylparaben	5.0
	0.2
C. Carboxyvinyl polymer	
Water	0.2
	79.72
D. Sodium Hydroxide (NaOH)	
	0.08
1. Dissolve (A) at 80C. 2. Dissolve (C), and then neutralize with (D). 3. Add (B) to #2, and dissolve at 80C. 4. Add #3 slowly to (A) with mixing, and then cool to 30C.	
Note: This milk lotion has light touch, and spreads well.	
SOURCE: Ajinomoto USA, Inc.: Suggested Formulation	

Body Lotion, Type O/W, with MPC-Milk Peptide Complex

<u>Raw Materials:</u>	<u>Wt%</u>
a) Eumulgin VL 75	4.50
Lanette O	2.00
Monomuls 60-35C	1.00
Cetiol LC	4.00
Cetiol B	5.00
Cetiol PGL	1.00
Myritol 312	2.00
Copherol F 1300	1.00
Phenonip	0.30
b) Water, distilled	65.85
Phenonip	0.30
Carbopol 980	0.30
Glycerin	2.00
c) KOH 20%	0.75
d) Water, distilled	9.38
Na3-Citrate x 2H2O	0.12
MPC-Milk Peptide Complex	0.50

Manufacture:

- a) Melt and bring to approx. 80C.
- b) Bring to approx. 80C and add to a) with stirring. Continue stirring until cooled to approx. 50C.
- c) Add. Continue stirring until cooled to approx. 30C.
- d) Stir in. Perfume, homogenize.

MPC contains natural polypeptides from milk, in activated form. A protective environment exclusively comprised of milk components such as lactalbumin, lactoglobulin, lactoferrin, lactose and lactate provides for product stability and maintenance of bioactivity. Bioactivity is standardized in every batch of MPC to a representative concentration range (EC50). In vitro bioassays in cell cultures and in vivo tests on epithelial tissue and on human skin give proof of the bioactivity and cosmetic benefits of MPC.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Flowable Moisturizing Milk Creamy Lotion

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac MPL	3.0
A	Monaquat SL-5	5.0
A	Water	60.7
A	Potassium Hydroxide (45%)	0.2
B	Monafax MAP 160	0.5
B	Monalac ML	20.0
B	Cetearyl Alcohol	5.1
B	Isopropyl Palmitate	2.0
C	Fragrance	1.0
C	Preservative	2.0

Procedure:

Combine ingredients in both phases separately and heat to 75C. Add (B) to (A) and continue to homogenize. Stir-cool, with minimal aeration, to 40C, add fragrance, color and preservative. Adjust pH to 6.0 then fill.

Physical Properties:

Appearance: Flowable High Moisturizing Milky Lotion
Formulation F-714

Monasil PCA Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Phospholipid SV	3.0
Propylene Glycol	2.0
Germaben IIE	0.4
Titanium Dioxide	0.4
TEA	0.6
Water	84.6

Part B:

Cetyl Alcohol	2.0
Monafax MAP 160	1.0
Hexyl Laurate	4.0
Monasil PCA	2.0

Procedure:

Heat A & B separately to 60C. Slowly add B to A with homogenization and continue blending for an appropriate time. Stir cool to 40-45C, add fragrance and package.

Typical Properties:

Viscosity: 100,000 cP
pH: 6.4

Formulation F-705

SOURCE: Mona Industries, Inc.: Suggested Formulations

Hand Lotion

An easy-to-make, basic, yet very effective moisturizing hand lotion.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Demineralized Water	82.34
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.10
B	Na4EDTA	0.20
	Triethanolamine	0.08
C	Glycerin	3.00
	Propylene Glycol	3.00
	Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben/ Germaben II	0.60
	Sodium C12-15 Pareth-15 Sulfonate/Avanel S-150 CGN	0.50
D	Cetearyl Alcohol (and) Ceteareth-20/Maco1 124	4.50
	Sorbitan Stearate/S-Maz 60	1.00
	Mineral Oil/Drakeol 9	2.00
	Isopropyl Palmitate/Lexol IPP	2.00
	Cyclomethicone/Masil SF-V	0.50
E	Fragrance/Lotion 4047	0.05
F	Citric Acid, 50%	0.13

pH: 6.0-6.5

Viscosity: 4000-6000 cps (Brookfield #2 @ 6 rpm)

Appearance: Glossy white, flowable lotion

Procedure:

In the main vessel, mix the part A ingredients for 10 minutes. Add the part B ingredients, and mix for 20 minutes. Add the part C ingredients, and begin heating the batch to 60C. In a separate vessel, premix part D, heating to 60C. Slowly, with good propellor agitation, add part D to the main batch. When uniform and smooth, begin cooling while maintaining good agitation. Add fragrance and adjust pH when batch is at about 45C. Package at about 35C. Product will remain thin and pourable for several hours at room temperature. It thickens to specified viscosity overnight.

SOURCE: PPG Industries, Inc.: Suggested Formulations

Hand and Body Lotion

This hand and body lotion combines skin moisturizing and protective properties with a non-tacky, natural skin feel.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	83.90
Disodium EDTA	0.10
Carbomer/Carbopol Ultrez 10	0.20
Part B:	
Propylene Glycol	0.80
Glycerin	5.00
Methylparaben	0.20
Propylparaben	0.10
Part C:	
Mineral Oil/Drakeol 21	4.00
Stearic Acid (triple pressed)/Hystrene 5016	2.00
Glycol Stearate	1.50
Cetyl Acetate/Acetylated Lanolin Alcohol/Acetulan	0.50
Glyceryl Stearate	0.50
Cetyl Alcohol	0.20
Dimethicone/Dow Corning 200 Fluid, 100 cs	0.50
Part D:	
Triethanolamine (99%)	0.50

Properties:

pH: 6.9-7.3

Viscosity (cP) at 25C: 14,000-20,000

Color, odor, appearance: Thick, white, glossy emulsion

Procedure:

1. Add disodium EDTA to the water. Mix until dissolved.
2. Disperse Carbopol Ultrez 10 polymer in the water. After polymer has fully wetted, mix at a slow speed.
3. Combine Part B. Heat slightly and mix until the parabens are dissolved. Add to Part A.
4. Heat the combined Parts A and B to 65C.
5. Combine Part C. Heat to 65C and mix slightly until all the solids are dissolved.
6. Add Part C to Parts A and B. While the temperature is at 65C, add Part D.
7. Mix the emulsion with moderate agitation until the temperature reaches 40C. Cool to room temperature.

SOURCE: B.F. Goodrich Co.: Formulation U0002

Light Moisturizing Lotion

A light, nonoily lotion which spreads easily and is absorbed quickly into the skin. Suitable as a base for an after-shave balm or an after-sun lotion.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	79.5
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.1
	PPG-4 Ethylene Diamine/Mazeen 174	0.2
B	Cetyl Alcohol/CO-1695	2.0
	Stearic Acid/Emersol 132	2.0
	Sorbitan Laurate/S-Maz 20	2.0
	Benzyl Laurate/Mazol EE-1	1.0
	Cyclomethicone/Masil SF-V	2.0
	Dimethicone/Masil SF-1000	0.5
C	Methyl Paraben	0.2
	Imidazolidinyl Urea/Germall 115	0.2
	SD Alcohol 40B	5.0
D	Citric Acid	0.3
	Deionized Water	5.0

pH: 6.0-6.5

Viscosity: 54,000 cps (Brookfield TC @ 1.5 rpm)
7,200 cps (Brookfield #3 @ 12 rpm)

Appearance: Slightly pearlescent, glossy white lotion

Procedure:

Mix part A water and the hydroxypropyl methylcellulose in main tank, begin heating to 70C. After five minutes, add the Mazeen 174 to raise the pH to 8.5-9.0, hydrating the cellulose. In a side vessel, mix and heat the part B ingredients to 70C. Add part B to part A with good mixing. Add the methyl paraben. Cool the batch to 35-40C, add the imidazolidinyl urea and alcohol. Adjust the pH with citric acid dissolved in water.

SOURCE: PPG Industries, Inc.: Suggested Formulation I-205

Lotion

Formula SK-8a is a mineral based oil-in-water lotion with a viscosity in the range of 6-8,000 cps. Thermal stability is good, with some separation noted after the fourth freeze-thaw cycle.

<u>Ingredients:</u>	<u>Wt%</u>
A Light mineral oil	8.0
Stearyl alcohol	1.0
Brij 721 Steareth-21	2.0
Brij 72 Steareth-2	2.0
B Water, deionized	86.9
C Preservative	q.s.
D Fragrance	0.1

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) and agitate with propeller. Add (C) below 50C and (D) at 35C. Add water to replace that lost by evaporation. Homogenize.
Formula SK-8a

The formula below provides excellent emollience without excessive greasiness. This might be used for a dry skin preparation.

Dry Skin Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A. Light mineral oil	10.0
Arlamol ISML Isosorbide Laurate	7.0
Silicone oil, 350 cs.	0.5
Brij 700 Steareth-100	2.4
Span 60 Sorbitan Stearate	3.6
B. Water, deionized	72.8
Carbomer 934	0.3
Sorbitol Solution, USP	3.0
C. Sodium hydroxide solution, 10% aqueous	0.3
D. Preservative	q.s.
E. Fragrance	0.1

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C). Add (D) below 50C. Add (E) at 35C and replace water lost by evaporation.
Formula SK-11

SOURCE: ICI Surfactants: Suggested Formulations

Lotion for Very Dry Skin

Provides instant softening and moisturization for rough, chapped skin. The greasiness of the petrolatum is greatly reduced by the dry feel of Mazon EE-1, and there is no draggy transition during rubout thanks to Macol 57.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	71.2
	Hydroxypropyl Methylcellulose/Methocal 40-100	0.2
	Triethanolamine, 50%	0.1
B	Glycerin	4.0
	Methyl Paraben	0.2
C	Petrolatum/Perlatum 410 CG	6.0
	Cetearyl Alcohol (and) Ceteareth-20/Macol 124	5.0
	Benzyl Laurate/Mazon EE-1	4.5
	Cetyl Acetate (and) Acetylated Lanolin Alcohol/ Acetulan	4.0
	PPG-10 Butanediol/Macol 57	2.5
D	Imidazolidinyl Urea/Germall 115	0.2
	Deionized Water	2.0
E	Fragrance	0.1
	Citric Acid	Q.S.

pH: 6.3-6.8

Viscosity: 300,000 cps (Brookfield TF @ 1.5 rpm)

Appearance: Glossy white, viscous lotion

Procedure:

Disperse the hydroxypropyl methylcellulose into the part A water. Add the triethanolamine and mix for at least 20 minutes. Add the part B ingredients, and heat to 65C. Premix part C in a separate vessel, heating to 70C. Add part C to A+B with good agitation to form the emulsion. With sweep agitation, cool to 45C. Add part D (premixed), followed by fragrance. Adjust pH, if necessary.

SOURCE: PPG Industries, Inc.: Formulation I-108

Low Cost Moisturizing Lotion

This ultra light lotion leaves the skin with a soft, smooth velvety feel.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	77.76
1	Methylparaben	0.25
1	Hampene Na3T/Trisodium EDTA	0.05
1	Liponic EG-1/Glycereth-26	1.25
2	Carbopol 934 (2% aq. disp'n.)/Carbomer	12.00
3	Liponate NPGC-2	2.00
3	Lipomulse 165	1.25
3	Lipopeg 6000DS/PEG-150 Distearate	0.50
3	Lipocol C/Cetyl Alcohol	1.00
3	Lipowax P/Emulsifying Wax, NF	0.60
3	Lipovol CO/Castor Oil	0.50
3	Lipovol ALM/Sweet Almond Oil	0.30
3	Propylparaben	0.10
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.24
5	Deionized Water	1.00
5	Unicide U-13/Imidazolidinyl Urea	0.20

Procedure:

- Mix and heat Sequence #1 to 80C using high speed on overhead mixer.
- Heat Sequence #2 to 70C and add to Sequence #1, bringing temperature back to 80C.
- Mix together Sequence #3 and heat to 78C until completely melted and clear. Then add to batch at medium speed on overhead mixer.
- Premix Sequence #4 and add to batch at medium/high speed on overhead mixer, while cooling batch to 35C using sweep blade at low speed.
- Premix Sequence #5 ingredients and add to batch at 35C.

SOURCE: Lipo Chemicals Inc.: Formulation No. 899

Moisture Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Squalane	34.5
Beeswax	1.5
Propylene glycol stearate	1.5
Glyceryl stearate SE	3.0
POE (15) Glyceryl stearate	4.0
POE (30) Glyceryl stearate	2.0
B: Acylglutamate HS-11	0.2
Propylene glycol	5.0
Prodew 100	2.0
Methyl paraben	0.2
Water	balance

Procedure:

Dissolve (A) and (B) respectively at 80-85C. Add (A) to (B), stir. Cool down to 50C with rapid agitation by homomixer and then to 35C with moderate agitation.

Formula No. NCC-1003-1

W/O Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eldew CL-301	2.0
Polyglyceryl-3 diisostearate	0.5
Glyceryl trioctanoate	8.0
Squalane	4.4
B: Dimethicone copolyol	10.0
Dimethicone (highly polymerized)	2.0
C: Glycerin	5.0
Marindew PC-100	0.02
BG-M	1.0
NaCl	0.8
Water	to make 100.0

Procedure:

Heat (A) to 40-50C. Add (B) to (A) with agitation. Mix and dissolve (C) at room temperature and add slowly to the mixture of (A) and (B) with high shear mixing (4000 rpm for 4 minutes).

Features:

A w/o lotion with light and less occlusive touch.

Formula No. M-2

SOURCE: Ajinomoto U.S.A., Inc.: Applications Formulas

Moisturizing Milk Lotion

<u>Ingredient:</u>	<u>Wt%</u>
Part A:	
Monalac MPL	5.0
Monaquat SL-5	5.0
Water	55.7
Potassium Hydroxide (45%)	0.2
Monasil PLN	4.0
Part B:	
Monafax MAP 160	0.5
Monalac ML	20.0
Cetearyl Alcohol (Alfol 1618CG)	5.1
Isopropyl Palmitate	2.0
Part C:	
Fragrance	2.0
Germaben II	0.5

Procedure:

- 1) Combine ingredients in both phases separately.
- 2) Heat both separately to 75C.
- 3) Add Part B to Part A and homogenize for at least 15 minutes.
- 4) Stir cool, with minimal aeration to 45C.
- 5) Add fragrance, color, and preservative (Part C).
- 6) Adjust pH to 6.0-6.5 then fill.

Monasil PCA Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Phospholipid SV	3.0
Propylene Glycol	2.0
Germaben IIE	0.4
Titanium Dioxide	0.4
Triethanolamine (99%)	0.6
Water	84.6
Part B:	
Cetyl Alcohol	2.0
Monafax MAP 160	1.0
Hexyl Laurate	4.0
Monasil PCA	2.0

Procedure:

Heat A & B separately to 65C. Slowly add B to A with homogenization and continue blending for an appropriate time. Stir cool to 40-45C, add fragrance and package.

Typical Properties:

Viscosity: 100,000 cP/pH: 6.4

SOURCE: Mona Industries, Inc.: Suggested Formulations

Non-Greasy W/O Mineral Oil Free Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol HD, Isohexadecane	10.0
Arlamol E, PPG 15 stearyl ether	5.0
Arlacel P135, PEG-30 Dipolyhydroxystearate	4.0
Arlamol ISML, Isosorbide Laurate	1.0
Arlatone T, PEG 40 Sorbitan Peroleate	0.5
B Water	74.2
70% sorbitol solution	5.0
C Magnesium sulfate	0.3

Procedure:

Heat (A) to 50C, (B) to 55C. Add (B) to (A) with moderate propeller stirring. Homogenize for 20 minutes. Add (C). Continue homogenization until temperature reaches 40C.

Comments:

Viscosity 26,120 cps (Brookfield DV-1+, spindle 3, rpm 3)
Formulation CP 1119

Water-in-Silicone Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A Dimethicone, 100 cSt	12.0
Cyclomethicone	10.0
Cyclomethicone (and) dimethicone copolyol (Dow Corning Formulation Aid 3225C)	10.0
Arlacel P135 PEG-30 dipolyhydroxystearate	1.1
Span 80 sorbitan oleate	0.5
Arlatone T PEG-40 sorbitan peroleate	0.2
Propylene glycol	0.2
B) Water	65.7
Magnesium sulfate	0.3
C) Preservative	q.s.

Procedure:

Heat (A) to (B) to 50C. Add (B) to (A) slowly with medium stirring. Add (C). Homogenize at 30 second intervals until uniform.

Formulation CP1175

SOURCE: ICI Americas: Suggested Formulations

O/W Body Lotion, Cold Processing

<u>Component:</u>	<u>Wt%</u>
I Eumulgin VL 75/Lauryl Glucoside (and) Polyglyceryl-2-Di-polyhydroxystearate (and) Glycerin	4.5
Cetiol J 600/Oleyl Erucate	4.0
Cetiol V/Decyl Oleate	3.0
Cetiol OE/Dicaprylyl Ether	2.0
Myritol 312/Caprylic/Capric Triglyceride	6.0
Dow Corning 1401 Fluid/Cyclomethicone (and) Dimethiconol	1.0
II Glycerin 86%	2.4
Carbopol 980 2% sol./Carbomer	15.0
KOH 20%	0.6
Water	61.5
Preservative/Perfume	q.s.
Viscosity mPas: 8,800	

Preparation in the Laboratory/Cold Emulsifying Process:

Mix phase I at room temperature, add the previously swollen Carbopol (2%) and the other components of phase II while stirring and homogenize. Duration and intensity of the homogenization depend upon the technical conditions. Finally neutralize with KOH.

Formulation No.: 95/117/59

Light O/W Lotion

<u>Component:</u>	<u>Wt%</u>
I Eumulgin VL 75/Lauryl Glucoside (and) Polyglyceryl-2 Dipolyhydroxystearate (and) Glycerin	4.5
Lanette O/Cetearyl Alcohol	1.0
Cetiol J600/Oleyl Erucate	3.0
Myritol 331/Cocoglycerides	6.0
Cetiol OE/Dicaprylyl Ether	2.0
Baysilon M 350/Dimethicone	0.5
Monomuls 60-35 C/Hydrogenated Palm Glycerides	1.0
Carbopol ETD 2001/Carbomer	0.2
Copherol F 1300/Tocopherol	1.0
II Glycerin 86%	2.0
KOH 20%	0.5
Water	78.3
Preservative/perfume	q.s.
Viscosity mPas: approx. 10,000	

Preparation in the Laboratory:

Heat phase I to 80C. Heat phase II to 80C and add the oil phase while stirring. Allow the emulsion to cool with stirring. The stirring rate must be selected in such a way that the emulsion is kept in continual motion without developing a so-called "stirring cone". Add the Carbopol into the oil phase. Neutralize at 40C. Add preservative and perfume at room temperature.

Formulation No.: 97/004/25

SOURCE: Henkel KGaA: Suggested Formulations

O/W Lotion for Spray Application

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.5
Eumulgin B2/Ceteareth-20	1.0
Cetiol LC/Coco-Caprylate/Caprata	5.0
Cetiol OE/Dicaprylyl Ether	5.0
II. Water, demin.	84.5
Preservative	q.s.
Viscosity, 23C. mPas: <100	
Brookfield	

Preparation in the Laboratory:

1. Heat phase I to 85C and stir until homogeneous.
 2. Heat phase II to 85C and stir slowly into phase I.
 3. Allow the emulsion to cool with stirring; the stirring rate must be selected in such a way that the emulsion is kept in continual motion and no air is trapped.
 4. Add preservative if necessary. Stop stirring at 30C.
- Formulation No. 93/060/24

Soft O/W Body Lotion

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	8.0
Eumulgin B 2/Ceteareth-20	2.0
Mandelol/Almond oil	2.0
Eutanol G/Octyldodecanol	2.0
Cetiol 868/Octyl Stearate	8.0
II. Water	55.0
Glycerin 86%	5.0
III. Carbopol 980 2% swelling/Carbomer	15.0
IV. NaOH (1% sol)	9.0
Preservative	q.s.
Viscosity, mPas: 8000	
Brookfield, 23C	

Preparation in the Laboratory:

1. Melt phase I at 85C and stir until homogeneous.
 2. Melt phase II at 85C and stir slowly into phase I. Stir at temperature for min.
 3. Allow the emulsion to cool until 50C with stirring and add phase III. Stir until homogeneous.
 4. Neutralize with phase IV. Allow to cool to 30C with stirring.
- Formulation No. 93/027/22

SOURCE: Henkel KGaA: Suggested Formulations

Oil-in-Water Stearic Acid Lotion

Arlacel 165 produces a stable lotion which is made even more elegant by the addition of Arlamol E.

<u>Ingredients:</u>	Wt%
A. Stearic acid, triple pressed	2.0 to 4.0
Arlamol E	2.0
Arlacel 165 Glyceryl Stearate and PEG-100 Stearate	5.0
B. Sorbitol Solution, USP	10.0
Water	79.0 to 81.0
Preservative	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) slowly to (A) with rapid agitation. Stir until cooled to room temperature. Replace water lost by evaporation.

Formula SK-2a

Hand Lotion

<u>Ingredients:</u>	Wt%
A. Light mineral oil	8.0
Arlamol E	3.0
Arlacel 165	5.0
Myrj 52, PEG-40 Stearate	2.0
Brij 30, Laureth-4	1.0
B. Water	76.4
Sorbitol Solution, USP	4.0
Carbomer 934	0.3
C. Sodium hydroxide solution, 10% aqueous	0.3
D. Preservative	q.s.

Preparation:

Disperse Carbomer 934 with agitation and heat to 72C. Heat (A) to 70C. Add (B) to (A) with moderate agitation. Add (C). Add (D) below 50C. Stir to 35C and replace water lost by evaporation.

Formula SK-3

Hand Lotion

<u>Ingredients:</u>	Wt%
A. Arlamol E pop 15 stearyl ether	8.0
Arlasolve 200 Liquid (72% active) poe 20 isohexadecyl ether	1.7
Brij 72 poe 2 stearyl ether	2.8
Stearyl alcohol, USP	2.0
B. Water, deionized	85.1
Carbomer 934	0.2
C. NaOH (10% w/w aqueous)	0.2
D. Perfume and preservative	q.s.

Preparation:

Disperse the Carbomer 934 in the water. Heat (A) to 70C and (B) to 72C. Add (B) to (A) with good agitation. Add (C). Add (D) between 35-40C. Pour about 35C.

Formula AE-10

SOURCE: ICI Surfactants: Suggested Formulations

Silky Hand Lotion

This light lotion goes on smooth, and leaves a non-greasy, silicone-fortified barrier.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Phenyl Trimethicone/Masil SF 756	2.0
	Dimethicone/Masil SF 100	0.5
	Isopropyl Palmitate/Lexol IPM	2.0
	Mineral Oil/Drakol 9	3.0
	Cetyl Alcohol/CO-1695	1.5
	Stearic Acid/Emersol 132	0.5
	Ceteareth-20/Macol CSA-20	2.0
	Sorbitan Stearate/S-Maz 20	1.0
B	Deionized Water	80.3
	Glycerin	3.0
	Propylene Glycol	3.0
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.1
	Triethanolamine	0.3
C	Preservative/Germaben II	0.6
	Fragrance	0.1
	Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 31,000 cps (Brookfield #2 @ 1.5 rpm)
23,000 cps (Brookfield #2 @ 3 rpm)

Appearance: Glossy white, flowable lotion

Procedure:

Premix Part A, heat to 60C. In the main vessel, mix the first four ingredients of Part B. Begin heating to 60C; add the triethanolamine to initiate hydration of the hydroxypropyl methylcellulose. With both parts at 60C, slowly add A to B with high shear mixing. Sweep cool to 35C, adding the Part C ingredients at around 40-45C.

Formulation I-204

SOURCE: PPG Industries, Inc.: Suggested Formulations

Skin Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Mineral oil	5.00
Amitec LGOD	2.00
Propylene glycol stearate	0.50
PEG-5 Hydrogenated castor oil	1.50
PEG-5 Glyceryl stearate	2.50
Butyl paraben	0.10
Amihope LL	3.00
B: Acylglutamate HS-11	0.30
Carbomer 941	0.20
Sodium hydroxide	0.08
Butylene glycol	5.00
Methyl paraben	0.20
Water	balance

Procedure:

Dissolve Carbomer 941 and sodium hydroxide in water first. Add other ingredients of (B) to the solution and dissolve at 75-80C. Dissolve (A) ingredients at 80C and add (A) to (B) with agitation. Cool down to room temperature with stirring.
Formula No. NON-404

Moisture Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Squalane	34.5
Beeswax	1.5
Propylene glycol stearate	1.5
Glyceryl stearate SE	3.0
POE(15) Glyceryl stearate	4.0
POE(30) Glyceryl stearate	2.0
B: Acylglutamate HS-11	0.2
Propylene glycol	5.0
Prodeew 100	2.0
Methyl paraben	0.2
Water	balance

Procedure:

Dissolve (A) and (B) respectively at 80-85C. Add (A) to (B), stir. Cool down to 50C with rapid agitation by homomixer and then to 35C with moderate agitation.

Note: Spreads well on the skin and provides very emollient and moisturizing touch.

Formula No. NCC-1003-1

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Solar Protection Lotion

<u>Ingredient:</u>	<u>Wt%*</u>
A: Dimethicone	2.00
Hydroxyoctocosanyl Hydroxystearate	3.50
Potassium Cetyl Phosphate (Amphisol K)	0.50
Titanium Dioxide (and) C12-15 Alkyl Benzoate (Tioveil FIN)	12.50
Sorbitan Palmitate	3.50
Dilauryl Trimethylpropane Siloxy Silicate	5.00
B: Deionized Water	63.10
Veegum Ultra, Magnesium Aluminum Silicate	0.80
Rhodigel, Xanthan Gum	0.20
Propylene Glycol	5.00
Polysorbate 20	3.50
Sodium Lactate	0.30
Lactic Acid to pH 5.5	q.s.
C: Methylchloroisothiazolinone (and) Methylisothiazol- inone (Kathon CG)	0.10

Procedure:

Weigh the water into a suitable vessel and heat to 75C. Mix with a homogenizer operating at 5000 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel, add them to the water and mix for 20 minutes. Add the remaining Part B ingredients and mix each for 3 minutes. Maintain temperature at 75C. Weigh the Part A ingredients into a separate vessel, mix and heat to 75C. Add Part A to Part B. Mix for 10 minutes at 5000 rpm. Transfer the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing at 40C, add Part C. Package at ambient temperature. Note: Avoid pH of 6.5-7.5 as this may affect SPF value.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from A&E Connock, Ltd.

Ultra-AHA Moisturizing Skin Lotion**Formula Profile:**

The synergistic mixture of Veegum Ultra and Rhodigel will create an AHA cream that will have great spreadability and feel without the tack and stringiness characteristic of Rhodigel. Veegum Ultra will improve stability and maintain viscosity of the product. The emollients in the oil phase and the humectants in the water phase will support lasting residual skin feel and moisturization.

Ingredients:

	Wt%
A: Water	70.64
Veegum Ultra (Magnesium Aluminum Silicate)	1.0
Xanthan Gum (Rhodigel)	0.5
B: Glycerin	3.0
Butylene Glycol	2.0
C: Cetyl Alcohol	1.0
Glyceryl Monostearate SE (Dermacare MS SE)	3.0
Caprylic/Capric Triglyceride (Neobee M-5)	5.0
C12-15 Octanoate (Finester EH-25)	1.0
Dimethicone (DC-200 fluid-350 cts)	1.0
Steareth-2 (Brij 72)	0.83
Steareth-21 (Brij 721)	0.83
D: Preservative	qs
E: Glycolic Acid	7.0
F: Fragrance	qs
G: Triethanolamine	3.2
Citric Acid	Adjust pH to 3.8+0.2
	qs

Procedure:

Step 1: Dry blend Veegum Ultra and Rhodigel in Part A. (Dry blending reduces the clumping of Rhodigel and allows for the simultaneous introduction of ingredients). Sift the powder into an established vortex in the water. Veegum Ultra will be hydrated within 15 minutes. Allow about 45 minutes for Rhodigel to dissolve completely.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 75C.

Step 3: Once the hydration process is completed, add remaining water phase ingredients from Part B to Step 2.

Step 4: Blend oil phase ingredients in Part C and heat the oil phase to 75C.

Step 5: When both phases are at 75C, add oil phase in Step 4 to water phase Step 2.

Step 6: Cool to 45C. Add Part D-Preservative to Step 2.

Step 7: Add Part E-AHA-Glycolic Acid to Step 2.

Step 8: Add Part F-Fragrance to Step 2.

Step 9: Cool to 35C. Adjust pH with part G.

 Viscosity: 50,000+-10,000 cps after 24 hours.

 pH: 3.6-4.0

 Stable emulsion that passes 3 month stability testing.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 470

Ultra-AHA Moisturizing Skin Lotion**Formula Profile:**

The synergistic mixture of Veegum Ultra and Rhodigel will create an AHA cream that will have great spreadability and feel without the tack and stringiness characteristic of Rhodigel. Veegum Ultra will improve stability and maintain the viscosity of the product. The emollients in the oil phase and the humectants in the water phase will provide residual skin feel and moisturization.

Ingredients:

	<u>Wt%</u>
A: Water	73.34
Veegum Ultra (Magnesium Aluminum Silicate)	1.5
Rhodigel (Xanthan Gum)	0.5
B: Glycerin	3.0
Butylene Glycol	2.0
C: Cetyl Alcohol	1.0
Glyceryl Monostearate SE (Dermacare MS SE)	3.0
Caprylic/Capric Triglyceride (Neobee M-5)	5.0
C12-15 Octanoate (Finester EH-25)	1.0
Dimethicone (DC-200 fluid-350 cts)	1.0
Steareth-2 (Brij 72)	0.83
Steareth-21 (Brij 721)	0.83
D: Preservative	qs
E: Glycolic Acid	7.0
F: Fragrance	qs
G: Triethanolamine	3.2
Citric Acid	Adjust pH to 3.8+-0.2
	qs

Procedure:

Step 1: Dry blend Veegum Ultra and Rhodigel in Part A. (Dry blending reduces the clumping of Rhodigel and allows for the simultaneous introduction of ingredients). Sift the powder into an established vortex in the water. Veegum Ultra will be hydrated within 15 minutes. Allow about 45 minutes for Rhodigel to dissolve completely.

The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 75C.

Step 3: Once the hydration process is completed, add remaining water phase ingredients from Part B to Step 2.

Step 4: Blend oil phase ingredients in Phase C and heat the oil phase to 75C.

Step 5: When both phases are at 75C, add oil phase in Step 4 to water phase Step 2.

Step 6: Cool to 45C. Add Part D-Preservative to Step 2.

Step 7: Add Part E-AHA-Glycolic Acid to Step 2.

Step 8: Add Part F-Fragrance to Step 2.

Step 9: Cool to 35C. Adjust pH with Part G.

Product Specifications:

Viscosity: Brookfield LVT: 60,000+-10,000 cps after 24 hours

pH: 3.6-4.0

This formula produces a stable emulsion-passes 3 month testing

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 476

Vanishing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlamol ISML, isosorbide monolaurate	4.00
Stearyl alcohol	1.00
Arlamol E, POP (15) stearyl ether	1.00
Dimethicone, 350 cs.	0.50
Brij 700, POE (100) stearyl ether	2.00
Brij 72, POE (2) stearyl ether	2.00
B: Water	79.05
Carbomer 934	0.15
Magnesium Aluminum Silicate solution (5% aqueous)	10.00
C: Sodium hydroxide (10% aqueous)	0.15
D: Preservative	0.10
E: Fragrance	0.05

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A with moderate agitation. Add C. Add D below 50C. Add E at 35C and add water to compensate for loss due to evaporation.

Comments:

This formula would be suitable for a hand lotion. It is non-greasy and has a very pleasant afterfeel. It is relatively inexpensive since it contains nearly 90% water.

This formula is stable for at least 13 weeks at 5C, and room temperature and for at least six freeze-thaw cycles.

Emollient Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Arlamol E pop 15 stearyl ether	12.0
Brij 72 poe 2 stearyl ether	4.8
Brij 721 poe 21 stearyl ether	1.2
B: Water, deionized	82.0
C: Perfume and preservative	q.s.

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly. Add (C) at about 40C. Pour about 35C.

Formulation AE-9

SOURCE: ICI Surfactants: Suggested Formulations

Velvet Care Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	2.0
Apricot Oil	2.0
Safflower Oil	1.0
Cyclomethicone	3.5
Caprylic/Capric Triglycerides (Tegosoft CT)	3.0
Octyl Stearate (Tegosoft OS)	2.0
Rose Extract	Q.S.
Lavender Extract	Q.S.
Phase B:	
Glycerin	3.0
Water	82.1
Phase C:	
Carbomer 941	0.2
Isopropyl Palmitate (Tegosoft P)	0.8
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance	Q.S.
Preservatives	Q.S.

Procedure:

1. Heat the ingredients of Phase A to 80C.
2. Heat the ingredients of Phase B to 80C.
3. Add A to B with agitation.
4. Homogenize
5. Disperse Carbomer into the oil/ester add to A/B. Homogenize.
6. Cool to 35-40C with stirring.
7. Add phase D/E. Stir.
8. Mix until viscosity profile is obtained.

O/W AHA Lotion with Lactic Acid

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Ceteareth-15 (and) Glyceryl Stearate (Tego Care 215)	6.0
Mineral Oil	4.0
Octyl Stearate (Tegosoft OS)	5.0
Caprylic/Capric Triglyceride (Tegosoft CT)	5.0
Stearyl Alcohol (Tego Alkanol 18)	5.0
Phase B:	
Glycerin	3.0
Water	69.65
Phase C:	
Lactic Acid (85%)	2.35
NaOH (10% aq. solution)	Q.S.
Perfume, Preservatives	Q.S.

Procedure:

Heat A and B to 80C and mix. Homogenize. Cool with stirring to 40C. Add Phase C and cool to 30C or lower. Adjust pH to 4.0-4.5 with NaOH.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Water-in-Oil Cleansing Lotion with Ethanol

<u>Ingredients:</u>	<u>Wt%</u>
A) Arlacel P-135, PEG-30 Dipolyhydroxystearate	3.5
Arlamol HD, Isohexadecane	6.0
Caprylic/capric triglycerides	2.0
Dioctyl adipate	2.0
Mineral oil	8.0
Silica dimethyl silylate	0.5
B) Glycerin	4.0
MgSO4-7H2O, Magnesium sulfate	0.5
Water	48.5
Preservative, Quaternium 15	q.s
C) Ethanol	25.0
Perfume	q.s

Procedure:

Heat (A) and (B) to 75C to 85C. Slowly add (B) to (A) while stirring intensively. Homogenize thoroughly for 1 minute. Allow to cool to <30C while stirring. Add phase (C) slowly while stirring intensively.

Comments:

Viscosity: 7, a s
 (Brookfield L ndle C/rpm 6
 Formula CP 1193

Hydroalcoholic

<u>Ingredients:</u>	<u>Wt%</u>
A Isopropyl lanolate	1.0
Arlasolve 200 Liquid (72% active) poe 20 isohexadecy ether	
Arlamol E pop 15 stearyl ether	5.0
B Hydroxyethylcellulose	0.2
Carbomer 934	0.5
Water, deionized	58.9
C NaOH (10% w/w aqueous)	0.5
D Alcohol, SDA Formula No. 40	30

Preparation:

Heat (A) to 75C. Disperse Hydroxyethylcellulose in half of the water and Carbomer 934 in the other half, combine. Heat (B) to 75C. Add (B) to (A) with agitation. Stir five minutes and add (C). Cool to 35C and add (D). Stir to room Temperatur Formula AE-8

SOURCE: ICI Surfactants: Suggested Formulations

Water-In-Oil Mineral Oil Lotions

Formula SK-6, a unique Gel Base, serves as a starting point in formulating W/O emulsions which have exceptional water repellency and pleasant application feel without the usual greasiness or tackiness characteristic of many W/O emulsions.

Gel Base

<u>Ingredients:</u>	<u>Wt%</u>
A Arlacel 186 Glycerol Oleate and Propylene Glycol	10.0
B Sorbitol Solution, USP	90.0
Preservative	q.s.

Preparation:

Add (B) to (A) in small increments, mixing thoroughly between additions. As the addition is continued, the product thickens to form a viscous translucent gel.

Formula SK-6

Water-in-Oil Mineral Oil Lotion

The Gel Base concept of formulating can be used in preparing water-in-oil lotions which have the unique property of water repellency without an oily feel. A small quantity of Tween 80, a hydrophilic surfactant, is added to promote emulsion stability. Although the Gel Base in the following formula is shown as a separate entity, it may be prepared in situ by replacing the 30% Gel Base with 27% Sorbitol Solution and 3% Arlacel 186 (the ratio of 9 to 1 shown in Formula SK-6).

<u>Ingredients:</u>	<u>Wt%</u>
A Formula SK-6 Gel Base	30.0
Mineral oil	15.0
Ceresin wax	0.5
Beeswax	0.5
Tween 80 Polysorbate 80	0.5
B Water	53.5
Preservative	q.s.

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) with continuous agitation. Continue agitation to room temperature. Replace water lost by evaporation.

Formula SK-7

SOURCE: ICI Surfactants: Suggested Formulations

Water-In-Oil Moisturizing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Veegum	1.3
Water	55.7
Magnesium Sulphate	0.5
B: Mineral Oil, Light	9.0
Polysynlane	10.0
Nimlesterol D	7.5
Amerchol L101	9.0
70% Sorbitol Solution	5.0
Witcamide 511	2.0
Preservative	q.s.

Procedure:

Add the Veegum to the water slowly, agitating continually until smooth. Add the magnesium sulphate and mix until smooth. Blend B well and add A to B; mix until smooth and uniform.

Packaging:

This formula is a rich, pourable or pumpable lotion and may be dispensed from a suitable glass or plastic bottle.

Comments:

This formula is an elegant, economical, and easily prepared water-in-oil lotion for softening and moisturizing dry skin.

The use of Veegum as an emulsion stabilizer allows a relatively large internal phase without sacrificing product stability. The amount of Veegum used controls the viscosity. In addition, Veegum contributes to the rich, nongreasy feel imparted by the highly emollient oil phase.

This formula would make an elegant addition to a treatment line as a super moisturizer for dry skin.

The CTFA adopted name for Veegum is magnesium aluminum silicate.

Hand Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Glyceryl Monostearate (S.E.)	2.7
Cetyl Alcohol	1.5
Silicone 200 Oil	1.5
Lanolin Oil	2.0
Polysynlane	3.0
Sodium Lauryl Sulfate	0.3
Preservative	0.2
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulations

Section VIII

Shampoos

Anti-Dandruff Shampoo with Zinc Pyrithione

This anti-dandruff shampoo, which contains cationic conditioning agents, uses zinc pyrithione as the active ingredient. The zinc pyrithione is kept suspended using Carbopol ETD 2020.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	38.90
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	1.00
3. Sodium Hydroxide (18%)	0.10
Part B:	
4. Propylene Glycol	5.00
5. Sodium Lauryl Sulfate (29%)/Standapol WAQ-LC	16.00
6. Sodium Laureth Sulfate (3 mole, 30%)/Standapol ES-3	16.00
7. Cocamidopropyl Betaine/Incronam 30	4.00
Part C:	
8. Deionized Water	12.00
9. Polyquaternium-10/Ucare Polymer JR-400	0.25
10. DMDM Hydantoin/Glydant	0.30
11. Sodium Hydroxide (18%)	1.30
Part D:	
12. Polyquaternium-39/Merquat 3330	1.00
13. Dimethicone Copolyol/Dow Corning 5324 Fluid	0.20
14. Zinc Pyrithione (48%)/Zinc Omadine FPS	2.50
15. Fragrance/Spicy Floral Fragrance #A41073	0.40
16. FD&C Blue #1 (0.1%)	1.05
Color, Odor, Appearance: Opaque, light blue, viscous liquid	
Actives (1%): 11.14	
pH: 5.8-6.2	
Viscosity (cP): 6,000-9,000	
Yield Value (dynes/cm ²): 180-250	
Stability: Passed 45C, accelerated-28 days	
Freeze/thaw-5 cycles	

Preparation Procedure:**Part A:**

1. Disperse Carbopol ETD 2020 in warm (45C) deionized water using rapid agitation. Reduce mixing speed and mix for 20 minutes. Partially neutralize with sodium hydroxide.

Part B:

2. Add Part B ingredients in order to Part A using slow mixing.

Part C:

3. Disperse Ucare JR-400 in deionized water (heat to help hydration). Add Glydant and sodium hydroxide. Mix until uniform. Add Part C to batch.

Part D:

4. Add Part D ingredients in order to batch.

Special Notes & Precautions:

1. Do not use a chelating agent as this will deactivate the zinc pyrithione.
2. When using zinc pyrithione, be sure it is uniform and has not frozen.
3. Assay for zinc pyrithione can be performed using an iodine titration. Call Olin (203-271-4000) for the procedure.

SOURCE: B.F. Goodrich Co.; Formulation C0075

Clear and Mild Shampoo

This shampoo is near water-white in clarity and color. The amphoteric surfactant, in combination with SLES and ALS, is the basis of this gentle-cleansing formula. Addition of only 0.60 wt% Benecel HPMC is needed to boost the viscosity from 2,900 cps (mPas) to 9,500 cps (mPas), yielding a rich, highly viscous shampoo that pours smoothly. This is possible due to the thickening efficiency of Benecel and the pseudoplastic rheology it imparts.

Ingredients:	Wt%
Distilled water	q.s. to 100.00
Ammonium lauryl sulfate, 30%	27.50
Disodium cocoamphodiacetate, 50%	6.90
Sodium laureth sulfate, 60%	5.70
Benecel MP 943 R	0.60
DMDM hydantoin	0.30
Methyl paraben	0.10
Citric acid	to pH 5.5

Procedure:

1. Disperse Benecel by adding to the vortex of well-agitated water. Heating to 40-45C will accelerate hydration. Mix until fully dissolved.
2. In a separate container, disperse the methyl paraben in the DMDM hydantoin. Add to the Benecel solution. Mix until fully dissolved.
3. Add the remaining ingredients, one at a time, mixing well between additions.
4. Adjust pH to 5.5 with citric acid.
5. When temperature falls to below 40C, add fragrance.

Stability of Clear and Mild Shampoo

Viscosity, cps (mPas)

Brookfield LVT, 30 rpm, 25C

Room Temperature 50C

24 hours	9,120	-----
3 days	9,850	-----
1 week	11,900	11,900
2 weeks	11,700	10,800
4 weeks	12,500	11,300

This shampoo exhibited no change after exposure to three freeze-thaw cycles.

SOURCE: Aqualon Division/Hercules Inc.: Formulation B02-04W

Coconut Shampoo
(35% Real Soap)

	<u>Wt%</u>
Emery 621 Coconut Fatty Acid (acid value 263)	29.6
Caustic potash (100%)	7.9
Water	to 100.0

Procedure:

Dissolve the caustic in the necessary amount of water, heating to 49-54C (120-130F), then add the fatty acid in a slow steady stream. Agitate while mixing the fatty acid and caustic until saponification is complete. The reaction mixture should be heated to 66-71C (150-160F) during the final stages of saponification.

Check the neutrality of the soap and adjust as necessary. Perfume as desired. Allow the soap to stand and settle for several days at near freezing temperatures, if possible, and decant or filter the soap.

Properties and Variations:

This soap is characterized by its clarity and profuse sudsing. If it clouds on standing, a trace of sequestering agent (0.1-0.5%) will restore brilliance.

Alcohol may be substituted for a portion of the water in any of these formulas. Alcohol will improve clarity and increase the resistance of the soap to low temperature precipitation and gel formation, but it will also reduce foaming.

Carbitol, glycerine, and various glycols may be used to increase the viscosity of the soap. Perfumes are generally used in small amounts to impart a distinctive and pleasant odor.

Coconut-Oleic Shampoo
(35% Real Soap)

	<u>Wt%</u>
Emery 621 Coconut Fatty Acid (acid value 263)	15.1
Emersol 221 Oleic Acid (acid value 203)	15.1
Caustic potash (100%)	7.1
Water	to 100.0

Procedure:

Blend coconut and oleic acids and proceed as for the formulation above, Coconut Shampoo. Perfume as desired.

Properties and Variations:

This shampoo exhibits good foaming and foam stability. It will have only a trace of color. If a gold-colored shampoo is preferred, use of Emersol 210 Oleic Acid (A) is suggested.

SOURCE: Henkel Corp., Emery Group: Fatty Acids and Their Water Soluble Soaps: Suggested Formulations

Cream Shampoo

This opaque shampoo is a soft cream suitable for tube dispensing. Mild ingredients such as Jordapon CI-75, Mafo CSB-50, and Mazox CAPA make this system gentle enough to use every day.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	58.9
	Sodium Cocoyl Isethionate (and) Stearic Acid/Jordapon CI-75	19.2
	Sodium Lauryl Sulfate/Stepanol WA-Extra	6.7
	Glycol Stearate/Mapeg EGMS	2.0
	Sodium Isethionate, 56%/Witconate NIS	3.0
	Methyl Paraben	0.2
	Na4EDTA	0.2
B	Cocamidopropyl Hydroxysultaine/Mafo CSB-50	2.0
	Cocamidopropyl Amine Oxide/Mazox CAPA	3.3
	Propylene Glycol	2.0
	Cocamide DEA/Mazamide JT-128	2.0
C	Quaternium 15/Dowicil 200	0.2
	Fragrance	0.3
	Citric Acid	Q.S.

pH: 6.2-6.7

Viscosity: 100,000 cps (Brookfield TB @ 0.3 rpm)

Appearance: White pearlescent soft cream

Procedure:

Blend the part A ingredients, heating to 65C to dissolve all solids. Remove the heat and add the part B ingredients in order. When uniform, cool to 40C and add the part C ingredients. Product will be non-viscous at first, and will develop into a cream overnight.

SOURCE: PPG Industries, Inc.: Formulation A-113

Crystal Clear Conditioning Shampoos

These are crystal clear, mild formulations. Sandopan DTC acid is a multi-functional surfactant which also improves the cationic deposition of cationic polymers. By reducing the wash-off of the cationic polymer, Sandopan DTC acid can improve conditioning of the hair and skin.

Crystal Clear Luxury Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Standapol A	33.00
Sandopan DTC Acid	8.00
*Monamid 716	3.00
*Polymer JR 30M	0.25
Versene NA	0.10
Glydant	0.50
Deionized Water	55.10
Fragrance	0.05
Potassium Hydroxide (To pH=5.5)	qs

Properties:

Viscosity: 2500

Ross Miles Foam Height: 195/190

% Solids: 22.50

*Viscosity can be altered by increasing/decreasing Polymer JR or Monamid 716.

Crystal Clear Conditioning Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Standapol A	33.00
Sandopan DTC Acid	8.00
*Monamid 716	3.00
*Polymer JR 30M	0.50
Versene NA	0.10
Glydant	0.50
Deionized Water	52.85
Fragrance	0.05
Potassium Hydroxide (To pH=5.5)	qs

Properties:

Viscosity: 3000

Ross Miles Foam Height: 190/185

% Solids: 22.75

*Viscosity can be altered by increasing/decreasing Polymer JR or Monamid 716.

Procedure:

Hydrate Polymer JR in about 1/2 of the water by slowly sifting it in with moderate stirring. In a separate vessel, add the Sandopan DTC acid to the other 1/2 of the water. Neutralize this mixture to pH=5.5 with potassium hydroxide. Add remaining ingredients in order, mixing well after each addition. Finally, add the polymer solution and mix well. Adjust final pH to 5.5-6.0 if needed.

SOURCE: Clariant Corp.: Ref: CL29-49: CHS-40, 41

Deodorizing Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water	32.60
Tetrasodium EDTA	0.10
Sodium Lauryl Sulfate (28%)	17.50
Sodium Laureth Sulfate (28% 2M E.O.)	20.00
PEG-20 Glyceryl Laurate (Tagat L)	2.50
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	2.50
Glycol Distearate (Tegin EGS)	3.00
Zinc Ricinoleate (and) Triethanolamine (and)	
Dipropylene Glycol (and) Lactic Acid (Tego Deo HY 77)	1.80
Phase B:	
Water	10.00
Preservatives	Q.S.
Fragrance	Q.S.
Cocamidopropyl Betaine (Tego Betaine L 7)	7.50
Citric Acid (20% solution)	to pH 7.0
Sodium Chloride (25% solution)	Q.S.
Procedure:	
1. Heat Phase A to 70C. Add components in order, mixing well between additions. Avoid foam.	
2. Begin cooling. Slowly cool to 35-40C. Some of the water of Phase B can be used to start the cooling.	
3. Add the ingredients of Phase B.	
4. Adjust pH and viscosity.	

Conditioning Shampoo for Treated Hair

<u>Ingredients:</u>	<u>Wt%</u>
Tetrasodium EDTA	0.1
Water	41.5
Ammonium Laureth Sulfate (28% 2M. E.O.)	20.0
Ammonium Lauryl Sulfate (28%)	25.0
Quaternium-80 (Abil Quat 3272)	0.3
Dimethicone Copolyol (Abil B 8851)	0.3
Dimethicone Copolyol (Abil B 88183)	0.3
Dimethicone Propyl PG-Betaine (Abil B 9950)	1.0
Citric Acid	to pH 6.5
Fragrance	Q.S.
Color	Q.S.
Preservative	Q.S.
PEG-18 Glyceryl Oleate/Cocoate (Antil 171)	1.5
Cocamidopropyl Betaine (Tego Betaine L-7)	7.0
Glycol Distearate (and) Steareth-4 (Tego Pearl N 100)	3.0
Ammonium Chloride (25% solution)	Q.S.
Procedure:	
1. Dissolve the Tetrasodium EDTA in the water.	
2. Add ingredients in order, mixing between additions. Avoid air entrapment.	
3. Slowly mix in the Antil 171. Mix until dispersed.	
4. Add the Tego Betaine L-7. 5. Add the Tego Pearl N 100.	
6. Adjust viscosity with the 25% solution of Ammonium Chloride.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Frequent Use Shampoo

This pearlescent shampoo provides gentle cleansing with protective conditioning. Glucamate DOE-120 is used to thicken this mild cleansing system which contains cocoamphodiacetate and sulfosuccinate. Glucam E-20 and Ucare Polymer JR-400 have been included for humectance and conditioning, respectively. This formulation is recommended for normal to dry hair.

<u>Ingredients:</u>	<u>Wt%</u>
Texapon NSO (Sodium Laureth Sulfate)	7.00
Dehyton G (Disodium Cocoamphodiacetate)	3.00
Texapon SB-3 (Disodium Laureth Sulfosuccinate)	1.00
Euperlan PK 3000-AM (Glycol Distearate and Laureth-4 and Cocamidopropyl Betaine)	1.00
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	1.50
Deionized Water	84.30
Ucare Polymer JR-400 (Polyquaternium-10)	0.25
Glucam E-20 (Methyl Gluceth-20)	1.50
Sodium Chloride	0.45
Preservative and Fragrance	q.s.

Procedure:

Disperse Ucare Polymer JR-400 in water with moderate agitation and gentle heating to 50C. Add Glucamate DOE-120 and continue heating until dissolved. Remove heat. Add the surfactants and Glucam E-20. Add preservative and fragrance. Adjust pH to 6.5. Package.

Performance Data:

Viscosity: 4,300 cps (20C, LVT, 3, 12 rpm)

pH: 6.5

Formulation E941-129-10

Daily Use Shampoo

Glucamate DOE-120 is used to thicken this mild surfactant system in conjunction with the lauryl glucoside. The cocamidopropyl betaine enhances the foam feel. Ucare Polymer LK provides the light conditioning effect desired in this daily use shampoo. In total, the washing active substances for this pearlescent formulation are 11%.

<u>Ingredients:</u>	<u>Wt%</u>
Standapol ES-2 (Sodium Laureth Sulfate)	24.00
Velvetex BK-35 (Cocamidopropyl Betaine)	6.00
Plantaren 1200 (Lauryl Glucoside)	5.00
Euperlan PK 3000-AM	1.50
Glucamate DOE-120 (PEG-120 Methyl Glucose Dioleate)	1.00
Ucare Polymer LK (Polyquaternium-10)	0.35
Deionized Water	61.85
Sodium Chloride	0.30
Preservative and Fragrance	q.s.

Procedure:

Disperse Ucare Polymer LK in water with moderate agitation and gentle heating to 50C. Add Glucamate DOE-120 and continue heating until the Glucamate DOE-120 has dissolved. Add the surfactants and the Euperlan with continued stirring. Add the sodium chloride, preservative and fragrance. Adjust the pH to 6.5. Package.

Formulation E921-146-4

SOURCE: Amerchol: Suggested Formulations

Gentle Everyday Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Distilled water	q.s. to 100.00
Sodium laureth sulfate, 28%	19.60
Cocamidopropyl betaine, 35%	11.00
Sodium lauroyl sarcosinate, 30%	9.60
PEG-150 distearate	2.90
Benecel MP 943 R	1.10
Monochloroisothiazolinone and methylisothiazolinone, 1.5%	0.08

Procedure:

1. Disperse the Benecel by adding to the vortex of well-agitated water. Heating to 40-45C will accelerate hydration. Mix until fully dissolved.
2. Add the surfactants, one at a time, mixing well between each addition.
3. Heat to 70-75C. Add the PEG-150 distearate. Mix until dissolved. Turn heat off.
4. When temperature reaches 40C or below, add fragrance and preservative.

Formula B02-02W

Self-Adjusting Conditioning Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Distilled water	q.s. to 100.00
TEA-lauryl sulfate, 40%	22.25
Dihydroxyethyl tallow glycinate, 40%	7.10
Lauramide DEA	3.50
Cocodimonium hydrolyzed animal protein	0.80
Benecel MP 943 R	0.60
Methylchloroisothiazolinone and methylisothiazolinone, 1.5%	0.08
Citric acid	to pH 5.5

Procedure:

1. Disperse the Benecel by adding to the vortex of well-agitated water. Heating to 40-45C will accelerate hydration. Mix until fully dissolved.
2. Add the remaining ingredients, one at a time, mixing well between each addition.
3. Adjust to pH 5.0 with citric acid.
4. When temperature falls to below 40C, add fragrance.

Formula B02-03W

SOURCE: Aqualon Division, Hercules Inc.: Suggested Formulations

Gentle Shampoo

This shampoo provides gentle and thorough cleansing, while imparting softness and manageability to hair.

<u>Ingredients:</u>	<u>Wt%</u>
Water	29.5
Sodium Chloride	1.0
Sodium Laureth (2) Sulfate (25%)	35.0
Sodium Lauryl Sulfate (30%)	27.5
Monalac MAB	5.0
Monalac MPL	2.0

Adjust the pH to 6.0

Appearance: Clear viscous liquid

Viscosity at 25C: 23,000 cP

Solids (%): 20

Features of Monalac MAB:

Effective conditioning to skin and hair

Provides mild cleansing

High foaming primary surfactant

Excellent viscosity building properties

Anti-irritant for anionics and cationics

Compatible with all surfactant types

Gentle Shampoo

This shampoo provides gentle and thorough cleansing, while imparting softness and manageability to hair.

<u>Ingredients:</u>	<u>Wt%</u>
Water	29.5
Sodium Chloride	1.0
Sodium Laureth (2) Sulfate (25%)	35.0
Sodium Lauryl Sulfate (30%)	27.5
Monalac MO	5.0
Monalac MPL	2.0

Adjust the pH to 6.0

Appearance: Clear viscous liquid

Viscosity at 25C: 7500 cP

Solids (%): 20

Features of Monalac MO:

Lather and foam enhancement

Extra conditioning for skin and hair

Excellent viscosity building properties

Contributes gentle cleansing

Low irritation potential

Cationic at acid pH

SOURCE: Mona Industries, Inc.: Suggested Formulations

Hair and Body Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Plantaren 2000 UP/Lauryl Glucose	5.0
Texapon NSO/Sodium Laureth Sulfate	25.0
Gludain WK/Sodium Cocoyl Hydrolyzed Wheat Protein	8.0
Gludain WQ/Lauryldimonium Hydroxypropyl Hydrolyzed Wheat Protein	3.0
Eumulglin L/PPG-1-PEG-9-Lauryl Glycol Ether Glucamate	
DOE 120	0.5
NaCl	1.5
Water, preservative, perfume	ad 100

pH Value: 6.0

WAS: 12.5

Viscosity mPas: approx. 1500

Preparation:

Mix all components successively at room temperature while stirring. The pH value is adjusted with citric acid.

Formulation No. 94/218/28

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Texapon NSO/Sodium Laureth Sulfate	40.0
Dehyton K/Cocamidopropyl Betaine	12.5
Lamesoft PW 25/Cetyl Palmitate (and) Beheneth-10 (and) Hydrogenated Castor Oil (and) Glyceryl Stearate	5.0
Cosmedia Guar C 261 N/Guar Hydroxypropyl Trimonium Chloride	0.25
Methocel E4M Premium EP/Hydroxypropyl Methylcellulose	1.5
Water	40.75
Preservatives	n.B.
Viscosity mPas: 6000	
pH value: 5.5	

Preparation in the Laboratory:

Of Methocel E4M Premium EP and Water has to be manufactured a clear swelling. In this swelling Cosmedia C 261 N has to be stewed and homogeneous distributed. With addition of citric acid the pH value will be slightly acidified, which means that Cosmedia Guar is also starting to swell. After completed swelling Texapon NSO, Dehyton K and Lamesoft PW 45 will be stirred homogeneous into the swelling. At the end the pH value will be focused.

Formulation No. 96/020/3

SOURCE: Henkel KGaA: Suggested Formulations

High Performance Low Irritation Shampoo

<u>Ingredients:</u>	<u>%Wt/wt</u>
Plantaren 2000	15.0
Standapol EA-2	15.0
Velvetex BK-35	12.5
Nutralan I	1.5
Citric Acid	to pH 6.0-6.5
Fragrance	q.s.
Water, preservative	Balance

Procedure:

Charge kettle with water; while stirring, add the remaining ingredients in the order listed. Adjust viscosity with sodium chloride.

NOTE: Gel-like viscosities can be obtained via use of thickeners, such as PEG-150 Distearate.

Comments: This is a very high quality shampoo that combines very low irritation with excellent foam characteristics, while leaving the hair in a very manageable condition.

Formula H-4999

Low Irritation Conditioning Shampoo

<u>Ingredients:</u>	<u>%Wt/wt</u>
Plantaren 2000	12.0
Standapol ES-2	24.0
Standamid KD	3.0
Cetiol HE	1.5
Cosmedia Guar C-261	0.75
Euperlan PK-810	4.0
Citric Acid	to pH 6.5
Fragrance	q.s.
Water, preservative	Balance

Procedure:

Charge kettle with water; while stirring, add the first three ingredients in the order listed. Pre-slurry the Cosmedia Guar C-261 and Cetiol HE, and add to the batch followed by the Euperlan PK-810. Adjust pH with citric acid and viscosity with sodium chloride or other viscosifiers.

Comments: By taking advantage of the ability of Plantaren 2000 to enhance cationic polymer deposition, a mild 2 in 1 shampoo is created.

Formula H-5001

SOURCE: Henkel Corp./Emery Group: Plantaren Suggested Formulations

Low-Cost Shampoo

An economical formulation with a cold-mix procedure which provides very good performance.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Deionized Water	64.12
Hydroxypropyl Methylcellulose/Methocel 40-100	0.08
Triethanolamine	0.04
Na4EDTA	0.16
Cocamidopropyl Hydroxysultaine/Mafo CSB-50	6.00
Ammonium Lauryl Sulfate/Rhodapon L-22	14.40
Sodium Laureth Sulfate, 60%/Rhodapon 201-10	10.80
Cocamide DEA/Mazamide JT-128	3.00
Linoleamide DEA/Mazamide SS-10	0.60
Fragrance	0.10
Preservative/Germaben II	0.70
Citric Acid	Q.S.
Sodium Chloride	Q.S.

pH: 6.0-6.5

Viscosity: 3,500-4,500 cps (Brookfield #2 @ 6rpm)

Appearance: Pale, straw-colored clear liquid

Procedure:

Disperse hydroxypropyl methylcellulose into stirring water; then add triethanolamine to initiate hydration. Add Na4EDTA and let mix 15-20 minutes. Add the Mafo CSB-50 followed by the ammonium lauryl sulfate. When uniform, add the sodium laureth sulfate and mix until gel-free. Add premixed Mazamide JT-128 and Mazamide SS-10, optionally with the fragrance. Add preservative and adjust pH and viscosity as needed.

Formulation A-105

Conditioning Shampoo

This formula can function as a conditioning shampoo for a medicated or dandruff shampoo. It exhibits a creamy, compact soap-type foam, excellent rinsing, good conditioning properties, and mildness. The viscosity of the product is about 1,000 cps.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Sodium C12-C15 Parath-3 Sulfonate/Avanel S-30	40.0
Cocamidopropyl Betaine/Mafo CAB	10.0
Lauramine Oxide/Mazox LDA	10.0
Lauramide DEA	4.0
Methyl Paraben	0.25
Citric Acid	to pH 7.0
Perfume & Color	As desired
Deionized Water	Q.S. to 100.0

Procedure:

Heat Lauramide DEA to 40C. Add to rest of ingredients at 40C. Cool to 35C then add perfume and color. Cool to room temperature.

Formulation A-26

SOURCE: PPG Industries, Inc.; Suggested Formulations

Mild Shampoo with Panthenol

This luxury shampoo with a high level of Panthenol delivers high shine and conditioning to the hair. Sandopan LS-24 is a mild, multi-functional surfactant that acts as a hydrotrope in this formulation to prevent latent clouding.

<u>Ingredients:</u>	<u>Wt%</u>
Sodium Myreth Sulfate	5.00
Cocoamidopropyl Betaine	9.20
Lauramide DEA	3.00
Sandopan LS-24 (Sodium Laureth-13 Carboxylate)	0.50
PEG 150 Distearate	0.50
Deionized Water	77.30
Dow Corning 193 (Dimethicone Copolyol)	1.00
D-Panthenol	2.50
Germaben II (Preservative)	1.00

Procedure:

Charge first four ingredients to vessel. Heat to 55C with stirring. Add water and cool to 45C while mixing. Add remaining ingredients. Adjust pH to 6.0 with citric acid.

Properties:

Appearance: Clear Yellow Liquid	pH: 5.75-6.25
% Solids: 17.4	Shake foam: 475/16.2
Viscosity: 2,800-3,200 cps	

Technical Bulletin CHS-27/REF.: CH9-233-03R

Clear Mink Oil Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Sandopan DTC acid (Trideceth-7 Carboxylic Acid)	19.00
Oil of Mink (AAA Refined)	1.00
Standapol A (Ammonium Lauryl Sulfate)	16.50
Myrj 52S (PEG-40 Stearate)	5.00
Deionized Water	qs
Fragrance	qs
Potassium Hydroxide	qs

Procedure:

Combine Sandopan DTC acid and the water while mixing. Neutralize to pH=5.5 with Potassium Hydroxide. Heat to 80C and add other ingredients in order with mixing.

Properties:

Appearance: Clear Homogeneous Liquid
pH: 5.5-6.0
Viscosity: 1,300-1,400 cps
Ross-Miles Foam Height: 185 mm/80 mm

Formula CHS-06/REF: CL29-37

SOURCE: Clariant Corp.: Suggested Formulations

Neutralizing Conditioning Ethnic Shampoo

This is a clear, neutralizing shampoo for use in combination with a Creme Relaxer. Its low pH neutralizes the effect of the Creme Relaxer. Sandopan DTC acid, used as the secondary surfactant, contributes to the mildness of the surfactant system.

<u>Ingredients:</u>	<u>Wt%</u>
Water	77.5
Ammonium Lauryl Ether Sulfate (28%)	13.9
Lauramide DEA	2.8
Sandopan DTC acid	3.3
Cartaretin F-4	1.0
Sodium Chloride	1.0
Ucare Polymer JR-400	0.5
Dye, Fragrance	qs

Procedure:

Heat the water to 50C and sprinkle in the Polymer JR-400 while stirring. When the Polymer JR-400 is completely in solution, remove heat, add remaining ingredients, stirring after each addition and adjust the pH to 5-5.5 with citric acid.

Properties:

Appearance: Clear Yellow Liquid
 pH: 5-5.5
 Viscosity: 600-800 cps
 Ross-Miles Foam Height: 120mm/120mm
 REF: CL9-61-01: CHS-01

Mild Anti-Dandruff Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Standapol ES-50	21.00
Sandopan DTC acid	5.00
Lauramide DEA	4.20
Zinc Omadine (48%)	3.12
Emerest 2355	1.75
Sodium Chloride	1.50
Deionized Water	63.43
Fragrance, Color	qs

Procedure:

Add the ingredients in order to the water. Mix thoroughly after each addition. Slight warming may aid in mixing. Melt the Emerest 2355 prior to addition. Mix thoroughly and allow to cool to room temperature. Sodium Chloride may be used to adjust the viscosity.

Properties:

Appearance: Opaque liquid
 REF: CL2-235: CHS-22

SOURCE: Clariant Corp.: Suggested Formulations

Pearled Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Water	35.25
Ammonium Laureth (2) Sulfate (25%)	30.00
Ammonium Lauryl Sulfate (28%)	20.00
Monateric 949J	10.00
Cetyltrimonium Chloride	0.75
Cerasynt IP	1.00
Monasil PLN	3.00

Procedure:

Blend ingredients, heat to 65-70C. Stir, cool to 30-35C. Adjust pH to 6.0-6.5 with 50% citric acid. Add color, fragrance and preservative as required then package.

Physical Properties:

Appearance: Pearled Viscous Liquid
 Viscosity: Approximately 11,000 cp
 Formulation F-727

Clear Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Water	19.8
Ammonium Laureth (1) Sulfate (26%)	57.7
Monafax MAP-230	12.5
Monateric 949J	8.0
Phospholipid PTC	2.0

Procedure:

Blend in order listed. Adjust pH to 6.5 to 7.0 with 50% citric acid. Add fragrance, color, preservative, and package.

Appearance: Clear viscous liquid
 Viscosity: 10,800 cP
 Solids: 24%
 Formulation F-709

Clear Gel Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Water	19.8
Ammonium Laureth (1) Sulfate (26%)	57.7
Monafax MAP-230	12.5
Monateric CAB-LC	8.0
Phospholipid PTC	2.0

Procedure:

Blend in order listed. Adjust pH to 6.5 to 7.0 with 50% citric acid. Add fragrance, color, preservative, and package.

Appearance: Clear viscous liquid
 Viscosity: 26,000 cP
 Solids: 24%
 Formulation F-710

SOURCE: Mona Industries, Inc.: Suggested Formulations

Pearlized Conditioning Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
A) Sodium Laureth Sulfate (1) (28.5% active)	35.0
Arlatone MAP Concentrate (2)	2.5
Lauramide DEA (3)	2.0
B) Polyquaternium-10 (4)	0.5
Glycol Distearate (5)	1.0
Water	q.s.
C) Sodium Chloride	2.0
D) 50% Potassium Hydroxide	q.s. to pH 6.5
E) Germaben II	q.s.

Preparation:

- *Heat water to 75-80C, disperse (B) with fast stirring.
- *Add (A) to (B) with moderate stirring.
- *Add (C) to cooling (A)/(B) mixture.
- *Adjust pH with (D).
- *Add (E) below 40C and continue to gently stir to room temperature.

Features:

- *Conditioning after feel
- *Excellent cleansing
- *Minimal irritation

- (1) Steol CS-330 (Stepan), (2) C9-15 Alkyl Phosphate, (3) Monamid 1034 (Mona), (4) Celquat SC-240 (National Starch), (5) Kessco EGDS (Stepan).

Formula CP1232

Clear Conditioning Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
A) Ammonium Lauryl Sulfate (1) (28.0% active)	28.5
Lauramide DEA (2)	3.0
Arlatone MAP Concentrate (3)	2.5
Water	q.s.
B) Cetrimonium Chloride (4) (30.0% active)	1.6
C) 50% Potassium Hydroxide	q.s. to pH 6.5
D) Dowicil 200 (5)	

Preparation:

- *Stir (A), at room temperature, until the mixture is uniform.
- *Add (B) to (A) with moderate stirring.
- *Adjust the pH with (C).
- *Add (D).

Features:

- *Clear formulation with cetrimonium chloride
- *Conditioning after feel
- *Excellent cleansing

- (1) Stepanol AM (Stepan), (2) Monamid 1034 (Mona), (3) C9-15 Alkyl Phosphate, (4) Ammonyx CETAC-30, (5) Dowicil 200 (Dow Chemical).

Formula CP1230

SOURCE: ICI Surfactants: Suggested Formulations

Salon-Style Shampoo

This viscous formulation develops a dense, rich, silky lather which rinses easily.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	41.0
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.2
	Polyquaternium-10/Polymer JR-125	0.1
B	Triethanolamine	0.1
C	Cocamidopropyl Betaine/Mafo CAB	5.5
	Ammonium Lauryl Sulfate/Rhodapon L-22	45.0
	Tetrasodium EDTA	0.2
	Methyl Paraben	0.2
	Imidazolidinyl Urea/Germall 115	0.2
	Soluble Animal Keratin/Kerasol	0.4
D	Cocamidopropyl Amine Oxide/Mazox CAPA	5.5
	Cocamide DEA/Mazamide JT-128	1.0
	Fragrance	0.3
E	Citric Acid	0.2

pH: 6.0-6.5

Viscosity: 12,000-13,000 cps (Brookfield #3 @ 6 rpm)

Appearance: Clear, viscous, very pale straw-colored liquid

Mix the part A ingredients until thoroughly dispersed, then add the triethanolamine to initiate hydration. Allow to stir until completely hydrated, then add the part C ingredients one at a time. Premix the part D ingredients, and add to the main batch. This premix will not be clear, but it does facilitate the solubilization of the fragrance in the product. Adjust the pH with citric acid.

Baby Shampoo

This is a clear, fluid shampoo designed for mildness, gentle cleaning, and good rinseability.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	32.0
	PEG-80 Sorbitan Laurate/T-Maz 28	6.8
	Sodium Trideceth Sulfate/Liposurf EST-30	14.0
	PEG-150 Distearate/Mapeg 6000 DS	2.6
	Sodium C12-C15 Pareth-15 Sulfonate/Avanel	
	S-150 CGN	1.5
B	Deionized Water	34.0
	Cocamidopropyl Hydroxysultaine/Mafo CSB-50	4.8
	Cocamidopropyl Betaine/Mafo CAB	4.0
	Fragrance	0.1
	Quaternium-15/Dowicil 200	0.1
	Citric Acid	0.1

Viscosity: 800-1500 cps (Brookfield #2 @ 12 rpm)

Appearance: Clear, straw-colored liquid

Blend the Part A ingredients in the main vessel, heating to 70C to dissolve the Mapeg 6000 DS. When uniform, begin cooling and add the part B ingredients in order. Optionally, the fragrance can be premixed with the Mafo CAB in a small container. The premix will not be clear, but it will speed up the dissolution of the fragrance in the shampoo. The container can be rinsed with a small amount of withheld water, into which the quaternium-15 can be dissolved.

SOURCE: PPG Industries, Inc.: Formulations A-106 & A-110

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CS-22	60.0
Cocamide DEA	5.0
Ajidew N-50	1.0
Sodium benzoate	0.2
Methyl paraben	0.2
Water	balance
B: Guar hydroxypropyl trimonium chloride	0.7
Butylene glycol	5.0
C: Fragrance	q. s.

Procedure:

Disperse (B) at room temperature with stirring. Mix (A) and (B) and dissolve at 70-80C with stirring. Cool down to 50C.

Add (C), then cool to room temperature.

pH: 6.8

Viscosity: 1700 mPa.s at 25C

Formula CSH-12-13J

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CS-22	40.0
Sodium laureth sulfate (25%)	20.0
Cocamide DEA	5.0
Ajidew N-50	1.0
Sodium benzoate	0.2
Methyl paraben	0.2
Water	balance
B: Guar hydroxypropyltrimonium chloride	0.7
Butylene glycol	5.0
C: Fragrance	q. s.

Procedure:

Disperse (B) at room temperature with stirring. Mix (A) and (B) and dissolve at 70-80C with stirring. Cool down to 50C.

Add (C), then cool to room temperature.

pH: 6.6

Viscosity: 1530 mPa.s at 25C

Formula CL-21-13J

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CK-11	15.0
Cocamide DEA	3.0
Polyquaternium-7 (8% aq.)	3.0
KOH	1.0
Methylparaben	0.2
Water	balance

B: Hydroxypropyl cellulose 1.0

pH: 6.6

Viscosity 1050 mPa.s (25C)

Procedure:

Dissolve (A) ingredients at 70-80C. Add (B) with stirring to (A) and cool down immediately. Cool to 30C.

Formula CK-H-002

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CK-11	15.0
Ajidew N-50	2.0
Pyroter CPI-40	0.5
Polyquaternium-7 (8% aq.)	4.0
KOH	1.0
Methylparaben	0.2
Water	balance

B: Hydroxypropyl cellulose 1.0

pH: 6.6

Viscosity: 940 mPa.s (25C)

Procedure:

Dissolve (A) ingredients at 70-80C. Add (B) with stirring to (A) and cool down immediately. Cool to 30C.

Formula CK-H-003

SOURCE: Ajinomoto U.S.A., Inc.: Acylglutamate CK-11 Formulations

Shampoo with Evening Primrose Oil

<u>Raw Materials:</u>	<u>Wt%</u>
A: Ampholyt JB 130K (Cocamidopropyl Betaine)	20.00
Serdolamide PPF 67 (Cocamide DEA)	3.00
Setacin 103 (Disodium Laureth Sulfosuccinate)	20.00
Antil 141 Liquid (Propylene Glycol (and) PEG-55 Propylene Glycol Oleate)	4.00
B: Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	10.00
Evening Primrose Oil	2.00
Cremophor EL (PEG-35 Castor Oil)	6.00
C: Water up to	100.00
Preservative	q.s.
D: Fragrance	q.s.

Preparation:

(A) and (C) are mixed and heated to 40C. (B) is also mixed, and (A) and (C) are slowly mixed into (B). (D) is stirred in at about 30C.

SOURCE: Huls America, Inc.: Formula 6.3AR

Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
A: Acylglutamate CK-11	15.0
Sodium laureth-3 sulfate (25%)	5.0
Cocamide DEA	3.0
Polyquaternium-7 (8% aq.)	5.0
Ajidev N-50	2.0
KOH	1.0
Methyl paraben	0.2
Perfume	0.2
Water	balance
B: Hydroxypropyl cellulose	0.8

pH: 6.6

Viscosity 400 mPa.s (25C)

Procedure:

Dissolve (A) ingredients at 70-80C. Add (B) with stirring to (A) and cool down immediately. Cool to 30C.

SOURCE: Ajinomoto U.S.A., Inc.: Formula CK-H-004

Temporary Color-In Shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water	36.40
Tetrasodium EDTA	0.05
Cocamidopropyl Betaine (Tego Betaine E)	7.00
Lauryl Glucoside (Tego Glucosid 1216)	6.50
Propylene Glycol	1.25
PEG-18 Glyceryl Oleate Cocoate (Antil 171)	2.00
Cocamidopropylamine Oxide (Aminoxid WS 35)	5.00
Quaternium-80 (Abil Quat 3272)	0.30
Disodium Cocoamphodipropionate	18.00
Phase B:	
PEG-7 Glyceryl Cocoate (Tegosoft GC)	2.50
Basic Blue 99)	
Basic Brown 16)	
Acid Violet 43) Blended as needed for color	1.00
Basic Red 76)	
Basic Yellow 57)	
Water)	
Phase C:	
Fragrance	Q.S.
Preservatives	Q.S.
Phase D:	
Citric Acid 25% Solution	to pH 6.5

Procedure:

1. Heat the water of Phase A to 50C. Add the remaining ingredients of Phase A in order, mixing between additions.
2. Combine the ingredients of Phase B. Mix until uniform.
3. Combine the ingredients of Phase C. Mix. Heat to 50C.
4. Add Phase B to Phase C. Mix well.
5. Add Phase B/C to Phase A. Mix.
6. Cool to 40C. Adjust pH and fragrance.

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulation

Two In One Conditioning Shampoo

No.	Phase:	Ingredient:	Wt%
1	A	Deionized Water	34.39
2	A	Jaguar C13S	0.40
3	A	Standapol A	30.00
4	A	Standapol EA-1	20.00
5	A	Standamox	2.00
6	A	Ninol 2012 Extra	2.50
7	A	Polysynlane	0.50
8	A	Nutralin I	4.00
9	A	Ethylene Glycol Distearate	1.75
10	B	Kathon CG	0.05
11	C	D&C Green #8 (1%)	0.40
12	D	FD&C Yellow #5 (1%)	0.10
13	E	FD&C Blue #1 (0.1%)	0.10
14	F	Citric Acid (20%) qs pH: 6.0-6.5	0.22
15	G	Sodium Chloride (20%) QS	3.04
16	H	Silk Powder	0.30
17	I	Fragrance Novarome NC-46	0.25

Manufacturing Instructions:

Heat Phase A to 75C. Cool to 45C and add remaining phases.
Package.

Lab Control:

pH: 6.5

Viscosity: 3800 cps

Brookfield RVT: #4 @ 20 RPM

This high performance shampoo utilizes Polysynlane to provide refatting and Silk Powder to enhance the appearance of the shampoo and add to the conditioning. There are numerous patents using silicone as a conditioning agent/refatting material. Polysynlane circumvents these patents.

SOURCE: Polyester Corp.: Suggested Formulation

Two-In-One Shampoo

Diaformer Z-W provides conditioning on the hair resulting in improved combability, and manageability. Sandopan DTC acid is a multi-functional surfactant which enhances deposition of the conditioning agent and contributes to the mildness of the surfactant system. This crystal clear, water white shampoo has good viscosity and foaming characteristics.

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	53.94
Sodium Lauryl Ether Sulfate	33.00
Sandopan DTC acid	8.06
PEG-120 Methyl Glucose Dioleate	3.00
Diaformer Z-W	1.00
Disodium EDTA	0.10
Preservative and Fragrance	qs

Procedure:

Add Sandopan DTC acid to water with mixing. Using 25% NaOH solution, neutralize to pH=6.0. Heat to 80C while stirring. Add PEG-120 Methyl Glucose Dioleate and mix until dissolved. Add Sodium Lauryl Ether Sulfate with mixing. Cool to 40C while stirring. Add Diaformer Z-W and Disodium EDTA one at a time with mixing. Adjust pH=6.0. Add preservative and fragrance while mixing well.

Properties:

pH: 6.0

Viscosity: 2500-2700 cps

Appearance: Clear, water white liquid

REF: CL24-102: CHS-50

All in One Shampoo/Conditioner

In this crystal clear shampoo and conditioner in one, Diaform-Z-W conditions, improves combability, and is an excellent anti-static agent. Sandopan LS-24 complexes with the Diaformer Z-W and enhances deposition of this conditioning agent on the hair.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	65.85
Monamid 716	2.40
PEG-120 Methyl Glucose Dioleate	0.80
Phase B:	
Sodium Lauryl Ether Sulfate	15.00
Monateric CAB	6.00
Sandopan LS-24 gel	8.00
Phase C:	
Diaformer Z-W	0.50
Preservative and Fragrance	qs

Procedure:

Heat water to 80C, add remaining ingredients in Phase A with mixing. Add Phase B ingredients in order with mixing. Cool to 40C. Add Phase C ingredients one at a time with mixing until homogeneous. Adjust pH=5.0. Let cool and package.

Properties:

pH: 5.0

Appearance: Crystal clear liquid

REF: CL24-67: CHS-49

SOURCE: Clariant Corp.: Suggested Formulations

Ultra Mild Conditioning Shampoo with Suspended Mica

This ultra mild shampoo uses naturally derived surfactants and cationic conditioning agents which produce a very rich, creamy, luxurious foam and leaves the hair conditioned and full of body.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
1. Deionized Water	56.65
2. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	0.75
3. Triethanolamine (99%)	0.35
4. Sodium Laureth Sulfate (3 mole, 30%)/Standapol ES-3	14.00
5. Decyl Polyglucose (50%)/Plantaren 2000	12.00
6. Cocoamphoacetate (32%)/Miranol Ultra	6.50
7. Tetrasodium EDTA	0.20
8. Lauryl Methyl Gluceth-10 Hydroxypropylidimonium Chloride/Glucquat 125	3.00
9. Ricinoleamidopropyl-trimonium Chloride/Surfactol Q1	0.60
10. Dimethicone Copolyol/Dow Corning Q2-5324 Fluid	0.45
11. Disodium Laureth Sulfosuccinate/Mackanate EL	2.00
12. Polymethoxy Bicyclic Oxazolidine/Nuosept C	0.20
13. Soyamide DEA/Schercomid SLS	1.20
14. Fruity Floral Fragrance/Fragrance #A42017	0.50
15. Mica and Titanium Dioxide/Timiron MP-149	0.10
16. D&C Green No. 5 (0.10%)	1.50

Properties:

Color, odor, appearance: Aqua, pearlescent viscous liquid
with fruity floral odor

pH: 6.3-6.6

Viscosity (cP) at 25C: 7,000-9,000

Brookfield Yield Value: 130

Preparation Procedure:

1. Disperse Carbopol ETD 2020 polymer in deionized water. Reduce mixing speed after polymer is dispersed. Hold out 1.0% water for step number 5.
2. Neutralize batch with given amount of TEA, mix until no lumps are present.
3. Add sodium laureth sulfate, mix until uniform.
4. Add decyl polyglucose, mix until uniform.
5. Add ingredients 6-16 in order with mild agitation, mix until uniform. NOTE: Pre-mix Timiron with 1.0% water before adding to batch. Mix until uniform.

SOURCE: B.F. Goodrich Co.: Formulation C0060

Section IX
Shaving Products

Aerosol Shave Cream

A wide range of emollients, moisturizers and foam stabilizers can be added to improve the esthetic properties of a basic shave cream formula. In formula SK-17, Arlamol F PPG-11 Stearyl Ether improves razor glide and adds emollience to the formula. Surfactants like Brij 98 Oleth-20 improve the density and stability of the foam without contributing to skin irritation. Sorbitol Solution, USP acts as a humectant to hold moisture on the face and keep the lather from drying out during the shave.

<u>Ingredients:</u>	<u>Wt%</u>
A Stearic acid, triple pressed	9.0
Brij 98	2.0
Arlamol F	2.0
B Water	67.4
Triethanolamine	4.6
Sorbitol Solution, USP	10.0
C Preservative	q.s.
D Hydrocarbon Propellant A-46	5.0

Preparation:

Heat (A) to 75C. Add (B) to (A) slowly with agitation while maintaining temperature at 70-75C. After 15 minutes at this temperature, cool. Add (C) about 50C. Replace water lost by evaporation. Package in aerosol containers. Pressurize with (D). Formula SK-17

Formula SK-18 offers an alternative to the soap type product. The product is nonionic and could be prepared at a neutral or acidic pH. Benefits offered by this formula include low irritation, better rinsability and compatibility with a wide range of other ingredients. The foam, itself, is rich and dense.

Nonionic Aerosol Shave Cream

This is a dense, rich, economical foam with a pH that can be varied over a wide range.

<u>Ingredients:</u>	<u>Wt%</u>
A Cetyl alcohol	4.30
Brij 721	2.20
B Water, deionized	93.25
Sorbic Acid	0.17
C Fragrance	0.08

Preparation:

Heat (A) to 70C and (B) to 75C. Add (B) to (A) slowly with good agitation. Add (C) at 35C. Adjust pH to 5.5 with dilute NaOH. Add water to compensate for evaporation. Continue agitation until viscosity is low enough to pour.

Pressurized: Above concentrate: 160.0g
Difluoroethane: 5.0g

Formula SK-18

SOURCE: ICI Surfactants: Suggested Formulations

After Shave Conditioner**Formulating Design and Advantages:**

This multi-phase emulsion (O/W/A) is very stable and has wonderful skin feel. Besides the previously mentioned advantages, Cera Bellina produces a product with good viscosity characteristics in product of low solid content.

<u>Raw Materials:</u>	<u>Wt%</u>
Oil Phase:	
Minosil	7.5
Cera Bellina (Pg-3 Beeswax)	4.0
Glycerol Monostearate	3.3
Amerchol L-101	2.0
Vitamin E	0.5
Propyl Paraben	0.1
Water Phase:	
Water (distilled)	64.0
Butylene Glycol	5.0
Glycerol	1.0
Methyl Paraben	0.3
Triethanolamine	1.0
Alcohol Phase:	
SDA-30	10.0
Benzocaine	1.0
Carboxy Methyl Cellulose	0.3

Procedure:

Combine components of the wax phase in a vessel, melt and mix, maintaining a temperature of 75C. Heat the water phase to 75C in a separate vessel making sure the components are all dissolved. Slowly add the oil phase to the water phase under low shear. Cool to 35 to 40C and then add the alcohol phase under low shear. This will ensure that the friction will not increase the temperature which will evaporate the alcohol.

Adaptation of Formula and its Influence on the Product:

Alterations in component concentrations can be achieved by the addition of secondary emulsifying agents. This will allow for active ingredients to be added at the same time as maintaining the stability and rheological properties.

SOURCE: Koster Keunen Inc.; Suggested Formulation

Aftershave Gel with Peppermint and Tea Tree Oil

This clear aftershave gel, thickened with Carbopol Ultrez 10, contains Tea Tree and Peppermint Oil and will help soothe and cool post-razor skin burn. Tea Tree Oil is known for its healing and therapeutic properties.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	84.23
Carbomer/Carbopol Ultrez 10	0.20
Propylene Glycol	1.50
Sorbitol (70%)/Sorbo 70%	0.50
PEG 600/Carbowax 600	2.00
NaOH (18%)	0.20
Polyquaternium-39/Merquat Plus 3330	0.25
Part B:	
Oleth-10/Brij-97, Volpo-10	0.80
Peppermint Oil, Refined	0.80
Tea Tree Oil/EmCon Tea Tree	0.12
Part C:	
SD 40 Alcohol	10.00
NaOH (18%)	0.12

Properties:

pH: 6.3-6.8
 Viscosity (cP): 7,000-10,000
 Clarity (%T): 90-95
 Appearance: Clear pourable gel
 Stability: Passed 45C, 28 days

Procedure:

1. Disperse Carbopol Ultrez polymer by sprinkling on the surface of warm (30-40C) deionized water. Begin stirring when polymer is wetted.
2. With slow stirring, add propylene glycol, Sorbo and PEG 600 (pre-melted). Stir for 20 minutes.
3. Add NaOH (18%), increase mixing as gel thickens. Mix until smooth.
4. Slow agitation speed and add Polyquaternium-39.
5. Combine Part C ingredients (pre-melt oleth-10). Add Part C to Part A. (NOTE: Part A should be 30C). Mix until uniform.
6. With slow mixing, add SD 40 alcohol and NaOH (18%). Mix until uniform.

SOURCE: B.F. Goodrich Co.: Formulation U0014

Experimental Shaving Cream Preparation

<u>Ingredient:</u>	<u>Amount, g</u>
Deionized water	633.6
Sodium hydroxide (24.6% solution)	9.6
Potassium hydroxide (34.2% solution)	34.2
Stearic acid, double pressed	71.6
Coconut acid	10.0
Propylene glycol	27.0
Lauramide DEA	10.0
Coconut oil	2.5
Tallow glycerides	30.0
Preservative	5.0
1.5% N-Hance 3000 solution	166.5

To prepare the N-Hance 3000 cationic guar solution, add the polymer to the vortex of well-agitated water. Stir 5 minutes. Use acetic acid* to lower pH to 6-7. Stir 30 minutes. Make sure pH is still within the 6-7 range. Add 2.5% sorbitol** (70% active). Stir 30 minutes. Set the resulting solution aside.

To prepare the shaving cream concentrate, add the sodium hydroxide and potassium hydroxide to the deionized water at room temperature. Raise the temperature to 75C. Stir 5 minutes. Premelt the stearic acid and coconut acid separately and then add each to the caustic/water mix. Stir 30 minutes and then cool to 55C. Add, one at a time, the propylene glycol, lauramide DEA (melted), coconut oil, tallow glycerides (melted), and preservative. Stir 15 minutes and then turn off the heat. Add the N-Hance solution and cool to room temperature while stirring. (For the control, 166.5 g of deionized water was used in place of the N-Hance solution.)

The concentrate (225g) was weighed into a standard 12-oz shaving cream can. The can was then sealed with a valve assembly using laboratory canning equipment and charged with 9.0 g of propellant.

*Acetic acid is added to speed up the hydration of the N-Hance polymer and reduce solution preparation time to <1 hr.

**Sorbitol is added to prevent borate ion, present in the N-Hance polymer, from complexing with the cationic guar in high-pH (>7) formulations, such as shaving creams. Addition of sorbitol is unnecessary in lower pH formulations.

SOURCE: Aqualon Division, Hercules Inc.: Experimental Formulation

Gel Shave Cream

Gel shave creams are essentially soap-type formulas packaged in a Sepro-Can aerosol container (Continental Can Co.). The gel concentrate contains a low level of propellant. When the gel is expelled from the can, this propellant volatilizes on warm skin surfaces and produces a foam. Nonionic surfactants like Brij 98 Oleth-20 stabilize the foam.

<u>Ingredients:</u>	<u>Wt%</u>
A Palmitic acid	6.50
Stearic acid	2.25
Brij 98	1.00
B Water	34.20
Sorbitol Solution, USP	10.00
C Water	10.00
Triethanolamine	4.75
D Hydroxypropyl cellulose solution (1.0% W/W in water)	7.50
Propylene glycol	3.30
E Carbomer 934 solution (1.5%, W/W in water)	15.00
F Propylene glycol dipelargonate	2.75
n-Butane	0.55
n-Pentane	2.20

Preparation:

Heat (A), (B), and (C) to 60C. Add (B) to (A) with gentle agitation. Add (C) slowly to (AB) with gentle agitation. Add (D) and (E) separately to this soap base and stir until homogeneous. Mix (F) at 5C. All ingredients are transferred to a pressurized vessel and mixed at 7 to 10 psig. This mixture is packaged in a suitable aerosol can. The can is pressurized from the bottom with a mixture of propane and isobutane having a vapor pressure of approximately 46 psig.

Caution: n-Butane and n-Pentane are very flammable!

Formula SK-19

The next formula is designed to provide the shaver who uses an electric razor with a lubricated face which will allow the razor to glide over the skin readily and to prevent "razor burn."

Pre-electric Shave Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Arlamol E pop 15 stearyl ether	10.0-15.0
Alcohol, SDA Formula No. 40	84.6-89.6
Menthol, USP	0.2
Perfume	0.2

Preparation:

Mix ingredients together.

Formula AE-7

SOURCE: ICI Surfactants: Suggested Formulations

Oil-in-Water After-Shave Balm

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol S7	10.0
Babassu oil	5.0
B Arlatone 2121	5.5
Atlas G-2330	2.5
Preservative	q. s.
Water	71.6
C Keltrol*	0.2
D Ethanol	5.0
E Fombin HC/03*	0.2

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Add phases D and E at +-40C.
6. Cool to 35C whilst stirring moderately.
7. Add heat-sensitive ingredients whilst stirring moderately.

Comments:

Viscosity: 6.550 mPa s (Brookfield LVT, spindle C, 6 rpm)

*Keltol (Xanthan Gum, INCI)-Kelco

Fombin HC/03 (Perfluoropolymethylisopropyl Ether, INCI)-Ausimont

SOURCE: ICI Surfactants: Formulation F41-5-15

Shave Cream Concentrate

Rich lather, good razor glide, and won't leave a calcium soap scum in the basin.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Deionized Water	76.9
Carbomer 934/Carbopol 934	0.2
Sodium Cocoyl Isethionate (and) Stearic Acid/ Jordapon CI-60 Flake	12.5
Stearic Acid/Emersol 132	0.8
Coconut Acid/C-108	0.1
Paraffin 6971	1.6
Propylene Glycol	5.0
PEG-75 Lanolin/Solulan 75	0.5
Preservative/Germaben II	0.2
Fragrance	0.2
Triethanolamine	2.0

Procedure:

Disperse and dissolve the carbomer 934 in the water. Add the Jordapon CI-60 Flake, fatty acids and paraffin, heating to 55C (130F) to dissolve. Premix the propylene glycol, PEG-75 lanolin, preservative, and fragrance; add to the batch. Adjust pH to 7.0-7.5 with triethanolamine. Use this concentrate at 96% with 4% Propellant A-46.

Foamulation P-301

Electric Preshave

A hydro-alcoholic splash which lubricates the skin and wets the beard for a faster, more comfortable shave. The formula also works well as a moisturizing aftershave, and as a moisturizing afterbath splash.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
PPG-10 Butanediol/Maccol 57	3.0
Dimethicone Copolyol/Masil 280	0.5
Fragrance	Q.S.
SD Alcohol 40B	25.0
Deionized Water	71.5

Appearance: Clear, water-white fluid

Procedure:

Blend the first three ingredients at ambient temperature. Add the fragrance, and blend until uniform. Add the water, and blend until uniform.

Formulation P-104

SOURCE: PPG Industries, Inc.: Suggested Formulations

Shave Gel**Formulating Design and Advantages:**

The product will raise the hair off the face to make for a closer cut without irritation. The Hexanediol Behenyl Beeswax stabilizes the silicone oil to leave the skin silky and smooth.

<u>Raw Materials:</u>	<u>Wt%</u>
Phase A:	
Hexanediol Behenyl Beeswax	3.0
Deodorized Orange Wax	2.0
Permethyl 104A	3.0
Polybutene	4.0
Isostearic Acid	0.6
Palmitic Acid	1.4
Phase B:	
Purified Water	63.9
Triethanolamine	0.8
Carbopol 940 (2% dispersion)	12.0
Aloe Vera Gel	0.8
Allantoin	0.8
Germaben II	1.0
Phase C:	
Silicone 345	6.7

Procedure:

Heat and mix Phase A and add to a heated and mixed Phase B. Cool to 50C and add Phase C. Cool to 40C and pour.

Adaptation of Formula and its Influence on the Product:

Fragrances, actives and other silicone oils can be incorporated into this type of formula, with only minimal changes in stability and performance.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Section X
Soaps and Hand Cleaners

Antibacterial Handcleaner: Hospital Formulation

<u>Component:</u>	<u>Wt%</u>
Rewoteric AM 2CW	1.4
Witcolate ES-2	4.0
Witcamide 128T	0.5
Witconate AOS-PC	10.0
Triclosan/Propylene Glycol*	0.5
Glycerin (Kemester 99.7%)	2.0
DI Water	81.25
Glydant	0.25
Na4EDTA	0.1

*These two components are blended in a 50:50 blend at least 24 hours before formulating. It makes it easier to incorporate the Triclosan into the formula.

Components are added in the order listed with no heating and continuous mixing.

Adjust pH to about 6.05 using 25% Citric acid solution.

Brookfield RV-DV II #4 @ 10 25C:

800 cps at 4% NaCl

1450 cps at 4.6% NaCl

Formula 1127

Antibacterial Handcleaner: Shop Formulation

<u>Component:</u>	<u>Wt%</u>
Rewoteric AM B-14	2.0
Witcolate ES-2	4.0
Witcamide 128T	2.0
Witconate AOS-PC	10.0
Triclosan/Propylene glycol*	0.5
Glycerin (Kemester 99.7%)	1.0
DI Water	74.15
Glydant	0.25
Na4EDTA	0.1
Witconate 60T	6.0

*These two components are blended in a 50:50 blend at least 24 hours before formulating. It makes it easier to incorporate the Triclosan into the formula.

Components are added in the order listed with no heating and continuous mixing.

Adjust pH to about 6.05 using 25% Citric acid solution.

Brookfield RV-DV II #4 @ 10 25C

920 cps at 2% NaCl

1389 cps at 2.5% NaCl

Formula 1129

SOURCE: Witco Corp.: Suggested Formulations

Antibacterial Handcleaner: Office Formulation

<u>Component:</u>	<u>Wt%</u>
Rewoteric AM 2CW	1.4
Witcolate ES-2	8.0
Witcamide 128T	0.5
Witconate ADS-PC	10.0
Triclosan/Propylene glycol*	0.5

Heat to 70-75C before continuing additions.

Kemester EGDS	1.0
Glycerine (Kemester 99.7%)	2.0
DI Water	40.0

Remove from heat. Additions may continue even before returning to room temp.

DI Water	36.25
Na4EDTA	0.1
Glydant	0.25

*These two components are blended in a 50:50 blend at least 24 hours before formulating. It makes it easier to incorporate the Triclosan into the formula.

Components are added in the order listed with continuous mixing and heating as indicated.

Adjust pH to about 6.05 using 25% Citric acid solution.

Brookfield RV-DV II #4 @ 10 25C

240 cps at 3% NaCl

2740 cps at 4% NaCl

Formula 1128

Waterless Hand Cleaner

<u>Ingredients:</u>	<u>Wt%</u>
Emphos PS-220	8.7
Kerosene, deodorized	37.9
Stoddard Solvent, deodorized	15.4
Triethanolamine, 99%	2.2
Water	35.8

Formula 1119

SOURCE: Witco Corp.: Suggested Formulations

Antibacterial Liquid Soap

A high-foaming liquid soap containing Jordapon ACI-30 to provide excellent lather slip and soft skin afterfeel. An effective antibacterial provides residual benefits.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Ammonium Laureth Sulfate/Alfonic 1412A	9.6
	Triclosan/Irgasan DP-300	0.3
	Cocamidopropyl Amine Oxide/Mazox CAPA	3.5
	Cocamidopropyl Hydroxysultaine/Mafo CSB-50	3.3
	Methyl Paraben	0.2
B	Deionized Water	74.0
	Na4EDTA	0.2
	Imidazolidinyl Urea/Germall 115	0.2
C	Ammonium Cocoyl Isethionate/Jordapon ACI-30	7.4
	Cocamide DEA/Mazamide JT-128	1.3
	Citric Acid to pH=6.5+0.2	Q.S.
	Ammonium Chloride	Q.S.

Viscosity: 2,500-4,000 cps

Appearance: Clear, straw-colored liquid

Procedure:

Blend part A ingredients in the main vessel, heating to 45C until uniform. Add the part B components in order, maintaining 45C. When uniform, begin cooling, add part C ingredients.

Formulation N-109

Mild Liquid Soap

This formula lathers and cleans well, yet leaves skin feeling smooth and soft thanks to the Jordapon CI-UP and Mafo CAB ingredients. The white pearlescent appearance is due to the Mapeg EGMS. Omitting this ingredient yields a clear, pale yellow product.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	74.2
	Sodium Cocoyl Isethionate/Jordapon CI-UP	3.0
	Ammonium Lauryl Sulfate/Stepanol AM	13.0
	Glycol Stearate/Mapeg EGMS	0.5
	Na4EDTA	0.1
	Methyl Paraben	0.2
B	Cocamidopropyl Betaine/Mafo CAB	6.0
	Cocamide DEA/Mazamide JT-128	2.5
C	Imidazolidinyl Urea/Germall 115	0.2
	Fragrance	0.2
	Citric Acid	0.1

pH: 6.2-6.8

Viscosity: 2,500-3,500 cps (with 0.6-0.9% NaCl)

Appearance: Creamy, pearlescent liquid

Total Actives: 11.5%

Procedure:

Mix and heat the Part A ingredients to 65C to melt and dissolve the Jordapon CI-UP and the Mapeg EGMS. When uniform, add the Part B ingredients and cool the batch to 40-45C. Add the Germall 115 and fragrance, and adjust the pH. Cool the batch to 25C and adjust the viscosity with sodium chloride.

Formulation N-201

SOURCE: PPG Industries, Inc.: Suggested Formulations

Antimicrobial Liquid Soap

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
H2O, Deionized	56.03
Bioterge AS-40	17.00
Standapol A	12.00
Hetaine CLA (Canolamidopropyl Betaine)	4.25
Hest EGDS (EGDS)	0.80
Hetamide RC (Cocamide DEA)	3.00
Merquat 550	3.10
Phase B:	
Propylene Glycol	2.50
Triclosan	0.50
Phase C:	
Kathon CG	0.05
Phase D:	
Citric Acid	0.07
Sodium Chloride	0.70

Specifications:

pH: 5.75-6.50

Viscosity #3/12: 6000 cps

1. In a stainless steel kettle, combine Phase A. Heat to 75C while mixing. 2. Premix Phase B, add to batch. Mix well.
3. Cool to 40C and add Kathon CG. 4. Adjust pH with citric acid.
5. Cool to 25C and adjust to desired viscosity with sodium chloride.

Formulation HLS-94-132

Liquid Soap

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
H2O, Deionized	59.01
Bioterge AS-40	17.00
Standapol A	12.00
Hetaine CLA (Canolamidopropyl Betaine)	4.25
Hest EGDS (EGDS)	0.80
Hetamide RC (Cocamide DEA)	3.00
Merquat 550	3.10
Phase B:	
Kathon CG	0.07
Phase C:	
Citric Acid	0.07
Sodium Chloride	0.70

Specifications:

pH: 5.75-6.50

Viscosity #3/12: 5000 cps

1. In a stainless steel kettle combine Phase A. Heat to 75C while mixing. 2. Cool to 40C and add Kathon CG. 3. Adjust pH with citric acid. 4. Cool to 25C and adjust to desired viscosity with sodium chloride.

Formula HS 93-86

SOURCE: Heterene, Inc.: Suggested Formulations

Application for Soaps and Syndet Bars

Acylglutamate can be used for soap and syndet bar applications with advantages such as:

- *high eco-compatibility = good biodegradation
- *least irritation to skin and eyes
- *hypo-allergic
- *moisturized feeling after wash
- *Excellent properties even in hard water
- *prevention of scum

Syndet Bar

<u>Raw Materials:</u>	<u>Wt%</u>
Acylglutamate GS-11	83.9
Cetyl alcohol	7.0
Water	9.0
Titanium oxide	0.1
Perfume	q.s.
Syndet bar with weakly acidic pH	

Syndet Bar

<u>Raw Materials:</u>	<u>Wt%</u>
Acylglutamate GS-11	57.0
Sodium lauryl sulfate	24.0
Cetyl alcohol	9.0
Water	10.0
Perfume	q.s.
Pigment	q.s.

Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Soap material (incl. 8% water)	86.0
Acylglutamate HS-21	10.0
Cetyl alcohol	2.2
Ajidew N-50	1.0
Pyroter GPI-25	0.5
Ceresine	0.3
Perfume	q.s.

Transparent Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Soap material (incl. 15% water)	41.6
Acylglutamate HS-21	10.0
Glycerin	7.0
Ethanol	18.0
Sugar	12.0
Water	11.4
Perfume	q.s.

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

Coconut-Soya Hand Soap
(15% Real Soap)

	<u>Wt%</u>
Emery 621 Coconut Fatty Acid (acid value 263)	9.65
Emery 610 Soya Fatty Acid (acid value 202)	3.20
Caustic potash (100%)	3.18
Water	to 100.00

Procedure:

Blend the coconut and soya fatty acids and proceed: Dissolve the caustic in the necessary amount of water, heating to 49-54C (120-130F), then add the fatty acid in a slow steady stream. Agitate while mixing the fatty acid and caustic until saponification is complete. The reaction mixture should be heated to 66-71C (150-160F) during the final stages of saponification.

Check the neutrality of the soap and adjust as necessary. Perfume as desired. Allow the soap to stand and settle for several days at near freezing temperatures, if possible, and decant or filter the soap.

Soya Scrub Soap
(15% Real Soap)

	<u>Wt%</u>
Emery 610 Soya Fatty Acid (acid value 202)	13.20
Caustic potash (100%)	2.69
Water	to 100.00

Procedure:

Prepare in the same way as formulation above.

Properties and Variations:

Scrub soaps are made for general purpose applications and are usually made from the cheaper grades of fatty acids. Cottonseed and soya fatty acids are quite popular raw materials for this type of product, though oleic and other fatty acids may also be used.

Addition of several percent of pine oil will give a pleasant odor to the soap and cause it to congeal slightly. The pine oil should not be added until the soap is fairly cool, since high temperatures cause vaporization and loss. Furthermore, addition of pine oil at or near room temperatures assures better control of viscosity of the finished soap.

SOURCE: Henkel Corp/Emery Group: Fatty Acids and Their Water Soluble Soaps: Suggested Formulations

Cream Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Water	balance
Acylglutamate LS-11	25.0
Glycerin	20.0
Sodium PCA	2.0
Glyceryl stearate	2.0
Cetearyl alcohol	1.0
Sodium chloride	1.0
Fragrance	0.2
Imidazolidinyl urea	0.2
Methyldibromo glutaronitrile & phenoxyethanol	0.1

Cream Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Water	balance
Acylglutamate CT-12	20.0
Propylene glycol	15.0
PEG-20 glyceryl stearate & Glyceryl stearate	6.0
Cetearyl alcohol	3.0
Sodium PCA	1.0
Pyroter GPI-25	1.0
Hydroxyethylcellulose	0.8
Fragrance	0.3
Imidazolidinyl urea	0.2
Methyldibromo glutaronitrile & phenoxyethanol	0.1

Solid Bar

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium N-Cocoyl, Tallow-L-Glutamate (Amisoft GS-11)	42.00
Sodium cocoylisethionate	42.00
Cetyl alcohol	7.00
Titanium dioxide	0.10
EDTA disodium salt	0.10
Deionized water	8.80

Procedure:

1. Dissolve cetyl alcohol and deionized water at 80C with stirring.
2. Add titanium dioxide and EDTA disodium salt and disperse thoroughly.
3. Add small amount of GS-11 (3g per 100g of water) to the mixture to emulsify at 80C, with continued stirring.
4. Add the mixture from step 3 to GS-11 and Sodium cocoylisethionate and mingle thoroughly.
5. Mill the mixture on a roller mill and then convert into a bar through an extruder.
6. Mold the bar in a stamping machine.

Formula AI-KK

SOURCE: Ajinomoto U.S.A., Inc.: Suggested Formulations

D-Limonene Hand Cleaner

An opaque, firm gel waterless hand cleaner based on natural d-limonene and biodegradable emulsifiers. Effective, clean-rinsing, and pleasant-smelling.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	d-Limonene, Grade M	20.00
	Butylated Hydroxy Toluene (BHT)	0.10
	Oleic Acid/Pamolyn 125	7.20
	Cocamide DEA/Mazamide JT-128	1.70
	Polysorbate 80/T-Maz 80	5.00
	PEG-85 Lanolin/Lanogel 65	0.50
B	Triethanolamine	3.10
	Glycerin	1.00
	Deionized Water	61.39
	Na4EDTA	0.01

pH: 8.2-8.5

Odor: Citrus

Appearance: White, opaque gel

Procedure:

No heating is required to process this formula. In a side vessel, dissolve the BHT in the d-Limonene, then blend in the other part A ingredients. In the main vessel, blend the part B ingredients. With rapid propellor mixing, add part A to part B, forming the emulsion. Check and adjust pH, then package. Product is a flowable liquid when made, thickens to a soft cream in about 2 hours, and becomes a ringing gel in about 3 hours.

Formulation 0-106

Waterless Hand Cleaner with d-Limonene

A firm white cream for heavy-duty hand cleaning with or without water. The d-limonene aids grease-cutting in addition to fragrancing the product. Mazclean EP provides emulsification and detergency as well as improved rinsability.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deodorized Kerosene	25.00
	Light Mineral Oil/Drakeol 9	5.00
	d-Limonene, Grade M	5.00
	d-Limonene Emulsifier/Mazclean EP	6.00
	Stearic Acid/Hystrene 5016	5.00
B	Water	49.83
	Glycerin	2.00
	Triethanolamine, 99%	2.10
	Preservative/Kathon CG	0.07

pH: 7.5-8.0

Viscosity: 550,000-600,000 cps (Brookfield TD @ 0.3 rpm)

Appearance: Firm, glossy white cream

Procedure:

Blend the Part A ingredients in the main vessel, heat to 60C. In a second vessel, blend and heat the Part B ingredients to 60C. Slowly add Part B to A with good agitation. The batch will thicken as the emulsion forms, then it will thin slightly as the emulsion inverts. Cool the batch to 35C with sweep stirring&pack off.

Formulation 0-102

SOURCE: PPG Industries, Inc.: Suggested Formulations

Hand and Body Cleanser

<u>Ingredients:</u>	<u>Wt%</u>
Phase I:	
Water, D.I.	67.0
Witconate AOS	20.0
Varonic LI-48	3.7
Varonic LI-67	1.3
Witconol EGMS	1.6
Varamide ML-1	2.5
Phase II:	
Glycerin	0.2
Lanoquat 50	0.5
EDTA	0.1
Rewoteric AM B-15	3.1
Phase III:	
Citric Acid	q. s.
Phase IV:	
Sodium Chloride	q. s.
Phase V:	
Preservative	q. s.

Blending Procedure:

Heat Phase I water to 80C. Blend in Witconate AOS with good agitation. When this is blended completely, add the remaining Phase I ingredients, melting them first before adding. Cool to 45C and add Phase II, in the order listed. Cool to 35C and adjust pH=7.0 to 7.7 with citric acid. Add sodium chloride to desired viscosity.

Typical Properties:

Solids: 19.5%

pH: 7.3

Formula 1125

Economy Hand Cleaner

<u>Ingredients:</u>	<u>Wt%</u>
Phase I:	
Water, D.I.	64.7
Glycerine	0.5
Witcolate WAC-LA	30.0
Varox 1770	3.5
Glyceryl Stearate	1.3
Phase II:	
Phosphoric Acid, 86%	q. s.
Phase III:	
Sodium Chloride	q. s.
Phase IV:	
Preservative	q. s.

Blending Procedure:

Warm and mix Phase I to 70-75C. Cool to 30C. Adjust to pH=6.8 with Phosphoric Acid. Add sodium chloride to achieve desired viscosity.

Typical Properties:

Solids: 12.0%

pH: 6.8

Formula 1124

SOURCE: Witco Corp.; Suggested Formulations

Heavy Duty Liquid Soap

A high-lathering, hard-working liquid soap which doesn't dry the skin with repeated use because of the Mafo CSB-50, which also helps build the product's viscosity. A pearlescent appearance is imparted by the Mapeg EGMS, which could be omitted if a clear product is desired.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Demineralized Water	20.0
	Sodium C14-15 Olefin Sulfonate/Witconate AOS	10.0
	Glycol Stearate/Mapeg EGMS	1.0
B	Demineralized Water	46.1
	Sodium C12-15 Pareth Sulfate/Neodo1 25-35	10.0
	Cocamidopropyl Hydroxysultaine/Mafo CSB-50	10.0
	Propylene Glycol (and) Diazolidinyl Urea	
	(and) Methyl Paraben (and) Propyl Paraben/ Germaben II	0.5
	Na4EDTA	0.2
	Cocamide DEA/Mazamide 80	2.0
C	Citric Acid (50%)	0.2
	Ammonium Chloride	Q.S.

pH: 6.0-6.5

Viscosity: 300 cps (with 0.0% NH₄Cl)
6,000 cps (with 0.5% NH₄Cl)

Appearance: White, pearlescent liquid

Procedure:

Part A ingredients are mixed and heated to 65C to melt and dissolve the pearl agent. Heating is discontinued, and the Part B ingredients are added in order, with propellor mixing. When the batch is uniform, the pH is adjusted with citric acid and the viscosity with ammonium chloride.

Formulation N-103

Combo Bar

(Modification of an example from US Patent #5,041,233)

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Tallow/Coco Soap (85-15)	55.6
Sodium Cocoyl Isethionate (and) Stearic Acid/ Jordapon CI-75	29.3
Water	10.3
Sodium Isethionate/Witconate NIS	2.0
NaCl	0.4
Fragrance	1.0
TiO ₂	1.0
Na3HEEDTA	0.2
BHT	0.2

Procedure:

Blend all ingredients together at room temperature.

Formulation M-104

SOURCE: PPG Industries, Inc.: Suggested Formulations

Hot Pour Syndet Bar

This mild cleansing bar provides rich lather and soft skin as a result of Jordapon CI-60. The formula is designed to be manufactured using hot-fill equipment; no soapmaking lines are needed.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid/ Jordapon CI-60	80.0
Stearyl Alcohol/CO-1895	10.0
PEG-150/Carbowax E-8000	3.0
Triethanolamine, 99%	5.0
Demineralized Water	2.0

pH (5% solution): 6.3

Procedure:

With all ingredients in the vessel, heat to 70C. Begin propellor agitation when the batch becomes fluid. Maintain slow mixing until all solids are dissolved and the batch becomes a uniform, nonviscous, opaque fluid. Fill molds, allow to solidify.

Formulation M102

Syndet Bar

Modification of an example in US Patent #4,707,288

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid/ Jordapon CI-75	76.5
Tallow/Coco Soap	16.7
Water	4.1
NaCl	0.3
TiO ₂	1.0
Fragrance	1.0
BHT	0.2
Na ₃ HEDTA	0.2

Formulation M103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Liquid Soap

A mild, high-foaming formulation which is simple, yet offers lubricious lather and soft skin afterfeel thanks to the Jordapon CI-UP. The Mapeg EGMS provides a bright pearlescence to the system. It can be omitted if a clear product is desired.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	74.4
	Sodium Cocoyl Isethionate/Jordapon CI-UP	3.0
	Ammonium Lauryl Sulfate/Stepanol AM	13.0
	Glycol Stearate/Mapeg EGMS	0.5
	Na4EDTA	0.1
	Methyl Paraben	0.2
B	Cocamidopropyl Betaine/Mafo CAB	6.0
	Cocamide DEA/Mazamide JT-128	2.5
C	Fragrance	0.2
	Citric Acid	0.1

pH: 6.0-6.5

Viscosity: 2500-3500 cps (with 0.6-0.9% NaCl)

Appearance: Creamy, Pearlescent Liquid

Procedure:

Mix and heat the part A ingredients to 65C (150F). When uniform, add the Mafo CAB and the Mazamide JT-128. Cool the batch to 40C (105F), add fragrance and adjust pH. Adjust viscosity with sodium chloride.

SOURCE: PPG Industries, Inc.: Formulation N-201

Liquid Hand Soap

<u>Ingredients:</u>	<u>Wt%</u>
A) Alpha Olefin Sulfonate (1) (38.5% active)	20.8
Arlatone MAP Concentrate (2)	4.0
Laurylamide DEA (3)	2.0
Polyquaternium-10 (4)	0.5
Water	q.s.
B) Sodium Chloride	2.0
C) 50% Potassium Hydroxide	q.s. to pH 6.5
D) Quaternium-15 (5)	q.s.

Preparation:

- *Disperse polyquaternium-10 in water with fast stirring until homogeneous.
- *Add remainder of (A) with moderate stirring.
- *Add (B) to (A).
- *Adjust the pH with (C).
- *Add (D).

Features:

- *Excellent cleansing
- *Smooth after feel
- *Lubricious lather

- (1) Bio-Terge AS-40 (Stepan), (2) C9-15 Alkyl Phosphate,
(3) Monamid 1034 (Mona), Celquat SC-240 (National Starch),
Dowicil 200 (Dow Chemical)

Viscosity: 9,450 cPs (Brookfield LVT, spindle 4, 30 rpm)

Stability: 21.0C (70F): 4 weeks

35.0C (95F): 4 weeks

46.0C (115F): 4 weeks

F/T: 4 freeze/thaw cycles

SOURCE: ICI Surfactants: Formulation CP1228

Liquid Hand Soap

<u>Ingredients:</u>	<u>Wt%</u>
Standapol WAQ Special	16.00
Plantaren 2000	10.00
Velvetex BK-35	3.50
PEG-150 Distearate	2.00
Lantrol AWS 1692	0.30
Emerest 2355	1.00
Cosmedia Polymer HSP-1180	1.00
Kathon CG	0.05
Fragrance & Dyes	q.s.
Water	Balance

Procedure:

Charge kettle with water. Heat water to 60-65C. Keep temperature constant. Add remaining ingredients, one at a time, under agitation. Once uniform, take heat off and continue stirring until product has reached ambient temperature. Adjust pH to 6.0-6.5 with citric acid.

Comments:

By combining Standapol WAQ Special and Plantaren 2000, we are assured of a high foaming liquid hand soap that is mild to the skin. The inclusion of Lantrol 1692 and Cosmedia HSP-1180 leaves an elegant feel on the skin.

Formula H-5003

Coconut-Oleic Hand Soap
(15% Real Soap)

	<u>Wt%</u>
Emery 621 Coconut Fatty Acid (acid value 263)	6.5
Emersol 213 Low Titer Oleic Acid (acid value 203)	6.5
Caustic potash (100%)	3.0
Water	to 100.0

Procedure:

Dissolve the caustic in the necessary amount of water, heating to 49-54C (120-130F), then add the fatty acid in a slow steady stream. Agitate while mixing the fatty acid and caustic until saponification is complete. The reaction mixture should be heated to 66-71C (150-160F) during the final stages of saponification.

Check the neutrality of the soap and adjust as necessary. Perfume as desired. Allow the soap to stand and settle for several days at near freezing temperatures, if possible, and decant or filter the soap.

Properties and Variations:

Distilled pine oil or other perfume may be added. This is a typical formula for soaps used in liquid soap dispensers, and many such products contain fluorescein, a dye that imparts a greenish-yellow fluorescence.

SOURCE: Henkel Corp./Emery Group: Suggested Formulations

Liquid Hand Soap w/Aloe

<u>Ingredients:</u>	<u>Wt%</u>
Phase I:	
Water, D.I.	41.7
Potassium Hydroxide, 87%	1.2
Glycerine	1.0
Phase II:	
Lauric Acid, 97%	5.0
Kemester 5822	0.5
Kemester EGDS	1.2
Phase III:	
Varonic LI-63	1.0
Varonic LI-420	4.0
Rewoteric AM B-15	14.2
Witcolate WAC-LA	26.7
Varox 1770	2.5
Phase IV:	
Aloe Vera	1.0
Phase V:	
Preservative	q.s.

Blending Procedure:

Heat Phase I and Phase II ingredients to 75-80C. With adequate mixing add Phase II to Phase I. Warm Phase III and add to Phase I and Phase II. Mix while cooling to 45C. Add Phase IV. Cool to 30C. Add Phase V.

Typical Properties:

Viscosity, cps: 2000

Solids: 29.0%

Formula 1122

Deodorant Hand Wash

<u>Ingredients:</u>	<u>Wt%</u>
Phase I:	
Water, D.I.	31.6
Witcolate WAC-LA	40.0
Varox 365	8.5
Rewoteric AM DML-35	7.2
Triclosan	0.2
Phase II:	
Varsulf SBFA-30	12.5
Phase III:	
Citric Acid, 25%	q.s.
Phase IV:	
Preservative	q.s.

Blending Procedure:

Add Phase I ingredients in order listed, mixing completely between additions. Add heat enough to melt Triclosan. Add Phase II at 45C. At 35C adjust pH=7.0 with Citric Acid.

Typical Properties:

Solids: 21.9%

pH: 7.0

Formula 1123

SOURCE: Witco Corp.: Suggested Formulations

Luxury Liquid Soap

This clear formula offers excellent flash foaming even in hard water, and provides silky-feeling lather and a soft skin afterfeel, delivered by Jordapon ACI-30. The inherent mildness of the system is enhanced by the addition of Avanel S-150 CG.

Part:	Ingredient/Trade Name:	Wt%
A	Deionized Water	55.5
	Polyquaternium-10/Ucare Polymer JR-125	0.1
B	NA4EDTA	0.2
	Imidazolidinyl Urea/Germall 115	0.2
	Methyl Paraben	0.2
	Sodium C12-15 Pareth-15 Sulfonate/ Avanel S-150 CG	4.3
	Cocamidopropyl Betaine/Mafo CAB	12.8
C	Ammonium Cocoyl Isethionate/Jordapon ACI-30	23.3
	Soyamide DEA/Mazamide SS-10	2.0
	Fragrance/Flora 91-2008	0.3
	Citric Acid	0.1
	NH4Cl	1.0

pH: 6.3-6.7

Viscosity: 4000-6000 cps (Brookfield #2 @ 3rpm)

Appearance: Clear, straw-colored liquid

Procedure:

Blend Part A ingredients at ambient temperature for about 20 minutes until dissolved. Add the Part B ingredients in order, and mix at ambient temperature until clear and uniform, about 30 minutes. Add the Mazamide SS-10 and the fragrance, mixing until clear. Adjust pH with Citric Acid and viscosity with NH4Cl.

SOURCE: PPG Industries, Inc.: Formulation N-107

Liquid Hand Soap

Ingredients:	Wt%
Phase I:	
Water, D.I.	59.5
Phase II:	
Witconate AOS	30.0
Varamide ML-1	2.2
Rewoteric AM B-15	3.1
Propylene Glycol	0.5
Glyceryl Stearate	2.2
Sodium Chloride	2.5
Phase III:	
Phosphoric Acid, 86%	q.s.
Phase IV:	
Preservative	q.s.

Blending Procedure:

Warm water to 75C. Add Witconate AOS with rapid agitation. Add remaining Phase II ingredients in order. Cool to 30C. Adjust pH=6.8 with Phosphoric Acid.

SOURCE: Witco Corp.: Formulation 1126

Mild Liquid Soap

This clear formula offers excellent flash foaming even in hard water, and provides silky-feeling lather and a soft skin afterfeel, delivered by Jordapon ACI-30 G. The inherent mildness of the system is enhanced by the addition of Avanel S-150 CGN.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	55.4
	Polyquaternium-10/UCare Polymer JR-125	0.1
B	Na4EDTA	0.2
	Imidazolidinyl Urea/Germall 115	0.2
	Methyl Paraben	0.2
	Sodium C12-15 Pareth-15 Sulfonate/Avanel S-150 CGN	4.3
	Cocamidopropyl Betaine/Mafo CAB	12.8
	Ammonium Cocoyl Isethionate/Jordapon ACI-30 G	23.3
C	Soyamide DEA/Mazamide SS-10	2.0
	Fragrance/Flora 91-2008	0.3
	Citric Acid	0.1
	NH4Cl	1.0

pH: 6.3-6.7

Viscosity: 4,000-6,000 cps (Brookfield #2 @ 3 rpm)

Appearance: Clear, straw-colored liquid

Procedure:

Blend Part A ingredients at ambient temperature for about 20 minutes until dissolved. Add the part B ingredients in order, and mix at ambient temperature until clear and uniform, about 30 minutes. Add the Mazamide SS-10 and the fragrance, mixing until clear. Adjust pH with citric acid and viscosity with NH4Cl.

Formulation N-107

Hot-Pour Syndet Bar

This mild cleansing bar provides rich lather and soft skin as a result of Jordapon CI-60 Flake. The formula is designed to be manufactured using hot-fill equipment: no soapmaking lines are needed.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid/Jordapon CI-60 Flake	80.0
Stearyl Alcohol/CO-1895	10.0
PEG-150/Carbowax PEG-8000	3.0
Triethanolamine, 99%	5.0
Deminerlized Water	2.0
pH (5% solution): 6.3	

Procedure:

With all ingredients in the vessel, heat to 70C. Begin propeller agitation when the batch becomes fluid. Maintain slow mixing until all solids are dissolved and the batch becomes a uniform, nonviscous, opaque fluid. Fill molds, allow to solidify.

Formulation M-102

SOURCE: PPG Industries, Inc.: Suggested Formulations

Opaque Liquid Soap

<u>Ingredients:</u>	<u>Wt%</u>
A. Stearic acid, triple pressed	4.0
Coconut oil fatty acid	8.0
Arlamol E pop 15 stearyl ether	2.0
Ammonium Laureth Sulfate	4.0
PEG 150 distearate	3.0
Zinc stearate	2.0
B. Sodium lauroyl sarcosinate	10.0
Sorbo sorbitol solution (USP)	5.0
Potassium hydroxide (85%)	3.5
Water	44.2
C. Water	14.0
Hydroxypropyl Methylcellulose	0.2
D. Perfume	q.s.
E. Quaternium-15	0.1

Preparation:

Heat (A) to 70C. Heat (B) to 72C. Add (B) to (A) and mix with Homo-mixer. Add (C) (room temperature) to (A,B) at 60C. Add (D) and then (E). Stir to room temperature and add water to replace loss by evaporation.

Properties:

pH: 9.1

Viscosity (R.T.): 240 cps

Foam volume: 840 ml in a modified blender apparatus

Test Panel:

Nine out of ten panelists preferred this formulation to the leading commercial product. The tenth had no preference.

Opaque Liquid Soap

<u>Ingredients:</u>	<u>Wt%</u>
A Tween 20 polysorbate 20	3.0
Ammonium lauryl sulfate	12.0
Ammonium laureth sulfate	12.0
Cocamide DEA	3.0
Arlamol E pop 15 stearyl ether	2.0
Zinc stearate	2.0
PEG 150 distearate	1.5
B Sorbo sorbitol solution, USP	5.0
Water	40.4
C Water	18.7
Hydroxypropyl Methylcellulose	0.3
D Perfume	q.s.
E Quaternium-15	0.1

Preparation:

Heat (A) to 60C and (B) to 65C. Add (B) to (A) and stir to 40C. Heat (C) to 40C and add to (B,A). Add (D). Add (E) and replace water lost by evaporation.

Properties:

pH: 7.1

Viscosity (R.T.): 1,560 cps

Foam Volume: 850 ml in a modified blender apparatus

Formula AE-19

SOURCE: ICI Americas: Suggested Formulations

Opaque Liquid Soap

Natrosol 250HHR hydroxyethylcellulose effectively boosts the viscosity of this lower actives opaque shampoo base. At a surfactant solids level of only 7.3%, the addition of Natrosol yields a rich liquid soap with a viscosity of 4,000 cps (mPas) (Brookfield LVT at 30 rpm, 25C).

Ingredients:

	Wt%
Water	75.88
Sodium C14-C16 olefin sulfonate, 40% active	7.50
Sodium lauroyl sarcosinate, 30% active	6.66
Cocamidopropyl betaine, 35% active	6.66
Glycol stearate	1.00
Natrosol 250HHR CS hydroxyethylcellulose	0.80
Propylene glycol	0.50
Glycerin	0.50
Tetrasodium EDTA	0.30
Stearalkonium chloride	0.10
Methyl paraben	0.10

Procedure:

1. Disperse the Natrosol in water with good agitation. Mix until fully dissolved. Moderate heating or an increase in solution pH to slightly alkaline will accelerate hydration.
2. Disperse the methyl paraben in the propylene glycol. Add to the Natrosol solution. Mix until dissolved.
3. While slowly stirring the water-soluble polymer solution, add the stearylalkonium chloride, olefin sulfonate, and glycol stearate. Heat the mixture to 80C until all of the glycol stearate has melted and the solution has turned opaque.
4. Add the remaining ingredients while cooling the solution slowly to room temperature.
5. Add color and fragrance.

Formula NO9-01W

Transparent Toilet Soap

<u>Ingredients:</u>	<u>Wt%</u>
Water	65.70
Sodium C14-C16 olefin sulfonate, 40% active	20.00
Sodium lauroyl sarcosinate, 30% active	10.00
Cocamide MEA	3.00
Natrosol 250HR CS	1.00
Disodium EDTA	0.20
Methyl paraben	0.10

Procedure:

1. Disperse the Natrosol in water with good agitation. Mix until fully dissolved.
2. Add the methyl paraben to the Natrosol solution. Mix until fully dissolved.
3. In a separate vessel, combine the surfactants, heat to 80C, and mix until homogeneous.
4. Add the surfactant solution to the water-soluble polymer solution and mix until well blended.
5. Add the disodium EDTA and cool to room temperature.

Formula NO9-02W

SOURCE: Aqualon Division, Hercules Inc.: Suggested Formulations

Pearlized Liquid Soap

This system combines important performance attributes - appearance, flash foaming, easy rinsability, and soft afterfeel - with the practical advantages of low cost and efficient processing.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	30.00
	Ammonium Lauryl Sulfate/Stepanol AM	18.50
	Na4EDTA	0.20
	Methyl Paraben	0.20
	Glycol Stearate/Mapeg EGMS	0.50
B	Deionized Water	28.30
	Ammonium Cocoyl Isethionate/Jordapon ACI-30 G	9.20
	Imidazolidinyl Urea/Germall 115	0.20
C	Cocamidopropyl Betaine/Mafo CAB	3.40
	Cocamide DEA/Mazamide JT-128	0.90
	Fragrance	0.05
D	Citric Acid, 50%	0.10
E	Deionized Water	6.75
	Ammonium Chloride	1.70

pH: 6.0-6.5

Viscosity: 1,000 cps (Brookfield #3 @ 6 rpm)

5,000 cps (Brookfield #3 @ 6 rpm with 0.6% NH4Cl)

Appearance: Pearlescent, white liquid

Procedure:

In the main vessel, mix and heat part A to 70C. When uniform, discontinue heating and add the part B ingredients in order, cooling the batch. Premix part C, and add to the batch. Adjust pH when batch temperature is 45-55C. Cool the batch to 25C, and adjust viscosity with part E.

Formulation N-105

Syndet Bar

Modification of an example in US Patent #4,707,288

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Sodium Cocoyl Isethionate (and) Stearic Acid/ Jordapon CI-75	76.5
Tallow/Coco Soap	16.7
Water	4.1
NaCl	0.3
TiO2	1.0
Fragrance	1.0
BHT	0.2
Na3HEEDTA	0.2

Procedure:

Blend all ingredients together at room temperature.

Formulation M-103

SOURCE: PPG Industries, Inc.: Suggested Formulations

Surgical Scrub

This is an opaque lotion formula which is soap-free. Foaming and cleansing is provided by Avanel S-35 CG and Mafo CAB, and germ-killing by PCMX. A blend of emollient ingredients soften dry areas.

<u>Part:</u>	<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A	Deionized Water	46.00
	Hydroxypropyl Methylcellulose/Methocel 40-100	0.10
	Tetrasodium EDTA	0.10
	Triethanolamine	0.05
B	Sodium Octoxynol-2 Ethane Sulfonate/ Avanel S-35 CG	32.00
	Cocamidopropyl Betaine/Mafo CAB	10.00
	Chloroxylene/Phenosept	3.00
C	Petrolatum	5.00
	Lanolin Alcohol	0.50
	Cetearyl Alcohol (and) Ceteareth-20/Macol 124	2.00
	Cocamide DEA/Mazamide 80	1.25
D	Fragrance	Q.S.
	Citric Acid or TEA to pH 6.0-7.0	Q.S.

Procedure:

Disperse the hydroxypropyl methylcellulose in the part A water at ambient temperature by mixing for >10 minutes. Add the tetrasodium EDTA and the TEA to raise the pH above 8.5 and initiate hydration of the hydroxypropyl methylcellulose. Mix for at least 20 minutes while heating the batch to 60-65C. Add the part B ingredients in order, maintaining the batch at 60-65C while the PCMX dissolves. Blend the part C ingredients in a side vessel, heating to 60-65C. Add part C to the batch with rapid agitation to form the emulsion. Maintain this agitation as the batch is cooled to 40-45C. Add the fragrance and adjust the pH to 6.0-7.0.

SOURCE: PPG Industries, Inc.: Formulation N-108

Toilet Soap Base*

	<u>Wt%</u>
Emery 531 Fatty Acid	48.37
Emery 621 Coconut Fatty Acid	12.09
Caustic soda (36%) (40.7 Baume)	26.39
Water	10.08
Salt	0.19
Sodium silicate	1.92
Titanox	0.96
Perfume	q.s.

Floating Soap*

	<u>Wt%</u>
Emery 531 Fatty Acid	43.13
Emery 621 Coconut Fatty Acid	18.48
Caustic soda (36%) (40.7 Baume)	28.98
Water	5.37
Salt	0.19
Sodium silicate	3.85
Perfume	q.s.

*Formulations 1 and 2 require normal bar soap manufacturing procedures; as well as specialized equipment including soap kettles, crutchers, pladders, and cutting and stamping equipment. Formulation 2 requires special processing to float.

Pine Oil Hand Soap
(15% Real Soap)

	<u>Wt%</u>
Emery 621 Coconut Fatty Acid (acid value 263)	12.7
Caustic potash (100%)	3.3
Pine oil (steam distilled)	3.2
Water	to 100.0

Procedure:

Dissolve the caustic in the necessary amount of water, heating to 49-54C (120-130F), then add the fatty acid in a slow steady stream. Agitate while mixing the fatty acid and caustic until saponification is complete. The reaction mixture should be heated to 66-71C (150-160F) during the final stages of saponification. The pine oil is added to the mixture following saponification.

Check the neutrality of the soap and adjust as necessary. Perfume as desired. Allow the soap to stand and settle for several days at near freezing temperatures, if possible, and decant or filter the soap.

SOURCE: Henkel Corp., Emery Group: Fatty Acids and Their Water Soluble Soaps: Suggested Formulations

Ultra-Waterless Hand Cleaner with Abrasive

Formula Profile:

The synergistic mixture of Veegum Ultra and Rhodigel will create a light waterless hand cleaning lotion that will have great spreadability and feel without the tack and stringiness characteristic of Rhodigel. Veegum Ultra will improve stability, suspend the abrasives and maintain viscosity of the product. The formed soap is Potassium Oleate and the D-Limonene is the natural cleaner.

Ingredients:

	Wt%
A: Water	59.3
Veegum Ultra (Magnesium Aluminum Silicate)	1.5
Rhodigel (Xanthan Gum)	0.5
B: Oleic Acid	9.0
Mineral Oil	5.0
Cetyl Alcohol	1.0
Lanolin	1.0
C: Water	2.0
Potassium Hydroxide	0.7
D: D-Limonene	10.0
E: Polyethylene Beads (A-C 9-A)	10.0
F: Preservative	qs

Procedure:

Step 1: Dry blend Veegum Ultra and Rhodigel in Part A. (Dry blending reduces the clumping of Rhodigel and allows for the simultaneous introduction of ingredients). Sift the powder into an established vortex in the water. Veegum Ultra will be hydrated within 15 minutes. Allow about 45 minutes for Rhodigel to dissolve completely. The addition of any other ingredients during the hydration process will interfere with the hydration of Veegum Ultra and will reduce or even eliminate the desired properties generated by the Magnesium Aluminum Silicate.

Step 2: Begin heating water phase in Step 1 to 75C.

Step 3: Blend oil phase ingredients in Part B and heat the oil phase to 75C.

Step 4: When both phases are at 75C, add oil phase in Step 3 to water phase Step 2.

Step 5: Cool to 45C. Dissolve the KOH in water and add Part C to Step 2.

Step 6: Cool to 35C. Add Part D to Step 2.

Step 7: Add Part E to Step 2.

Step 8: Add Part F to Step 2.

Product Specifications:

Viscosity: Brookfield LVT: 20,000+-3,000 cps after 24 hours

pH: 8.0-8.5

This formula produces a stable product that passes 3 month stability testing at RT, 5C, 38C, 50C and 3 cycle F/T.

SOURCE: R.T. Vanderbilt Co., Inc.: Formula No. 478

Waterless Hand Cleaner Cream

Formula SK-20 is a waterless hand cleaner cream based on deodorized kerosene as the cleansing agent.

<u>Ingredients:</u>	<u>Wt%</u>
A Magnesium aluminum silicate	2.5
Water	30.0
B Arlacel 60 Sorbitan Stearate	2.0
Tween 60 Polysorbate 60	8.0
Deodorized kerosene	35.0
C Methylcellulose, 4000 cps	0.5
Water	22.0
Preservative	q.s.

Preparation:

Part (A): Add magnesium aluminum silicate to water slowly, agitating continually until smooth (about one hour). Heat (A) to 62C.

Part (B): Heat (B) to 60C. Add (A) to (B). Stir until cool.

Part (C): Heat half of the water to 90C. Add methylcellulose very slowly. Mix thoroughly to disperse methylcellulose. Add the remainder of the water. Cool and add (C) to the emulsion (A,B blend). Mix well. Replace water lost by evaporation.
Formula SK-20

d-Limonene Hand Cleaner

<u>Ingredients:</u>	<u>Wt%</u>
A d-Limonene	15.00
Arlamol E PPG 15 Stearyl ether	15.00
Brij 35 Liquid Laureth-23	2.30
Brij 72 Steareth-2	4.35
B Water	62.75
Carbopol 934	0.50
D Dowicil 200	0.10

Preparation:

Disperse Carbopol 934 in water. Heat (A) to 60C and (B) to 62C. Add (B) to (A) slowly with moderate agitation. Add (C) at about 50C. Stir to 35C and replace water lost by evaporation.
Formula SK-21

SOURCE: ICI Surfactants: Suggested Formulations

Section XI
Sun Care Products

Clear Liquid Sunblock

Hard to dissolve Benzophenone-3 instantly solubilizes in Velsan D8P-3 liquid to produce these cold mix sunblocks similar to popular "Pre-Sun" products. In addition to benzophenone-3 solubilization, Velsan D8P-3 also imparts an excellent non-greasy afterfeel to the formula.

SPF 15
CL9-145-02

<u>Ingredients:</u>	<u>Wt%</u>
Velsan D8P-3	10.0
Benzophenone-3	3.0
SD Alcohol 40-2	25.0
Propylene Glycol Dicaprylate/Dicaprate	5.0
Octyldimethyl PABA	7.0
Cyclomethicone	50.0

Procedure:

Dissolve Benzophenone-3 into the Velsan D8P-3. Add remaining ingredients in any order and mix until homogeneous.

SPF20-25
CL9-145-03

<u>Ingredients:</u>	<u>Wt%</u>
Velsan D8P-3	10.0
Benzophenone-3	6.0
SD Alcohol 40-2	24.1
Propylene Glycol Dicaprylate/Dicaprate	4.6
Octyldimethyl PABA	7.0
Cyclomethicone	48.3

Procedure:

Dissolve Benzophenone-3 into the Velsan D8P-3. Add remaining ingredients in any order and mix until homogeneous.

SOURCE: Clariant Corp.: Ref: CL9-145-02, 03; CSS-01

Dry Touch Physical Sunscreen

This formula is not an emulsion but rather a suspension of several water-insoluble ingredients in water. The suspending agent Veegum Plus prevents these ingredients from settling and/or separating. The physical sunscreen used is micronized Titanium Dioxide. This formula also contains liposomes with a payload of the well-known moisturizing agents liposomes Sodium PCA and amino acids. A silicone oil dispersion is also included to enhance application properties. The formula contains no emulsifying agents.

<u>Ingredients:</u>	<u>Wt. %*</u>
A: Deionized Water	59.70
Veegum Plus, Magnesium Aluminum Silicate (and)	
Cellulose Gum	1.50
Rhodigel, Xanthan Gum	0.20
B: Glycerin (and) Titanium Dioxide (TiO ₂ Sperse GLY)	28.60
C: Deionized Water (and) Phenyltrimethicone (and)	
Cyclomethicone (and) Dimethiconol (and) Phospho-	
lipids (and) Phenoxyethanol (and) Methylparaben	
(and) Carbomer (and) Ethylparaben (and) Propyl-	
paraben (and) Butylparaben (Satin Finish)	5.00
D: Preservative	q.s.
E: Deionized Water (and) Sodium PCA (and) Phospholipids	
(and) Phenoxyethanol (and) Tocopheryl Acetate (and)	
Xanthan Gum (and) Arginine (and) Lysine (and) Glycine	
(and) Methylparaben (and) Proline (and) Ethylparaben	
(and) Propylparaben (and) Butylparaben (Moisturizing	
Liposomes)	5.00

Procedure:

Weigh and dry blend the Veegum Plus and Rhodigel. Add the blend to the Part A water at room temperature, mixing with a propeller mixer at 1800 rpm. Continue mixing for 30 minutes. Add Part B and mix 10 minutes at 1800 rpm. Add Parts C and D to the batch in the order shown. Mix Part C for 10 minutes at 1800 rpm before adding Part D. Mix Part D 5 minutes at the same speed. Slow the mixer to 500 rpm and add Part E. Mix 5 minutes and package.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation No. 464

Enriched Moisturizing Lotion (Before & After Tanning)

<u>Ingredients:</u>	<u>Wt%</u>
Sesame Oil U.S.P.	15.0
Polysynlane	20.0
Glyceryl Monostearate	3.0
Isopropyl Myristate	10.0
Carbopol 934	0.2
Propylene Glycol	10.0
Triethanolamine	1.0
Anhydrous Lanolin	5.0
Water	ad 100.0

Other Uses:

1. Polysynlane has food additive approval from the Welfare Ministry of Japan and was authorized for use as an additive for a chewing gum base.
2. Polysynlane is a refined hydrogenated polyisobutene, which has FDA approval (Subpart F 121.2511) for use as a plasticizer in polyethylene food wrap.
3. Polysynlane has found use as a special lubricant for fine instruments and watches, and is being investigated as an ultra low temperature lubricant and motor oil additive.

Sunscreen Spray

<u>No.</u>	<u>Phase:</u>	<u>Ingredient:</u>	<u>Wt%</u>
1	A	Cyclomethicone DC 345	55.60
2	A	Polysynlane	10.00
3	A	Grapeseed Oil	2.00
4	A	Sunflower Seed Oil	2.50
5	A	Vitamin E Acetate	0.25
6	A	Tenox 6	0.15
7	A	Fragrance Novarome NC-48	0.50
8	B	Ceraphyl 230	5.00
9	B	Octyl Methoxycinnamate	7.50
10	B	Oxybenzone	4.00
11	B	Octyl Salicylate	5.00
12	B	Transcutol	7.50

Manufacturing Instructions

Combine Phase A. Combine Phase B. Add Phase B to Phase A. Package.

An easy to apply spray that leaves the skin protected from both UVA and UVB radiation. It spreads quickly and is completely non-greasy. The anticipated SPF is 15. The formulation exhibits excellent solubilization of the oxybenzone, which is often seen to crystallize out.

SOURCE: Polyester Corp.: Suggested Formulations

Microfine Titanium Dioxide Sunscreen (O/W) Lotion
Broad Spectrum UVA/UVB Protection

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	5.00
Steareth-10/Volpo S-10	2.00
Steareth-2/Volpo S-2	1.00
Mineral Oil/Drakeol 7 Lt	8.00
C12-15 Alcohols Benzoate/Finsolv TN	4.00
Diocetyl Adipate/Dermol DOA	2.00
Cetyl Dimethicone/Abil Wax 9801	1.50
Ceresin wax/White Ceresine 1502	1.00
Diisostearoyl Trimethylolpropane Siloxy Silicate/SF1318	3.00
Phase B:	
Titanium Dioxide/Eusolex T-2000	5.00
Phase C:	
Water, demineralized	57.30
Glycerin/Emery 916	3.00
Allantoin/Rona	0.20
Magnesium Aluminum Silicate/Veegum Ultra	1.00
Xanthan Gum/Keltrol RD	0.30
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-butyl paraben, phenoxyethanol)/LiquaPar PE	0.70

Procedure:

- 1) Combine water, glycerin and allantoin of phase C. Stir and heat to 65C. Dry mix xanthan gum and magnesium aluminum silicate. Add dry mixture to remaining phase C ingredients.
- 2) Combine phase A ingredients. Stir and heat to 75C until waxes are completely melted. Cool to 65C and maintain at this temperature.
- 3) Add phase B to A. Disperse with propeller mixer. Add phase C to A/B while mixing.
- 4) Homogenize allowing mixture to cool to 35C. Add phase D and stir/or homogenize until mixture is homogeneous.

Note:

Viscosity: 26,400 cps (Brookfield RV#5, 10 rpm @ 23C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability 50C: No separation after 1 month

SOURCE: Rona/EM Industries, Inc.: Formula EUS6-60

Microfine Titanium Dioxide Sunscreen (W/O) Lotion
Broad Spectrum UVA/UVB Protection

INCI Name/Trade Name:	Wt%
Phase A:	
Octyl Stearate/Crodamol OS	7.00
Joboba Oil/Floraesters Jojoba Oil, Refined	4.00
Caprylic/capric Triglycerides/Myritol 318	4.00
Petrolatum/Ultima white	3.00
Cyclomethicone/Dow Corning 344 Fluid	3.00
Dimethicone/Dow Corning 200 fluid, 100 cST	2.00
PEG-30 Dipolyhydroxystearate/Arlacei P135	2.50
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate/Abil WE-09	2.50
Cetearyl Alcohol (and) Cetearyl Phosphate/Crodafos CES	1.00
Ceresin Wax/White Ceresine 1502	0.50
Phase B:	
Deionized Water	56.30
Propylene Glycol	3.00
Allantoin/Rona	0.20
Sodium Chloride	0.50
Phase C:	
Titanium Dioxide/Eusolex T-2000	10.00
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-butyl paraben, Phenoxyethanol)/LiquaPar PE	0.50

Procedure:

Combine phase A. Heat to 75C with propeller mixer agitation until homogeneous. Add phase C to A. Cool mixture to 65C. Combine and heat phase B to 55C while stirring. Continue stirring until solids are fully dissolved. Slowly add phase B to A/C while stirring. Add phase D to A/B/C. Homogenize at moderate speeds to avoid aeration until temperature cools to 35C. Stir slowly allowing mixture to reach room temperature.

Note:

Viscosity: 16,000 cps (Brookfield RV#5, 10 rpm @ 25C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability at 50C: No separation after 3 months

SOURCE: Rona/EM Industries, Inc.: Formula EUS5-64

Microfine Titanium Dioxide Sunscreen (W/O) Lotion SPF 11
Broad Spectrum UVA/UVB Protection

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Stearate/Crodamol OS	7.00
Jobba Oil/Floraesters Jojoba Oil, Refined	4.00
Caprylic/capric Triglycerides/Myritol 318	4.00
Petrolatum/Ultima White	3.00
Cyclomethicone/Dow Corning 344 Fluid	3.00
Dimethicone/Dow Corning 200 fluid 50cST	2.00
PEG-30 Dipolyhydroxystearate/Arlacel P135	2.50
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate/Abil WE-09	2.50
Cetearyl Alcohol (and) Cetearyl Phosphate/Crodafos CES	1.00
Ceresin Wax/White Ceresine 1502	0.50
Phase B:	
Deionized Water	61.30
Propylene Glycol	3.00
Allantoin/Rona	0.20
Sodium Chloride	0.50
Phase C:	
Titanium Dioxide/Eusolex T-2000	5.00
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-Butyl paraben, phenoxyethanol)/LiquaPar PE	0.50

Procedure:

Combine phase A. Heat to 75C with propeller mixer agitation until homogeneous. Add phase C to A. Cool mixture to 65C. Combine and heat phase B to 55C while stirring. Continue stirring until solids are fully dissolved. Slowly add Phase B to A/C while stirring. Add phase D to A/B/C. Homogenize at moderate speeds to avoid aeration until temperature cools to 35C. Stir slowly allowing mixture to reach room temperature.

Note:

Viscosity 18,800 cps (Brookfield RV#5, 10 rpm @ 25C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability at 50C: No separation after 2 months

SOURCE: Rona/EM Industries, Inc.: Formula EUS5-62

Oil and Emulsifier Free Sunscreen Lotion

Velsan D8P-16 acts as a solubilizer for the sunscreen agents and also imparts an excellent non-greasy afterfeel to these products. The formulations are oil free, emulsifier free and also exhibit gel-like characteristics.

Formula CSS-05:

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
SD Alcohol 39C	45.24
Hydroxypropyl Cellulose	1.50
Phase B:	
Velsan D8P-16	9.64
Octyl Methoxycinnamate	7.50
Benzophenone-3	3.00
SD Alcohol 39C	24.30
Fragrance	0.60
Phase C:	
Deionized Water	9.76

Formula CSS-06:

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
SD Alcohol 39C	44.24
Hydroxypropyl Cellulose	1.50
Phase B:	
Velsan D8P-16	9.64
Octyl Methoxycinnamate	7.50
Parsol 1789*	1.00
Benzophenone-3	3.00
SD Alcohol 39C	24.30
Fragrance	0.60
Phase C:	
Deionized Water	9.76

Procedure:

Disperse hydroxypropyl cellulose in SD Alcohol. Mix until a clear gel develops. For Phase B, add all ingredients except SD Alcohol and Fragrance in order with mixing. Heat to 45C with mixing until homogeneous. Cool to 35C and add the alcohol and fragrance with mixing. Add Phase B to Phase A and mix well. When Phase A/Phase B mixture is homogeneous, add Phase C slowly and mix completely.

Properties:

pH: 6.9

Viscosity: 7300+-500 cps

Appearance: Cloudy, light yellow gel-like lotion

*Parsol 1789 is not yet FDA approved.

SOURCE: Clariant Corp.; Ref: CL19-39; CSS-05 and CSS-06

O/W Emollient Sunscreen Lotions
UV-3 (SPF 6*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl dimethyl PABA	5.0
Arlamol E, PPG-15 Stearyl ether	7.0
Stearyl alcohol	2.5
Dimethicone	1.0
Arlasolve 200 Isoceteth-20	3.1
Brij 72	3.9
B Water	77.1
Carbomer 934	0.2
C Sodium hydroxide, 10% aqueous	0.2
D Preservative and fragrance	q.s.

UV-4 (SPF 15*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl dimethyl PABA	7.0
Benzophenone-3	3.0
Arlamol E, PPG-15 Stearyl ether	7.0
Stearyl alcohol	2.5
Dimethicone	1.0
Arlasolve 200 Isoceteth-20	3.1
Brij 72	3.9
B Water	72.1
Carbomer 934	0.2
C Sodium hydroxide solution, 10% aqueous	0.2
D Preservative and fragrance	q.s.

Preparation:

Disperse Carbomer 934 in water and heat (B) to 60C. Heat (A) to 65C. Add (B) to (A) using propeller agitation. Slowly add (C) and increase speed of agitation as needed. Add (D) below 50C and replace water lost by evaporation.

*Estimated Sun Protection Factor

SOURCE: ICI Surfactants: Suggested Formulations

O/W Moisturizing Sunscreen Creams
UV-1 (SPF 6*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl dimethyl PABA	5.0
Mineral oil	5.0
Stearyl alcohol	0.5
Brij 721, Steareth-21	2.0
Brij 72, Steareth-2	2.0
Dimethicone	0.5
 B Water	 84.6
Carbomer 940	0.2
 C Sodium hydroxide solution, 10% aqueous	 0.2
 D Preservative and fragrance	 q.s.

UV-2 (SPF 15*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl dimethyl PABA	7.0
Benzophenone-3	3.0
Mineral oil	5.0
Stearyl alcohol	0.5
Brij 721, Steareth-21	2.0
Brij 72, Steareth-2	2.0
Dimethicone	0.5
 B Water	 79.6
Carbomer 940	2.0
 C Sodium hydroxide, 10% aqueous	 0.2
 D Preservative and fragrance	 q.s.

Preparation:

Disperse Carbomer 940 in water and heat (B) to 60C. Heat (A) to 65C. Add (B) to (A) using propeller agitation. Slowly add (C) and increase speed of agitation as needed. Add (D) below 50C and replace water lost by evaporation.

*Estimated Sun Protection Factor

SOURCE: ICI Surfactants: Formulas UV-1 & UV-2

Oil-in-Water Sun Milk with High SPF
(physical and chemical filters)

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol HD	15.0
Arlamol S7	4.0
Parsol MCX*	6.0
Parsol 1789*	3.0
Lorol C18*	2.0
Antaron V-220*	3.0
Vitamin E Acetate*	1.0
Disodium EDTA	0.1
 B Arlatone 2121	 5.5
Atlas G-2330	4.0
Water	43.8
Keltrol*	0.1
Preservative	q.s.
Tioveil AQ*	12.5
Citric acid (20% solution)	to pH 6.5-7

Manufacture:

1. Disperse Tioveil AQ in water and adjust pH to 6.0-6.5 with acid.
2. Homogenise the water phase intensively for one minute.
3. Add Arlatone 2121 and other ingredients to the water phase.
4. Heat B to 85C.
5. Heat the oil phase A to 80C.
6. Add A to the hot aqueous phase B with stirring.
7. Homogenise the mixture intensively at 75C for one minute.
8. Allow to cool to room temperature whilst stirring.
9. Control pH and adjust if necessary to pH 6.0-6.5.

Comments:

Viscosity: 6,240 mPa s (Brookfield LVT, spindle D, rpm 6)

*Parsol MCX (Octyl Methoxycinnamate, INCI)-Givaudan-Roure
Parsol 1789 (Butyl Methoxydibenzoylmethane, INCI)-Givaudan-Roure

Lorol C18 (Stearyl Alcohol, INCI)-Henkel

Antaron V-220 (PVP/Eicosene Copolymer, INCI)-Roche

Vitamin E Acetate (Tocopheryl Acetate, INCI)-Roche

Keltrol (Xanthan Gum, INCI)-Kelco

Tioveil AQ (Titanium Dioxide (and) Water, INCI)-Tioxide

SOURCE: ICI Surfactants: Formulation F41-5-14

Oil-in-Water Sun Protection Cream

<u>Ingredients:</u>	<u>Wt%</u>
A Paraffin oil perliquidum*	10.0
Arlamol HD	5.0
Arlamol S7	4.0
ParsoI MCX*	5.0
ParsoI 1789*	5.0
Vitamin E acetate*	1.0
Stenol 1822A*	2.0
Anti-oxidant	q.s.
B Arlatone 2121	5.5
Glycerol	4.0
Preservative	q.s.
Water	62.9
C Rhodopol SC*	0.1
D Perfume	q.s.

Manufacture:

1. Mix the Arlatone 2121 in the heated water phase at 80C under moderate stirring until a homogeneous dispersion is formed.
2. Disperse the hydrocolloid in the heated aqueous phase at 75C with moderate stirring.
3. Add the heated oil phase to the aqueous phase under intensive stirring.
4. Homogenise the mixture intensively at 75C for one minute.
5. Cool to 35C whilst stirring moderately.
6. Add heat-sensitive ingredients whilst stirring moderately.

Comment:

During the cooling process (step 5), when Arlatone 2121 emulsion starts to build up in the lamellar crystalline structure, moderate stirring is recommended. Intensive stirring can break down the lamellar structure and can reduce the final viscosity. The viscosity of the formulation is inversely proportional to the mixing energy that has been put into the emulsion during manufacture.

Comments:

Viscosity: 159.120 mPa s (Brookfield LVT, spindle E, 1.5 rpm)
Energy input is related to the final formulation viscosity.

*Paraffin oil perliquidum (Mineral Oil, INCI)-Merck
ParsoI MCX (Octyl Methoxycinnamate, INCI)-Givaudan-Roure
ParsoI 1789 (Butyl Methoxybenzoylmenthane, INCI)-Givaudan-Roure
Vitamin E acetate (Tocopheryl Acetate, INCI)-Roche
Stenol 1822A (Behenyl Alcohol, INCI)-Henkel
Rhodopol SC (Xanthan Gum, INCI)-Rhône-Poulenc

SOURCE: ICI Surfactants: Formulation F41-5-2

Oil-in-Water Sun Protective Cream with "Natural" Sun Filter

Ingredients:	Wt%
A Arlamol HD	5.0
Arlamol S7	4.0
Paraffin oil perliquidum*	10.0
Lorol C18*	2.0
Vitamin E acetate*	1.0
B Tioveil AQ*	12.5
Arlatone 2121	5.5
Glycerol	4.0
Keltrol*	0.1
Disodium EDTA	0.1
Preservative	q.s.
Sorbic acid	0.2
Demineralised water	to 100

Manufacture:

1. Disperse Tioveil AQ in water and adjust pH to 6.0-6.5 with acid.
2. Homogenise the water phase intensively for one minute.
3. Add Arlatone 2121 and other ingredients to the water phase.
4. Heat B to 85C.
5. Heat the oil phase A to 80C.
6. Add A to the hot aqueous phase B with stirring.
7. Homogenise the mixture intensively at 75C for one minute.
8. Allow to cool to room temperature whilst stirring.
9. Control pH and adjust if necessary to pH 6.0-6.5.

Comments:

Viscosity (after 1 week): 46,490 mPa s (Brookfield LVT, spindle E, 6 rpm)

Energy input is related to final formulation viscosity

*Paraffin oil perliquidum (Mineral Oil, INCI)-Merck
 Lorol C18 (Stearyl Alcohol, INCI)-Henkel
 Vitamin E acetate (Tocopheryl Acetate, INCI)-Roche
 Tioveil AQ (Titanium Dioxide (and) Water, INCI)-Tioxide
 Keltrol (Xanthan Gum, INCI)-Kelco

SOURCE: ICI Surfactants: Formulation F41-5-13

Self Tanning Cream W/UV Filter (O/W)**SPF 19.0/UVA PF 9.5 (Sun Protection Factor, Diffey Method)**

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Methoxycinnamate/Neo Heliopan AV	5.00
Benzophenone-3/Eusolex 4360	2.00
Glyceryl Stearate (and) Steareth-25 (and) Ceteth-20 (and) Stearyl Alcohol/Tego-Care 150	8.00
Cetearyl Alcohol/Lanette O	1.50
Stearoxy Dimethicone/Abil Wax 2434	1.60
Cetearyl Octanoate/Luvitol EHO	5.00
Paraffin Liquid	3.00
Caprylic/Capric Triglyceride/Miglyol 812 neutral oil	5.00
Dimethicone/Dow Corning 200 (350 cs)	0.50
Phase B:	
1,2-Propanediol/Propylene Glycol	3.00
Methyl Paraben	0.15
Propyl Paraben	0.05
Deionized Water	50.20
Phase C:	
Dihydroxyacetone/Rona	5.00
Deionized Water	10.00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring and add phase C at 40C.

Note:

Viscosity: 38,800 cp (Brookfield RVT, Sp. F, 10 rpm) at 26C

Sunscreen Cream SPF 12

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	44.23
Carbomer (2% aq. solution)/Carbopol 980	15.00
Propylene Glycol	5.00
Methyl Paraben	0.20
Propyl Paraben	0.10
Triethanolamine (99%)	0.45
Tetrasodium EDTA	0.02
Phase B:	
Octyl Methoxycinnamate/Neo Heliopan AV	5.00
Benzophenone-3/Eusolex 4360	3.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	1.00
Cyclomethicone/Dow Corning 344 Fluid	5.00
Glyceryl Stearate	4.00
Stearic Acid/Emersol 132, NF	2.50
Isostearyl Isostearate/Prisorine ISIS 2039	10.00
Hydrogenated Castor Oil/Castorwax	2.00
C12-15 Alcohols Benzoate/Finsolv TN	2.50

Procedure:

Add Phase A ingredients to main vessel under impeller agitation. Heat Phase A to 75-80C. Combine Phase B ingredients; heat and mix to 85C. Slowly add Phase B to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to RT.
SOURCE: Rona/EM Industries, Inc.: Formula 06-13/K&EUS2-93-2

Self Tanning Cream W/UV Filter (O/W)SPF 20.5/UVA PF 8.5 (Sun Protection Factor, Diffey Method)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Methoxycinnamate/Neo Heliopan AV	5.00
Butyl Methoxydibenzoylmethane/Parsol 1789	1.50
Ceteareth-11/Marlipal 1618	3.00
Cetearyl Alcohol/Lanette O	7.00
Cetearyl Octanoate/Luvitol EHO	5.00
C12-15 Alkyl Benzoate/Finsolv TN	2.50
Caprylic/Capric Triglyceride/Miglyol 812 neutral oil	2.50
Phase B:	
1,2-Propanediol/Propylene Glycol	4.00
Methyl Paraben	0.15
Propyl Paraben	0.05
Deionized Water	54.30
Phase C:	
Dihydroxyacetone/Rona	5.00
Deionized Water	10.00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring and add phase C at 40C.

Note:

Viscosity: 41,700 cp (Brookfield RVT, Sp.C, 10 rpm) at 26C

Sunscreen Cream SPF 9

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	29.53
Carbomer (2% aq. solution)/Carbopol 980	15.00
Propylene Glycol	5.00
Methyl Paraben	0.20
Propyl Paraben	0.10
Triethanolamine (99%)	0.45
Phase B:	
Deionized Water	10.00
Tetrasodium EDTA	0.02
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	4.00
Triethanolamine (99%)	4.20
Phase C:	
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	1.00
Cyclomethicone/Dow Corning 344 Fluid	5.00
Stearic Acid/Emersol 132, NF	5.00
Isostearyl Isostearate/Prisorine ISIS 2039	10.00
C12-15 Alcohols Benzoate/Finsolv TN	10.50

Procedure:

Add Phase A ingredients to main vessel under impeller agitation. Heat Phase A to 75-80C. Combine Phase B ingredients; mix to clarity while heating to 70C. Slowly add Phase B to Phase A. Mix combined phases at 75-80C. Combine Phase C ingredients; heat and mix to 85C. Slowly add Phase C to batch; mix for 15 minutes at 85C. Remove from heat; switch to paddle mixing and cool to RT.

SOURCE: Rona/EM Industries, Inc.: Formula46-08/K&EUS2-47-5

Self Tanning Lotion (O/W)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Deionized Water	40.15
Xanthan Gum/Keltrol	0.75
Propylene Glycol	5.00
Methylparaben	0.20
Propylparaben	0.10
Phase B:	
Steareth-10/Brij 76	0.70
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	1.20
PEG-40 Stearate/Myrj 52-S	0.40
Cetearyl Alcohol (and) Ceteareth-20/Cosmowax J	1.00
Cetearyl Alcohol	1.50
Cyclomethicone/Dow Corning 344 Fluid	5.00
Dimethicone/Dow Corning 200 Fluid 100 cs	0.50
Octyldodecyl Neopentanoate/Elfac I-205	28.50
Phase C:	
Deionized Water	10.00
Dihydroxyacetone/Rona	5.00

Procedure:

Charge phase A water into main vessel. Under low homogenization, sprinkle in xanthan gum, mix to uniformity. Charge remaining Phase A ingredients. Maintaining homogenization, heat phase A to 75-80C. Combine phase B ingredients in side vessel. Mix phase B while heating to 85C. Emulsify by adding phase B to phase A; adjust homogenizer speed as necessary to ensure adequate batch turnover. Hold batch at 85C for 10 minutes. Switch from homogenization to impeller mixing at 60C. Combine phase C at room temperature; mix to uniformity. Add phase C to batch at 40C. Mix batch until it reaches room temperature. Formula EUS2-27-2

Self Tanning Lotion (W/O)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Cyclomethicone (and) Dimethicone Copolyol/Dow Corning 3225C	23.60
Phase B:	
Dihydroxyacetone/Rona	5.00
1,2-Propanediol/Propylene Glycol	35.90
Methyl Paraben	0.15
Propyl Paraben	0.05
Deionized Water	35.30

Procedure:

Combine Phase B ingredients and stir. Add Phase B to Phase A and stir.

Notes:

Transparent, oil-free W/O

Transparency can be adjusted by varying ratio of water/propylglycol

Viscosity 12,000 cps (Brookfield RVT, Sp 4, 10 rpm) at 24C

Formula 01-01/L

SOURCE: Rona/Em Industries, Inc.: Suggested Formulations

Self Tanning Milk (O/W)

<u>Raw Materials:</u>	<u>Wt%</u>
A Emulsifier E 2155 (Stearyl Alcohol (and) Steareth-7 (and) Steareth-10)	2.00
Teginacid H (Glyceryl Stearate (and) Ceteth-20)	2.00
Luvitol EHO (Cetearyl Octanoate)	10.00
Imwitor 900 (Glyceryl Stearate)	3.00
Cetiol (Oleyl Oleate)	5.00
Lunacera M (Microwax)	1.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	3.00
B Propanediol-1,2 (Art. No. 107478) (Propylene Glycol)	4.00
Preservatives	q.s.
Water, demineralized	ad 100.00
C Dihydroxyacetone (Art. No. 110150)	5.00
Water, demineralized	10.00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring and add phase C at 40C.

Note:

pH24C=3.6

Viscosity 15,000 mPas (Brookfield RVT, Sp. C, 10 rpm) at 24C
Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)

0.15% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 03-07/K

Leave-On Hair Treatment Spray with Sunscreen

A light hair and scalp treatment containing Lipamide MEAA and Lipoquat R for conditioning and shine, with Unitrienol T-27 for oil control. The Unipabol U-17 helps protect the hair from UV induced color damage.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Liponic EG-1/Glycereth-26	3.00
1	Lipamide MEAA/Acetamide MEA	3.50
1	Lipoquat R/Ricinoleamidopropyl Ethyldimonium Ethosulfate	0.50
2	Deionized Water	3.00
2	Unipabol U-17/PEG-25 PABA	7.50
3	SD Alcohol 40-B (190 proof)	73.50
4	Unitrienol T-27/Farnesyl Acetate (and) Farnesol (and) Panthenyl Triacetate	2.00
4	Lipovol J/Jojoba (Buxus Chinensis) Oil	1.00
4	Liponate NPGC-2/Neopentyl Glycol Dicaprylate/Dicaprate	6.00

Procedure:

1. Premix Sequence #1 ingredients at ambient temperature on overhead mixer at low/medium speed.
2. Premix Sequence #2 and add to Sequence #1 at low/medium speed.
3. Add combined Sequence #1 and Sequence #2 to Sequence #3 on overhead mixer at medium/low speed.
4. Add premixed Sequence #4 to batch at medium speed until solution is clear and homogeneous.

SOURCE: Lipo Chemicals Inc.: Formulation No. 1005

Sunblock Lotion

In this formula, Veegum is used with Rhodigel Xanthan Gum and a Xanthan Gum-based dispersible emulsifier to stabilize the emulsion and adjust emulsion viscosity. This cold process lotion has a light feel with quick, greaseless rub in. The sunscreen should offer considerable protection against sunlight-induced skin problems. The Ritachol and Finsolv are included for emollience and rapid skin absorption on rub-in.

<u>Ingredients:</u>	<u>Wt%*</u>
A: Veegum, Magnesium Aluminum Silicate	0.60
Rhodigel, Xanthan Gum	0.15
Deionized Water	65.45
Nonfat Dry Milk (and) Xanthan Gum (and) Glyceryl Stearate (and) Hydrogenated Vegetable Glycerides Phosphate	0.80
Propylene Glycol	3.00
B: C12-15 Alkyl Benzoate (Finsolv TN)	8.00
Benzophenone-3 (Escalol 567)	5.00
Octyl Methoxycinnamate (Parsol MCX)	7.50
Mineral Oil (and) Lanolin Alcohol (Ritachol)	4.00
Polysorbate 80	0.50
C: Zinc Oxide	5.00
D: Preservative	q.s.

Procedure:

Add the Veegum/Rhodigel dry blend to the water slowly, agitating at maximum available shear until smooth. Add the remaining Part A ingredients in the order shown, mixing after each until smooth and uniform. Mix the Part B ingredients until the Benzophenone-3 dissolves. Add Part B to Part A and mix until smooth and uniform.

*As received basis
Formulation No. 367

TiO₂ Lotion

<u>Ingredients:</u>	<u>Wt%*</u>
A: Propylene Glycol Isoceteth-3 Acetate (Hetester PHA)	10.00
Octyldodecyl Neopentanoate (Elefac I-250)	10.00
Titanium Dioxide (and) Bismuth Oxychloride (Titanium Dioxide 110)	10.00
B: Deionized Water	68.90
Veegum, Magnesium Aluminum Silicate	0.70
Rhodigel, Xanthan Gum	0.30
C: Methylchloroisothiazolinone (and) Methylisothiazolinone	0.10

Procedure:

Weigh the water into a suitable vessel and mix with a propeller mixer at 1800 rpm. Dry blend the Veegum and Rhodigel and add them to the water. Mix for 60 minutes. In a separate vessel, mix the Part A ingredients until the Titanium Dioxide is uniformly dispersed. Add Part A to Part B and mix until uniform. Add Part C, mix until uniform and package. *As received basis

Formulation from Bernel Chemical Co., Inc.

SOURCE: R.T. Vanderbilt Co., Inc.: Suggested Formulations

SPF 12 Sunscreen Liposome Lotion

This is an elegant feeling sunscreen in a cold-process lotion containing liposomes for longer lasting protection.

<u>Ingredient:</u>	<u>Wt%*</u>
A: Deionized Water	58.53
Veegum Magnesium Aluminum Silicate	1.40
Rhodigel Xanthan Gum	0.18
Cellulose Gum (CMC 7MF)	0.56
B: Glycerin, 99%	3.00
Butylene Glycol (and) Glycerin (and) Chlorophenesin (and) Methylparaben (Killitol)	3.00
Water (and) Octyl Methoxycinnamate (and) Phenyl Trimethicone (and) Cyclomethicone (and) Dimethiconal (and) Phosphoglycerides (and) Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (Sansuif OMC)	23.33
Water (and) Octyl Methoxycinnamate (and) Soy Phosphoglycerides (and) Phenoxyethanol (and) Tocopheryl Acetate (and) Methylparaben (and) Propylparaben (and) Ethylparaben (and) Butylparaben (Sunscreen Liposomes)	10.00

Procedure:

Weigh the water into a suitable vessel and mix with a propeller stirrer at 1800 rpm. Weigh and dry blend the Veegum, Rhodigel and CMC and add them to the water. Continue mixing for 60 minutes at 1800 rpm. Reduce the mixer speed to produce a slight vortex and add the Part B ingredients in the order shown, mixing each for 5 minutes. Package.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc: Formulation from Collaborative Laboratories

PABA Free Milk & Honey Sunscreen Stick

The following formulation produces a waterproof sunscreen stick which has a SPF factor of approximately 10-20.

<u>Ingredients:</u>	<u>Wt%*</u>
Monalac ML (Refined Milk Lipid)	70.0
Bleached Beeswax	20.0
Octyl Methoxycinnamate	7.0
Benzophenone-3	3.0
Fragrance	qs

Procedure:

Blend the Monalac ML and Beeswax together at 65-75C. Avoid air entrainment. When uniform, add other ingredients one at a time and continue blending until clear. Reduce heat, add fragrance and pour at 50-65C into package. A rich, smooth, protective and non-greasy skin covering will be provided.

SOURCE: Mona Industries, Inc.: Formulation F-735

Sun Care Emulsion
SPF (Calculated) approx. 15

<u>Component:</u>	<u>Wt%</u>
I Eumulgin VL 75/Lauryl Glucoside (and) Polyglyceryl-2 Dipolyhydroxystearate (and) Glycerin	4.5
Myritol 331/Cocoglycerides	6.0
Baysilon M 350/Dimethicone	0.5
Cetiol 868/Octyl Stearate	2.5
Octyl Methoxycinnamate	4.0
Isoamyl p-Methoxycinnamate	4.0
Benzophenone-3	1.0
Copherol 1250/Tocopherol	0.5
Carbopol ETD 2001/Carbomer	0.3
II Glycerine 86%	3.0
Water	71.9
NaOH 10%/Sodium Hydroxide	1.8
Preservative/perfume	q.s.

pH Value: 6.9

Viscosity Brookfield mPas: 14,000

Preparation in the Laboratory:

Mix phase I at room temperature. Add phase II while stirring. After that, homogenize. Finally add the neutralisation agent as well as the preservative.

Formulation No. 97/119/3

Sunscreen Products

<u>Ingredients:</u>	<u>94/056/167</u>	<u>94/056/168</u>
Emulgade SE/Glyceryl Stearate (and)		
Cetareth-20 (and) Cetareth-12 (and)		
Cetearyl Alcohol (and) Cetyl Palmitate	8.0	8.0
Lanette O/Cetearyl Alcohol	1.5	1.5
Cetiol LC/Coco-Caprylate/Caprates	3.0	3.0
Cetiol SN/Cetearyl Isononanoate	3.0	3.0
Cetiol SB 45/Butyrospermum Parkii	2.0	2.0
Copherol 1250/Tocopheryl Acetate	1.0	1.0
Neo-Heliopan E 1000	8.5	8.5
Neo-Heliopan BB	2.5	2.5
Glycerol (86%)	3.0	3.0
Tylose YP 100,000	0.6	0.6
Hydagen CMF/Chitosan	10.0	---
Water	56.9	66.9

SOURCE: Henkel KGaA: Suggested Formulations

Sun Care Lotion with Hydagen CMF

<u>Phase:</u>	<u>Component:</u>	<u>Wt%</u>
I	Emulgade SE	8.0
	Lanette O/Cetearyl Alcohol	1.5
	Cetiol LC/Coco-Caprylate/Caprates	3.0
	Cetiol SN/Cetearyl Isononanoate	3.0
	Cetiol SB 45/Shea Butter	2.0
	Copherol 1250/Tocopherol	1.0
	Neo Heliopan E 1000/Isoamyl p-Methoxycinnamate	8.0
	Neo Heliopan BB/Benzophenone-3	2.5
II	Glycerin 86%	3.0
	Hydagen CMF/Chitosan Glycolate	10.0
	Water, de-ionized	28.0
III	Tylose H 100,000 YP (Hoechst) 2%ig/Hydroxyethyl-cellulose	30.0
IV	Preservative	q.s.
	Viscosity (mPas), Brook. RVF, 23C, spindle 5, 10 rpm: 23,600	

Preparations in the Laboratory:
Heat phase I to 80-85C. Heat phase II to 80-85C and add to the oil phase while stirring. Emulsify for 5 minutes at this temperature. Avoid incorporation of air. Add the 2% Tylose swelling. Cool down to 40C and add finally phase IV. Stir while cooling to 30C.
Recipe Number: DE/94/056/167

Sun Protection Emulsion for Spray-Application
LSF/SPF (Colipa) 9

<u>Component:</u>	<u>Wt%</u>	
I	Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.7
	Eumulgin B2/Ceteareth-20	1.3
	Cetiol 868/Octyl Stearate	6.0
	Cetiol SN/Cetearyl Isononanoate	6.0
	Isoamyl Methoxycinnamate	4.0
	Benzophenone-3	1.0
	Copherol F 1300/Tocopherol	1.0
II	Water	71.0
	Glycerin 86%	5.0
III	Preservative	q.s.
	Viscosity mPas: <100	

Preparation in the Laboratory:

- Melt phase I at 80-85C and stir homogeneously.
 - Heat phase II at 80-85C and stir slowly into phase I. Mixture temperature 80-85C.
 - Allow the emulsion to cool while stirring. The stirring rate must be selected in such a way that the emulsion is kept in continual motion and no air is trapped. Add preservative up on necessity. End of stirring by 30C.
- Formulation No.: 93/199/65

SOURCE: Henkel KGaA: Suggested Formulations

Sun Protection Cream (W/O)SPF 22 (Sun Protection Factor, Colipa Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eusolex OCR (Art. No. 1.05377) (Octocrylene)	3.00
Eusolex 9020 (Art. No. 1.05844) (Butyl Methoxydi-benzoylmethane)	1.50
Elfacos E 200 (Methoxy PEG-22/Dodecyl Glycol Copolymer)	1.00
Elfacos ST 9 (PEG-45/Dodecyl Glycol Copolymer)	3.00
Elfacos C 26 (Hydroxyoctacosanyl Hydroxystearate)	5.00
Paraffin Oil Liquid (Art. No. 1.07162) (Mineral Oil)	8.00
Isopropyl Stearate	9.00
DL- α -Tocopherol acetate (Art. No. 5.00952) (Tocopheryl Acetate)	0.50
B: Eusoflex 232 (Art. No. 1.05372) (Phenylbezimidazole Sulfonic Acid)	2.00
Tris(hydroxymethyl)-aminomethane (Art. No. 1.08386) (Tromethamine)	0.89
Tritiplex III (Art. No. 1.08421) (Disodium EDTA)	0.10
Allantoin (Art. No. 1.01015)	0.10
Glycerine (Art. No. 1.04093)	3.00
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while stirring. Homogenize and cool down while stirring.

Note:

Viscosity 41,000 mPas (Brookfield RVT, Sp. C, 5 rpm) at 24C
 Samples contain as preservatives:
 0.050% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)
 0.150% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 04-02/K

Sun Protection Emulsion for Spray Application
SPF (COLIPA) 9

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.7
Eumulgin B2/Ceteareth-20	1.3
Cetiol 868/Octyl Stearate	6.0
Cetiol SN/Cetearyl Isononanoate	6.0
Neo-Heliopan E 1000/Isoamyl Methoxycinnamate	4.0
Neo-Heliopan BB/Benzophenone-3	1.0
Copherol F 1300/Tocopherol	1.0
II. Water, demineralized	71.0
Glycerol 86%	5.0
III. Preservative	q. s.
Viscosity, mPas: <100	
Brookfield, 23C	
Preparation in the Laboratory:	
1. Melt phase I (80-85C) and stir until homogeneous.	
2. Heat phase II at 80-85C and stir slowly into phase I. Mix temperature at 80-85C.	
3. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid incorporation of air. Add phase III at 35C. Add preservative if necessary. Stop stirring at 30C.	
Formulation No.: 93/199/65	

After Sun with Panthenol for Spray Application

<u>Component:</u>	<u>Wt%</u>
I. Emulgade SE/Glyceryl Stearate (and) Ceteareth-20 (and) Ceteareth-12 (and) Cetearyl Alcohol (and) Cetyl Palmitate	4.5
Eumulgin B 2/Ceteareth-20	1.0
Cetiol LC/Coco-Caprylate/Caprates	5.0
Cetiol OE/Dicaprylyl Ether	5.0
II. Water, demin.	83.5
III. Panthenol	1.0
Preservative	q. s.
Viscosity, 23C, mPas, Brookfield: <100	
Preparation in the Laboratory:	
1. Heat phase I to 85C and stir until homogeneous.	
2. Heat phase II to 85C and stir slowly into phase I.	
3. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid incorporation of air. Add phase III at 35C. Add preservative if necessary. Stop stirring at 30C.	
Formulation No.: 94/192/8	
SOURCE: Henkel KGaA: Suggested Formulations	

Sun Protection Gel (aqueous)
SPF 10 (Sun Protection Factor, FDA-Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A Eusolex 232 (Art. No. 105372) (Phenylbenzimidazole Sul- fonic Acid)	4.00
Tris-(hydroxymethyl)-aminomethane (Art. No. 108386) (Tromethamine)	1.77
Allantoin (Art. No. 101015)	0.20
Sorbitol F liquid (Art. No. 102993)	5.00
Preservatives	q.s.
Water, demineralized	ad 100.00
B Perfume 72979	0.30
Arlatone 980 (PEG-35-Hydrogenated Castor Oil)	1.00
C Carbomer 940	1.50
Water, demineralized	36.10
D Tris(hydroxymethyl)-aminomethane (Art. No. 108386) Tromethamine	2.40
Water, demineralized	10.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-aminomethane in the water of phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of Phase A. Heat to 70C until homogeneous and cool while stirring. Blend ingredients of phase B. Disperse Carbomer 940 in the water of phase C and homogenize. Dissolve the Tris(hydroxymethyl)-aminomethane in the water of phase D. Combine phases C and D and homogenize. Incorporate phases A and B. Homogenize again.

Note:

Transparent gel
 Viscosity 35,000 mPas (Brookfield RVT, Sp. C, 5 rpm) at 25C
 pH_{22C}=6.7
 Samples contain as preservatives:
 0.20% Methyl-4-hydroxybenzoate (Merck-Art.-No. 6757)

SOURCE: Rona-Merck: Formulation 32-02/E

Sun Protection Lotion (W/O)
SPF 20 (Sun Protection Factor, Colipa Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A Eusolex T 2000 (Art.-No. 105373) (Micron. Titandioxid)	3.00
Eusolex 6300 (Art.-No. 1.05385) (4-Methylbenzylidene Camphor)	2.00
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	5.00
Jojoba Oil (Jojoba (Buxus Chinensis) Oil)	6.00
Cetiol V (Decyl Oleate)	6.00
Prisorine 2021 (Isopropyl Isostearate)	4.50
Castor Oil (Ricinus Communis)	1.00
Lunacera M (Microwax)	1.80
Miglyol 812 Neutral Oil (Caprylic/Capric Triglyceride)	4.50
DL- α -Tocopherolacetate (Art.-No. 5.00952) (Tocopheryl Acetate)	1.00
Vitamin-A-palmitate (Retinyl Palmitate)	0.50
B Eusolex 232 (Art.-No. 105372) (Phenylbenzimidazole Sulfonic Acid)	2.00
Tris(hydroxymethyl)-aminomethane (Art.-No. 1.08386) (Tromethamine)	0.90
Glycerol (about 87%) (Art. No. 1.04091)	2.00
Sodium Chloride (Art. No. 1.06400)	0.40
Allantoin (Art.-No. 1.01015)	0.20
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while stirring. Homogenize and cool down while stirring.

Notes:

Viscosity 24,600 mPas (Brookfield RVT, Sp. C) at 24C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Art. No. 1.07427)

0.15% Methyl-4-hydroxybenzoate (Art. No. 1.06757)

SOURCE: Rona-Merck: Formulation 39-44/E

Sun Protection Lotion (O/W)SPF 23 (Sun Protection Factor, Colipa Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A Eusolex T-2000 (Art. No. 1.05373) (Micron. Titanium Dioxide)	10.00
Emulsifier E-2155 (Stearyl Alcohol (and) Steareth-7 (and) Steareth-10)	3.00
Teginacid H (Glyceryl Stearate (and) Ceteth-20)	3.00
Luvitol EHO (Cetearyl Octanoate)	10.50
Imwitor 900 (Glyceryl Stearate)	3.00
Cetiol (Oleyl Oleate)	4.00
Lunacera M (Microwax)	1.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	4.00
B Propanediol-1,2 (Art.-No. 1.07478) (Propylene Glycol)	4.00
Allantoin (Art.-No. 1.01015)	0.20
Preservatives	q.s.
Water, demineralized	100.00

Procedure:

Heat phase A to 75C and phase B to 80C. Add phase B slowly to phase A while stirring, homogenize and cool down while stirring.

Note:

Viscosity 24,600 mPas (Brookfield RVT Sp. C, 10 rpm) at 24C

Samples contain as preservatives

0.05% Propyl-4-hydroxybenzoate (Art. No. 1.07427)

0.15% Methyl-4-hydroxybenzoate (Art. No. 1.06757)

Formulation 03-36/K

Self Tanning Milk (W/O)

<u>Raw Materials:</u>	<u>Wt%</u>
A Dow Corning 3225 C	23.600
B Dihydroxyacetone (Art.-No. 10150)	5.000
Propanediol-1,2 (Art.-No. 7478)	35.900
Preservatives	q.s.
Water, demineralized	ad 100.000

Procedure:

Dissolve phase B and add it to phase A.

Note:

Transparent, oil-free W/O

Adjusting of transparency through variation of ratio water/propanediol-1,2.

Viscosity 12,000 mPas (Brookfield RVT, Sp.4, 10 rpm) at 24C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck-Art.-No. 7427)

0.15% Methyl-4-hydroxybenzoate (Merck-Art.-No. 6757)

Formulation 01-01/L

SOURCE: Rona-Merck: Suggested Formulations

Sunscreen Creams
UV-6 (SPF 6*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl methoxycinnamate	5.0
Benzophenone-3	0.5
Arlamol E	5.0
Stearyl alcohol	0.5
Dimethicone, 350 cps.	0.5
Brij 721	2.0
Brij 72	2.0
 B Water	 74.1
Carbomer 940	0.2
 C Water	 10.0
Sodium hydroxide, 10% aqueous	0.2

UV-7 (SPF 15*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl methoxycinnamate	7.0
Benzophenone-3	3.0
Arlamol E	5.0
Stearyl alcohol	0.5
Dimethicone, 350 cps.	0.5
Brij 721	2.0
Brij 72	2.0
 B Water	 69.6
Carbomer 940	0.2
 C Water	 10.0
Sodium hydroxide, 10% aqueous	0.2

Preparation:

Disperse Carbomer in water. Heat (A) to 65C. Heat (B) to 60C. Add (B) to (A) slowly with propeller agitation. Add (C) and stir until uniform. Cool to 50C and add make-up water, if necessary. Pour above set point.

*Estimated Sun Protection Factor

SOURCE: ICI Surfactants: Formulas UV-6 & UV-7

Sunscreen Emulsion, Type O/W

<u>Raw Materials:</u>	<u>Wt%</u>
a) Arlamol HD	15.00
Arlamol S 7	4.00
Parsol MCX	6.00
Parsol 1789	1.50
Stearyl alcohol	2.00
Antaron V-220	3.00
Cutavit Richter	1.00
Phenonip	0.30
b) Water, distilled	39.80
Phenonip	0.30
Keltrol	0.10
G-2330	4.00
Tioveil AQ	12.50
Arlatone 2121	5.50
Citric acid	5.50
c) Protectan	5.00

Manufacture:

- Melt and bring to about 85C.
 - Heat to about 85C and stir into a).
- Continue stirring until the emulsion has cooled to about 30C.
- Stir in. Perfume, homogenize.

Notice: b) adjust pH to 6.5-7.0 using citric acid!

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH; Formulas

Clear Sunscreen Gel

This formula is a clear, oil-free gel. Excellent non-greasy afterfeel.

Ingredients:

	<u>Wt%</u>
Phase A:	
SD Alcohol 40-2	44.07
Hydroxypropyl Cellulose	1.67
Phase B:	
Velsan D8P-3	9.64
Octyl Methoxycinnamate	7.50
Parsol 1789*	1.00
Benzophenone-3	2.00
SD Alcohol 40-2	24.30
Fragrance	0.60
Phase C:	
Deionized Water	9.76

Procedure:

Disperse the hydroxypropyl cellulose in Phase A's portion of the SD Alcohol. Mix until a clear gel develops. In Phase B add ingredients in order while mixing. Continue mixing until all of the benzophenone-3 and Parsol 1789 is dissolved. Add Phase B to Phase A and continue to mix until a smooth gel develops. Slowly add water with mixing until gel is clear and homogeneous.

Properties:

pH: 6.4

Viscosity: 12,800 cps

Appearance: Clear, Yellow Gel

*Parsol 1789 is not yet FDA approved.

SOURCE: Clariant Corp.; Formulation CSS-04

Sunscreen Emulsion with Titanium Dioxide

This base is an ideal starting point for sunscreen lotions. It is a very stable formulation for any type of pigmented product.

<u>Ingredient:</u>	<u>Wt%*</u>
A: Deionized Water	61.98
Veegum, Magnesium Aluminum Silicate	0.50
Cellulose Gum	0.15
Allantoin	0.05
Methylparaben	0.20
Titanium Dioxide (and) Alumina (and) Glycerin (and) Silica (UV-Titan M212)	8.00
B: Lecithin	1.00
Lanolin Alcohol	1.50
Glyceryl Stearate	0.80
Isopropyl Palmitate	4.00
Stearic Acid	0.50
Caprylic/Capric Triglycerides	4.00
Isoeicosane (Permethy1 102A)	7.50
Polyisobutene (Permethy1 104A)	2.50
Isostearic Acid	2.40
Propylparaben	0.10
C: Imidazolidinyl Urea	0.20
D: Triethanolamine 99%	1.62
Polyglyceryl methacrylate	3.00

Procedure:

Weigh the Part A water into a suitable vessel and mix with a homogenizer operating at 5000 rpm. Dry blend the Veegum and cellulose gum, add the mixture to the water and continue mixing for 30 minutes at 5000 rpm, while heating the batch to 70-72C. Add the remaining Part A ingredients in order, mixing each until uniformly dispersed. Mix the Part B ingredients in another vessel and heat to 75C. Add Part B to Part A and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing. At 60C, add Part C. At 40C, add the Part D ingredients in order. Package at ambient temperature.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from Presperse, Inc.

Sunscreen Formulation

<u>Ingredients:</u>	<u>Wt. %</u>
Veegum Plus	2.00
Deionized Water	61.50
Triethanolamine	0.80
Propylene Glycol	5.00
Emulsifying Wax NF	3.20
Stearic Acid	2.40
PPG-2 Myristyl Ether Propionate	11.20
Cetyl Alcohol	1.60
Lanolin Alcohol	4.00
Padimate O	5.00
Phenylbenzimidazole Sulfonic Acid	2.30
Preservative	1.00

Brookfield Viscosity @ 12 rpm, cps:

After Aging 1 Day: 19500

After Aging 1 Week: 19500

After Aging 4 Weeks: 21500

Yield Value, Dynes/Sq. Cm.: 1020

Formula pH:

After Aging 1 Day: 6.6

After Aging 1 Week: 6.5

After Aging 4 Weeks: 6.5

Stability Observations:

After Aging 1 Week @ Room Temp.: OK

After Aging 4 Weeks @ Room Temp.: OK

After Aging 1 Week @ 6C: OK

After Aging 4 Weeks @ 6C: OK

After Aging 1 Week @ 38C: OK

After Aging 4 Weeks @ 38C: OK

After Aging 1 Week @ 50C: OK

After Aging 4 Weeks @ 50C: OK

SOURCE: R.T. Vanderbilt Co., Inc.: Suggested Formulation

Sunscreen Formulation

<u>Ingredients:</u>	<u>Wt%</u>
MAS Type 1A	2.00
Deionized Water	61.50
Triethanolamine	0.80
Propylene Glycol	5.00
Emulsifying Agent NF	3.20
Stearic Acid	2.40
PPG-2 Myristyl Ether Propionate	11.20
Cetyl Alcohol	1.60
Lanolin Alcohol	4.00
Padimate O	5.00
Phenylbenzimidazole Sulfonic Acid	2.30
Preservative	1.00

Brookfield Viscosity @ 12 rpm, cps:

After Aging 1 Day: 11500
 After Aging 1 Weeks: 10500
 After Aging 4 Weeks: 13500

Yield Value, Dynes/Sq. Cm.: 600

Formula pH:

After Aging 1 Day: 6.6
 After Aging 1 Week: 6.6
 After Aging 4 Weeks: 6.6

Stability Observations:

After Aging 1 Week @ Room Temp.: OK
 After Aging 4 Weeks @ Room Temp.: OK

After Aging 1 Week @ 6C: OK
 After Aging 4 Weeks @ 6C: OK

After Aging 1 Week @ 38C: OK
 After Aging 4 Weeks @ 38C: Trace Bleed

After Aging 1 Week @ 50C: 5mm Bleed
 After Aging 4 Weeks @ 50C: Total Separation

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation

Sunscreen Gel**Formulating Design and Advantages:**

Cera Bellina (Pg-3 Beeswax) produces a non-granular, low penetration and high stability gel. This formula utilizes an array of oils and actives producing a product with a non-greasy skin feel, penetrates the skin quickly and has an SPF of 4 to 6.

Raw Materials:

	<u>Wt%</u>
<u>Oil Phase:</u>	
Sweet Almond Oil	29.0
Cera Bellina (Pg-3 Beeswax)	15.3
Isopropyl Palmitate	15.0
Jojoba Oil	13.0
Sesame Oil	9.0
Avocado Oil	9.0
Cetyl Stearyl Alcohol	4.0
Escalol 507	4.0
Ozokerite 160/164	1.0
Carnauba #1 Yellow	0.5
Vitamin A Palmitate	0.1
Vitamin E Concentrate	0.1

Procedure:

Weigh and add each component of the oil phase to a vessel. Heat, not exceeding 75C, and mix until homogeneous. Reduce temperature to 60C and pour into container.

Adaptation of Formula and its Influence on the Product:

By replacing the jojoba, sesame and avocado oils with light mineral oil (28.8%) and increasing the Cera Bellina concentration (17.5%), one can produce the same product as described above. The formulator has the ability to substitute their preferred oils with only slight concentration changes of Cera Bellina to produce products of the same consistency. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Sunscreen Gel SPF 10
(Aqueous)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	4.00
Triethanolamine (99%)	2.18
Allantoin/Rona	0.10
Glycerine	5.00
Methyl Paraben	0.20
Deionized Water	14.77
Phase B:	
Imidazolidinyl Urea/Germall 115	0.15
Deionized Water	1.00
Phase C:	
Carbomer/Carbopol 940	1.50
Deionized Water	58.10
Phase D:	
Triethanolamine (99%)	3.00
Deionized Water	10.00

Procedure:

To neutralize Eusolex 232 dissolve triethanolamine in the water of phase A and add Eusolex 232 while stirring. When uniform, add the remaining ingredients of phase A. Heat to 70C until homogeneous then cool to 45C while stirring. Dissolve Germall 115 in the water of phase B, add to batch. Combine phase C and homogenize. Combine phase D. Add phase D to phase C with side sweep agitation until homogeneous. Add phase A and homogenize.

Notes:

Stability RT-No separation after 2 years.

SOURCE: Rona/EM Industries, Inc.: Formula EUS1-5-1

Sunscreen Gel SPF 10
(Aqueous-Alcoholic)

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	4.00
Triethanolamine (99%)	2.18
Allantoin/Rona	0.10
Glycerine	5.00
Methyl Paraben	0.20
Deionized Water	1.00
Phase B:	
Imidazolidinyl Urea/Germall 115	0.15
Deionized water	1.00
Phase C:	
Carbomer/Carbopol 940	1.50
Deionized Water	50.87
Phase D:	
Triethanolamine (99%)	3.00
Deionized Water	5.00
Phase E:	
Ethanol (90%)	20.00

Procedure:

To neutralize Eusolex 232 dissolve triethanolamine in the water of phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase A. Heat to 70C until homogeneous, then cool to 45C while stirring. Dissolve Germall 115 in the water of phase B, add to batch. Combine Phase C and homogenize. Combine phase D. Add phase E step by step while stirring, proceeding with each addition after it is clear and uniform. Add phase A and homogenize.

SOURCE: Rona/EM Industries, Inc.: Formula EUS1-5-2

Sunscreen Lotion**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA) giving this formula an approximate SPF value of 4 to 6. The product has high gloss and excellent skin feel. The rheological properties of Cera Bellina allow for this product to be packaged in convenient tubes or squeeze bottles.

<u>Raw Materials:</u>	<u>Wt%</u>
<u>Oil Phase:</u>	
Escalol 507	5.63
Amerchol L 101	4.70
Cera Bellina (Pg-3 Beeswax)	3.80
Glycerol Monostearate	2.77
Light Mineral Oil	2.83
Isostearic Acid	1.00
<u>Water Phase:</u>	
Water (Distilled)	71.66
1,3-Butylene Glycol	2.90
Glycerine	2.83
Triethanolamine	0.80
Germaben II	0.80
Carboxymethyl Cellulose	0.28

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Melt and mix the oil phase at 75C. Slowly add the oil phase to the water phase under vigorous agitation. Allow to cool to 35C and pour into jars.

Adaptation of Formula and its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Sunscreen Lotion (SPF 15*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl dimethyl PABA	7.0
Benzophenone-3	3.0
Petrolatum	25.0
Dimethicone	3.0
Brij 721	1.2
Brij 72	3.8
B Water	46.6
Carbomer 934	0.2
C Water	10.0
Sodium hydroxide solution, 10% aqueous	0.2

Preparation:

Disperse Carbomer in water. Heat (A) to 65C. Heat (B) to 60C. Add (B) to (A) slowly with propeller agitation. Add (C) and stir until uniform. Cool to 35C and add make-up water.

Formula UV-5

Waterproof Sunscreen Cream (SPF 19*)

<u>Ingredients:</u>	<u>Wt%</u>
A Octyl methoxycinnamate	7.5
Octyl dimethyl PABA	8.0
Benzophenone-3	5.0
Octyl palmitate	5.0
Arlamol E	3.0
Brij 72	2.0
Arlacel 83 Sorbitan Sesquioleate	1.0
B Water	58.1
Carbomer 1342	0.2
C Water	10.0
Triethanolamine	0.2

Preparation:

Disperse Carbomer in water. Heat (A) to 65C. Heat (B) to 60C. Add (B) to (A) slowly with propeller agitation. Add (C) and stir until uniform. Cool to 50C and add make-up water. Pour above set point.

*Estimated Sun Protection Factor

Formula UV-8

SOURCE: ICI Americas: Suggested Formulations

Sunscreen Moisturizing Cream**Formulating Design and Advantages:**

This formula demonstrates the rheological and stabilizing properties of Cera Bellina. Incorporated into this formula is the sunscreen Escalol (Octyl Dimethyl PABA) giving this formula an approximate SPF value of 4 to 6. The cream has high gloss and excellent skin feel.

<u>Raw Materials:</u>	<u>Wt%</u>
Oil Phase:	
Cera Bellina (Pg-3 Beeswax)	6.0
Minosil	6.0
Escalol 507	5.1
Amerchol L 101	5.0
Castor Oil	3.0
Glycerol Monostearate	2.0
Isopropyl Palmitate	2.0
Ozokerite 160/164	1.0
Silicone Fluid 245	1.0
Propyl Paraben	0.2
Water Phase:	
Water (Distilled)	65.3
Butylene Glycol	2.9
Sodium Borate	0.2
Methyl Paraben	0.3

Procedure:

Heat the water phase to 75C under agitation ensuring that the entire phase is solubilized. Heat and mix the oil phase until homogeneous and a temperature of 75C is maintained. Slowly add the oil phase to the water phase under vigorous stirring. Allow to cool to 35C and pour into jars.

Adaptation of Formula and its Influence on the Product:

It is easy to alter the sunscreen to suit your preference, without changing the consistency. The emulsion viscosity can easily be altered by changing the oil and/or wax concentration. Orange Wax (Koster Keunen) can be added to naturally enhance the SPF.

SOURCE: Koster Keunen Inc.: Suggested Formulation

Sunscreen (O/W) Lotion SPF 16

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octocrylene/Eusolex OCR	7.00
Isopropyl Myristate/Lexol IPM-NF	4.00
C12-15 Alcohols Benzoate/Finsolv TN	4.00
Cetyl Alcohol/Crodacol C-70	1.80
Steareth-2/Brij 72	2.00
Steareth-21/Brij 721	2.50
Dimethicone/Dow Corning 200 Fluid 100cST	0.50
Phase B:	
Deionized Water	53.20
Triethanolamine (99%)	2.00
Carbomer (2% aq. solution)/Carbopol ETD 2020	20.00
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	2.00
Phase C:	
Phenoxyethanol (and) Isopropylparaben (and) Isobutyl- paraben (and) Butylparaben/LiquaPar PE	1.00

Procedure:

Prepare Phase B by combining water, triethanolamine, and Eusolex 232. Heat the mixture to 50C while stirring until Eusolex 232 is completely dissolved. Add 2% carbomer solution. Stir and heat to 65C. If crystals are observed, add a few drops of triethanolamine and continue mixing and heating until no crystals remain. Combine the ingredients of Phase A. Stir and heat to 70C. Add Phase B to Phase A while gently stirring. Homogenize gently with minimal aeration. When mixture temperature cools to 50C add Phase C and continue to homogenize until mixture is homogeneous. Stir gently allowing mixture to reach room temperature.

Note:

Viscosity: 24,000 cps (Brookfield RV#5, 10 rpm @ 25C)
Stability Freeze/Thaw: No separation after 5 cycles
Stability 50C: No separation after 3 months

SOURCE: Rona/EM Industries, Inc.: Formula EUS5-26

Sunscreen (O/W) Lotion SPF 17

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Methoxycinnamate/Neo Heliopan AV	7.00
Isopropyl Myristate/Lexo1 IPM-NF	4.00
C12-15 Alcohols Benzoate/Finsolv TN	4.00
Cetyl Alcohol/Crodacol C-70	2.30
Steareth-2/Brij 72	2.00
Steareth-21/Brij 721	2.50
Dimethicone/Dow Corning 200 Fluid 100 cST	0.50
Phase B:	
Deionized Water	52.70
Triethanolamine (99%)	2.00
Carbomer (2% aq. solution)/Carbopol ETD 2020	20.00
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	2.00
Phase C:	
Phenoxyethanol (and) Isopropylparaben (and) Isobutyl- paraben (and) Butylparaben/LiquaPar PE	1.00

Procedure:

Prepare Phase B by combining water, triethanolamine, and Eusolex 232. Heat the mixture to 50C while stirring until Eusolex 232 is completely dissolved. Add 2% carbomer solution. Stir and heat to 65C. If crystals are observed, add a few drops of triethanolamine and continue mixing and heating until no crystals remain. Combine the ingredients of Phase A. Stir and heat to 70C. Add Phase B to Phase A while gently stirring. Homogenize gently with minimal aeration. When mixture temperature cools to 50C add Phase C and continue to homogenize until mixture is homogeneous. Stir gently allowing mixture to reach room temperature.

Note:

Viscosity: 29,600 cps (Brookfield RV#5, 10 rpm @ 25C)
Stability Freeze/Thaw: No separation after 5 cycles
Stability 50C: No separation after 3 months

SOURCE: Rona/EM Industries, Inc.: Formula EUS5-10

Sunscreen (W/O) Lotion SPF 20
Broad Spectrum UVA/UVB Protection

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Stearate/Crodamol OS	7.00
Jojoba (buxus chinensis)oil/Floraesters Jojoba Oil	4.00
Caprylic/capric Triglycerides/Myritol 318	4.00
Petrolatum/Ultima White	3.00
Cyclomethicone/Dow Corning 344 Fluid	3.00
Dimethicone/Dow Corning 200 fluid 100 cST	2.00
PEG-30 Dipolyhydroxystearate/Arlacel P135	2.50
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate/Abil WE-09	2.50
Cetearyl Alcohol (and) Cetearyl Phosphate/Crodafos CES	1.00
Ceresin Wax/White Ceresine 1502	0.50
Phase B:	
Deionized Water	55.30
Propylene Glycol	3.00
Allantoin/Rona	0.20
Phenylbenzimidazole Sulfonic Acid (% as acid)/Eusolex 232	3.50
Triethanolamine (99%)	3.00
Phase C:	
Titanium Dioxide/Eusolex T-2000	5.00
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-Butyl paraben, Phenoxyethanol)/LiquaPar PE	0.50

Procedure:

Combine phase A. Heat to 75C with propeller mixer agitation until homogeneous. Add phase C to A. Cool mixture to 60C. Combine and heat phase B to 60C while stirring. Continue stirring until solids are fully dissolved. Slowly add phase B to A/C while stirring. Add phase D to A/B/C. Homogenize at moderate speeds to avoid aeration until temperature cools to 35C. Stir slowly allowing mixture to reach room temperature.

Note:

Viscosity:16,000 cps (Brookfield RV#5, 10 rpm @ 25C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability 50C: No separation after 2 months

SOURCE: Rona/EM industries, Inc.: Formula EUS5-68

Sunscreen (W/O) Lotion SPF 23
Broad Spectrum UVA/UVB Protection

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Stearate/Crodamol OS	4.00
Octyl Methoxycinnamate/Neo Heliopan AV	7.00
Caprylic/capric Triglycerides/Myritol 318	4.00
Petrolatum/Ultima white	3.00
Cyclomethicone/Dow Corning 344 Fluid	3.00
Dimethicone/Dow Corning 200 Fluid 100cST	2.00
PEG-30 Dipolyhydroxystearate/Arlacel P135	2.50
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate/Abil WE-09	2.50
Cetearyl Alcohol (and) Cetearyl Phosphate/Crodafos CES	1.00
Ceresin Wax/White Ceresine 1502	0.50
Phase B:	
Deionized Water	61.30
Propylene Glycol	3.00
Allantoin/Rona	0.20
Sodium Chloride	0.50
Phase C:	
Titanium Dioxide/Eusolex T-2000	5.00
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-butyl paraben, phenoxyethanol)/LiquaPar PE	0.50

Procedure:

Combine phase A. Heat to 75C with propeller mixer agitation until homogeneous. Add phase C to A. Cool mixture to 65C. Combine and heat phase B to 55C while stirring. Continue stirring until solids are fully dissolved. Slowly add phase B to A/C while stirring. Add phase D to A/B/C. Homogenize at moderate speeds to avoid aeration until temperature cools to 35C. Stir slowly allowing mixture to reach room temperature.

Note:

Viscosity: 22,400 cps (Brookfield RV#5, 10 rpm @ 25C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability at 50C: No separation after 3 months

SOURCE: Rona/EM Industries, Inc.: Formula EUS5-66

Sunscreen (W/O) Lotion SPF 30
Waterproof Broad Spectrum UVA/UVB Protection
Static SPF 33
Waterproof SPF 30

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Octyl Stearate/Crodamol OS	7.00
Octocrylene/Eusolex OCR	7.00
Caprylic/capric Triglycerides/Myritol 318	5.00
Petrolatum/Ultima White	1.50
Cyclomethicone/Dow Corning 344 Fluid	3.00
Dimethicone/Dow Corning 200 Fluid 50cST	2.00
PEG-30 Dipolyhydroxystearate/Arlacel P135	2.00
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone	
Copolyol (and) Hexyl Laurate/Abil WE-09	2.00
Cetearyl Alcohol (and) Cetearyl Phosphate/Crodafos CES	1.00
Phase B:	
Deionized Water	57.40
Propylene Glycol	3.00
Allantoin/Rona	0.20
Phenylbenzimidazole Sulfonic Acid (% as acid)/ Eusolex 232	2.00
Triethanolamine (99%)	2.00
Sodium Chloride	0.40
Phase C:	
Titanium Dioxide/Eusolex T-2000	4.00
Phase D:	
(Isopropyl paraben, Isobutyl paraben, n-butyl paraben, phenoxyethanol)/LiquaPar PE/ISP	0.50

Procedure:

Combine Phase A. Heat to 75C with propeller mixer agitation until homogeneous. Add Phase C to A. Cool mixture to 65C. Combine and heat Phase B to 55C while stirring. Continue stirring until solids are fully dissolved. Slowly add Phase B to A/C while stirring. Add Phase D to A/B/C. Homogenize at moderate speeds to avoid aeration until temperature cools to 35C. Stir slowly allowing mixture to reach room temperature.

Note:

Viscosity: 15,200 cps (Brookfield RV#5, 10 rpm @ 25C)
 Stability Freeze/Thaw: No separation after 5 cycles
 Stability 50C: No separation after 1 month

SOURCE: Rona/EM Industries, Inc.: Formula EUS6-14

Titanium Dioxide Based Water Resistant Sunscreen (SPF 22)

This smooth sunscreen lotion contains no "chemical" absorbers and delivers uniform, non-chalky waterproof protection. Pemulen TR-1 ensures high stability and allows for easy formulation of the lotion.

Ingredient/Trade Name:

	<u>Wt%</u>
Part A:	
1. Deionized Water	67.10
2. Disodium EDTA	0.05
3. Hydroxypropyl Methylcellulose/Benece1 MP943PR	0.10
4. Aminomethyl Propanol/AMP-95	0.25
5. Propylene Glycol	5.00
Part B:	
6. C12-15 Alcohols Benzoate/Finsolv TN	3.00
7. Butyl Stearate	3.00
8. Myristyl Myristate/Ceraphyl 424	4.00
9. Sorbitan Oleate	0.10
10. Acrylates/C10-30 Alkyl Acrylates Crosspolymer/ Pemulen TR-1	0.20
11. Carbomer/Carbopol Ultrez 10	0.20
Part C:	
13. Octyl Palmitate (and) Titanium Dioxide/Tioveil OP	15.00
14. Polyglyceryl-10 Decaoleate/Capmul 10G-10-0	1.00

Properties:

Appearance: White, thick, creamy emulsion

pH: 6.2-6.8

Viscosity (cP): 32,000-38,000

Preparation Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation. Heat to 50C.
2. In a separate vessel, combine first four Part B ingredients. Heat to 65C. After mixture is uniform, disperse resins. Mix until uniform.
3. Using rapid agitation, add Part B to Part A. Mix to form a smooth, viscous emulsion.
4. Combine Part D ingredients and mix well.
5. Add Part C to batch.
6. Using moderate agitation, slowly add Part D to the emulsion. Slowly cool lotion using continued moderate agitation.

SOURCE: B.F. Goodrich Co.: Formulation P0049

Waterproof Sunscreen Cream**Concept Statement:**

An elegant waterproof sunscreen cream containing Pationic SCL to moisturize and smooth skin, and SOD Vegetable and Defensine to detoxify, repair and protect the skin.

Ingredients:

	<u>Wt%</u>
1. Pationic SCL (Sodium Cocoyl Lactylate)	0.50
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)	1.60
3. Rita GMS (Glyceryl Stearate)	4.00
4. Titanium Dioxide (Micro)	4.00
5. Methyl Anthranilate	5.00
6. C12-C16 Alkyl Benzoate	7.50
7. PVP/Eicosene Copolymer	0.50
8. Distilled/Deionized Water	68.10
9. Acritamer 941 (Carbomer)	0.20
10. Propylene Glycol	3.00
11. DMDM Hydantoin	2.00
12. NaOH (20% Solution)	q.s.
13. SOD Vegetable (Superoxide Dismutase)	2.40
14. Defensine (Wheat Germ Extract)	3.00
15. Fragrance	q.s.
16. D&C Red No. 33	q.s.

Compounding Procedure:

Disperse item 9 into item 8 and neutralize with item 12. Add item 10 and heat to 80C. Combine items 1-7 and heat to 80C. Add oil phase to water phase. Cool to 35C and items 13-16.

SOURCE: R.I.T.A. Corp.: LI Ref. No. 124-35B

Waterproof Suntan Lotion SPF 17

<u>Ingredient:</u>	<u>Wt%*</u>
A: Isostearic Acid	4.00
Cetyl Alcohol	1.00
DEA Cetyl Phosphate	2.00
Dimethicone	0.50
Octyl Methoxycinnamate (Parsol MCX)	7.50
Octyl Salicylate	4.00
Benzophenone-3 (Uvinul M-40)	2.00
Octyldodecyl Neopentanoate (Elefac I-205)	10.00
B: Deionized Water	63.00
Veegum, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.25
Glycerin	4.00
C: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.00

Procedure:

Weigh the water into a suitable vessel and heat to 85C. Dry and blend the Veegum and Rhodigel and add them to the water while mixing with a homogenizer at 5000 rpm. Continue mixing for 20 minutes. Add the remaining Part B ingredient and mix 3 minutes. Weigh and mix the Part A ingredients in another vessel and heat them to 85C. Add Part A to Part B and mix for 10 minutes at 5000 rpm. Move the batch to a propeller mixer and adjust the speed to create a small vortex. Begin cooling while mixing slowly. At 40C, add Part C. Continue cooling and package at 35C.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from Bernel Chemical Co., Inc.

Moisturizing Sunscreen

<u>Ingredient:</u>	<u>Wt%</u>
Part A:	
Monafax MAP-160	1.0
Phospholipid SV	2.5
KOH (45%)	0.4
Germaben II	0.4
Titanium Dioxide	0.4
Water	77.0
Monasil PDM	1.0
Part B:	
Cetyl Alcohol	2.0
C12-15 Alkyl Benzoates	2.0
Isopropyl Palmitate	2.3
Dimethicone	1.0
Octyl Methoxycinnamate	6.0
Methyl Anthranilate	3.0
Steareth-2	1.0

Procedure:

- 1) Heat A & B separately to 65C.
- 2) Slowly add B to A with homogenization and continue blending for an appropriate time. Adjust pH to 5.0 with citric acid.
- 3) Stir cool to 40-45C, add fragrance and package.

SOURCE: Mona Industries, Inc.: Suggested Formulation

Waterproof W/O Sunscreen Lotion
SPF-16

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	6.0
Cyclomethicone	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.
Procedure:	
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance.	
4. Homogenize.	

Cooling After Sun Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Polyglyceryl-3 Methylglucose Distearate (Tego Care 450)	2.0
Caprylic/Capric Triglycerides (Tegosoft CT)	6.5
Mineral Oil	5.7
Phase B:	
Glycerin	3.0
Water	71.4
Phase C:	
Mineral Oil	0.8
Carbomer 941	0.2
Ethanol	10.0
Phase D:	
Sodium Hydroxide (10% solution)	0.4
Phase E:	
Fragrance	Q.S.
Preservatives	Q.S.
Procedure:	
1. Heat the ingredients of Phase A to 80C. 2. Heat the ingredients of Phase B to 80C. Add A to B or B to A without stirring.	
4. Stir. 5. Disperse Carbomer into the oil/ester add to A/B. Homogenize. 6. Cool to 35-40C with stirring. 7. Add Ethanol.	
8. Add phase D/E. Stir. 9. Mix until viscosity is correct.	

SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations

Waterproof W/O Sunscreen Lotion
SPF 22

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate (Abil WE-09)	5.0
Mineral Oil	5.0
Octyl Stearate (Tegosoft OS)	4.0
Cyclomethicone	4.0
Cetyl Dimethicone (Abil Wax 9801)	1.0
Isopropyl Myristate (Tegosoft M)	4.0
Almond Oil	2.0
Hydrogenated Castor Oil	0.8
Microcrystalline Wax	1.2
Octyl Methoxycinnamate	3.0
Phase B:	
Water	69.2
Sodium Chloride	0.8
Preservatives	Q.S.
Phase C:	
Fragrance	Q.S.
Procedure:	
1. Add the components of Phase A. Heat while mixing to 80C to incorporate the waxes. Cool to 50C.	
2. Heat Phase B to 50C. Add B to A slowly with a low energy mixer. Maintain a smooth milky appearance at all times.	
3. Cool to 35C with sweep mixer. Add fragrance. 4. Homogenize.	

Water-In-Oil Sunscreen
SPF 26

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Cetyl Dimethicone Copolyol (and) Polyglyceryl-4 Isostearate (and) Hexyl Laurate (Abil WE-09)	5.00
Cetyl Dimethicone (Abil Wax 9840)	0.25
Octyl Palmitate (Tegosoft OP)	1.25
Octyl Stearate (Tegosoft OS)	5.35
Mineral Oil	1.75
Beeswax	1.20
Hydrogenated Castor Oil	0.80
Phase B:	
Octyl Methoxycinnamate	5.00
Titanium Dioxide	5.00
Cyclomethicone	4.40
Phase C:	
Water	69.20
Sodium Chloride	0.80
Preservatives	Q.S.
Procedure:	
1. Heat Phase A to 85C to melt and disperse waxes. 2. Cool Phase A to 50C. Add B to A slowly with a low energy mixer.	
3. Roller mill to reduce particle size of Titanium Dioxide.	
4. Cool to 50C. 5. Heat Phase C to 50C. Add Phase C to A/B slowly with low energy mixing. Maintain a smooth milky appearance at all times while mixing. 6. Cool to 35C and homogenize.	
SOURCE: Goldschmidt Chemical Corp.: Suggested Formulations	

Water Resistant Sunscreen Lotion

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
1. Deionized Water	62.60
2. Carbomer/Carbopol Ultrez 10	0.20
3. Deionized Water	20.00
4. Hydroxypropyl Methylcellulose/Methocel E4M	0.10
5. Polymethoxy Bicyclic Oxazolidine/Nuosept C	0.20
6. Disodium EDTA	0.05
Part C:	
7. Octyl Methoxycinnamate/Neo Heliopan, Type AV	7.00
8. Octyl Salicylate/Neo Heliopan, Type OS	3.00
9. Oxybenzone/Uvinul M-40	4.00
10. C12-15 Alcohols Benzoate/Finsolv TN	4.00
11. Acrylates/C10-30 Alkyl Acrylates Crosspolymer/ Pemulen TR-1	0.25
Part D:	
12. Aminomethyl Propanol/AMP-95	0.25
13. PEG-20 Almond Glycerides/Croval A-40	0.20
14. Fragrance/Fragrance #99189 "Twister"	0.14

Properties:

pH: 5.8-6.1

Viscosity (cP): 20,000-28,000

Appearance: Creamy white emulsion

Preparation Procedure:

Part A:

1. Disperse Carbopol Ultrez 10 in deionized water (40-50C).

Part B:

2. Disperse Methocel in deionized water in a separate vessel.
When uniform, add other Part B ingredients.

3. Add Part B to Part A.

Part C:

4. Combine first four Part C ingredients in a separate vessel.
Heat mixture and mix until oxybenzone has dissolved.5. Cool Part C to 45C. Disperse Pemulen TR-1 in Part C. Mix
until polymer is dispersed well.6. With vigorous agitation, add Part C to Part A. Mix for 20
minutes or until a smooth, non-grainy dispersion is apparent.

7. Add AMP-95 to batch. Mix until a smooth product is obtained.

8. Add Croval A-40 and fragrance. Mix until uniform.

SOURCE: B.F. Goodrich Co.: Formulation P0052

Water-Resistant Sunscreen Lotion
SPF 24

This high SPF sunscreen lotion provides long-lasting UV protection and has excellent water-resistant properties provided by Avalure AC 118 film forming polymer and Pemulen TR-2 polymeric emulsifier.

Ingredient/Trade Name:	Wt%
Part A:	
1. Deionized Water	66.10
2. Carbomer/Carbopol Ultrez 10 Polymer	0.25
3. Hydroxypropyl Methylcellulose/Methocel E4M	0.10
4. Propylene Glycol	1.00
5. Polymethoxy Bicyclic Oxazolidine/Nuosept C	0.40
6. Disodium EDTA	0.05
7. PEG-20 Almond Glycerides/Crovol A-40	0.40
Part B:	
8. Octyl Methoxycinnamate/Neo Heliopan, Type AV	7.50
9. Octyl Salicylate/Neo Heliopan, Type OS	5.00
10. Oxybenzone/Neo Heliopan, Type BB	6.00
11. C12-15 Alcohols Benzoate/Finsolv TN	5.00
12. Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Pemulen TR-2 Polymer	0.25
Part C:	
13. Aminomethyl Propanol/AMP-95	0.30
14. Acrylates Copolymer/Avalure AC 118 Polymer	7.50
15. Fragrance #99189 "Twister"	0.15

Properties:

Appearance: Milky white emulsion
 pH: 6.0-6.5
 Viscosity (cP): 16,000-24,000
 SPF: 24
 Stability: Passed 45C, accelerated 1 month
 Passed freeze/thaw-3 cycles

Preparation Procedure:

1. Part A: Disperse Carbopol Ultrez 10 polymer and Methocel E4M in warm deionized water (40-50C). Reduce mixing speed after polymers are dispersed.
2. When uniform, add other Part A ingredients and mix until uniform.
3. Part B: Combine first four ingredients in Part B in a separate vessel. Heat and mix until oxybenzone has dissolved.
4. Cool Part B to 45C. Disperse Pemulen TR-2 in Part B and mix until well dispersed.
5. With vigorous agitation, add Part B to Part A. Mix for 20 minutes or until a smooth, non-grainy dispersion is apparent.
6. Add AMP-95 to batch, mix until a smooth product is obtained.
7. Add Avalure AC 118 and fragrance to batch. Mix until uniform.

SOURCE: BF Goodrich Specialty Chemicals: Formulation A0005

W/O Sunscreen Lotion

<u>Component:</u>	<u>Wt%</u>
I Dehymuls PGPH/Polyglyceryl-2 Dipolyhydroxystearate	3.0
Monomuls 90-018/Glyceryl Oleate	1.0
Myritol 318/Caprylic/Capric Triglyceride	6.0
Eutanol G/Octyldodecanol	6.0
Cetiol SN/Cetearyl Isononanoate	5.0
Copherol F 1250/Tocopheryl Acetate	1.0
Permulgin 2550/Beeswax (Cera Alba)	1.2
Neo Heliopan E1000/Isoamyl p-Methoxycinnamate	7.0
Zinc Oxide neutral	6.0
II Water	58.0
Glycerin 86%	5.0
III Phenonip/Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben	0.5
Perfume Oil	0.3
1. Melt the components listed under I at 80-85C and stir until homogeneous.	
2. Heat the components listed under II to 80-85C and add to phase I while stirring. Stir for 5 minutes at this temperature.	
3. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid the incorporation of air. Homogenise at 65-55C by means of a suitable dispersion unit to improve both stability and structure. When fully homogeneous allow to cool to 30C with stirring. Addition of III at 30C.	

Formulation No.: HR1 LSF/SPF ca. 17 (DIN)

O/W Lotion with SPF 15

<u>Component:</u>	<u>Wt%</u>
I Emulgade PL 68/50/Cetearyl Glucoside (and) Cetearyl Alcohol	4.5
Cetiol SN/Cetearyl Isononanoate	10.0
Baysilon M 350/Dimethicone	0.5
Copherol F 1300/Tocopherol	2.0
Benzophenone-3	2.0
Octyl Methoxycinnamate	7.5
II Glycerin 86%	3.0
Water	65.4
III Carbopol 981 2%ig/Carbomer	5.0
IV KOH 20%ig	0.1
Viscosity 23C mPas: 15,000	
1. Heat oil phase to 80C. Heat aqueous phase to 80C and add to oil phase while stirring. Emulsify for 5 minutes at this temperature.	
2. Allow the emulsion to cool with stirring in such a way that it remains in continual motion without developing a so-called "stirring cone". Avoid incorporation of air. Excessive stirring, in particular below 50C, can lead to the reduction of the final viscosity. 3. Add phase III, at 50C.	
4. At 40C neutralized with phase IV. Finish stirring at 30C.	
Note: During cooling, emulsion systems on the basis of Emulgade PL 68/50 can pass through distinct gel phase.	

Formulation No. 95/190/94

SOURCE: Henkel KGaA: Suggested Formulations

Zinc Oxide Sunscreen Cream (PABA/Oxybenzone Free)
Estimated SPF=20

<u>Ingredient:</u>	<u>Wt%*</u>
A: Octocrylene (Neo Heliopan 303)	7.00
Octyl Methoxycinnamate (Neo Heliopan AV)	7.50
Isocetyl Alcohol	2.00
Cetearyl Alcohol (and) Ceteareth-20	2.00
Glyceryl Stearate	3.00
PEG-40 Stearate	1.00
Dimethicone	1.00
Cetyl Alcohol	0.75
Tocopheryl Acetate	0.25
 B: Zinc Oxide	 6.00
C: Deionized Water	65.30
Veegum Ultra, Magnesium Aluminum Silicate	0.50
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	2.00
Disodium EDTA	0.20
 D: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	 1.00

Procedure:

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 75C. Weigh the Part A ingredients into another vessel and heat to 75C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-28C.

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from Haarman & Reimer Corp.

Zinc Oxide Sunscreen (Measured SPF=9.2)

<u>Ingredient:</u>	<u>Wt%*</u>
A: Glyceryl Stearate	2.50
PEG-40 Stearate	0.75
Cetearyl Alcohol (and) Ceteareth-20	0.75
Tricontanyl PVP	2.00
Caprylic/Capric Triglycerides	5.00
Mineral Oil	5.00
Dimethicone	2.00
B: Zinc Oxide (Zinc Oxide Neutral)	10.00
C: Deionized Water	65.35
Veegum Ultra, Magnesium Aluminum Silicate	0.75
Rhodigel, Xanthan Gum	0.50
Propylene Glycol	5.00
Tetrasodium EDTA	0.10
D: DMDM Hydantoin (and) Iodopropynyl Butylcarbamate	0.20
Lactic Acid, 88%	0.10

Procedure:

Weigh the Part C water into a suitable vessel and mix with a propeller stirrer operating at 1800 rpm. Weigh and dry blend the Veegum Ultra and Rhodigel and add them to the water. Mix for 30 minutes at 1800 rpm. Add the remaining Part C ingredients in order and mix until uniform. Begin heating the water phase to 80C. Weigh the Part A ingredients into another vessel and heat to 80C. Add Part B to Part A and mix until uniform. Slowly add Parts A+B to Part C and homogenize at 5000 rpm until uniform. Transfer the batch to a propeller mixer and adjust the speed to produce a small vortex. Begin cooling. At 40C, add Part D. Continue mixing and cooling. Package at 25-30C.

*As received basis

SOURCE: R.T. Vanderbilt Co., Inc.: Formulation from Haarman & Reimer Corp.

Milk and Honey Sunscreen Stick

<u>Part:</u>	<u>Raw Material:</u>	<u>Wt%</u>
A	Monalac ML Milk Lipid	70.0
A	Bleached Beeswax	20.0
B	Octyl Dimethyl PABA	7.0
B	Benzophenone 3	3.0
C	Fragrance	qs

Procedure:

Melt and mix Part A ingredients 65C. Mix part B ingredients at ambient temperature, when clear add to Part A. Cool to 60C. Add fragrance, color, and antioxidants if desired. When well mixed pour off into containers. Product will solidify at about 55C. This product is an opaque, pale yellow solid with an approximate SPF value of 15.

SOURCE: Mona Industries, Inc.: Formulation F-721

Section XII
Miscellaneous

Bacitracin Ointment(O/W)

<u>Ingredients:</u>	<u>Wt%</u>
A. Stearic acid	15.0
Isopropyl Myristate	1.0
Arlacel 60 sorbitan monostearate	2.0
Tween 60 POE 20 sorbitan monostearate	1.5
B. Sorbitol 70% Solution USP	3.0
Water	71.5
C. Arlasolve DMI Dimethyl Isosorbide	5.0
Bacitracin	1.0
D. Preservative	q.s.

Preparation:

Add (B) to 72C to (A) at 70C. Agitate continuously until the emulsion reaches 50C. Stir in (C) until thoroughly mixed. Add (D). Stir until emulsion reaches 40C, replace lost water and package.

Hydrocortisone Ointment (O/W)

<u>Ingredients:</u>	<u>Wt%</u>
A. Cetyl alcohol	7.0
Arlacel 165 glycerol monostearate and poloxyethylene 100 stearate (acid-stable, self-emulsifying)	5.0
B. Sorbitol 70% Solution USP	5.0
Water	72.0
C. Arlasolve DMI Dimethyl Isosorbide	10.0
Hydrocortisone	1.0
D. Preservative	q.s.

Preparation:

Add (B) at 72C to (A) at 70C with good agitation. Add (C) at 50C and mix thoroughly. Add D. Stir until emulsion reaches 45C, replace lost water and package.

SOURCE: ICI Surfactants: Suggested Formulations

Children's Dentifrice Gel

Stage:	Ingredient:	Wt%
A	Glycerin	5.00
	CMC 9MXF	0.30
Using Cowles dissolver, add CMC to glycerin until well dispersed.		
B	Sorbitol (70%)	35.55
	Water	3.00
	Na Benzoate	0.50
	Na MFP	0.84
	Na Saccharin	0.20
	FD&C Blue #1 (1% soln)	0.15
Dissolve benzoate, MFP, and saccharin in water and sorbitol. Add color. Mix until dispersed.		
C	Add B to A using a homogenizer. Allow mixture to heat to 50-60C.	
D	PEG 1450	5.00
	Sorbitol (70%)	25.00
Melt PEG. Mix with sorbitol at high speed. Add to C, while mixing. Maintain heat at 50-60C, and mix for 30 mins.		
E	Sylodent 750	5.00
	Sylodent 2	12.00
Transfer batch to vacuum, mixer. Mix for 20-30 mins. Heat may be applied if desired (30 to 40C).		
F	Flavor	1.00
Add and mix for one min.		
G	Sorbitol (70%)	5.00
	Na Lauryl Sulfate	1.50
Predisperse SLS in hot sorbitol. Add to batch with minimal dispersion. Pull 28" before starting mixer.		
SOURCE: Grace/Davison: Suggested Formulation		

Clear Emollient Microemulsion (With AHA-Ester)

<u>Raw Materials:</u>	<u>Wt%</u>
A) Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	30.00
Miglyol 812 (Caprylic/Capric Triglyceride)	20.00
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	30.00
Preservative	q.s.
Water	up to 100.00
B) Fragrance	q.s.

Preparation:

All ingredients are mixed together and stirred until homogeneous.

Formulation 1.5Y

Penetrating Massage Oil (With AHA-Ester)

<u>Raw Materials:</u>	<u>Wt%</u>
Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	10.00
Miglyol 812 (Caprylic/Capric Triglyceride)	40.00
Miglyol 840 (Propylene Glycol Dicaprylate/ Dicaprate)	20.00
Softigen 701 (Glyceryl Ricinoleate)	1.00
Mineral Oil	29.00
Antioxidants	q.s.

Preparation:

All ingredients are mixed together at about 40 degrees C.
Formulation 1.5Z

SOURCE: Creanova Inc.: Suggested Formulations

Emulsion, Type O/W

<u>Raw Materials:</u>	<u>Wt%</u>
A: Eumulgin VL 75	4.50
Lanette O	2.00
Monomuls 60-35C	1.00
Cetiol LC	4.00
Cetiol B	5.00
Cetiol PGL	1.00
Phenonip	0.30
B: Water, distilled	68.85
Phenonip	0.30
Glycerin	2.00
Carbopol 980	0.30
C: KOH 20%	0.75
D: Glycoderm (P)	10.00

Manufacture:

- A: Melt and bring to approx. 70C.
 B: Bring to approx. 70C and add to a) with stirring.
 Continue stirring until cooled to approx. 50C.
 C: Add.
 Continue stirring until cooled to approx. 30C.
 D: Stir in.
 Perfume, homogenize

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Suggested Formulation

Microgel, Soft

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	29.00
Marlipal 1618/25 (Ceteareth-25)	15.00
IPM	5.00
B. Preservative	q.s.
Water ad	100.00
Perfume A 10 003 E Fragrance	0.30

Preparation:

A is brought to 70C, B is brought to the same temperature and emulsified into A. It is stirred down to 35C, then perfume is added.

SOURCE: Huls Aktiengesellschaft: Formulation HUKMGS

High Cleaning Dentifrice Gel

<u>Stage:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Glycerin	5.00
	CMC 9MXF	0.30
	Using Cowles dissolver, add CMC to glycerin until well dispersed.	
B	Sorbitol (70%)	26.51
	Water	3.00
	Na Benzoate	0.50
	Na MFP	0.84
	Na Saccharin	0.20
	FD&C Blue #1 (1% soln)	0.15
	Dissolve benzoate, MFP, and saccharin in water and sorbitol. Add color. Mix until dispersed.	
C	Add B to A and mix using a homogenizer. Allow mixture to heat to 50-60C.	
D	PEG 1450	5.00
	Sorbitol (70%)	21.00
	Melt PEG. Mix with sorbitol at high speed. Add to C, while mixing. Maintain heat at 50-60C, and mix for 30 mins.	
E	Sylodent 756	20.00
	Sylodent 2	8.50
	Transfer batch to vacuum mixer. Mix for 20-30 mins. Heat may be applied if desired (30 to 40C).	
F	Alcohol	1.50
	Flavor	1.00
	Add and mix for one min.	
G	Sorbitol (70%)	5.00
	Na Lauryl Sulfate	1.50
	Predisperse SLS in hot sorbitol. Add to batch with minimal dispersion. Pull 28" before starting mixer.	

SOURCE: Grace/Davison: Suggested Formulation

Insect Repellent Cream (W/O)
with UV-Filter

<u>Raw Materials:</u>	<u>Wt%</u>
A Insect Repellent 3535 (Art.-No. 111887) (Ethyl Butyl-acetylaminopropionate)	20.00
B Eusalex 6300 (Art.-No. 105385) (4-Methylbenzylidene Camphor)	3.00
Dow Corning 3225C (Cyclomethicone (and) Dimethicone Copolyol)	12.00
Dow Corning 344 (Cyclomethicone)	2.50
Bentone paste SIL (Cyclomethicone (and) Stearalkonium Hectorite (and) SD Alcohol 40)	15.00
Solvent ID (Isododecane)	7.30
Witconol 14 (Polyglyceryl-4 Oleate)	2.50
Beeswax, white (Art.-No. 111544) (Beeswax)	2.00
Carnauba wax (Copernica Cerifera)	0.50
C Sodium chloride (Art.-No. 106400)	2.00
Propanediol-1,2 (Art.-No. 107478) (Propylene Glycol)	2.00
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

Mix phase C. Heat phase B to 80C, stir until clear and cool to 25C. Add phase A to phase B. Add phase C. Homogenize. As required add perfume.

Note:

Samples contain as preservatives

0.20% Euxyl K400

Formulation 14-04/F

Insect Repellent Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A Insect Repellent 3535 (Art. No. 111887) (Ethyl Butyl-acetylaminopropionate)	20.00
Polyethylene glycol 400 (Art. No. 817003) (PEG-8)	5.00
B Ethanol 96% (Art. No. 100971)	35.00
Water, demineralized	15.00
C Polyethylene glycol 1500 (Art. No. 817005) (PEG-30)	4.00
D Arlamol E (PPG-15 Stearyl Ether)	3.00
Perfume oil Bariton (10607)	0.30
E Water, demineralized	17.70

Procedure:

Blend phase D. Mix phase B and incorporate phases A, C, D and E while stirring.

Note:

pH22C=5.8

Formulation 10-01/F

SOURCE: Rona-Merck: Suggested Formulations

Men's Alcohol-Free Cologne

This sprayable product is light, elegant and will not sting the skin.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	91.58
DMDM Hydantoin/Glydant	0.30
Oleth-10/Brij 97	0.30
Part B:	
Cyclomethicone/245 Fluid	4.00
Isostearyl Benzoate	0.50
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Pemulen TR-2	0.15
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl- paraben (and) Propylparaben/Germaben IIE	1.00
Triethanolamine/TEA (99%)	0.12
Fragrance/"Polo Sport" type #A11518 or "Drakkar" type #F10091513	2.00
Disodium EDTA/Versene NA	0.05

Properties:

pH: 5.5-6.0

Viscosity (cP) at 25C: 600-900

Preparation Procedure:

1. Combine Part A ingredients in a vessel which will contain the entire formulation.
2. Blend Part B ingredients in a separate vessel (ambient temperature). The Pemulen polymer should be slurried in this phase.
3. With moderate agitation, add Part B to Part A. Mix for 10-20 minutes to allow polymer to swell. Add Germaben IIE and mix until uniform.
4. Add TEA and mix vigorously to produce a smooth emulsion.
5. Add fragrance to batch.
6. Mix Disodium EDTA and emulsion incrementally to adjust viscosity downward to 600-900 cP to make product sprayable. (NOTE: Do not add more than a total of 0.1% or emulsion may separate.)

SOURCE: B.F. Goodrich Co.: Formulation P0059

Mineral Oil Emulsion Containing Ethanol

Formula SK-13 is a mineral oil cream with a luxurious after-feel. The alcohol provides a cooling effect as the cream spreads smoothly with good "rub-in" characteristics resulting in a non-greasy feel.

<u>Ingredients:</u>	<u>Wt%</u>
A Light mineral oil	8.00
Stearyl alcohol	1.00
Brij 721 Steareth-21	2.28
Brij 72 Steareth-2	1.72
B Water, deionized	66.00
Carbomer 934	0.40
C Sodium hydroxide solution, 10% aqueous	0.40
D Preservative	q.s.
E Perfume	0.20
F Ethanol, SDA-40 (190 proof)	20.00

Preparation:

Heat (A) to 70C and (B) to 72C. Add (B) to (A) slowly with moderate agitation. Add (C). Add (D) below 50C. Add (E) and (F) at 35C. Replace water lost by evaporation and package.
Formula SK-13

Hydrophilic Oil

<u>Ingredients:</u>	<u>Wt%</u>
Arlatone T	3.0
Arlamol E	6.0
Arlamol HD	20.0
Arlamol S7	4.0
Sunflower oil	20.0
Jojoba oil	5.0
Paraffin oil	42.0

Manufacture:

Simple room-temperature blending.

Comments:

Hydrophilicity of the oil can be altered by adjusting the concentration of Arlatone T.
Formula F44-12-3

SOURCE: ICI Surfactants: Suggested Formulations

Moderate Abrasivity Dentifrice Gel

<u>Stage:</u>	<u>Ingredient:</u>	<u>Wt%</u>
A	Glycerin	5.00
	CMC 9MXF	0.30
Using Cowles dissolver, add CMC to glycerin until well dispersed.		
B	Sorbitol (70%)	31.51
	Water	3.00
	Na Benzoate	0.50
	Na MFP	0.84
	Na Saccharin	0.20
	FD&C Blue #1 (1% soln)	0.15
Dissolve benzoate, MFP, and saccharin in water and sorbitol. Add color. Mix until dispersed.		
C	Add B to A and mix using a homogenizer. Allow mixture to heat to 50-60C.	
D	PEG 1450	5.00
	Sorbitol (70%)	25.00
Melt PEG. Mix with sorbitol at high speed. Add to C, while mixing. Maintain heat at 50-60C, and mix for 30 mins.		
E	Sylodent 750	10.00
	Sylodent 2	9.50
Transfer batch to vacuum mixer. Mix for 0-30 mins. Heat may be applied if desired (30 to 40C).		
F	Alcohol	1.50
	Flavor	1.00
Add and mix for one min.		
G	Sorbitol (70%)	5.00
	Na Lauryl Sulfate	1.50
Predisperse SLS in hot Sorbitol. Add to batch with minimal dispersion. Pull 28" before starting mixer.		

SOURCE: Grace/Davison: Suggested Formulation

Multiple Emulsion

I. Primary emulsion W/O:

<u>Ingredients:</u>	<u>Wt%</u>
A Arlamol HD, Isohexadecane	15.0
Caprylic/capric triglycerides	7.5
Arlamol E, PPG-15 stearyl ether	7.5
Arlacel P135, PEG-30 Dipolyhydroxystearate	4.0
B Water	65.6
Sodium chloride	0.4
Preservative	q.s.

Preparation-Primary Emulsion:

Heat (A) and (B) to 45C separately. Add (B) to (A) with propeller stirring. Homogenize mixture thoroughly. Propeller stir for 30 minutes.

II. Secondary emulsion W/O/W:

<u>Ingredients:</u>	<u>Wt%</u>
A Primary emulsion (W/O)	70.0
B Water	26.8
Synperonic PE/F/127 Poloxamer 407	2.0
C Carbopol 934, Carbomer	0.5
D Sodium chloride	0.2
E Preservative	q.s
F Triethanolamine	0.5

Preparation-Secondary Emulsion:

Dissolve Synperonic PE/F127 in water at 20C with stirring to produce (B). Sift (C) into (B) with fast stirring. Add (D) and (E) to (B)/(C) mixture with fast stirring. Slowly add (A) to (B)/(C)/(D)/(E) mixture. Add (F) with moderate stirring. Stir moderately fast for 15 minutes.

Comments:

Viscosity 505.2 cps

(Brookfield DV-1+/spindle 3/rpm 100)

Stability at	RT:	No separation after 1 month
	40C:	No separation after 1 month
	50C:	No separation after 1 month
	+5C:	No separation after 1 month
	-5/40C:	No separation after 1 month
	F/T:	No separation after 5 cycles

SOURCE: ICI Surfactants: Suggested Formulations

Peppermint Foot Scrub

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	79.00
Carbomer/Carbopol Ultrez 10	0.25
Acrylates/C10-30 Alkyl Acrylate Crosspolymer/ Carbopol ETD 2020	0.40
Triethanolamine (99%)	0.16
Part B:	
TEA Lauryl Sulfate (40%)/Standapol T	4.00
Propylene Glycol	2.50
Part C:	
Glycerine	2.50
Peppermint (Mentha Piperita) Oil	0.10
Propylene glycol (and) Water (and) Matricaria (Chamomilla Recuita) Extract/Actiphyte Of Chamomile	0.05
Propylene glycol (and) Water (and) Ivy (Hedera Helix) Extract/Actiphyte of Ivy	0.05
Polymethoxy Bicyclic Oxadilidine/Nuosept C	0.20
Part D:	
Pumice	10.00
D&C Red No. 33 (0.1%)	0.35
Triethanolamine (99%)	0.44

Properties:

Color, Odor, Appearance: Light-red pumice suspension gel
 pH: 6.3-6.6
 Viscosity (cP): 18,000-20,000
 Brookfield Yield Value (dynes/cm²): 750-850
 Stability: Passed freeze/thaw-5 cycles
 Passed heat aging-30 days at 45C

Preparation Procedure:

1. Disperse Carbopol ETD 2020 and Ultrez 10 polymer in the deionized water. Continue stirring slowly to hydrate for about 20 minutes.
2. Partially neutralize the Carbopol dispersion with TEA in Part A and mix until smooth.
3. Add Part B to Part A with slow, sweep mixing to avoid foaming.
4. Pre-combine ingredients in Part C, and add Part C to Parts A/B. Mix slowly until homogeneous.
5. Add ingredients in Part D to Parts A/B/C, in order, mixing thoroughly between. Finish by adding remaining TEA to neutralize.

SOURCE: B.F. Goodrich Co.: Formulation C0065

Silicone Emulsion, Type W/O

<u>Raw Materials:</u>	<u>Wt%</u>
A: Miglyol Gel B (Caprylic/Capric Triglyceride (and) Stearalkonium Hectorite (and) Propylene Carbonate)	20.0
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5.0
Imwitor 928 (Glyceryl Cocoate)	4.0
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	3.0
Dow Corning 200 Fluid (Dimethicone)	10.0
B: Magnesium Sulfate	2.0
Water up to	100.0
Preservative	q.s.
C: Perfume Oil	q.s.

Preparation:

"A" is mixed and heated to 75-80C. "B" is brought to the same temperature and emulsified into A. At about 30C, "C" is added.

Formula 1.2J

Silicone Emulsion, Type O/W

<u>Raw Materials:</u>	<u>Wt%</u>
A: Miglyol 812 (Caprylic/Capric Triglyceride)	10.0
Imwitor 370 (Glyceryl Stearate Citrate)	5.0
Imwitor 960K Flakes (Glyceryl Stearate SE)	5.0
Dow Corning 200 Fluid (Dimethicone)	10.0
B: Water, up to	100.0
Preservative	q.s.
C: Perfume Oil	q.s.

Preparation:

"A" is mixed and heated to 75-80C. "B" is brought to the same temperature and emulsified into A. At about 30C, "C" is added.

Formula 1.1K

SOURCE: Huls America Inc.: Suggested Formulations

Skin Soothing Ointment**Concept Statement:**

An emulsion-type ointment containing Supersat for emollience with the anti-irritation attributes of Pationic ISL and Ritaloe 1X.

<u>Ingredients:</u>	<u>Wt%</u>
1. Petrolatum	45.70
2. Supersat (Hydrogenated Lanolin)	8.30
3. Ritabate-60 (Polysorbate-60)	3.50
4. Rita GMS (Glyceryl Stearate)	6.30
5. Pationic ISL (Sodium Isostearoyl Lactylate)	1.70
6. Distilled/Deionized Water	27.80
7. Ritaloe 1X (Aloe Vera Gel)	2.10
8. Ritapan D (Panthenol)	0.40
9. Propylene Glycol	4.20

Compounding Procedure:

Combine items 1-5 and heat to 70C. Combine items 6-9 and heat to 70C. Add to oil phase and mix until uniform.

Formulation Ref. No. 123-13

Lactylate Based Barrier Cream**Concept Statement:**

A rich barrier cream containing Ritaplast for its film-forming ability, and using Pationic emulsifiers for their added moisturizing properties.

<u>Ingredients:</u>	<u>Wt%</u>
1. Petrolatum	20.00
2. Ritaplast (Mineral Oil and Polyethylene)	20.00
3. Shebu Refined (Shea Butter)	10.00
4. Rita SSO (Sunflower Seed Oil)	10.00
5. Rita IPP (Isopropyl Palmitate)	2.00
6. Pationic SBL (Sodium Behenoyl Lactylate)	3.00
7. Pationic CSL (Calcium Stearoyl Lactylate)	5.00
8. Propylparaben	0.10
9. Distilled/Deionized Water	29.80
10. Methylparaben	0.10

Compounding Procedure:

Combine items 1-8 and heat to 70C. Heat item 9 to 70C and add item 10. Add water to oil phase and mix until cool.

Formulation Ref. No. 123-15B

SOURCE: R.I.T.A. Corp.: Suggested Formulations

S.T. Tonic

<u>Raw Materials:</u>	<u>Wt%</u>
A: Cetyl octanoate	0.3
Parso1 MCX	0.15
Tocopheryl acetate	0.1
PEG-58 hydrogenated castor oil	2.0
Eldew CL-301	0.5
Butylparaben	0.1
B: Methylparaben	0.2
Butylene glycol	5.0
Marindew PC-100	0.05
Water	to make 100.0

Procedure:

Heat (A) to 80C and (B) to 75C. Add (B) to (A) with homogenizing. Cool down to room temperature.

Features:

Very moisturizing and excellent touch. Eldew CL-301 is an excellent solubilizer for Vitamin E. No alcohol contained.

Formula No. EW-3040

S.T. Tonic

<u>Raw Materials:</u>	<u>Wt%</u>
A: Cetyl octanoate	0.3
Parso1 MCX	0.15
Tocopheryl acetate	0.1
PEG-58 hydrogenated castor oil	2.0
Eldew CL-301	0.5
Butylparaben	0.1
B: Methylparaben	0.2
Butylene glycol	5.0
Ajidew N-50	5.0
Water	to make 100.0

Procedure:

Heat (A) to 80C and (B) to 75C. Add (A) to (B) with agitation. Cool down to room temperature.

Features:

Very moisturizing and emollient touch.

Formula No. EW-3050

SOURCE: Ajinomoto U.S.A., Inc.: Eldew CL-301 Applications

Stearyl Alcohol Formulation

<u>Ingredients:</u>	<u>Wt%</u>
A. Stearyl alcohol	2.0
Arlamol ISML, isosorbid monolaurate	3.0
Brij 721, POE (21) stearyl ether	1.1
Brij 72, POE (2) stearyl ether	0.4
B. Water	92.8
Carbomer 934	0.2
C. Sodium hydroxide (10% aqueous)	0.2
D. Preservative	0.1
E. Fragrance	0.2

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A slowly with moderate agitation. Add C. Add D below 60C. Add E below 40C. Add water to compensate for loss due to evaporation. Homogenize. Adjust pH to 5.5-6.5.

A similar effect occurs when a ratio of four parts cetyl alcohol is used with one part of Arlamol ISML emollient as shown in the following formula.

Stearyl Alcohol Formulation

<u>Ingredients:</u>	<u>Wt%</u>
A. Cetyl alcohol	4.0
Arlamol ISML, isosorbid monolaurate	1.0
Brij 721, POE (21) stearyl ether	1.3
Brij 72, POE (2) stearyl ether	0.2
B. Water	92.8
Carbomer 934	0.2
C. Sodium hydroxide (10% aqueous)	0.2
D. Preservative	0.1
E. Fragrance	0.2

Suggested Preparation:

Heat A to 70C and B to 72C. Add B to A slowly with moderate agitation. Add C. Add D below 60C. Add E below 40C. Add water to compensate for loss due to evaporation. Homogenize. Adjust pH to 5.5-6.5.

SOURCE: ICI Surfactants: Suggested Formulations

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol S3	80.00
Brij 30	10.00
Arlatone T	10.00

Procedure:

Mix well at room temperature.
Formula CP 1111

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol E	50.00
Atlas G73500	50.00

Procedure:

Mix well at room temperature.
Formula CP 1112

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
Arlamol S3	60.00
Isopropyl palmitate	30.00
Brij 93	5.00
Brij 30	4.60
Water	0.40

Procedure:

Mix well at room temperature.
Formula CP 1115

Washable Oil

<u>Ingredients:</u>	<u>%W/W</u>
A Arlamol E	50.00
Atlas G73500	25.00
B Brij 30	20.00
C Dow Corning 344 cyclomethicone	5.00

Procedure:

Mix (B) well. Add (B) to (A) and mix well. Add (C) to (AB) and mix well.
Formula CP 1116

SOURCE: ICI Surfactants: Suggested Formulations

Section XIII
Trade-Named
Raw Materials

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV-20	Phenyl trimethicone	Goldschmidt
Abil B8839	Cyclomethicone	Goldschmidt
Abil B8851	Dimethicone copolyol	Goldschmidt
Abil B8852	Dimethicone copolyol	Goldschmidt
Abil B9950	Dimethicone Propyl-BG Betaine	Goldschmidt
Abil B88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil EM-97	Dimethicone copolyol (and) cyclomethicone	Goldschmidt
Abil OSW 12	Cyclomethicone & dimethiconol & dimethicone	Goldschmidt
Abil Quat 3272 & 3474	Quaternium-80	Goldschmidt
Abil Wax 2434	Stearoxy dimethicone	Goldschmidt
Abil Wax 9801 & 9814	Cetyl dimethicone	Goldschmidt
Abil Wax 9840	Cetyl dimethicone copolyol & polyglyceryl-4 isostearate & hexyl laurate	Goldschmidt
Abil WE 09	Polyglyceryl-4 isostearate & cetyl dimethicone copolyol & hexyl laurate	Goldschmidt
Abil 50	Dimethicone	Goldschmidt
Acetulan	Cetyl acetate & acetylated lanolin alcohol	Amerchol
Acritamer 501E	Carbomer	RITA
Acritamer 940	Carbomer 940	RITA
Actiphyte of Chamomile	Botanical extract, "calming"	ActiveOrg
Actiphyte of Ivy	Botanical extract, "soothing"	ActiveOrg
Acylglutamate CA	Surfactant	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Abil AV-20	Phenyl trimethicone	Goldschmidt
Abil B8839	Cyclomethicone	Goldschmidt
Abil B8851	Dimethicone copolyol	Goldschmidt
Abil B8852	Dimethicone copolyol	Goldschmidt
Abil B9950	Dimethicone Propyl-BG Betaine	Goldschmidt
Abil B88183	Dimethicone copolyol	Goldschmidt
Abil EM-90	Cetyl dimethicone copolyol	Goldschmidt
Abil EM-97	Dimethicone copolyol (and) cyclomethicone	Goldschmidt
Abil OSW 12	Cyclomethicone & dimethiconol & dimethicone	Goldschmidt
Abil Quat 3272 & 3474	Quaternium-80	Goldschmidt
Abil Wax 2434	Stearoxy dimethicone	Goldschmidt
Abil Wax 9801 & 9814	Cetyl dimethicone	Goldschmidt
Abil Wax 9840	Cetyl dimethicone copolyol & polyglyceryl-4 isostearate & hexyl laurate	Goldschmidt
Abil WE 09	Polyglyceryl-4 isostearate & cetyl dimethicone copolyol & hexyl laurate	Goldschmidt
Abil 50	Dimethicone	Goldschmidt
Acetulan	Cetyl acetate & acetylated lanolin alcohol	Amerchol
Acritamer 501E	Carbomer	RITA
Acritamer 940	Carbomer 940	RITA
Actiphyte of Chamomile	Botanical extract, "calming"	ActiveOrg
Actiphyte of Ivy	Botanical extract, "soothing"	ActiveOrg
Acylglutamate CA	Surfactant	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ampholyt JB 130K	Cocamidopropyl betaine	Huls
Antaron WP660		ISP
Antil 141L	Propylene glycol & PEG-55 propylene glycol oleate	Goldschmidt
Antil 171	PEG-18 glyceryl oleate/cocoate	Goldschmidt
Arlacel 40	Sorbitan monopalmitate	ICI
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 83	Sorbitan sesquioleate	ICI
Arlacel 165	Glyceryl stearate & PEG-100 stearate	ICI
Arlamol E	PPG-15 stearyl ether	ICI
Arlamol HD	Isohexadecane	ICI
Arlamol M812	Emulsifying agent	ICI
Arlatone 980	PEG-35-hydrogenated castor oil	ICI
Arlatone 2121	Sunscreen agent	ICI
Arosurf 42-E6	Surfactant	Witco
Avanel S-30	Sodium C12-C15 pareth-3 sul- fonate	PPG
Avanel S-35CG	Sodium octoxynol-2 ethane sulfonate	PPG
Avanel S-150CGN	Sodium C12-15 pareth-15 sul- fonate	PPG
Avanel S-150CG	Sodium C12-15 pareth-15 sul- fonate	PPG

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Barley 1-3 Beta Glucan 70%		Keunen
Baysilon M350	Dimethicone	
Bee's Milk		Keunen
Bell Fragrance #J-2820, "Sporty"		Bell
Benecel MP943PR	Hydroxypropyl methylcellulose	Aqualon
Bentone Gel VS-5/PC	Rheological agent	Rheox
Bentone Paste SIL	Cyclomethicone & stearalkonium hectorite & SD alcohol 40	Rheox
Bentone 38	Rheological agent	Rheox
Bentonite NFBC		
Bermocel E481		Whittaker
Bienenwachs 8100	Cera alba	Henkel
Biocare Polymer BHA-10	Substantive hyaluronic acid	Biomatrix
Bio-Terge AS-40	Alpha olefin sulfonate	Stepan
Brij 72	Steareth-2	ICI
Brij 97	Oleth-10	ICI
Brij 721	Steareth-21	ICI
Brooksome EPO	Lecithin & evening primrose oil moisturizer	Brooks
Butyl Cellosolve	Solvent	Union Carb
Candelilla Wax		Keunen
Capmul 10G-10-0	Polyglyceryl-10 decaoleate Dispersant/emulsifier	Karlshamms
Carbopol 934	Carbomer 934	BFGoodrich
Carbopol 940	Carbomer 940	BFGoodrich

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Carbopol 941	Carbomer 941	BFGoodrich
Carbopol 954	Carbomer 954	BFGoodrich
Carbopol 980	Carbomer 980	BFGoodrich
Carbopol 981	Carbomer 981	BFGoodrich
Carbopol 1342	Carbomer 1342	BFGoodrich
Carbopol 2984	Carbomer 2984	BFGoodrich
Carbopol 5984	Carbomer 5984	BFGoodrich
Carbopol ETD 2001	Carbomer	BFGoodrich
Carbopol ETD 2020	Acrylates/C10-30 alkyl acrylate crosspolymer. Preservative	BFGoodrich
Carbopol Ultrez 10	Carbomer thickener	BFGoodrich
Carbowax E-8000	PEG-150	Union Carb
Carbowax 600	PEG 600. Lubricant	Union Carb
Carnauba #1 Yellow		Keunen
Carnauba Wax		Keunen
Carsonol SLES-2	Sodium laureth sulfate	
Cartaretin F-4	Diethylenetriamine copolymer	Clariant
Castor oil	Ricinus communis	
Cara Bellina	PG-3 beeswax	Keunen
Ceraphyl 230	Emollient	ISP/Van
Ceraphyl 424	Myristyl myristate emollient	ISP/Van
Cerasynt IP	Emulsifier	ISP/Van
Cerasynt SD	Glyceryl stearate emulsifier	ISP/Van
Ceresine 130/135 Wax		Keunen
Ceresine 140/150 Wax		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cetiol	Oleyl oleate	Henkel
Cetiol B	Emollient esters	Henkel
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Oleyl erucate	Henkel
Cetiol LC	Coco-caprylate/caprata	Henkel
Cetiol OE	Dicaprylyl ether	Henkel
Cetiol PGL	Emollient esters	Henkel
Cetiol SB 45	Shea butter	Henkel
Cetiol SN	Cetearyl isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Octyl stearate emollient	Henkel
CO-1695	Cetyl alcohol	
CO-1895	Stearyl alcohol	
Coco Soap (85-15)	Tallow	
Collapuron DAK	Desamidocollagen	
Comperlan KD	Cocamide DEA	Henkel
Completech MBAC-DS		Lipo
Controx KS		
Copherol F1250	Tocopheryl acetate	Henkel
Copherol F1300	Tocopherol	Henkel
Copherol 1250	Tocopherol	Henkel
Cosmedia Guar C-261	Guar gum	Henkel
Cosmedia Guar C-261N	Guar hydroxypropyl trimonium chloride	Henkel
Cosmedia Polymer HSP-1180		Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Cosmetic Brown 3277/1985/1654		
Cosmowax		Croda
Cremerol HMG	Hydroxylated milk glycerides	Amerchol
Cremophor HMG	PEG-35 castor oil	BASF
Crex	Sodium sesquicarbonate	
Crodamol MM	Myristyl myristate	Croda
Crovol A/Crovol A-40	PEG-20 almond glycerides	Croda
Crovol PK-70	PEG-45 palm kernel glycerides	Croda
Cutina CP	Cetyl palmitate	CLRichter
Dow Corning 200 Fluid	Dimethicone	DowCorn
Dow Corning 200 Fluid, 100 cs		
Dow Corning 200 Fluid, 350 cs		
Dow Corning 200 Fluid, 5000 cs		
DC 344 Fluid	Cyclomethicone	DowCorn
DC 345 Fluid	Polydimethylcyclsiloxane	DowCorn
Degussa R812	Silica	Degussa
Dehymuls E	Mixed ester emulsifier	Henkel
Dehymuls PGPH	Polyglyceryl-2 dipolyhydroxystearate	Henkel
Dehyton AB30	Coco-betaine	Henkel
Dehyton G	Disodium cocoamphodiacetate	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Deodorized Orange Wax		Keunen
Deosafe Perfume 75428	N/I	
Dermacare MS SE	Glyceryl monostearate	RhonePoul
DeSonic LFD-97		Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
DeSonic 5N		Witco
Diaformer Z-A & Diaformer Z-AT Diaformer Z-SM Diaformer Z-W Diaformer Z-301 Diaformer Z-400	Methacrylol ethyl betaine/ Methacrylates copolymer	Clariant
Diahold A-503	AMP-Acrylates copolymer	Clariant
DL Panthenol		HoffmanLaRo
D- - Tocopherol Acetate: Tocopheryl acetate		
DNS Completech MBAC-EA		Lipo
Dowanol DPM & EB	Solvent	Dow
Dow Corning Q2-5324 Fluid	Dimethicone copolyol moistur- izer/lubricant	DowCorn
Dow Corning 190	Dimethicone copolyol	DowCorn
Dow Corning 556 Fluid	Phenyl trimethicone	DowCorn
Dow Corning 3225 C Fluid		DowCorn
Dowicil 200	Quaternium-15	Dow
Drakeol 9 & 21	Mineral oil	Penreco
"Drakkar" Type #F10091513	Fragrance	Haarman
Drivosol 35	Propane, isopropane, butane	Huls
Dynacerin 660	Oleyl erucate	Creanova
Eldew CL-301	Cholesteryl/behanyl/lactyl- dodecyl/lauroyl glutamate	Ajinomoto
Elfacos C26	Hydroxyoctacosanyl/hydroxy- stearate	Gallard-
Elfacos E200	Methoxy PEG-22/Dodecyl glycol copolymer	Gallard-
Elfacos ST9	PEG-45/Dodecyl glycol copolymer	Gallard-

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Elfugin AKT liq 300	Sodium C13-15 pareth-8 butyl phosphate & sodium C13-15 pareth-9 phosphate	Clariant
Emalex CC-168	Cetyl octanoate	Ajinomoto
Emalex GM-5	POE (5) glyceryl monostearate	Ajinomoto
Emalex GWIS-310	PEG-10 glyceryl triisostearate	Ajinomoto
Emalex GWIS-320	PEG-20 glyceryl triisostearate	Ajinomoto
Emalex HC-5	POE (5) hydrogenated castor oil	Ajinomoto
Emalex OD-25 JJ		Ajinomoto
Emalex O.T.G.		Ajinomoto
Emalex STG-R	Hydrogenated coco-glycerides	Ajinomoto
Emcol DG	Surfactant	Witco
Emcol 4100M	Surfactant	Witco
EmCon Limnathes Alba	Meadowfoam seed oil	Fanning
EmCon Tea Tree	Tea tree oil, active	Fanning
Emerest 2355	Ethylene glycol distearate	Henkel
Emersol 132	Triple pressed stearic acid	Henkel
Emersol 213	Low titer oleic acid (AV: 203)	Henkel
Emersol 221	Oleic acid (acid value: 203)	Henkel
Emery 531	Fatty acid	Henkel
Emery 610	Soya fatty acid	Henkel
Emery 621	Coconut fatty acid (av: 263)	Henkel
Emulgade PL 68/50	Cetearyl glucoside & cetearyl alcohol	Henkel
Emulgade SE	Cream base w/o	Henkel
Emulgator E2155	Stearyl alcohol, steareth-7, steareth-10	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Emulsifying Wax NF		Keunen
Escalol 507	Octyl dimethyl PABA	ISP/Van
Esi-Cryl 11	Styrene-acrylic copolymer	
Eumulgin B2	Ceteareth-20	Henkel
Eumulgin VL 75	Cosmetic emulsifier o/w	Henkel
Eumulgin 286	Cosmetic emulsifier o/w	Henkel
Euperlan PK-810	Pearlshine concentrate	Henkel
Euperlan PK 3000-AM	Glycol distearate, laureth-4, cocamidopropyl betaine	Henkel
Eusolex OCR	Octocrylene	RonaEM
Eusolex T-2000	Micron. titanium dioxide	RonaEM
Eusoflex 232	Phenylbezimidazole sulfonic acid	RonaEM
Eusolex 6007	Octyl dimethyl PABA	RonaEM
Eusolex 6300	4-Methylbenzylidene	RonaEM
Eusolex 9020	Butyl methoxydibenzoylmethane	RonaEM
Eutanol G	Octyldodecanol	Henkel
Extrapon Chamomile Special		Dragoco
Finester EH-25	C12-15 octanoate	
Finsolv EMG-20	Methyl gluceth-20 benzoate. Emollient	Finetex
Finsolv TN	C12-15 alcohols benzoate. Emollient	Finetex
Flora 91-2008	Fragrance	
Fragrance #A41073	Spicy floral fragrance	
Fragrance #A42017	Fruity floral fragrance	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrance #99189 "Twister"		Drom
Fragrance #J-7820, Sporty		Drom
Fruity Floral Scent NY-16 Fragrance		Novarone
G-2330		
Gelita Sol C	Hydrolyzed collagen	Hoechst
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genapol AMG	Magnesium PEG-3 cocamide sulfate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO Liquid	Sodium laureth sulfate	Hoechst
Genapol PMS	Glycol distearate	Hoechst
Genapol 122N	Soya sterol	Henkel
Germaben II & IIE	Cosmetic preservative	ISP/Sutton
Germall 115	Imidazoldiinyl urea	ISP/Sutton
Gludin WQ	Laurdimonium hydroxypropyl hydrolyzed wheat protein	
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam P-10	PPG-10 methyl glucose ether	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesqui- stearate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glucquat 125	Lauryl methyl gluceth-10 hydroxypropyldimonium chloride	Amerchol
Glycerol Monostearate		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Fragrance #99189 "Twister"		Drom
Fragrance #J-7820, Sporty		Drom
Fruity Floral Scent NY-16 Fragrance		Novarone
G-2330		
Gelita Sol C	Hydrolyzed collagen	Hoechst
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genapol AMG	Magnesium PEG-3 cocamide sulfate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO Liquid	Sodium laureth sulfate	Hoechst
Genapol PMS	Glycol distearate	Hoechst
Genapol 122N	Soya sterol	Henkel
Germaben II & IIE	Cosmetic preservative	ISP/Sutton
Germall 115	Imidazoldiinyl urea	ISP/Sutton
Gluadin WQ	Laurdimonium hydroxypropyl hydrolyzed wheat protein	
Glucam E-10	Methyl gluceth-10	Amerchol
Glucam E-20	Methyl gluceth-20	Amerchol
Glucam P-10	PPG-10 methyl glucose ether	Amerchol
Glucamate DOE-120	PEG-120 methyl glucose dioleate	Amerchol
Glucamate SSE-20	PEG-20 methyl glucose sesqui- stearate	Amerchol
Glucate SS	Methyl glucose sesquistearate	Amerchol
Glucquat 125	Lauryl methyl gluceth-10 hydroxypropyldimonium chloride	Amerchol
Glycerol Monostearate		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hydrotriticum QM	Hair conditioner	Croda
Hydroxy Polyester		Keunen
Hypan SA-100H	Hydrogel	Lipo
Hampene Na3T	Trisodium EDTA	Hampshire
Hylacure		
Hystar CG	Hydrogenated starch hydrolysate	Lonza
Hystrene 5016	Stearic acid (triple pressed)	Witco
Imwitor 370	Glyceryl stearate citrate	Creanova
Imwitor 375	Glyceryl citrate/lactate/ linoleate/oleate	Creanova
Imwitor 380	Glyceryl cocoate/citrate/lactate	Creanova
Imwitor 780K	Isostearyl diglyceryl succinate	Creanova
Imwitor 900	Glyceryl stearate	Creanova
Imwitor 928	Glyceryl cocoate	Creanova
Imwitor 960K	Glyceryl stearate SE	Creanova
Incronam 30	Cocamidopropyl betaine	Croda
Insect Repellent 3535	Ethyl butyl acetyl amino prop- ionate	MGK
Isolan GI 34	Polyglyceryl-4 isostearate	Goldschmidt
J9262 Fragrance		Bell
Jaguar C13S	Guar gum	RhonePoul
Jojoba Oil	Jojoba (buxus chinensis) oil	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Jordapon ACI-30G	Ammonium cocoyl isethionate	PPG
Jordapon CI Powder	Sodium cocoyl isethionate	PPG
Jordapon CI-UP	Sodium cocoyl isethionate	PPG
Jordapon CI-60	Sodium cocoyl isethionate (and) stearic acid	PPG
Jordapon CI-75	Sodium cocoyl isethionate (and) stearic acid	PPG
K80-D22		Keunen
Karion F Liquid	Sorbitol solution (70%)	E.Merck
Kathon CG	Methylchloroisothiazolinone (and) Methylisothiazolinone	Rohm&Haas
Kaydol	Mineral Oil USP	Witco
Kelco	Xanthan gum	Kelco
Keltrol	Xanthan gum	Kelco
Keltrol F	Xanthan gum	Kelco
Kelzan	Xanthan gum	Kelco
Kemester EGDS		
Kemester 99.7%	Glycerin	
Kerasol	Soluble animal keratin	Croda
Kessco PEG-6000	PEG-150 distearate	Stepan
Kester Wax K-48	Spermaceti	Keunen
Kester Wax-62		Keunen
Kukui Nut Oil		Oils Aloha
Kydol	Paraffin oil	Witco
Kytamer PC	Chitosan PC	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lactil	Sodium lactate & sodium PCA & glycine &.....	Goldschmidt
Lameform TGI	Polyglyceryl-3 diisostearate	
Lamesoft PO 65	Coco-glucoside & glyceryl oleate	Henkel
Lamesoft PW 25	Cetyl palmitate & beheneth-10 & hydrogenated castor oil & glyceryl stearate	Henkel
Lamesoft PW 45		Henkel
Lanapene		Lanaetex
Lanette O	Cetearyl alcohol	Henkel
Lanette 18		Henkel
Lanoquat 50		
Lantrol AWS 1692	PPG-12 PEG-65 lanolin oil	Henkel
Lauramide DEA		
Lavender Fleurs 40/42	Lavender oil	
Lexein QX-300	Hydrolyzed animal protein	Inolex
Lexol IPM	Isopropyl myristate	Inolex
Lexol IPP	Isopropyl palmitate	Inolex
Lipamide MEAA (75%)	Acetamide MEA	Lipo
Lipocol C	Cetyl alcohol	Lipo
Lipocol L-4	Laureth-4	Lipo
Lipo GMS-450	Glyceryl stearate	Lipo
Lipolan R	Lanolin oil	Lipo
Lipomulse 165	Glyceryl stearate/PEG-100 stearate	Lipo
Liponate IPM	Isopropyl myristate	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Liponate IPP	Isopropyl palmitate	Lipo
Liponate NPGC-2	Neopentylglycol dicaprylate/ dicaprinate	Lipo
Liponate TDTM	Tridecyl trimellitate	Lipo
Liponate 2-DH	PEG-4 diheptanoate	Lipo
Liponic EG-1	Glycereth-26	Lipo
Lipopeg 2-DL	PEG-4 dilaurate	Lipo
Lipopeg 4-DL	PEG-8 dilaurate	Lipo
Lipopeg 4-S	PEG-8 stearate	Lipo
Lipopeg 6000-DS	PEG-150 distearate	Lipo
LipoPearls	White beads w/ vitamin E	Lipo
Liposilt Green	Silt	Lipo
Lipo Stearic Acid		Lipo
Liposurf EST-30	Sodium laureth sulfate	Lipo
Lipovol ALM	Sweet almond oil	Lipo
Lipovol CO	Castor oil	Lipo
Lipovol MOS-70	Natural vegetable oil	Lipo
Lipovol MOS-130	Natural vegetable oil	Lipo
Lipovol SES	Sesame oil	Lipo
Lipowax P	Emulsifying wax, NF	Lipo
Liquapar	Preservative	ISP/Sutton
Locron L & P	Aluminum chlorohydrate	
Lonzaine C	Cocamidopropyl betaine	Lonza
Lotion 4047	Fragrance	
Lubragel MS		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lunacera M	Microwax	HBFuller
Luviskol K90 Powder	PVP (100%). Hair setting agent	BASF
Luviskol VA-73W	PVP/VA copolymer (50%)	BASF
Luvitol EHO	Cetearyl octanoate	BASF
Macademia Nut Oil		OilsAloha
Mackamide AME	Acetamide MEA. Humectant	McIntyre
Mackanate DC-30	Disodium dimethicone copolyol sulfosuccinate surfactant	McIntyre
Mackanate EL	Disodium laureth sulfosuccinate secondary surfactant	McIntyre
Macol CA-30P	PPG-30 cetyl ether	PPG
Macol CSA-20	Ceteareth-20	PPG
Macol NP-9.5	Nonoxynol-9	PPG
Macol 57	PPG-10 butanediol	PPG
Macol 124	Cetearyl alcohol & ceteareth-20	PPG
Macol 159	PEG-7 glyceryl cocoate	PPG
Mafo CAB	Cocamidopropyl betaine	PPG
Mafo CSB-50	Cocamidopropyl hydroxysultaine	PPG
Magnabrite HV	Stabilizing, suspending agent	AMColloid
Maltrin M-100	Maltodextrin	GrainProces
Mandelol	Almond oil	
Mapeg EGMS	Glycol stearate	PPG
Mapeg 400 DO	PEG-8 dioleate	PPG
Mapeg 6000 DS	PEG-150 distearate	PPG
Marindew PC-100	Partially deacetylated chitin	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Marlipal 1618/25	Ceteareth-25	Huls
Marlowet TA 6	Ceteareth-6	Huls
Marlowet TA 25	Ceteareth-25	Huls
Masil SF-V	Cyclomethicone	PPG
Masil SF-100	Dimethicone	PPG
Masil SF-756	Phenyl trimethicone	PPG
Masil SF-1000	Dimethicone	PPG
Mazamide JT-128	Cocamide DEA	PPG
Mazamide SS-10	Soyamide DEA	PPG
Mazamide 80	Cocamide DEA	PPG
Mazeen 174	PPG-4 ethylene diamine	PPG
Mazol EE-1	Benzyl laurate	PPG
Mazon 159	PEG-7 glyceryl cocoate	PPG
Mazox CAPA	Cocamidopropyl amine oxide	PPG
Mazox LDA	Lauramine oxide	PPG
Merquat Plus 3330	Polyquaternium-39. Hair conditioner	Calgon
Merquat 550	Polyquaternium-7	Calgon
Methocel A4M & E4M & E4M Premium EP & K110LV & 40-100	Hydroxypropyl methyl cellulose	Dow
Microcrystalline Wax		Keunen
Miglyol Gel B	Caprylic/capric triglyceride & stearalkonium hectorite & propylene carbonate	Creanova
Miglyol 812	Caprylic/capric triglyceride	Creanova

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Miglyol 829	Caprylic/capric/succinic triglyceride	Creanova
Miglyol 840	Propylene glycol dicaprylate/dicaprate	Creanova
Mineral Colloid BP	Montmorillonite	ECCAmerica
Minosil		PrideSolven
Miracare 2MCAS	Cocoamphodiacetate & sodium lauryl sulfate & sodium....	RhonePoul
Miranol Ultra	Cocoamphoacetate (32%). Surfactant	RhonePoul
Moisturizing Phyto-amine Biocomplex	Comfrey extract & plaintain extract & hydrolyzed wheat protein & amino acids	AlbanMuller
Monafax MAP160	Phosphate ester	Mona
Monafax MAP230	Phosphate ester	Mona
Monalac MAB		Mona
Monalac ML		Mona
Monalac MO		Mona
Monalac MPL		Mona
Monamid CMA	Cocamide MEA	Mona
Monamid 716	Lauramide DEA	Mona
Monamuls 60-35C	Hydrogenated palm glycerides	Mona
Monamuls 90 L 12	Glyceryl laurate	Mona
Monamuls 90-018	Glyceryl oleate	Mona
Monaquat ISIES	Quaternary compound	Mona
Monaquat SL-5		Mona
Monaquat TG	Quaternary phospholipid	Mona

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Monasil PCA		Mona
Monasil PDM		Mona
Monasil PLN		Mona
Monateric CAB	Cocamidopropyl betaine	Mona
Monaterge 779		Mona
Monateric CAB-LC	Cocamidopropyl betaine	Mona
Monateric CLV		Mona
Monateric COAB	Cocamidopropyl betaine	Mona
Monateric LMAB	Lauramidopropyl betaine	Mona
Monateric 949J		Mona
Myritol PC	Propylene glycol dicaprylate/ dicaprinate	
Myritol 312 & 318	Caprylic/capric triglyceride	Henkel
Myritol 331	Cocoglycerides	Henkel
Myrj 52 & 52S	PEG-40 Stearate	ICI
Natipide II	Water & alcohol & lecithin	Natterman
Natrosol 250HHR & 250HR	Hydroxyethylcellulose	Aqualon
Natrosol Plus 330 CS	Cetyl hydroxyethylcellulose	Aqualon
Neobee M-5	Caprylic/capric triglyceride	Stepan
Neodol 25-3S	Sodium C12-15 pareth sulfate	Shell
Neo Heliopan, Type AV	Octyl methoxycinnamate	Haarman&
Neo Heliopan BB	Benzophenone-3 sunscreen	Haarman&
Neo Heliopan E1000	Isoamyl p-methoxycinnmate	Haarman&

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Neo Heliopan, Type OS	Octyl salicylate sunscreen	Haarman&
Neutrol TE	Tetrahydroxypropyl ethylene-diamine	BASF
NF White Beeswax		Keunen
N-Hance 3000	Cationic guar	Aqualon
Nikkol Lecinol S-10-M		Barnet
Nimlesterol D	Mineral oil	Malmstrom
Nimlesterol 1732	Mineral oil & lanolin alcohol	Henkel
Ninol LMP	Alkanolamide	Stepan
Ninol 2012 Extra	Alkanolamide	Stepan
Novarome NC-46 & NC-48	Fragrances	Novarome
Novata AB	Coco glycerides	CLRichter
Nuosept C	Polymethoxy bicyclic oxazolidone	Huls
Nutralin I	Collagen	Henkel
Oil of Mink	AAA Refined	Emulan
Orange Wax		Keunen
Orgasol 2002D	Nylon-12	Lipo
Oxybenzone		
Oxynex K Liquid	PEG-8 & tocopherol & ascorbyl palmitate & ascorbic acid & citric acid	Zschimmer
Oxynex LM	Antioxidant	Zschimmer
Oxynex 2004	Antioxidant	Zschimmer
Oyster Nut Oil		Keunen
Ozokerite 158/160 & 160/164 & 170		Keunen

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Panacete 810	Vegetable oil	
Panalene L-14E	Hydrogenated polyisobutene	Amoco
Paraffin Oil Liquid	Mineral oil	Merck
Paraffin Wax 130/135		Keunen
Paraffin Wax 160/165		Keunen
Parsol MCX	Octyl methoxycinnamate	Givaudan
Parsol 1789	Butyl methoxydibenzoylmethane	Givaudan
Pationic CSL	Calcium stearoyl lactylate	RITA
Pationic ISL	Sodium isostearoyl lactylate	RITA
Pationic SBL	Sodium behenoyl lactylate	RITA
Pationic SCL	Sodium cocoyl lactylate	RITA
Pationic SSL	Sodium stearoyl lactylate	RITA
Patlac LA	Lactic acid	RITA
PEG-150 Distearate		
PEG-1450		UnionCarb
Pemulen TR-1	Acrylates/C10-30 alkyl acrylate	BFGoodrich
Pemulen TR-2	Acrylates/C10-30 alkyl acrylate crosspolymer/Emulsifier	BFGoodrich
Peppermint (Mentha Piperita) Oil		Technology
Peppermint Oil, Refined		Technology
Perfecta	Petrolatum	Witco
Perfume A10003E	Fragrance	
Perfume "Olivia"		
Perfume 72979		
Perlatum 410CG	Petrolatum	S&S

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Permethyl 104A	Aliphatic hydrocarbon	Presperse
Permulgin D	Emulsifying wax	Keunen
Permulgin 2550	Beeswax (Cera alba)	Keunen
Petro LBA Liquid		Witco
Petro BAF Liquid		Witco
Petro LBA Powder		Witco
Phenonip	Liquid preservative system	Nipa
Phospholipid EFA	Hair conditioner	Mona
Phospholipid PTC & SV	Biomimetric phospholipid	Mona
Phytodermin	Soybean (glycine soya) protein	
Plantacare K55	Lauryl glucoside & cocamido-propyl betaine	
Plantacare PS 10	Sodium laureth sulfate & lauryl glucoside	
Plantacare 1200 UP	Lauryl glucoside	
Plantaren PS-100	Surfactant	Henkel
Plantaren 1200	Lauryl glucoside	Henkel
Plantaren 2000	Decyl polyglucose (50%)	Henkel
Plantaren 2000 UP	Lauryl glucose	Henkel
"Polo Sport" Type #A11518	Fragrance	Haarman&
Polyethylene AC-9A		Allied
Polyethylene Glycol 400: PEG-8		
Polyethylene Glycol 1500: PEG-30		
Polymer JR-30M	Polyquaternium-10	UnionCarb
Polymer JR-125	Polyquaternium-10	UnionCarb

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polyox WSR N-3000	PEG-14M	UnionCarb
Polyquta 400	Polyquaternium-10	RITA
Polysynlane	Hydrogenated polyisobutene	Polyester
Pricerine 9083	Glycerin	Unichema
Prisorine 2021	Isopropyl isostearate	Unichema
Prodew 100	Sorbitol/sodium lactate/pro- line/sodium PCA/hydrolyzed collagen	Ajinomoto
Prodew 200		Ajinomoto
Prodew 400		Ajinomoto
Product SE-100	Glyceryl stearate & PEG-100 stearate	Heterene
Promois Milk	Hydrolyzed casein	RITA
Promois Silk-1000	Hydrolyzed silk	RITA
Promulgen D	Cetearyl alcohol/ceteareth-20	Amerchol
Promulgen DD		Amerchol
Promyristyl PM-3	PPG-3 myristyl ether	Croda
Propal	Isopropyl palmitate	Amerchol
Propanediol-1,2	Propylene glycol	
Protasorb	Polysorbate 20. Lubricant	Protameen
Protectan	Lactococcus ferment lysate	
Pyroter CPI-40	PEG-40 hydrogenated castor oil PCA isostearate	Ajinomoto
Pyroter CPI-60		Ajinomoto
Pyroter GPI-25	Glycereth-25 PCA isostearate	Ajinomoto

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Raffermine	Hydrolyzed soy flour	RITA
Reach AZP-902	Antiperspirant	Reheis
Reach AZP-908 SUF	Antiperspirant	Reheis
Reach 103	Antiperspirant	Reheis
Reductine	Oat protein	RITA
Rewopal PIB 1000	Polyisobutene	Witco
Rewoteric AM B-14	Cocamidopropyl betaine	Witco
Rewoteric AM B-15	Cocamidopropyl betaine	Witco
Rewoteric AM DML-35	Cocamidopropyl betaine	Witco
Rewoteric AM TEG		Witco
Rewoteric AM 2CW		Witco
Rhodapon L-22	Ammonium lauryl sulfate	RhonePoul
Rhodapon 201-10	Sodium laureth sulfate, 60%	RhonePoul
Rhodigel	Xanthan gum	RTVanderbil
Rice Bran Oil		Keunen
Ritabate-20	Polysorbate-20	RITA
Ritabate-60	Polysorbate-60	RITA
Rita CA	Cetyl alcohol	RITA
Rita Cetearyl Alcohol 50/50		RITA
Ritacetyl Alcohol	Cetearyl alcohol	RITA
Ritachol	Mineral oil & lanolin alcohol	RITA
Rita EGMS	Glycol stearate	RITA
Rita GMS	Glyceryl stearate	RITA
Rita HA C-1-C	Sodium hyaluronate	RITA

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita IPP	Isopropyl palmitate	RITA
Ritalan	Lanolin oil	RITA
Ritaloe 1X	Aloe vera gel	RITA
Ritamide C	Cocamide DEA	RITA
Ritapan D	d-Panthenol	RITA
Ritapan DL	dL-Panthenol	RITA
Ritapeg 150 DS	PEG-150 distearate	RITA
Rita PEO-3	PEG-23M	RITA
Ritaplast	Mineral oil & polyethylene	RITA
Rita SA	Stearyl alcohol	RITA
Ritasil 190	Dimethicone copolyol	RITA
Rita SSO	Sunflower seed oil	RITA
Ritataine	Cocamidopropyl betaine	RITA
Ritataine B	Cocamidopropyl betaine	RITA
Ritavena-5	Hydrolyzed oat flour	RITA
Ritawax ALA	Cetyl acetate & acetylated lanolin alcohol	RITA
Rovisome C	Magnesium ascorbyl phosphate & lecithin	RITA
Sachtotec LA10	Zinc oxide	Sachtelben
Sandobet SC Liquid	Cocamido propyl hydroxysultaine	Clariant
Sandobet DTC Acid	Trideceth-7 carboxylic acid	Clariant
Sandopan ES-50	Sodium myreth sulfate	Clariant
Sandopan KST-A Solid	Sodium ceteth-13 carboxylate	Clariant

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sandopan LS-24 Gel	Sodium laureth-13 carboxylate	Clariant
Sandoxylate SX-424	PPG-2-isodeceth-12	Clariant
Schercomid SLS	Soyamide DEA	Clariant
Serdolamide PPF 67	Cocamide DEA	Huls
Setacin 103	Disodium laureth sulfosuccinate	Zschimmer
Shebu Refined	Shea butter	RITA
Silicone 245 & 345 & 556		DowCorning
Siliconyl Beeswax	Dimethicone copolyol beeswax	Keunen
Silkol P55	Mineral oil	
Silk Powder		
Silwax WS	Dimethicone copolyol wax	Siltech
S-Maz 20/S-Maz 60	Sorbitan stearate	PPG
Softigen 701	Glyceryl ricinoleate	Creanova
Softigen 767	PEG-6 caprylic/capric glycerides	Creanova
Softisan Gel	Complex of chemicals	Creanova
Softisan 100	Hydrogenated coco-glycerides	Creanova
Softisan 378	Caprylic/capric/stearic tri-glyceride	Creanova
Softisan 601	Glyceryl cocoate/hydrogenated coconut oil/cetareth-25	Creanova
Softisan 645	Bis-diglyceryl polyacyladipate-2	Creanova
Softisan 649	Bis-diglyceryl polyacyladipate-2	Creanova
Solulan C-24		Amerchol
Solulan 5	Laneth-5/ceteth-5/oleth-5/steareth-5	Amerchol

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Solvent ID	Isododecane	
Sorbitol F Liquid		
Sorbo	Sorbitol solution	ICI
Spicy Floral Fragrance #A41073		Haarman
Squalane		
Standamid KD	Cocamide DEA	Henkel
Standamid LD	Lauramide DEA	Henkel
Standamox		
Standapol A	Ammonium lauryl sulfate	Henkel
Standapol EA-1	Alkyl sulfate	Henkel
Standapol EA-2	Alkyl sulfate	Henkel
Standapol ES-2	Sodium laureth sulfate	Henkel
Standapol ES-3	Sodium laureth sulfate (30%)	Henkel
Standapol ES-50	Sodium myreth sulfate	Henkel
Standapol ES-250	Sodium laureth sulfate (53%)	Henkel
Standapol T	TEA lauryl sulfate (40%)	Henkel
Standapol WAQ-LC	Sodium lauryl sulfate (29%)	Henkel
Stepanol AM	Ammonium lauryl sulfate	Stepan
Stepanol WA-Extra	Sodium lauryl sulfate	Stepan
Stepanol WAT	TEA lauryl sulfate	Stepan
Super Hartolan	Lanolin alcohol	Croda
Super Refined Apricot Kernel Oil		Croda
Supersat	Hydrogenated lanolin	RITA
Surfactol Q1	Hair conditioner	CasChem

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Suttocide A	Neutralizer/preservative	Sutton
Synthetic Candelilla	Wax	Keunen
Synthetic Carnauba	Wax	Keunen
Tagat L	PEG-20 glyceryl cocoate	Goldschmidt
Tagat S2	PEG-20 glyceryl stearate	Goldschmidt
Tagat TO	PEG-25 glyceryl trioleate	Goldschmidt
Talc Supra A	Premium talc	RITA
Teginacid H	Glyceryl stearate/ceteth-20	Goldschmidt
Tegin EGS	Glycol distearate	Goldschmidt
Tegin M	Glyceryl stearate	Goldschmidt
Tegin P	Organic emulsifier	Goldschmidt
Tego Alkanol 16	Cetyl alcohol	Goldschmidt
Tego Alkanol 18	Stearyl alcohol	Goldschmidt
Tego Betaine 810	Caprylamido/capramidopropyl betaine	Goldschmidt
Tego Betaine E	Cocamidopropyl Betaine	Goldschmidt
Tego Betaine F	Cocamidopropyl Betaine	Goldschmidt
Tego Betaine F50	Cocamidopropyl Betaine	Goldschmidt
Tego Betaine L-7	Cocamidopropyl Betaine	Goldschmidt
Tego Care 215	Ceteareth-15/Glyceryl stearate	Goldschmidt
Tego Care 450	Polyglyceryl-3 methylglucose distearate	Goldschmidt
Tego Deo HY 77	Zinc ricinoleate/triethanol-amine/dipropylene glycol/lactic acid	Goldschmidt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tego Glucoside 1216	Lauryl glucoside	Goldschmidt
Tego Pearl N100	Glycol distearate/steareth-4	Goldschmidt
Tegosoft CI	Cetearyl isononanoate	Goldschmidt
Tegosoft CO	Cetyl octanoate	Goldschmidt
Tegosoft CT	Caprylic/capric triglycerides	Goldschmidt
Tegosoft DO	Decyl oleate	Goldschmidt
Tegosoft GC	PEG-7 glyceryl cocoate	Goldschmidt
Tegosoft GMC 6	PEG-6 caprylic/capric glyceride	Goldschmidt
Tegosoft Liquid	Cetearyl octanoate	Goldschmidt
Tegosoft LSE 65K	Sucrose cocoate	Goldschmidt
Tegosoft M	Isopropyl myristate	Goldschmidt
Tegosoft OP	Octyl palmitate	Goldschmidt
Tegosoft OS	Octyl stearate	Goldschmidt
Tegosoft P	Isopropyl palmitate	Goldschmidt
Tegosoft SH	Stearyl heptanoate	Goldschmidt
Tenox 6	Antioxidant	Eastman
Tensine	Wheat protein	Henkel
Texapon A	Ammonium lauryl sulfate	Henkel
Texapon NA	Ammonium laureth sulfate	Henkel
Texapon NSO	Sodium laureth sulfate	Henkel
Texapon SB-3	Disodium laureth sulfosuccinate	Henkel
Texapon SG	Sodium laureth sulfate/cocamide MEA/glycol distearate	Henkel
Texapon WW 99	MIPA laureth sulfate/cocamide DEA	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Thiosome		
Timica	Mica and titanium dioxide	Mearl
Timiron MP-149	Mica and titanium dioxide	Rona
Timiron MP-1001 Supersheen	Mica and titanium dioxide	Rona
Timiron Silk Red	Mica and titanium dioxide	Rona
Tioveil OP	Octyl palmitate and titanium dioxide	Tioxide
Titanox	Titanium dioxide	
T-Maz 20	Polysorbate 20	PPG
T-Maz 28	PEG-80 sorbitan laurate	PPG
T-Maz 60	Polysorbate 60	PPG
T-Maz 80	Polysorbate 80	PPG
Transcutol	Specialty solvent	Gattefosse
Traubeukernol	Vitis vinifera	
Triclosan		
Tris(hydroxymethyl)-aminomethane		
Tritiplex III	Disodium EDTA	
Tween 20	Polysorbate 20 lubricant	ICI
Tween 60	Polysorbate 60	ICI
Tween 85	Polysorbate 85	ICI
Tylose H 400P	Hydroxyethyl cellulose	Hoechst
Tylose H 100,000YP		
Tylose H2O		
tylose YP 100,000		

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ucare Polymer JR-30M	Polyquaternium-10	Amerchol
Ucare Polymer JR-125	Polyquaternium-10	Amerchol
Ucare Polymer JR-400	Polyquaternium-10	Amerchol
Ucare Polymer LK	Polyquaternium-10	Amerchol
Ucon Fluid AP		UnionCarb
Ucon 50-HB-660	PPG-12-Buteth-16	UnionCarb
Ultra Lantrol HP 2074	Lanolin oil	
Ultrapure L	White petrolatum USP	Ultra
Unicide U-13	Imidazolidinyl urea	Lipo
Uniphen P-23	Phenoxyethanol/methylparaben/ ethylparaben/propylparaben/ butylparaben	Lipo
Uvinul M-40	Oxybenzone sunscreen	BASF
Uvinul MS-40	Benzophenone-4. UV absorber	BASF
Vanclay	Kaolin	Vanderbilt
Vanseal NALS-30	Sodium lauroyl sarcosinate	Vanderbilt
Varamide A-83		Witco
Varamide MA-1		Witco
Varamide ML-1		Witco
Variquat 50MC		Witco
Varonic K202	Nonionic wetting agent	Witco
Varonic K215	Wetting agent	Witco
Varonic LI-48/LI-63/ LI-67/LI-420	Wetting agents	Witco
Varonic T202 SR	Wetting agent	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Varox 185E		Witco
Varox 365		Witco
Varox 1770		Witco
Varsulf SBFA-30		
Veegum	Magnesium aluminum silicate	Vanderbilt
Veegum F	Magnesium aluminum silicate	Vanderbilt
Veegum HS	Magnesium aluminum silicate	Vanderbilt
Veegum HV	Magnesium aluminum silicate	Vanderbilt
Veegum R	Magnesium aluminum silicate	Vanderbilt
Veegum Ultra	Magnesium aluminum silicate	Vanderbilt
Velsan D8P-3	Isopropyl PPG-2 isodeceth-7 carboxylate	Clariant
Velsan D8P-16	Cetyl PPG-2 isodeceth-7 carb- oxylate	Clariant
Velsan P8-3 Liquid	Isopropyl C12-15 Pareth-9-carb- oxylate	Clariant
Velvetex BK-35	Cocamidopropyl betaine	Henkel
Versene NA	Disodium EDTA. Chelating agent.	Dow
Versene 100	Tetrasodium EDTA chelating agent	Dow
Vitamin-A-Palmitate	Retinyl palmitate	
Vitamin E Acetate	Tocopheryl acetate	BASF
Volpo-10	Oleth-10 solubilizer	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Wacker-Belsil CM020	Cyclomethicone	Wacker
Wacker-Belsil CM040	Cyclomethicone	Wacker
Wacker-Belsil CM1000	Cyclomethicone, dimethiconol	Wacker
Wacker-Belsil DM100	Dimethicone	Wacker
Wacker-Belsil DM350	Dimethicone	Wacker
Wacker-Belsil DMC6032	Dimethicone copolyol	Wacker
Wacker-Belsil DMC6038	Dimethicone copolyol	Wacker
Wacker-Belsil PDM020	Phenyl trimethicone	Wacker
Wacker-Belsil SDM6022	Stearoxy dimethicone, dimethicone	Wacker
Wacker-Belsil SM6018	Stearyl methicone	Wacker
Witcamide CDA	Alkanolamide	Witco
Witcamide S-780	Alkanolamide	Witco
Witcamide 128T	Alkanolamide	Witco
Witcamide 511	Alkanolamide surfactant	Witco
Witcamide 6445	Alkanolamide surfactant	Witco
Witco 1298 Soft Acid		Witco
Witcolate ES-2	Surfactant	Witco
Witcolate LES-60A	Surfactant	Witco
Witcolate SE-5	Surfactant	Witco
Witcolate WAC-LA	Surfactant	Witco
Witconate AOS	Surfactant	Witco
Witconate AOS-PC	Surfactant	Witco
Witconate SXS Liquid	Surfactant	Witco
Witconate 30DS	Surfactant	Witco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Witconate 79S	Surfactant	Witco
Witconate 93S	Surfactant	Witco
Witconate 1260 Slurry	Surfactant	Witco
Witconol EGMS		Witco
Witconol NP-120	Nonionic surfactant	Witco
Witconol 14	Polyglyceryl-4 oleate nonionic	Witco
Zinc Omadine FPS	Zinc pyrithione (48%)	Olin
Zincum N29	Zinc stearate	Henkel
102 Magnabrite HV	Stabilizing, suspending agent	AmerColloid
99411 Fruit Blend	Fragrance	Drom

Section XIV
Suppliers' Addresses

Active Organics Inc.
11230 Grader St.
Dallas, TX 75238
(214)-348-2015/(800)-541-1478

Agrashell Inc.
5934 Keystone Dr.
Bath, PA 18014
(215)-837-6705

Ajinomoto USA Inc.
Glenpoint Ctr. W
500 Frank W. Burr Blvd.
Teaneck, NJ 07645
(201)-907-3244

Akzo Chemicals Inc.
300 South Riverside Plaza
Chicago, IL 60606
(312)-906-7500

Alban Muller International
Tri-K Industries
27 Bland St.
Emerson, NJ 07630
(201)-261-2800/(800)-526-0372

Albright & Wilson Americas
P.O. Box 26229
Richmond, VA 23260
(804)-550-4300/(800)-446-3700

Allied Signal Inc.
P.O. Box 2332R
Morristown, NJ 07962
(201)-455-2000

Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000

American Colloid Co.
Hwy 212W
Belle Fourche, SD 57717
(605)-892-2591

Amoco Chemical Co.
200 E. Randolph Dr.
Chicago, IL 60601
(312)-856-3200/(800)-621-4567

Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(708)-215-8600/(800)-323-6209

Aqualon
1313 N. Market St.
Wilmington, DE 19899
(302)-594-5000/(800)-345-8104

Atotech North America
900 Milk St.
Cartaret, NJ 07008
(908)-541-4414

Barnet Products Corp.
560 Sylvan Ave.
Englewood Cliffs, NJ 07632
(201)-569-6622

BASF Corp.
100 Cherry Hill Rd.
Parsippany, NJ 07054
(201)-316-3000/(800)-526-1072

Bell Flavors & Fragrances Inc.
500 Academy Dr.
Northbrook, IL 60062
(312)-291-8300/(800)-323-4387

Bernel Chemical Co. Inc.
174 Grand Ave.
Englewood, NJ 07631
(201)-569-8934

Biomatrix Inc.
65 Railroad Ave.
Ridgefield, NJ 07657
(201)-945-9550

BK-Ladenburg Corp.
50 Spring St.
Cresskill, NJ 07626
(201)-567-9100/(800)-526-2688

Brooks Industries Inc.
70 Tyler Place
South Plainfield, NJ 07080
(908)-561-5200

Calgon Corp.
P.O. Box 1346
Pittsburgh, PA 15230
(412)-777-8000

Capital City Products Co.
525 W. First Ave.
Columbus, OH 43216
(614)-299-3131/(800)-848-1340

CasChem Inc.
40 Avenue A
Bayonne, NJ 07002
(201)-858-7900/(800)-CAS-CHEM

Centerchem Inc.
225 High Ridge Rd.
Stamford, CT 06905
(203)-975-9800

Ciba-Geigy Corp.
410 Swing Rd.
Greensboro, NC 27419
(919)-632-7327/(800)-221-0453

Clariant Corp.
4000 Monroe Road
Charlotte, NC 28205
(704)-331-7000

Colorcon Inc.
Moyer Blvd.
West Point, PA 19486
(215)-699-7733

A & E Connock Ltd.
Fordingsbridge,
Hunts, UK

Creanova Inc.
220 Davidson Ave.
Somerset, NJ 08873
(732)-560-6800

Croda Inc.
7 Century Drive
Parsippany, NJ 07054
(201)-644-4900

Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660
(201)-641-6100

Dow Chemical USA
2020 Dow Center
Midland, MI 49674
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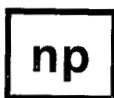
COSMETIC AND TOILETRY FORMULATIONS

Second Edition

Volume 8

by

Ernest W. Flick



NOYES PUBLICATIONS
WILLIAM ANDREW PUBLISHING, LLC

Norwich, New York, U.S.A.

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Library of Congress Catalog Card Number: 00-107129

ISBN: 0-8155-1454-9

Printed in the United States

Published in the United States of America by
Noyes Publications / William Andrew Publishing, LLC
Norwich, New York, U.S.A.

10 9 8 7 6 5 4 3 2 1

Library of Congress Cataloging-in-Publication Data
(Revised for vol. 8)

Flick, Ernest W.

Cosmetic and toiletry formulations.

1. Cosmetics. 2. Toilet preparations.

I. Title.

TP983.F55 1989 668¹.55 00-107129

ISBN 0-1855-1218-X (v. 1)

ISBN 0-1855-1306-2 (v. 2)

ISBN 0-1855-1367-4 (v. 3)

ISBN 0-1855-1383-6 (v. 4)

ISBN 0-1855-1395-X (v. 5)

ISBN 0-1855-1412-3 (v. 6)

ISBN 0-1855-1430-1 (v. 7)

ISBN 0-1855-1454-9 (v. 8)

In memory of my wife, Ruth

Preface

This book contains 541 cosmetic and toiletry formulations, based on information received from numerous industrial companies and other organizations. This is Volume 8 of the Second Edition of this work: Volume 1 was published in 1989, Volume 2 in 1992, Volume 3 in early 1995, Volume 4 in late 1995, Volume 5 in 1996, Volume 6 in 1998, and Volume 7 in 1999. There are no duplications in any of these volumes.

The data represent selections from manufacturers' descriptions made at not cost to, nor influence from, the makers or distributors of these materials. Only the most recent formulas have been included. It is believed that all of the trademarked raw materials listed are currently available, which will be of interest to readers concerned with raw material discontinuances. The 1996 market for cosmetic raw materials is estimated at \$2 billion.

Each formulation in the book is identified by a description of end use. The formulations include the following as available, in the manufacturer's own words: a listing of each raw material contained; the percent by weight of each raw material; suggested formulation procedure; and the formula source, which is the company or organization that supplied the formula. The book is divided into the following 12 sections, with the number of formulations indicated in ().

- I. Antiperspirants and Deodorants (12)
- II. Baby Products (18)
- III. Bath and Shower Products (49)
- IV. Beauty Aids (94)
- V. Creams (62)
- VI. Hair Care Products (77)
- VII. Lotions (50)
- VIII. Shampoos (73)
- IX. Shaving Products (10)
- X. Soaps and Hand Cleaners (22)
- XI. Sun Care Products (53)
- XII. Miscellaneous (21)

Each formula is indexed in the section which is most applicable. The reader seeking a formula for a specific end use should check each section which could possibly apply.

In addition to the above, there are two other sections that will be helpful to the reader:

XIII. Trade-Named Raw Materials. Each raw material is listed with a brief chemical description and the name of the raw material supplier.

XIV. Suppliers' Addresses. Addresses of suppliers of trade-named raw materials and/or formulations, some of which are not available in the usual reference books.

It should be noted that some formulations in the book are translations. The manufacturer's exact wording has been used in these cases. Occasionally different companies have listed the same raw material differently; it is hoped that the reader will be able to identify the same or similar raw materials by consulting the Trade-Named Raw Materials section.

The table of contents of the book is organized in such a way to serve as a subject index.

My fullest appreciation is expressed to the companies and organizations which supplied the information included in this book.

July, 2000

Ernest W. Flick

NOTICE

To the best of our knowledge the information in this publication is accurate; however, the Publisher does not assume any responsibility or liability for the accuracy or completeness of, or consequences arising from, such information. This book does not purport to contain detailed user instruction, and by its range and scope could not possibly do so. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the Author or Publisher.

Cosmetic and toiletry raw materials could be toxic or cause allergies in some circumstances, and, therefore, due caution should always be exercised in the use of potentially hazardous materials and the manufacturing processes involved. Final determination of the suitability of any information or product for use contemplated by any user, and the manner of that use, is the sole responsibility of the user. We strongly recommend that users seek and adhere to a manufacturer's or supplier's current instructions for handling each material they use.

The Author and Publisher have used their best efforts to include only the most recent data available. The reader is cautioned to consult the supplier in case of questions regarding current availability.

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Section I
Antiperspirants and
Deodorants

Anti-Perspirant Roll-On

Slightly cloudy, high viscosity

Ingredients:

	<u>Wt%</u>
A: Wacker-Belsil DMC 6032	2.00
Water	52.00
B: Ethanol Alcohol (Cosmetic grade)	25.00
C: Locron L	20.00
Tylose H 4000 P	0.5-1.0
Pigments, fragrances	q.s.

Mix A, stir B into A, mix in C. The desired viscosity can be regulated with Tylose H 4000 P (add Tylose H 4000 P either mixed with water to A or mix at the end in the finished formulation).
Formulation 516 AH

Anti-Perspirant Stick

Firm slightly yellow stick with little rub

Ingredients:

	<u>Wt%</u>
A: Lanolin Acid	45.00
Wacker-Belsil SDM 6022	30.00
Locron P	15.00
Wacker-Belsil DM 350	5.00
B: Wacker-Belsil CM 040	5.00

Melt A, mix in B and fill while hot.
Temperature stability: at 45C over 10 weeks.
Formulation 358 AH

SOURCE: Wacker Silicones: Suggested Formulations

Antiperspirant Solid

A typical antiperspirant stick formulation. SF1202 acts as a fugitive carrier for the antiperspirant active, thus providing a dry, non-greasy feel. In antiperspirant solid or stick products, SF1202 is the preferred cyclomethicone providing a stable colloidal matrix of wax for stick integrity and strength. SF96 (100) provides anti-whitening properties.

<u>Ingredient:</u>	<u>Wt%</u>
Cyclomethicone (SF1202)	45.0
Dimethicone [(SF96)(100)]	5.0
Stearyl Alcohol	19.0
Hydrogenated Castor Oil (mp 70C)	3.0
Talc	4.0
Glyceryl Stearate and PEG-100 Stearate	2.0
Aluminum Zirconium Tetrachlorohydrate Gly (ZAG)	22.0

Procedure:

1. Mix together cyclomethicone, dimethicone and stearyl alcohol.
2. Add ZAG, talc and glyceryl stearate & PEG-100 stearate.
3. Heat to 75C and stir with moderate agitation until all wax is melted.
4. Pre-melt hydrogenated castor oil and add to mixture as a liquid and stir for 15 minutes.
5. Cool mixture to 55C with continued mixing and pour into container. Cool (avoid air entrapment due to excessive mixing speeds.)

Formula AP 100

Antiperspirant Gel

A simple emulsion demonstrating the use of SF1328 as a water-in-oil emulsifier. Cyclomethicone is the external phase to provide a dry, non-greasy feel and to reduce tack. The product is an opaque gel but can be clarified by matching the refractive index of Part A and Part B. This is often done by adding propylene glycol to Part B. Formulation AP104 illustrates transparent gel formulation.

Materials:

	<u>Wt%</u>
<u>Part A:</u>	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)	10.00
Cyclomethicone (SF1204)	14.00
<u>Part B:</u>	
Polysorbate-80	0.25
Aluminum Zirconium Tetrachlorohydrate Gly (ZAG)	20.00
Water	55.75

Procedure:

1. Mix together Part A ingredients.
2. Dissolve polysorbate-80 into warm water.
3. Add ZAG to the water and polysorbate-80 solution and mix to form Part B.
4. Slowly add Part B to Part A with high shear mixing.
5. Homogenize with a high speed and high shear mixer such as an Eppenbach mixer.

Formula AP102

SOURCE: GE Silicones: Formulary: Formula AP100 & AP102

Antiperspirant Stick
Firm stick with soft rub

<u>Ingredients:</u>	<u>Wt%</u>
A Wacker-Belsil SDM 6022/Stearoxy Dimethicone, Dimethicone	6.00
Adol 66/Isostearyl Alcohol	13.50
Brij 78/Steareth-20	2.50
Lanette O/Cetearyl Alcohol	20.00
 B Wacker HDK H 15/Silica Dimethyl Silylate	 1.00
Locron P/Aluminum Chlorhydrate	25.00
 C Wacker-Belsil DM 100/Dimethicone	 2.00
Wacker-Belsil CM 040/Cyclomethicone	30.00
 Fragrances, pigments	 q.s.

Mix A and heat to 65C. Stir B into A, cool to approx. 45C and then add C.
 Formulation 280 AH

Antiperspirant Roll-On
White, low viscosity

<u>Ingredients:</u>	<u>Wt%</u>
A Wacker-Belsil CM 040/Cyclomethicone	70.00
Wacker-Belsil DM 100/Dimethicone	5.00
 B Tegin M/Glyceryl Stearate	 2.70
 C Locron P/Aluminum chlorhydrate	 20.00
Wacker HDK H 15/Silica Dimethyl Silylate	1.00
 Fragrances, pigments	 q.s.

Mix A, melt B and stir into A, mix C and stir into AB homogeneously.
 Formulation 178/2 AH

SOURCE: Wacker-Chemie GmbH: Formulas for Beauty

Antiperspirant Suspension Roll-on

A typical antiperspirant suspension roll-on. Cyclomethicones, SF1173 and SF1202, act as fugitive carriers for the antiperspirant active, thus providing a dry, non-greasy feel. The type of cyclomethicone for antiperspirant products is generally chosen based on evaporation rate. Various mixtures of the different cyclomethicones are used depending on the desired properties of the finished formulation. SF96 (50) provides anti-whitening properties.

Materials:

Cyclomethicone (SF1173)	Wt%
	45.7
Cyclomethicone (SF1202)	19.5
Dimethicone [SF96 (50)]	5.0
Quaternium-18 Hectorite	2.5
Ethanol	2.0
Aluminum Zirconium Tetrachlorohydrate Gly (ZAG)	25.0
Silica	0.3

Procedure:

1. Mix SF1173, SF1202 and quaternium-18 hectorite in a high speed mixer.
2. Add SF96 (50) and ethanol and continue mixing.
3. Add silica and ZAG and mix an additional 15 minutes.
4. Transfer the material to a homogenizer such as an Eppenbach Homomixer and homogenize for 3 minutes at high speed.
5. Check viscosity. It should be approximately 3000 cps.

Formula AP101

Antiperspirant Roll-on Emulsion

Similar to formulation AP102, a simple emulsion demonstrating the use of SF1328 as a water-in-oil emulsifier. By decreasing the internal phase, the viscosity of the emulsion is reduced thus, providing a roll-on product instead of a gel. Cyclomethicone is the external phase to provide a dry, non-greasy feel and to reduce tack. The product is opaque but can be clarified by matching the refractive index of Part A and Part B. This is often done by adding propylene glycol to Part B.

Materials:

Part A:	Wt%
Cyclomethicone (and) Dimethicone Copolyol (SF1328)	7.50
Cyclomethicone (SF1204)	20.50
Part B:	
Polysorbate-80	0.11
Aluminum Zirconium Tetrachlorohydrate Gly (ZAG)	20.00
Water	51.89

Procedure:

1. Mix together Part A ingredients.
2. Dissolve polysorbate-80 into warm water.
3. Add ZAG to the water and polysorbate-80 solution and mix to form Part B.
4. Slowly add Part B to Part A with moderate shear mixing. Gradually increase agitation to high shear as the mixture thickens. Continue agitation for 5 minutes.
5. Homogenize 1-2 minutes with a high speed/high shear mixer such as an Eppenbach mixer.

Formula AP 103

SOURCE: GE Silicones: Personal Care Formulary: Formulas

Deodorant Stick

<u>Ingredient:</u>	<u>Wt%</u>
Propylene Glycol	49.50
Carbowax 1540	6.00
Triclosan	0.25
Promidium SY	7.00
DI Water	27.25
Monateric CLV	2.00
Fragrance	2.00
Sodium Stearate	6.00

Procedure:

Heat the Promidium SY, Propylene Glycol and Carbowax 1540 to 70-75C. Add the Triclosan. Mix. Add the fragrance, Monateric stirring slowly. Add the Sodium Stearate, when melted, add water slowly. Discontinue heating. Cool, fill warm.
Formula F-850

Deodorant Stick with Phospholipid CDM

<u>Ingredient:</u>	<u>Wt%</u>
Propylene Glycol	50.50
Carbowax 1540 (PEG-32)	6.00
Promidium SY (PPG-3 Hydroxyethyl Soyamide)	7.00
Phospholipid CDM (Coco PG-Dimonium Chloride Phosphate)	1.00
Triclosan	0.25
Monateric CLV (Disodium Cocoamphodiacetate)	2.50
Fragrance	2.00
Sodium Stearate	6.00
Water	24.75

Procedure:

Heat the Promidium SY, Propylene Glycol and the Carbowax 1540 to 70-75C. Add the Triclosan. Mix. Add the fragrance, Phospholipid CDM and Monateric stirring slowly. Add the Sodium Stearate, when melted, stir and add water slowly. Discontinue heating. Cool, fill warm.
Formula F-851

SOURCE: Mona Industries, Inc.: Formulas F-850 and F-851

Promidium Deodorant Stick

The following deodorant stick applies smoothly and leaves you feeling fresh and confident all day long.

<u>Ingredient:</u>	<u>Wt%</u>
Propylene glycol	60.00
PEG-32	6.00
Triclosan	0.20
Promidium CO (PPG-2 Hydroxyethyl Cocamide)	7.00
Water	15.30
Monateric CLV (Disodium Cocoamphodiacetate)	2.50
Fragrance	2.00
Sodium Stearate	7.00

Procedure:

Heat the Promidium CO, Propylene Glycol and the PEG-32 to 70-75C. Add the Triclosan. Mix. Add the fragrance and Monateric, stirring slowly. Add the Sodium Stearate. When melted, add water slowly. Discontinue heating. Cool, fill warm.

SOURCE: Mona Industries, Inc.: Formula F-852

Antiperspirant Stick

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Part A:	
Stearyl Alcohol	20.00
Schercemol BE/Behenyl Erucate	10.00
Schercemol DIS/Diisopropyl Sebacate	15.00
DC 344 Fluid/Cyclomethicone	15.00
Schercemol PGMS/Propylene Glycol Stearate	10.00
Part B:	
Cornstarch	10.00
Rezal 36 GP/Aluminum Zirconium Tetrachlorohydrate GLY	20.00

Procedure:

Heat and melt Part A (60-65C) until homogeneous. Add Part B. Mix well. Cast into molds.

SOURCE: Scher Chemicals, Inc.: Formula SK 152

Section II

Baby Products

Aloe Baby Lotion

A gentle moisturizing lotion containing Liponate TDTM to provide a cushioning effect and extended slip with various natural oils to moisturize the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	76.50
1	Aloe Vera Gel/Aloe Barbadosensis Gel	1.75
1	Uniphen P-23	0.65
1	Liponic EG-1/Glycereth-26	1.00
1	Hampene Na3T/Trisodium EDTA	0.05
2	Carbopol 2984(2%)/Carbomer	12.50
3	Lipo Stearic Acid	1.25
3	Liponate NPGC-2	1.75
3	Lipovol CO/Castor Oil	0.25
3	Lipomulse 165/Glyceryl Stearate (and) PEG-100 Stearate	1.50
3	Lipocol C/Cetyl Alcohol	0.60
3	Liponate TDTM/Tridecyl Trimellitate	0.25
3	Lipowax P/Emulsifying Wax, NF	0.25
3	Lipovol SAF/Safflower Oil	0.60
3	Lipovol MAC/Macademia Ternifolia Nut Oil	0.25
3	Shea Butter	0.25
3	Vitamin E Acetate/Tocopheryl Acetate	0.05
4	Sodium Hydroxide (18%)	0.50
5	Gorgonium Extract*/Sea Whip Extract	0.05

*Patent #4,849,410 (and) 4,745,104

Procedure:

- Heat Sequence #1 to 76C on overhead mixer at medium/high speed.
- Heat Sequence #2 to 60C and add to Sequence #1 with medium/high speed on overhead mixer with holding batch temperature at 76C.
- Heat premixed Sequence #3 to 78C until clear and add to batch with medium/high speed on overhead mixer.
- Add Sequence #4 to batch with medium/high speed. Cool to 40C.
- At 40C, add Sequence #5. Cool to room temperature.

Specifications:

pH: 6.10+/-0.2

Viscosity: LVT #4 @ 12 rpm: 20,000 cps+/-10%

SOURCE: Lipo Chemicals Inc.: Formula No. 998

Baby Bath

Starting formula for high quality baby bath.

<u>Ingredients:</u>	<u>Wt%</u>
Water	to 100
PEG-80 glyceryl cocoate	10.00
Chembetaine C	8.40
Sulfochem TD-3	15.00
Disodium Cocoamphodiacetate	1.80
PEG-150 distearate	1.75
Glycerin	1.80
Laureth-13 carboxylate	0.25
Preservatives, colors, fragrance	q.s.

Blending Procedure:

Mix ingredients in order listed, heating to 60-65C to dissolve PEG-150 distearate. Adjust pH with citric acid to desired pH.

Formulation No. F1013

Baby Shampoo

Starting formula for high quality baby shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Water	to 100
PEG-80 sorbitan laurate	8.70
Chembetaine C	8.40
Sulfochem TD-3	8.00
Cocoamphocarboxyglycinate	2.00
Sodium chloride	q.s.
PEG-150 distearate	2.00
Laureth-13 carboxylate	0.25

Blending Procedure:

Mix ingredients in order listed, heating to 60-65C to dissolve PEG-150 distearate. Add NaCl to desired viscosity, if necessary. Adjust pH with citric acid to desired pH.

Formulation No. F1011

SOURCE: Chemron Corp.: Suggested Formulations

Baby Lotion with Vitamin E and Aloe

A smooth, nongreasy lotion which rubs in easily.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Propylene Glycol Dicaprylate/Dicaprate/Myritol PC	5.00
Mineral Oil/Drakeol 7	9.00
Petrolatum/Snow Petrolatum	4.00
Emulsifying Wax/Polawax	4.20
Aloe Extract/Aloe Vera Lipo-Quinone Extract	0.10
Tocopheryl Acetate/Vitamin E Acetate	0.10
Cetyl Alcohol	0.25
Stearyl Alcohol	0.25
Propylparaben	0.15
B: Deionized Water	75.70
Propylene Glycol	1.00
Methylparaben	0.10
C: Diazolidinyl Urea/Germall II	0.15
Fragrance	q.s.

Procedure:

Heat part A to 80C while gently mixing. Heat part B to 75C with stirring. Add part A to B with stirring and continue mixing with unforced cooling. At 40C add part C. Continue stirring to 30C.

Diaper Rash Cream with Aloe

This water-in-oil cream has an ointment-like consistency. High levels of petrolatum and mineral oil create an excellent moisture barrier.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Petrolatum/Ultima Petrolatum	19.00
Mineral Oil/Drakeol 9	7.50
Sorbitan Sesquioleate/Arlacel 83	3.50
Isostearyl Isostearate/Prisorine 2039	2.00
Aloe Extract/Activera 106 Lipo M	2.00
B: Deionized Water	55.50
Glycerin	1.50
Magnesium Sulfate	0.50
C: Zinc Oxide	7.50
D: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben/Germaben II-E	1.00
Fragrance	q.s.

Procedure:

Heat part A to 80C with stirring. Heat part B to 80C with stirring. Add part B to A with vigorous stirring. Slowly sift Part C into rapidly stirred mixture. Allow the blend to cool with stirring. At 40C, add part D. Continue stirring to 30C.

SOURCE: Penreco: Suggested Formulations

Babymilk
fragrance-free

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGL/Polyglyceryl-2 PEG-10 Laurate	1.00
Hostacerin DGSB/Polyglyceryl-2 PEG-4 Stearate	3.00
Mineral oil, high viscosity	10.00
Calendula oil	1.00
Cetiol SN/Cetearyl Isononanoate	8.00
Chamomile oil	0.50
Antioxidant	q. s.
B Carbopol 980/Carbomer	0.20
C Allantoin	0.20
Aquamollin BC pdr.h.c./Ethylenediamine Tetraacetic Acid Sodium Salt	0.10
Citric acid (10% in water)	0.25
Extrapon witch hazel	2.00
Caustic soda solution (10%)	0.80
Water	72.95
Preservative	q. s.

Procedure:

1. Melt A at approx. 70C, then add B.
2. Heat C to approx. 70C.
3. Stir 2 into 1 and stir until cool.
4. Homogenize the emulsion.

Baby Cream

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin WO/Polyglyceryl-2 Sesquiisostearate, Cera Alba (Beeswax), Cera Microcrystallina (Microcrystalline Wax), Mineral Oil, Magnesium Stearate, Aluminum Stearate	8.00
Permulgin 4200/Cera Microcrystallina (Microcrystalline Wax)	2.00
Amerlate W/Isopropyl Lanolate	2.00
Vaseline	10.00
Mineral oil, high viscosity	15.00
Isopropyl palmitate	5.00
Calendula oil	2.00
Antioxidant	q. s.
B Zinc oxide	10.00
Talc	5.00
C Allantoin	0.20
Aquamollin BC pdr.h.c./Ethylenediamine Tetraacetic Acid Sodium Salt	0.10
Citric acid (10%)	0.25
D-Panthenol	0.60
Water	39.65
Preservative	q. s.
D Fragrance	0.20

Procedure:

1. Melt A at approx. 80C, then add B.
2. Heat C to approx. 80C.
3. Stir 2 into 1 and stir until cool.
4. At approx. 35C add D to 3.

SOURCE: Hoechst Aktiengesellschaft: Formula A VI/5200&A VI/5804

Baby Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet BSC (Baby Shampoo Concentrate)	20.0
Sodium Chloride	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackadet BSC to water with slow agitation.
2. Heat to 40C.
3. Add Mackstat DM.
4. Adjust pH to 6.5-7.0 with Citric Acid.
5. Adjust viscosity to 2000 cps with Sodium Chloride.
6. Add Dye and Fragrance.
7. Cool to room temperature.

Baby Wipes

<u>Raw Materials:</u>	<u>Wt%</u>
Propylene Glycol	4.0
Mackam 2C (Disodium Cocoamphodiacetate)	2.0
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	qs
Water, Fragrance	qs to 100.0

Procedure:

1. Blend components until clear.
2. Adjust pH to 6.0 with Citric Acid.

Note: The solution is to be combined with baby wipe tissues. It is very mild to the skin and eyes.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Baby Shampoo with Olive Oil

<u>Raw Materials:</u>	<u>Wt%</u>
A. Marlinat CM100 (Laureth-11 Carboxylic Acid)	15
Ampholyt JB130 (Cocamidopropylbetaine)	15
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	5
Imwitor 375	3
Olive Oil	1
Antil 141 liquid (thickener based on POE-Dioleate)	4
Water ad	100
Antioxidant	q.s.
Preservative	q.s.
B. Fragrance	0.3

Preparation:

All ingredients are put together, heated up to about 60C and stirred homogeneously. Then cool down to 30C and add fragrance.

Baby Care Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 960 flakes (Glyceryl Stearate SE)	17
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Softigen 701 (Glyceryl Ricinoleate)	2
Softisan 645	3
Avocado Oil	2
Mineral Oil	3
Antioxidant	0.02
B. Glycerol	4
D-Panthenol	3
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A and B are heated to about 75C by stirring until homogeneous. Then B is emulsified into A. C is added at ca. 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Baby Shampoo III

Starting formula for high quality baby shampoo

Ingredients:

	<u>Wt%</u>
Water	to 100
PEG-80 sorbitan laurate	8.50
Chembetaine CL	8.40
Sulfochem TD-3	8.30
Sodium lauroamphoacetate	1.80
Polyquaternium-10	0.10
PEG-150 distearate	1.75
Glycerin	1.80
Laureth-13 carboxylate	0.25
Preservatives, colors, fragrance	q.s.

Blending Procedure:

Mix ingredients in order listed, heating to 60-65C to dissolve PEG-150 Distearate. pH with citric acid to desired pH.

Typical Physical Properties:

pH: 6.58
 Viscosity, cps: 920
 Formulation No. F1002

Baby Shampoo

Starting formulation for a baby shampoo from a pre-blended concentrate.

Ingredients:

	<u>Wt%</u>
Sulfochem SBS	35.00
Water, soft	64.90
Fragrance	0.10
NaCl	q.s.
Preservatives	q.s.

Blending Procedure:

Charge mixing vessel with water and Sulfochem SBS, and mix until dissolved. Adjust pH with citric acid to 6.25-6.75. Add preservatives, color, and fragrance. Adjust viscosity to 1,000-1,500 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 1,000-1,500 cps
 pH: 6.25-6.75
 Formulation E3144

SOURCE: Chemron Corp.: Suggested Formulations

Diaper Rash Cream

This unique vitamin A&D fortified diaper rash cream is an emulsion based on Lubrasil DS and petrolatum. The Lubrasil DS lends a soft velvety feel as well as aiding in the water repellency. This formulation has a much lighter feel than the essentially 100% petrolatum based salves.

<u>Material:</u>	<u>Wt%</u>
A Deionized Water	53.27
B Propylene Glycol	1.00
C Methylparaben	0.18
D Propylparaben	0.05
E Petrolatum	15.00
F Cetiol LC (Coco-caprylate/capratae)	5.00
G Glycerol Monoisostearate	3.00
H Paraffin Wax 160/165	4.00
I Arlacel 83 (Sorbitan sesquioleate)	3.00
J Vitamin A/D3	0.50
K Lubrasil DS	15.00

Procedure:

1. Prepare the preservative blend by dissolving the methylparaben and propylparaben in the propylene glycol with a small amount of heat.
2. Place the water in a suitable mixing vessel and heat to 80C. Label this Phase I.
3. In a separate vessel, prepare Phase II by mixing components E, F, G, H and I and heating to 80C.
4. Using high shear mixing, slowly add Phase II to Phase I. Remove from heat.
5. Upon natural cooling to below 60C, using low shear mixing, add the preservative blend followed by the Vitamin A/D3 and Lubrasil DS. Allow the cream to mix well after each addition.
6. Packaging may be done warm.

SOURCE: Guardian Laboratories: Formulation #963031-AG

Sun Protection Baby Cream

A mild moisturizing cream with sunscreen to protect the skin and TDTM to add cushion and softness.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	57.35
1	Aloe Vera Gel/Aloe Barbadosensis Gel	1.75
1	Uniphen P-23	0.50
1	Liponic EG-1/Glycereth-26	1.00
1	Hampene Na3T/Trisodium EDTA	0.05
2	Carbopol 2984(2%)/Carbomer	20.00
3	Lipo Stearic Acid	1.50
3	Liponate NPGC-2	1.75
3	Lipovol CO/Castor Oil	0.25
3	Lipomulse 165	1.50
3	Octyl Methoxycinnamate	6.00
3	Benzophenone-3	3.50
3	Lipocol C/Cetyl Alcohol	0.75
3	Liponate TDTM/Tridecyl Trimellitate	0.25
3	Lipowax P/Emulsifying Wax, NF	0.25
3	Lipovol SAF/Safflower Oil	0.75
3	Lipovol MAC/Macademia Ternifolia Nut Oil	0.25
3	Shea Butter	0.25
3	Vitamin E Acetate/Tocopheryl Acetate	0.05
4	Sodium Hydroxide (18%)	0.80
5	Gorgonian Extract*/Sea Whip Extract	0.25
6	Deionized Water	1.00
6	Unicide U-13/Imidazolidinyl Urea	0.25

*Patent #4,849,410 (and) 4,745,104

Procedure:

- Heat Sequence #1 to 76C on overhead mixer at medium/high speed.
- Heat Sequence #2 to 60C and add to Sequence #1 with medium/high speed on overhead mixer while holding batch temperature at 76C.
- Heat premixed Sequence #3 to 78C until clear and add to batch with medium/high speed on overhead mixer.
- Add Sequence #4 to batch with medium/high speed. Cool to 40C.
- At 40C, add Sequence #5. Cool to 35C.
- At 35C, add premixed Sequence #6. Cool batch to room temperature.

Specifications:

pH: 5.80+-0.2

Viscosity: LVT #3 @ 3 rpm=31,000 cps.+ -10%

SOURCE: Lipo Chemicals Inc.: Formula No. 1027

Tear Free Baby Bath

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam 2C (Cocoamphodiacetate)	35.0
Mackol 70NS (Sodium Laureth Sulfate-70%)	5.5
Mackam 35HP (Cocamidopropyl Betaine)	6.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfo-succinate)	4.0
Mackam CET (Cetyl Betaine)	1.5
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	0.7
Water	qs to 100.0

pH: 5.0-5.5

Viscosity (cps, 25C): 500

Procedure:

1. Add components to water.
2. Heat to 50C.
3. Blend until clear.
4. Adjust pH to 5.0-5.5 with Citric Acid.

Formulation BN-127C

Mild Children's Bubble Bath

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	10.0
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	10.0
Sodium Laureth Sulfate (30%)	9.0
Natrosol 250 HHR	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Disperse Natrosol 250 HHR in cold water.
2. Blend until completely dispersed.
3. Heat to 40C.
4. Add remaining components.
5. Blend until clear.
6. Cool to room temperature.

Baby Wash

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet BSC (Baby Shampoo Concentrate)	15.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add components to water.
2. Blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Section III

Bath and Shower Products

Bath Oil

Colourless, clear, low viscosity

Ingredients:

	<u>Wt%</u>
A: Wacker-Belsil SDM 6022	1.00
Mineral Oil	69.00
B: Wacker-Belsil CM 020	25.00
Arlamol E	5.00
Preservatives, pigments, fragrances	q.s.

Heat A to 50C (mix in Wacker-Belsil SDM 6022 homogeneously), mix B into A.

Temperature stability: at 45C over 10 weeks.

Formulation 330 AH

Bath Oil

Colourless, clear, low viscosity

Ingredients:

	<u>Wt%</u>
Wacker-Belsil CM 040	25.00
Mineral Oil	70.00
Arlamol E	5.00
Preservatives, pigments, fragrances	q.s.

Mix all components.

Temperature stability: at 45C over 10 weeks.

Formulation 350 AH

Shower Bath

Creamy, well foaming shower gel leaving a pleasant touch on the skin.

Ingredients:

	<u>Wt%</u>
A: Texapon A	20.00
Texapon NA	20.00
B: Genapol PMS	3.00
Lanette O	1.00
C: Tylose H 4000 P	2.00
Wacker-Belsil DMC 6038	5.00
Water	49.00
Preservatives, fragrances, pigments	q.s.

Mix Tylose well into water, add Wacker-Belsil DMC 6038. Heat A and B each to 70C, mix B into A, add C.
Formulation 1347/3 AH

SOURCE: Wacker Silicones: Suggested Formulations

Bubble Bath

Starting formulation for an economical pearly bubble bath.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem B-2090P	25.00
Water, soft	73.65
Fragrance	0.25
NaCl	typical: 0.80
Citric acid	typical: 0.05
Preservatives	q.s.
Hydrolyzed milk protein	0.25

Blending Procedure:

With medium agitation, mix water, Sulfochem B-2090P, and milk protein in main vessel. Add citric acid and mix until solution is homogeneous. Add preservatives, fragrance, color, and remaining ingredients. Adjust pH to 7.0-7.5 with citric acid. Adjust viscosity to 4,000-5,000 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 4,000-5,000 cps

pH: 7.0-7.5

Formulation E3134

Bubble Bath

Prototype formulation for an economical bubble bath.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem B-209	25.00
Water, soft	73.76
Fragrance	0.25
NaCl	typical: 0.90
Citric acid	typical: 0.09
Preservatives	q.s.

Blending Procedure:

With medium agitation, mix water and Sulfochem B-209 in main vessel. Add citric acid and mix until solution is clear and homogeneous. Add preservatives, fragrance, and color. Adjust pH to 6.5-7.5 with citric acid. Adjust viscosity to 3,500-5,000 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 3,500-5,000 cps

pH: 6.5-7.5

Formulation E3129

SOURCE: Chemron Corp.: Suggested Formulations

Clear Mild Body Wash

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam HPC-32 (Sodium Cocoamphoacetate)	5.0
Mackam 35-UL (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	2.0
Mackpro WWP (Wheatgermamidopropyl Dimethylamine Hydrolyzed Wheat Protein)	1.0
Mackernium 007 (Polyquaternium-7)	2.0
Mackanate OM (Disodium Oleamide MEA Sulfosuccinate)	5.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	5.0
Mackol 70NS (Sodium Laureth Sulfate)	17.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Fragrance, Water	qs to 100.0

Appearance: Viscous Lotion

pH: 6.0-6.5

Solids, %: 20.0-23.0

Procedure:

1. Completely disperse Mackernium 007 in water.
2. Add first seven components and mix thoroughly while heating to 35-40C.
3. Add Mackol 70NS and mix thoroughly.
4. Blend slowly and adjust pH to 6.0-6.5 with Citric Acid.
5. When product is completely homogeneous, add Paragon III.
6. Add Fragrance then cool and fill.

Emollient Bath Gelee

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide LLM (Lauramide DEA)	20.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	20.0
Mackanate WGD (Wheatgermamido PEG-2 Sulfosuccinate)	10.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackamide LLM to Sodium Laureth Sulfate.
2. Add remaining components.
3. Heat to 45C.
4. Blend until homogeneous.
5. Adjust pH to 6.5-7.0 with Citric Acid.
6. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Conditioning Body Wash

<u>Raw Materials:</u>	<u>Wt%</u>
1. D.I. Water	qs
2. Mackol 7ONS (Sodium Laureth Sulfate-70%)	20.0
3. Mackam HPC-32 (Sodium Cocoamphoacetate)	13.0
4. Mackamide CMA (Cocamide MEA)	1.0
5. Mackester EGMS (Glycol Stearate)	1.0
6. Mackamide S (Soyamide DEA)	1.0
7. Mackanate OPS (Disodium Oleamido MIPA Sulfosuccinate)	5.0
8. Mackpro WWP (Wheatgermamidopropyl Dimethylamine Hydrolyzed Wheat Protein)	1.5
9. Mackernium 007 (Polyquaternium 7)	2.0
10. Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
11. Ethylflo362 NF-Albemarle (Polydecene)	1.0
12. Fragrance	qs
13. Dye	qs
14. Citric Acid	0.3-0.6
15. Sodium Chloride	qs

This body wash will be a pearlescent viscous liquid (5,000-10,000 cps) with a pH of 5.5-6.5 and a concentration of approximately 30%.

Procedure:

- Charge ingredients 1,2, and 3; heat to 55-60C with moderate agitation. Mix until clear and homogeneous.
- At 60C, add 4 and 5. Heat to 70C and hold for one hour. Ensure that there is no unmelted particulate matter in the batch.
- After 4 and 5 are fully dispersed, cool liquid to 40C. Charge ingredients 6 through 13.
- Add 14 (citric acid) to adjust pH to 5.5-6.5.
- Add 15 (sodium chloride) or water to reach desired viscosity. Cool and fill.

Bath Gelee with Natural Lipid Protein

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide CS (Cocamide DEA)	20.0
Mackanate CP (Disodium Cocamide MIPA Sulfosuccinate)	20.0
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	4.0
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

- Add Mackamide CS to Sodium Laureth Sulfate and blend.
- Add remaining components.
- Heat to 45C.
- Blend until homogeneous.
- Adjust pH to 6.5-7.0 with Citric Acid.
- Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Emollient Body Wash

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam HPC-32 (Sodium Cocoamphoacetate)	14.0
Mackol 70NS (Sodium Laureth Sulfate-70%)	17.0
Mackam 35-UL (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	5.0
Mackester EGDS (Glycol Distearate)	3.5
Mackernium 007 (Polyquaternium-7)	3.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	0.6
Fragrance, Water	qs to 100.0

Appearance: Viscous Lotion

pH: 6.0-6.5

Solids, %: 26.0-28.0

Procedure:

1. Completely disperse Mackernium 007 in water.
2. Add first five components and heat to 75C.
3. Blend slowly and adjust pH to 6.0-6.5 with citric acid.
4. When product is completely homogeneous, add Paragon III.
5. Cool to 50C and add Fragrance.
6. Cool and fill.

Formulation No. 152B

Bath Gelee with Silk Protein Quaternized to Natural Skin Emollients

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide CS (Cocamide DEA)	20.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	20.0
Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/Silk-hydroxypropyl Dimonium Chloride)	4.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackamide CS to Sodium Laureth Sulfate and blend.
2. Add remaining components.
3. Heat to 45C.
4. Blend until homogeneous.
5. Adjust pH to 6.5-7.0 with Citric Acid.
6. Cool to room temperature.

SOURCE; McIntyre Group Ltd.: Personal Care Formulary: Formulas

Fitness Shower Gel
clear, 16.2% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Menthol	0.20
Camphor	0.10
Rosemary oil	0.30
Genapol L-3/Laureth-3	2.00
B 1,2-Propylene glycol	2.00
C Genapol LRO liquid/Sodium Laureth Sulfate	45.00
Genapol AMS/TEA-PEG-3 Cocamide Sulfate	4.00
Water	43.10
Horse chestnut extract	0.50
Dyestuff solution	q.s.
Preservative	q.s.
D Sodium chloride	2.80

Procedure:

1. Dissolve A in B.
2. Stir the components of C into 1.
3. If necessary adjust the pH.
4. Finally adjust the viscosity with D.

Formula A I/8077

Washing Lotion

clear, with a bacteriostatic effect, 10.4% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.20
B Water	10.00
C Genapol AMS/TEA-PEG-3 Cocamide Sulfate	19.00
Fragrance	0.30
Dyestuff solution	q.s.
Preservative	q.s.
D Allantoin	0.20
E Water	59.80
F Genapol L-3/Laureth-3	0.50
Genagen CAB/Cocamidopropyl Betaine	8.00
G Glucamate DOE 120/PEG-120 Methyl Glucose Dioleate	2.00

Procedure:

1. Mix A with B.
2. Add C to 1 and keep stirring until a clear solution has been obtained.
3. Dissolve D in E while heating slightly.
4. Add 3 to 1.
5. Add the components of F.
6. If necessary adjust the pH.
7. Adjust the viscosity with G.

Formula A II/4024

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Foam Bath

with a pearl-lustre effect, 19.9% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon CT paste/Sodium Methyl Cocoyl Taurate	8.00
B Water	33.20
C Genapol LRO liquid/Sodium Laureth Sulfate	40.00
Medialan LD/Sodium Lauroyl Sarcosinate	10.00
Genapol PGM/Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA	4.00
Fragrance	0.50
Dyestuff solution	q.s.
Preservative	q.s.
Genapol L-3/Laureth-3	2.00
D Sodium chloride	2.30

Procedure:

1. Dissolve A in B while heating slightly.
2. Stir the components of C one after another into 1.
3. If necessary adjust the pH.
4. Finally adjust the viscosity with D.

Formula A1/2011

Creamy Foam Bath

with a pearl-lustre effect, 21.7% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	60.00
B Medialan LD/Sodium Lauroyl Sarcosinate	8.00
Fragrance	1.50
Cetiol HE/PEG-7 Glyceryl Cocoate	5.00
Genapol PGL/Glycol Distearate, Cocamide MEA, PPG-4 Deceth-4	5.00
Water	13.00
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	6.00
Genapol L-3/Laureth-3	1.00
C Sodium chloride	0.50

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula A I/3026

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Foaming Bath Oil

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Light Mineral Oil	20
PEG 400 Monolaurate/PEG-8 Laurate	20
Schercemol Mel-3/Myreth-3 Laurate	8
Schercomid AME-100/Acetamide MEA	8
Schercoquat IALA/Isosteamidopropyl Laurylacetodimonium Chloride	15
Water, Deionized	29

Procedure:

1. Add the first five ingredients (oil phase).
2. With good mixing heat to 30-35C until uniform.
3. Cool to 25C and with fast agitation add the water in small increments; mix until clear.

Specifications:

Appearance @ 25C: Clear slightly viscous liquid
 Color: Colorless
 pH @ 1.0% sol'n (typical): 4.5

Bath Oil Milk

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercemol DIA/Diisopropyl Adipate	15
PEG 200 Dilaurate/PEG-4 Dilaurate	15
Schercemol Mel-9/Myreth-9 Laurate	5
Schercomid AME-100/Acetamide MEA	5
Schercoquat ALA/Di-Lauryl Acetyl Dimonium Chloride	15
Water, Deionized	45

Procedure:

1. Add the 1st five ingredients (oil phase).
2. With good mixing heat to 30-35C until uniform.
3. Cool to 25C and with fast agitation add the water in small increments; mix until the emulsion is uniform and smooth.

Specifications:

Appearance @ 25C: White emulsion
 pH @ 1.0% sol'n (typical): 4.5
 Viscosity @ 25C (typical): 3,000 cps
 Formula SO-015

SOURCE: Scher Chemicals, Inc.: Formulary

High Fragrance Bubble Bath

<u>Ingredient:</u>	<u>Wt%</u>
Water	23.2
Disodium EDTA	0.2
Sodium Laureth-2 Sulfate (26%)	69.0
Promidium CC (PPG-1 Hydroxyethyl Caprylamide)	2.5
Promidium SY (PPG-2 Hydroxyethyl Soyamide)	2.5
Fragrance	2.5
Citric Acid	0.1

Procedure:

To the water, add disodium EDTA and sodium laureth-2 sulfate with stirring. Premix Promidium CC, Promidium SY and fragrance. Add to sodium laureth-2 sulfate mixture. Add color, and preservative. Adjust the pH to 6.0 with citric acid.

Formulation Properties:

Appearance: Clear yellow liquid
 Activity (%): 22.5
 Viscosity (cP) @ 25C: 1400
 Krafft Point: 3C

Note: Add sodium chloride if a higher viscosity is desired.

SOURCE: Mona Industries, Inc.: Formula F-861

Moisturizing Three Layer Bath Oil

A three-layer bath oil containing Panalane L-14E which is an effective moisturizer and skin emollient.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Cetiol HE/PEG-7 Glyceryl Cocoate	32.50
2	Panalane L-14E/Hydrogenated Polyisobutene	35.00
3	Glycerin	32.50

Procedure:

- At room temperature, weigh Sequence #1 ingredient and pour into appropriate container.
- Slowly add Sequence #2 into container on top of Sequence #1.
- Slowly add Sequence #3 to the above two ingredients.

Note:

After the product has been shaken to achieve maximum benefits, it will take approximately 5-10 minutes to return to three-layer oil.

SOURCE: Lipo Chemicals Inc.: Formula No. 1082

Milk Bath

This low viscosity, milky product is designed to be added to a bathtub of water (2 fl. oz.). It provides a non-greasy, soft, silky feel to the skin.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
2-Phenoxyethanol/Preservative	0.2
DMDM Hydantoin/Preservative	0.2
Deionized Water/Diluent	70.6
Part B:	
Dimethicone (and) Laureth-4 (and) Laureth-23(SM2169)(1)/ Smooth, silky feel	15.0
Part C:	
Phenyl Trimethicone(SF1550)(1)/Emollient with non-greasy feel	7.5
Glycerin/Humectant	3.0
Part D:	
Fragrance	q.s.
PEG-20 Almond Glycerides(2)/Emollient/Solubilizer	3.5

Procedure:

1. Dissolve Part A with moderate propeller agitation.
2. Add Part B and continue stirring for 10-15 minutes.
3. Combine Part C. Add to batch and continue stirring for 15-20 minutes.
4. Combine Part D and add to batch. Continue mixing with moderate propeller agitation for 15-20 minutes.

Suppliers:

- (1) GE Silicones
(2) Croda, Inc.
Formula SP 112

After-Bath Oil

This oil, applied after bathing, gives the skin a soft, silky feel. SF1550 acts as a non-greasy emollient, while SF1204 promotes a quick dry time without a greasy feel.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Phenyl Trimethicone(SF1550)(1)/Non-oily emollient	10.0
Mineral Oil (light)/Emollient	32.0
Cyclomethicone(SF1204)(1)/Quick dry/Non-oily feel	56.0
Fragrance(2)	2.0

Procedure:

1. Mix together SF1550 and SF1204, stirring until uniform.
2. Add mineral oil with good mixing.
3. When homogeneous, slowly add fragrance and continue stirring 15 minutes.

Trade Names/Suppliers:

- (1) GE Silicones
(2) Fragrance J6-712-B, Bell Flavors and Fragrances
Formula SP 113

SOURCE: GE Silicones: Personal Care Formulary: Formulations

Moisturizing Body Wash

A liquid body wash product which is designed to cleanse and moisturize the skin. SM2169 is a 60% nonionic emulsion of a 60,000 ctsks dimethicone fluid. It provides the smooth, silky, feel of a high molecular silicone in an easy-to-use aqueous delivery system.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	51.45
Disodium EDTA/Chelating agent	0.05
Carbomer(1)/Thickener	1.00
Part B:	
Propylene Glycol/Humectant	1.00
Glycerin (96%)/Humectant	2.00
Part C:	
Sodium Laureth Sulfate (28-30%)/Surfactant	16.00
Disodium Dimethicone Copolyol Sulfosuccinate(30%)(2)/ Surfactant	15.00
Polysorbate-20/Emulsifier	1.00
Dimethicone (and) Laureth-4 (and) Laureth-23(SM2169)(3)/ Conditioning	5.00
Cocamidopropyl Betaine/Surfactant	3.00
Part D:	
Polyquaternium-39(4)/Conditioning	3.00
DMDM Hydantoin (and) Iodopropynyl Butylcarbamate(5)/ Preservative	0.15
Fragrance(6)	0.25
Part E:	
Triethanolamine(99%)/pH adjustment	1.10

Procedure:

- Meter water of Part A into appropriate vessel. Add EDTA and mix until dissolved. With moderate propeller agitation, add the carbomer and mix for 20 minutes.
- Add ingredients of Part B to Part A with moderate propeller agitation.
- Add Part C to Part AB in order listed with moderate propeller agitation. Mix 20-30 minutes with moderate agitation.
- Add Part D to batch in order listed. Mix with moderate agitation for 20 minutes.
- Adjust batch to pH 5.5 with part E.

Trade Names/Suppliers:

- | | |
|-------------------|-----------------------|
| (1) Carbopol 2020 | (2) Mackanate DC-30 |
| (3) GE Silicones | (4) Merquat Plus 3330 |
| (5) Glydant Plus | (6) Fragrance TC-726 |

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 111

Moisturizing Shower Gel

Starting formulation for a high-foaming shower gel with moisturizing properties.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem SLS	14.00
Sulfochem ES-2	24.00
Chembetaine C	6.50
Chemoxide CAW	5.50
Citric acid	0.10
Water, soft	47.30
Amidex CME	1.80
Preservatives	q.s.
NaCl	0.50
Fragrance, color, etc.	q.s.

Blending Procedure:

At ambient temperature, charge mixing vessel with Sodium Lauryl Sulfate, Sodium Laureth Sulfate, and water. Add Cocamidopropyl Betaine, Cocamidopropylamine Oxide, and citric acid and mix until homogeneous. When mixture is homogeneous, heat to 70C and add Amidex CME, preservatives, color, fragrance, and NaCl. Adjust pH to 6.0-6.5 with citric acid. Adjust viscosity to 15,000 cps with NaCl.

Formulation No. F1004

Silky Shower Gel

Prototype formula for a shower gel that leaves skin with a soft, silky feel.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem ALS	37.00
Chembetaine S	3.50
Chembetaine OL	1.25
Citric acid	0.12
Water, soft	q.s.
Amidex CME	1.70
Quaternium 15	0.10
Preservatives	q.s.
NaCl	0.50

Blending Procedure:

At ambient temperature, charge mixing vessel with Sulfochem ALS and water. Add Chembetaine S, Chembetaine OL, and citric acid until homogeneous. When mixture is homogeneous, heat to 70C and add Amidex CME and NaCl. Adjust pH to 5.50-6.00 with citric acid. Adjust viscosity to 16,000 cps with NaCl.

Formulation No. F1003

SOURCE: Chemron Corp.: Suggested Formulations

Oil Foam Bath

<u>Raw Materials:</u>	<u>Wt%</u>
A. Marlinat 242/28 (Sodium Laureth Sulfate)	28
Ampholyt JB 130 (Cocamidopropyl Betaine)	7
Marlamid DF 1218 (Cocamide DEA)	8
B. Softigen 767	37
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	20
Colour	q.s.
Fragrance	q.s.

Preparation:

A is mixed, heated up to approx. 75C and stirred cold to about 30C. B is subsequently admixed.

Mild Foam Bath

<u>Raw Materials:</u>	<u>Wt%</u>
A. Marlinat CM 105 (Sodium Laureth-11 Carboxylate)	25
Ampholyt JB 130 (Cocamidopropyl Betaine)	25
Softigen 767	5
Elfacos GT 282 S (Hydrogenated Talloweth-60 Myristol Glycol)	7
Colour	q.s.
Preservative	q.s.
Water ad	100
B. Fragrance	q.s.

Preparation:

A is mixed and heated to approx. 75C. Then the blend is stirred cold down to approx. 30C. B is gradually admixed.

Oil Bath Slightly Foaming with Good Refatting Property

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	21.5
Miglyol 812 (Caprylic/Capric Triglyceride)	27
Imwitor 375	22.5
Mineral Oil	26
Fragrance	3

Preparation:

All components are put together at about 40C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Pearlescent Bath Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	40.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	30.0
Mackam 35HP (Cocamidopropyl Betaine)	5.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	1.5
Sodium Chloride	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first four components to water.
2. Heat to 70C.
3. Blend until Mackester SP is completely dispersed.
4. Add Sodium Chloride and cool to 45C.
5. Add Mackstat DM, Dye, and Fragrance.
6. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Bath Oil

<u>INCI Name/Trade Name:</u>	<u>Wt%</u>
Phase A:	
Isopropyl Myristate/Emerset 2314	25.00
Octyldodecanol/Eutanol G	20.00
Caprylic/Capric Triglyceride/Myritol 318	38.00
Laureth-3/Dehydol LS3	10.00
Fragrance/Haarman & Reimer	4.90
Silica/Aerosil 200	2.00
Pearl Pigment	0.05-0.10

Procedure:

Aerosil 200 is added with stirring to a mixture of Isopropyl Myristate, Eutanol G, Myritol 318, Dehydol LS 3, and fragrance, then homogenized e.g. in an Ultra Turrax. Then the pearl pigment and the dyestuff solution are added with stirring.

Note:

- *Viscosity 3600 mPas (Brookfield LV3, 6 rpm @ 20C)
- *Recommended Pearl Pigments-All Sparkle pigments, e.g. Timiron Starlight Colors, Colorona Bronze Sparkle, Timiron MP-149

SOURCE: Rona/Em Industries, Inc.: Formulation EM2-49

Shower Cream
White, creamy

<u>Ingredients:</u>	<u>Wt%</u>
A Teginacid/Glyceryl Stearate, Ceteareth-20	8.00
Adol 66/Isostearyl Alcohol	5.00
Isopropyl Myristate	6.00
Eutanol G/Octyldodecanol	4.00
B Texapon N 40/Sodium Laureth Sulfate	10.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	5.00
Glycerine	5.50
Water	46.50
C Wacker Emulsion E 32/Stearyl Methicone, Trideceth-10	10.00
Preservative, fragrances, pigments	q.s.
Heat A and B each to 60-70C, mix B into A. Add C at approx. 35C.	
Formulation 1113/2 AH	

Shower Gel
Colorless, clear, high viscosity

<u>Ingredients:</u>	<u>Wt%</u>
Genapol LRO/Sodium Laureth Sulfate	35.00
Dehyton AB 30/Coco-Betaine	10.00
Aethoxal B/PPG-5 Laureth-5	5.00
Wacker-Belsil DMC 6038/Dimethicone Copolyol	5.00
Comperlan KD/Cocamide DEA	3.00
Water	42.00
Preservative, fragrances, pigments	q.s.
Mix all ingredients well.	
Formulation 895 AH	
SOURCE: Wacker-Chemie GmbH: Formulas for Beauty	

Shower Gel

clear, 15.4% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol SBE/Disodium Laureth Sulfosuccinate	8.00
Fragrance	0.50
Water	52.00
Genapol L-3/Laureth-3	3.00
Dyestuff solution	q.s.
Preservative	q.s.
C Sodium chloride	1.50

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula A I/8069

Shower Gel

with a pearl-lustre effect, 16.2% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	40.00
B Hostapon KCG/Sodium Cocoyl Glutamate	6.00
Fragrance	1.00
Genapol L-3/Laureth-3	1.50
Cetiol HE/PEG-7 Glyceryl Cocoate	5.00
Genapol PGL/Glycol Distearate, Cocamide MEA PPG-4	
Deceth-4	4.00
Dyestuff solution	q.s.
Preservative	q.s.
Water	34.20
Genagen CAB 818/Cocamidopropyl Betaine	6.00
C Sodium chloride	2.30

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula A I/8072

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Shower Gel

with a silk-lustre effect, 17.9% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	40.00
B Genapol AMS/TEA-PEG-3 Cocamide Sulfate	9.75
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	4.00
Fragrance	0.50
Water	35.40
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	8.00
C Sodium chloride	2.35

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula A I/8073

Shower Gel

clear, 17.6% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol SBE/Disodium Laureth Sulfosuccinate	7.50
Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Fragrance	0.50
C Allantoin	0.40
D Water	40.85
E Genagen CAB/Cocamidopropyl Betaine	8.00
Dyestuff solution	q.s.
Preservative	q.s.
Genapol L-3/Laureth-3	1.50
F Sodium chloride	1.25

Procedure:

1. Stir the components of B into A.
2. Dissolve C in D while heating slightly.
3. Stir 2 into 1.
4. Stir the components of E one after another into 1.
5. If necessary adjust the pH.
6. Finally adjust the viscosity with F.

Formula A I/8074

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Shower Gel

with a silk-lustre effect, 14.9% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon SCID/Sodium Cocoyl Isethionate	6.30
B Water	52.05
C Genapol ZRO liquid/Sodium Laureth Sulfate	30.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	4.00
Fragrance	0.50
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	6.00
D Sodium chloride	1.15

Procedure:

1. Dissolve A in B while heating to 60C and cool down.
2. At 30C stir the components of C into 1.
3. If necessary adjust the pH.
4. Finally adjust the viscosity with D.

Formula A I/8075

Shower Gel

with a silk-lustre effect, 19.9% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	40.00
Medialan LD/Sodium Lauroyl Sarcosinate	13.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	4.00
Fragrance	0.50
Water	29.75
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	8.00
Genapol L-3/Laureth-3	2.00
C Sodium chloride	2.75

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula A I/8079

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Shower Gel with Avocado Exfoliants

<u>Stage Materials/INCI Listing</u>	<u>Wt%</u>
Stage A:	
1 Water, Pure	64.100
2 Carbopol ETD 2020/Acrylates/C10-30 Alkyl Acrylate Crosspolymer	1.000
Stage B:	
3 EDTA, Disodium Salt/Disodium EDTA	0.100
4 Glycerine BP	2.000
5 Ammonium Lauryl Sulfate 30% Active	15.000
6 Disodium Laureth Sulfosuccinate 40%	10.000
7 Cocamidopropyl Betaine	3.000
8 Fragrance	0.500
9 Cosflor Awapuhi HGS	1.000
Stage C:	
10 Add preservative(s) & colour to suit	0.500
Stage D:	
11 Triethanolamine 99%	0.800
12 AEC Avocado Prills/Persea Gratissima (Avocado Oil)	2.000

Mixing Instructions:

Avocado Prills are smooth wax-like beads available in various colours which act as a gentle exfoliant. They are suspended in the shower gel by the high yield strength of the Carbopol ETD 2020.

- Stage A: Measure out the water and disperse the Carbopol ETD 2020 in this with moderate agitation until homogeneous.
- Stage B: Add each item in turn to Stage A with careful mixing.
- Stage C: Add preservatives and colour to suit.
- Stage D: Adjust pH to 6.0-6.5 by careful addition of TEA and then slowly mix in the Avocado Prills.

SOURCE: A&E Connock Ltd.: Formula Ref.: 1257*0

Shower Gel with Jojoba Wax Exfoliants

<u>Stage Materials/INCI Listing:</u>	<u>Wt%</u>
Stage A:	
1 Water, Pure	65.100
2 Carbopol ETD 2020/Acrylates/C10-30 Alkyl Acrylate Crosspolymer	1.000
Stage B:	
3 EDTA, Disodium Salt/Disodium EDTA	0.100
4 Glycerine BP	2.000
5 Ammonium Lauryl Sulfate 30% Active	10.000
6 Disodium Laureth Sulfosuccinate 40%	12.000
7 Cocamidopropyl Betaine	5.000
8 Fragrance	0.500
9 Cosflor Tea Tree HGS	1.000
Stage C:	
10 Add preservative & colour to suit	0.500
Stage D:	
11 Triethanolamine 99%	0.800
12 AEC Jojoba Wax Prills	2.000

Mixing Instructions:

Jojoba Wax Prills are smooth wax-like beads available in various colours which act as a gentle exfoliant. They are suspended in the shower gel by the high yield strength in the Carbopol ETD 2020.

Stage A: Measure out the water and disperse the Carbopol ETD 2020 in this moderate agitation until homogeneous.

Stage B: Add each item in turn to Stage A with careful mixing.

Stage C: Add preservatives and color to suit.

Stage D: Adjust pH to 6.0-6.5 by careful addition of TEA and then slowly mix in the Jojoba Wax Prills.

SOURCE: A&E Connock Ltd.: Formula Ref. 1258*0

Transparent Bath and Shower Bar

<u>Raw Materials:</u>	<u>Wt%</u>
Propylene Glycol	4.0
Ceteareth-27	16.0
Mackamide LMD (Lauramide DEA)	16.0
Mackam CB (Coco Betaine)	10.0
Mackol 70NS (Sodium Laureth Sulfate)	20.0
Poloxamer 407	4.0
Glycerin (99%)	14.0
Urea	6.0
Stearic Acid	8.0
50% Sodium Hydroxide	2.0
Fragrance	qs

This formulation will produce a clear, high foaming cleansing bar. The hardness of the bar can be varied with the concentration of the sodium stearate, which is made in situ using stearic acid and 50% sodium hydroxide. The bar is non-tacky and releases from its mold when cooled.

Procedure:

1. Blend all ingredients but the Urea, Stearic Acid, and 50% Sodium Hydroxide.
 2. Heat and stir until uniform at 60-65C.
 3. Add Urea and stir until clear at 60-65C.
 4. Add Stearic Acid, stir until clear while heating to 75-80C.
 5. Add 50% Sodium Hydroxide at 75-80C.
 6. Stir in Fragrance at 75-80C; package.
- Formulation No. 2

Bath Gelee

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Laureth Sulfate (60%)	34.6
Mackamide C (Cocamide DEA)	20.0
Mackanate EL (Disodium Laureth Sulfosuccinate)	45.0
Mackstat DM (DMDM Hydantoin)	qs
Dye, Fragrance	qs to 100.0

Procedure:

1. Add components in order.
2. Heat to 45C.
3. Blend until homogeneous.
4. Adjust pH to 6.0-6.5 with Lactic Acid.
5. Add Dye and Fragrance.
6. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary Formulations

Transparent Bath and Shower Bar

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Stearate	22.0
Propylene Glycol	5.0
Glycerine	15.0
Sorbeth-40	11.0
Mackamide L-10 (Lauramide DEA)	20.0
Sodium Cocoyl Sarcosinate	10.0
Urea	3.0
Water	4.0
Mackanate OP (Disodium Oleamido MIPA Sulfosuccinate)	10.0

Procedure:

1. Mix all ingredients except Sodium Stearate.
 2. Heat to 50-60C with slow agitation.
 3. Add Sodium Stearate slowly in small increments; heat to 85C; stir to clear.
 4. Stop agitation and allow air to rise.
 5. Pour into molds, cool and remove.
- Formulation No. 1

Shower Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	20.0
Mackanate OM (Disodium Oleamido MEA Sulfosuccinate)	15.0
Sodium Lauryl Sulfate (30%)	10.0
Mackamide LLM (Lauramide DEA)	6.0
Mackpearl 202 (Pearling Agent)	3.0
Mackernium 007 (Polyquaternium 7)	2.5
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Disperse Mackernium 007 in water.
2. Add remaining components.
3. Heat to 40C.
4. Adjust pH to 6.0 with Citric Acid.
5. Adjust viscosity to 10,000 cps with Sodium Chloride.
6. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Ultra Mild Body Wash for Sensitive Skin

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam 2CY-75 (Disodium Capryloamphodiacetate)	14.0
Mackam 2S (Disodium Soyamphodiacetate)	4.0
Mackanate LO (Disodium Lauryl Sulfosuccinate)	32.0
Mackam 35-UL (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	3.0
Mackester EGDS (Glycol Distearate)	3.5
Mackernium 007 (Polyquaternium 7)	1.0
Sodium Chloride	qs
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Fragrance	qs to 100.0
Appearance: Viscous Lotion	
pH: 6.0-6.5	
Solids, %: 24.0-27.0	

Procedure:

1. Completely disperse Mackernium 007 in water.
2. Add first six components and heat to 75C.
3. Blend slowly and adjust pH to 6.0-6.5 with Citric Acid.
4. When product is completely homogeneous, add Paragon III.
5. Cool to 50C and add Fragrance.
6. Add Sodium Chloride to adjust viscosity.
7. Cool and fill.

Ultra Mild Body Wash for Normal Skin

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam HPC-32 (Sodium Cocoamphoacetate)	14.0
Mackanate LO (Disodium Lauryl Sulfosuccinate)	32.0
Mackam 35-UL (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	3.0
Mackester EGDS (Glycol Distearate)	3.5
Mackernium 007 (Polyquaternium-7)	1.0
Sodium Chloride	qs
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Fragrance, Water	qs to 100.0
Appearance: Viscous Lotion	
pH: 6.0-6.5	
Solids, %: 24.0-27.0	

Procedure:

1. Completely disperse Mackernium 007 in water.
2. Add first five components and heat to 75C.
3. Blend slowly and adjust pH to 6.0-6.5 with Citric Acid.
4. When product is completely homogeneous, add Paragon III.
5. Cool to 50C and add Fragrance.
6. Add Sodium Chloride to adjust viscosity.
7. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Ultra Mild Body Wash for Dry Skin

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam HPC-32 (Sodium Cocoamphoacetate)	14.0
Mackanate LO (Disodium Lauryl Sulfosuccinate)	30.0
Mackam 35-UL (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackester EGDS (Glycol Distearate)	3.5
Mackernium 007 (Polyquaternium-7)	3.0
Sodium Chloride	qs
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Fragrance, Water	qs to 100.0

Appearance: Viscous Lotion

pH: 6.0-6.5

Solids, %: 24.0-27.0

Procedure:

1. Completely disperse Mackernium 007 in water.
2. Add first five components and heat to 75C.
3. Blend slowly and adjust pH to 6.0-6.5 with Citric Acid.
4. When product is completely homogeneous, add Paragon III.
5. Cool to 50C and add Fragrance.
6. Add Sodium Chloride to adjust viscosity.
7. Cool and fill.

Mild Bubble Bath

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet BBC (Disodium Laureth Sulfosuccinate (and) Sodium Laureth Sulfate)	20.0
Hydroxyethylcellulose	1.0
Paragon II (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

This bubble bath will be a flowable liquid with a pH of 6.0-7.0 and a concentration of approximately 10%.

Procedure:

1. Completely disperse the Hydroxyethylcellulose in cold water.
2. Heat to 40C.
3. Add Mackadet BBC and blend until clear.
4. Add Citric Acid, if necessary, to adjust pH.
5. Add Paragon II, Dye, and Fragrance.
6. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

2 in 1 Shower Gel
17.2% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Allantoin	0.40
Polymer JR 400/Polyquaternium-10	0.50
Hostapon SCID/Sodium Cocoyl Isethionate	4.00
B Water	45.90
C Genapol LRO liquid/Sodium Laureth Sulfate	30.00
Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Fragrance	0.50
Cetiol HE/PEG-7 Glyceryl Cocoate	2.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	4.00
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	5.00
Genapol L-3/Laureth-3	2.00
D Sodium chloride	0.70

Procedure:

1. Dissolve the components of A by stirring into B and heating to approx. 60C.
 2. Cool down and add the components of C at approx. 35C while stirring.
 3. If necessary adjust the pH.
 4. Finally adjust the viscosity with D.
- Formula A I/8061

Shower Gel

with a pearl-lustre effect, 19.8% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon CT paste/Sodium Methyl Cocoyl Taurate	6.00
Hostapon SCID/Sodium Cocoyl Isethionate	2.70
B Water	41.40
C Genapol LRO liquid/Sodium Laureth Sulfate	40.00
Genapol PGM/Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA	6.00
Fragrance	1.00
Dyestuff solution	q.s.
Preservative	q.s.
Genapol L-3/Laureth-3	3.00
D Sodium chloride	0.40

Procedure:

1. Dissolve the components of A by stirring into B and warming to approx. 60C.
 2. Cool down and add the components of C at approx. 35C while stirring.
 3. If necessary adjust the pH.
 4. Finally adjust the viscosity with D.
- Formula A I/8078

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Section IV

Beauty Aids

After Bath Spray Moisturizer

This formulation demonstrates how easy it is to use CreamJel to produce creamy emulsions with difficult ingredients. This white lotion is an excellent moisturizer with a luxurious, silky feel and may be dyed and fragranced to suit any needs.

<u>Material:</u>	<u>Wt%</u>
1 Volatile Silicone VS-7158	1.50
2 Isopropyl Palmitate	3.70
3 Myristyl Myristate	1.10
4 CreamJel	14.50
5 DI H2O	78.20
6 Germaben II	1.00
7 Fragrance	q.s.

Procedure:

- 1.0 Combine components 1,2, and 3 in a suitable mixing vessel. Heat to 35-40C until the wax melts.
- 2.0 Place component 4 in a suitable mixing vessel. With rapid high shear mixing slowly add Step 1 and continue mixing until a smooth cream.
- 3.0 With continued high shear rapid mixing slowly add component 5 to step 2.
- 4.0 When a uniform, smooth lotion mix in component 6 followed by component 7 using low shear mixing.

Formulation 93105-GE

Clear Body Moisturizer

This formulation produces an excellent moisturizer which illustrates many benefits of incorporating Lubrajel into formulations. The moisturization is imparted by the addition of Lubrajel CG, while the smooth feel is due to the use of Lubrajel Oil. This formulation also illustrates how easy it is to formulate with the different grades of Lubrajel.

<u>Material:</u>	<u>Wt%</u>
1 Deionized Water	81.0
2 Sodium Carboxymethylcellulose type 7H4F	1.0
3 Lubrajel CG	15.0
4 Lubrajel Oil	2.0
5 Germaben II	1.0

Procedure:

- 1.0 Place component 1 into a suitable mixing vessel. With rapid high shear mixing disperse component 2. Continue mixing until completely hydrolyzed.
- 2.0 Switch to paddle blade mixing and add components 3,4 and 5. Mix until homogeneous

Formulation No. 95003-E

SOURCE: Guardian Laboratories: Suggested Formulations

Anti-Aging Cream

Alpha Hydroxy Acids oil-in-water cream containing Bentone Gel TN and Bentone LT rheological additives.

<u>Ingredients:</u>	<u>Wt%</u>
Glyceryl Stearate (and) PEG 100 Stearate	6.00
Cetearyl Alcohol	2.00
Jojoba Oil	4.00
Sunflower Seed Oil	3.00
C12-15 Alkyl Benzoate	5.00
Glycerine USP, Palm Based	4.00
Vitamin E Acetate concentrate	2.00
Almond Protein Partial Hydrolysate	2.50
Mixed Fruit Extracts	4.00
Bentone Gel TN	3.00
Bentone LT (3% dispersion in water)	13.36
Perfume	0.20
Methyldibromoglutaronitrile and Dipropylene Glycol	0.20
Demineralized Water	Bal to 100%

Bentone LT dispersion:

Bentone LT	3.00
Deionized Water	97.00

Method of Manufacture:

1. Thoroughly disperse the Bentone Gel TN in the C12-15 Alkyl Benzoate, Jojoba Oil and Sunflower Seed Oil, by warming to 40C and stirring until uniform. Add the remaining components of the oil phase (GMS, Cetearyl Alcohol, and Vitamin E Acetate) and heat to 75-80C.
2. Heat the aqueous phase (Glycerine, Protein, Bentone LT dispersion and water) to 75-80C.
3. Using high shear mixing, add the two phases together and continue to homogenize.
4. At 45-50C transfer to a propeller stirrer and cool to 20C.
5. Add the Mixed Fruit Acids and stir well. Add the perfume and preservative.

Bentone LT Dispersion:

1. Prepare a 3% dispersion of Bentone LT additive in deionized water using a rotor-stator or similar high-shear mixer (e.g. Silverson). Start the mixer in the water, steadily add the Bentone LT to the vortex and stir until completely dispersed (15-20 mins).
2. Allow the suspension to stand to let any entrapped air escape.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Beta Hydroxy Moisturizing Clear Gel

A clear sprayable gel containing Lipo CD-SA which is a water soluble source of Beta Hydroxy Acid-Salicylic Acid. This gel also contains the moisturizing ingredients Unimoist U-125 and Hylucare.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	76.55
1	Uniphen P-23	0.30
1	Liponic EG-1/Glycereth-26	2.50
2	Viscarin SD 389/Carageenan	0.50
3	Lipo CD-SA	12.50
4	Unimoist U-125	2.00
5	Deionized Water	1.00
5	Unicide U-13/Imidazolidinyl Urea	0.25
6	Hylucare, 1% Sol'n/Water (and) Hyaluronic Acid	4.00
7	Sodium Chloride (25% Sol'n)	0.40
8	Triethanolamine, 99%	*QS
*To adjust pH		

Procedure:

- Heat Sequence #1 to 75C on overhead mixer at medium/high speed.
- Slowly add Sequence #2 to Sequence #1 and mix until completely hydrated.
- Cool batch to 40C and add Sequence #3 at medium/low speed.
- Add Sequence #4 to batch at medium/low speed and cool to 35C.
- Add premixed Sequence #5 to batch at medium/low speed and cool to 25C.
- At 25C, add Sequence #6 and Sequence #7 to batch in order of addition at medium/low speed.
- Adjust pH to 3.8-4.2 using Sequence #8.

Specifications:

pH: 4.0+/-0.2

Viscosity: Brookfield LVT, spindle T-C @ 3.0 rpm = 17,700 cps+/-10%

SOURCE: Lipo Chemicals Inc.: Formula No. 962

Cleansing Milk

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Arlacel 165/Glyceryl Stearate (and) PEG 100 Stearate	1.50
Schercemol NGDC/Neopentyl Glycol Dicaprate	20.00
B-B1 Deionized Water	37.00
Propylene Glycol	3.00
Carbopol 941 2% Aq. Sln.	25.00
B2 Deionized Water	10.00
Keltrol/Xanthan Gum	0.20
B3 Triethanolamine	0.50
B4 Schercomid AME-100/Acetamide MEA	1.50
C- Germaben II	1.00
D- Fragrance	0.30
E- Cucumber Extract	q.s.

Procedure:**Phase B:**

In the main beaker, disperse B1 at 75C.

Disperse B2 in a separate beaker at ambient temperature.

Add B2 to B1.

Add B3 to the main beaker at 75C.

Add B4 to the main beaker at 75C.

Phase A:

Blend A together at 75C.

Add Phase A to Phase B at 75C with continuous mixing until a homogeneous emulsion is formed (at least 15 minutes at 75C).

Cool batch to 60C and add Phase C.

Continue to cool batch to 30C and add fragrance.

Formulation L-213-1

Chapstick Prototype

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Petrolatum	48.0
Isopropyl Lanolate	6.0
Ozokerite	16.5
Candelilla Wax	4.5
Schercemol DID/Diisopropyl Dimer Dilinoleate	25.0

Procedure:

Heat all ingredients to 75-80C until melted and uniform.

Cast into molds.

Formulation SK 83

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Clear AHA Moisturiser

This clear water-in-silicone gel demonstrates the unique versatility of Dow Corning 3225C formulation aid in preparing stable low pH emulsions.

Ingredients:

	<u>Wt%</u>
Phase A:	
Dow Corning 1401 (Cylomethicone and dimethiconol)	10.00
Dow Corning 3225 C (Cyclomethicone and dimethiconol copolyol)	10.00
Dow Corning 344 (Cyclomethicone)	5.00
Phase B:	
Deionised water	to 100
Purasal S/PF 60 (60% sodium lactate)	5-12
Purac PH 90 (Lactic acid) to required pH	2- 5
Triethanolamine	3.5
Glycerin	27.0

Procedure:

1. Combine the ingredients in Phase A, mix until uniform, using a dual blade, turbulent style mixing action. Measure refractive index (RI).
2. Combine the ingredients in Phase B, mix until uniform. Measure RI.
3. If RI of Phase B is higher than A, add more water to match. If B is lower, add more glycerin to match.
4. Increase the mixing speed of Phase A to a tip velocity of 900 ft/min (i.e. a 2-inch blade at 1.376 rpm) and very slowly add Phase B. This addition should take 10 minutes.
5. Continue mixing for an additional 10 minutes.
6. Pass the emulsion through a high-shear, one pass device (i.e. colloid mill, Hydroshear, or hand-held mill) to achieve a particle size distribution ranging from 0.5-2.0 microns.

Stability:

- 2 months at 40C
- 5 Freeze-Thaw cycles
- 2 months ambient

SOURCE: Purac America, Inc.: Dow Corning Formulation

Cream Eye Shadow

<u>Material:</u>	<u>Wt%</u>
Part A:	
PPG-2 Myristyl Ether Propionate	41.28
Pigments	25.30
Unitwix	21.40
Super Refined Almond Oil	7.47
Stearic Acid	3.53
Cab-O-Sil	0.92
Fragrance	0.05
Propylparaben	0.05

Procedure:

1. Add the pigments to the PPG-2 Myristyl Ether Propionate while mixing with a low shear propeller blade at moderate speed.
2. In a separate vessel weigh out the Unitwix and the Cab-O-Sil. Heat gently with stirring to melt the Unitwix.
3. When the Unitwix is melted add the pigment blend and the Super Refined Almond Oil and mix while heating to 80-85C.
4. Slowly add the remaining components.
5. When well blended remove the heat and cool with mixing to 55C. Pour into desired containers.

Formulation 97048-U

Eye Firming Gel

This formulation, based on Lubrajel MS, is a classic display of the complementary properties of Lubrajel and liquid crystals. This Eye Firming Gel is visually very appealing. The Lubrajel MS is the sole moisturizing agent and viscosifier, while the liquid crystals add artistic elegance and moisture retention.

<u>Material:</u>	<u>Wt%</u>
A Lubrajel MS	25.00
B Deionized Water	73.15
C Propylene Glycol, USP	1.75
D Methylparaben	0.08
E Propylparaben	0.02
F Liquid Crystal CN/G9	QS

Procedure:

1. Dissolve components D and E in component C. Use a small amount of heat if necessary.
 2. Using a paddle blade, mix components A and B.
 3. Add step 1 to step 2 and package into containers.
 4. Add liquid crystals to each container using a swirling motion.
- Formulation #92-043-E

SOURCE: Guardian Laboratories: Suggested Formulations

Creamy Lipstick

This smooth lipstick glides on easily, while mineral oil and petrolatum leave lips feeling moist and supple.

Ingredient/Trade Name:

	<u>Wt%</u>
A: Castor Oil	50.00
Mica (and) Titanium Dioxide/Timiron MP-1001	5.00
FD&C Red #40 Aluminum Lake (39%)	4.00
Mica (and) Titanium Dioxide (and) D&C Red No. 30/ Colorona Imperial Red	2.00
Titanium Dioxide/Micro Titanium Dioxide MT-100T	1.00
 B: Pentaerythritol Tetraistearate/Prisorine 3631	 8.48
Beeswax/White Beeswax	7.25
Candelilla Wax	5.00
Mineral Oil/Drakeol 7	4.00
Myristyl Lactate/Ceraphyl 50	3.60
Petrolatum/Regent Petrolatum	3.40
Carnauba/Yellow Carnauba Wax #1	2.90
Ozokerite/White Ozokerite Wax 77W	2.10
Cetyl Esters/Spermaceti Substitute #573	1.24
BHT	0.03
 C: Fragrance	 q.s.

Procedure:

Mix part A and homogenize until uniform. Heat part B to 95C with stirring until the solids are melted. Add part A to part B with gentle mixing and allow the mixture to cool slightly. Add part C. Pour into molds and cool.

Formula 597-119

Lip Balm with Lanolin

Petrolatum and lanolin are used to keep lips soft and moist in this smooth-applying lip balm.

Ingredient/Trade Name:

	<u>Wt%</u>
Petrolatum/Ultima Petrolatum	47.50
Cetyl Palmitate	9.70
Trimethylolpropane Triisostearate/Prisorine 3630	9.10
Castor Oil	8.70
Candelilla Wax	5.80
Cetearyl Alcohol	4.70
Lanolin Oil/Ivarlan 3100	4.00
Carnauba/Yellow Carnauba Wax #1	3.70
Ozokerite/White Ozokerite Wax 77W	3.70
Lanolin	2.80
Tocopheryl Acetate/Vitamin E Acetate	0.10
Propylparaben	0.10
BHT	0.10

Procedure:

Heat all ingredients to 80-85C with stirring until all the mixture is homogeneous and the solids have melted. Pour into molds and allow to cool.

Formula 597-127

SOURCE: Penreco: Suggested Formulations

Deep Red Lipstick

This lipstick applies easily and gives the lips a soft feel. Mineral oil and petrolatum help add moisturization.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Castor Oil	41.90
FD&C Red #40 Aluminum Lake (17%)	5.70
D&C Red #27 Aluminum Lake	2.40
Mica (and) Titanium Dioxide/Timiron MP-1001	1.90
Titanium Dioxide/Micro Titanium Dioxide MT-150W	0.95
B: Caprylic/Capric Triglyceride/Estol 1527	11.75
Petrolatum/Ultima Petrolatum	7.45
Propylene Glycol Dicaprylate/Dicaprate/Estol 1526	6.20
Carnauba/Yellow Carnauba Wax #1	5.70
Candelilla Wax	5.70
Beeswax/White Beeswax	4.30
Mineral Oil/Drakeol 21	2.85
Microcrystalline Wax	2.65
Tocopheryl Acetate/Vitamin E Acetate	0.50
BHT	0.05
C: Fragrance	q.s.

Procedure:

Homogenize part A until uniform. Heat part B to 80C with stirring until the solids are melted. Add part A with stirring and allow the mixture to cool to 75C. Add part C. Pour into molds and cool.

Formula 597-118

Lip Balm with Vitamin A

This lip balm is easily applied, leaving a light moisturizing layer on the lips to prevent chapping.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Petrolatum/Snow Petrolatum	33.50
Mineral Oil/Drakeol 9	24.70
Ozokerite/White Ozokerite 77W	15.00
Beeswax/White Beeswax	10.00
Cetyl Alcohol	8.50
Candelilla Wax	7.20
Jojoba Oil/Refined Jojoba Oil	0.80
Corn Oil (and) Retinyl Palmitate/Vitamin A Palmitate	
Type PIMO/BH	0.10
Propylparaben	0.10
BHT	0.10

Procedure:

Heat all ingredients to 80-85C with stirring until all the solids have melted and the mixture is uniform. Pour into molds and allow to cool.

Formula 597-125

SOURCE: Penreco: Suggested Formulations

Eye Area Firming Gel

Completech MBAC-EA helps to reduce fine lines and increases viscoelasticity of the skin. The addition of Hypan SA-100H adds clarity while aiding in the removal of tackiness. The result leaves the skin with an elegant feeling. The addition of Liponic EG-1, Hylucare and Unimoist U-125 aid in moisturization of the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	61.95
1	Hampene Na2T/Disodium EDTA	0.05
1	Uniphen P-23	0.20
2	Liponic EG-1/Glycereth-26	1.50
2	Hypan SA100H/Acrylic Acid/Acrylonitrogens Copolymer	0.10
3	Carbopol ETD2001/Carbomer(2% disp)	20.00
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.60
5	Lubrigel MS/Polyglycerylmethacrylate (and) Propylene Glycol	5.00
6	Unimoist U-125	1.00
7	Benzophenone-4	0.15
7	Deionized Water	1.00
7	Unicide U-13/Imidazolidinyl Urea	0.25
8	Hylucare (1% sol'n)/Hyaluronic Acid	1.00
9	Deionized Water	5.00
9	Completech MBAC-EA	1.20

Procedure:

- Heat and mix Sequence #1 to 80C and mix until a clear solution is reached.
- Premix Sequence #2 and add to Sequence #1 at 80C with medium/high speed on overhead mixer using propeller blade.
- Heat Sequence #3 to 70C and add to batch bringing temperature back to 80C.
- Premix Sequence #4 and add to batch on overhead mixer at medium/high speed. Mix for 15-20 minutes or until completely hydrated/neutralized.
- Add non-heated Sequence #5 to batch with medium speed on overhead mixer. Lower temperature to 60C.
- Add Sequence #6 into solution using low heat and add to batch with low/medium speed on overhead mixer with propeller blade. (Lower heat to 35C).
- At 35C premix Sequence #7 until clear and add to batch. (Lower temperature to 25C).
- At 25C add Sequence #8 at low speed using propeller blade.
- Premix Sequence #9 until homogeneous and add to batch with low speed until completely mixed into batch.

SOURCE: Lipo Chemicals Inc.: Formula No. 836

Face Bronzer with Sunscreen

SF1214 is a blend of cyclomethicone and high molecular weight dimethicone. The cyclomethicone acts as an emollient and gives a dry, non-greasy feel. The high molecular weight dimethicone gives a soft, silky feel when applied to the skin. SS4267 is a blend of a low molecular weight dimethicone and a silicone resin which is film-forming and provides a more durable product.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Water	52.9
Carbomer (1)/Suspending/Thickener	0.5
DMDM Hydantoin/Preservative	0.4
Dehydroacetic Acid/Preservative	0.1
Sodium Hydroxide (40%)/Neutralizer	0.4
Glycerin/Humectant	5.0
Part B:	
Stearyl Alcohol (and) Cetareth-20 (2)/Emulsifier/ Thickener	2.2
Glyceryl Stearate (and) PEG-100 Stearate (3)/Emulsifier	5.0
Cetyl Alcohol/Viscosity/Opacifier	0.6
Isopropyl Isostearate/Emollient	3.9
Mineral Oil/Emollient	7.5
Myristyl Lactate/Emollient	0.5
Octyl Methoxycinnamate/UV absorber	7.0
Benzophenone-3/UV absorber	4.0
Part C:	
Mica (and) Titanium Dioxide (and) Iron Oxides (4)/Pigment	5.0
Part D:	
Dimethicone (and) Trimethylsiloxysilicate (SS4267) (5)/ Film-former	3.0
Cyclomethicone (and) Dimethicone (SF1214) (5)/Smooth, silky feel/Emollient	2.0

Procedure:

1. In Part A, predissolve carbomer in warm water. Heat to 75C and add other Part A ingredients.
2. Heat Part B to 75C until all ingredients are melted with moderate agitation.
3. Slowly add Part B to Part A with good mixing.
4. Cool with continued mixing to 60C and add Part C.
5. Continue mixing until 55C and add Part D.
6. Mix and cool to 25C and mill through a colloid mill at 0.005" setting.

Comments:

- * Reduce greasiness by replacing isopropyl isostearate with SF1202 cyclomethicone.
- * Increase water resistance by increasing SS4267.
- * Increase viscosity by decreasing glycerin level.

Trade Names/Suppliers:

- (1) Carbopol 980, B.F. Goodrich Co.
- (2) Promulgen G, Amerchol Corp.
- (3) Arlacel 165, ICI Surfactants
- (4) Timica Gold Sparkle, Mearl Corp.
- (5) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CC 104

Face Bronzer with Sunscreen

SFE839 Elastomer Dispersion is a 5.5% silicone elastomer dispersed in cyclopentasiloxane, which provides excellent aesthetics, creating a smooth, silky luxurious feel. The cyclopentasiloxane acts as an emollient and gives a dry, non-greasy feel. The SFE839 blend is a film former and provides a more durable product.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Water	52.9
Carbomer (1)/Suspending Agent/Thickener	0.5
DMDM Hydantoin/Preservative	0.4
Dehydroacetic Acid/Preservative	0.1
Sodium Hydroxide (40%)/Neutralizer	0.4
Glycerin/Humectant	5.0
Part B:	
Stearyl Alcohol (and) Ceteareth-20 (2)/Emulsifier/ Thickener	2.2
Glyceryl Stearate (and) PEG-100 Stearate (3)/Emulsifier	5.0
Cetyl Alcohol/Viscosity Modifier/Opacifier	0.6
Isopropyl Isostearate/Emollient	3.9
Mineral Oil/Emollient	7.5
Myristyl Lactate/Emollient	0.5
Octyl Methoxycinnamate/UV Absorber	7.0
Benzophenone-3/UV Absorber	4.0
Part C:	
Mica (and) Titanium Dioxide (and) Iron Oxides (4)/Pigment	5.0
Part D:	
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer (SFE839) (5)/Smooth, silky feel	5.0

Procedure:

1. In Part A, predissolve carbomer in warm water. Heat to 75C and add other Part A ingredients.
2. Heat Part B to 75C until all ingredients are melted with moderate agitation.
3. Slowly add Part B to Part A with good mixing.
4. Cool with continued mixing to 60C and add Part C.
5. Continue mixing until 55C and add Part D.
6. Mix and cool to 25C and mill through a colloid mill at 0.005" setting.

Comments:

Increase viscosity by decreasing glycerin level.

Trade Names/Suppliers:

1. Carbopol 980, B.F. Goodrich Co.
2. Promulgen G, Amerchol Corp.
3. Arlacel 165, ICI Surfactants
4. Timica Gold Sparkle, Mearl Corp.
5. GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CC107

Facial Cleanser
High-foaming facial cleanser.

<u>Ingredients:</u>	<u>Wt%</u>
Potassium Cocoate	10.83
Water	39.70
Sulfochem SLS	36.93
Stearic Acid	3.46
Chemsperse EGDS	0.95
Chembetaine C	4.76
Amidex CE	3.37
Preservatives	q.s.
Fragrance, color, etc.	q.s.

Blending Procedure:

Mix potassium cocoate, water, and SLS, and heat to 90C in main mixing vessel. Add premelted stearic acid, maintain temperature, and mix until emulsified (about 5 to 10 minutes). Add EGDS. Turn off heating, begin cooling, and add Chembetaine C and Amidex CE. When temperature reaches 45C or below, add preservatives, fragrance, and color.

Typical Physical Properties:

pH: 6.5

Viscosity: 7,200 cps

Appearance: Pearly white liquid

Note:

This formula will yield a product with a viscosity of approximately 7,000 cps. To make a product with higher viscosity, increase the level of the potassium cocoate and stearic acid, maintaining the same ratio between the two. To make a product with lower viscosity, decrease the level of potassium cocoate and stearic acid, maintaining the same ratio between the two.
Formulation No. F1007

Facial Cleanser

Starting formulation for a premium, mild facial cleanser.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem SBS	36.00
Water, soft	63.88
Fragrance	0.10
NaCl	q.s.
Preservatives	q.s.
Citric acid	typical: 0.02

Blending Procedure:

Charge mixing vessel with water and Sulfochem SBS, and mix until dissolved. Adjust pH with citric acid to 6.5-7.0. Add preservatives, color, and fragrance. Adjust viscosity to 1,200-2,500 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 1,200-2,500 cps

pH: 6.5-7.0

Formulation No. E3145

SOURCE: Chemron Corp.: Suggested Formulations

Facial Mask

This ultra mild, deep cleansing formulation will eliminate little imperfections and blemishes to leave the skin silky smooth. Monafax MAP 230 helps in the the dispersion of the bentonite clay and allows for an even layer of the clay to be spread over the skin for easy application. The Phospholipid CDM provides gentle cleansing, excellent substantivity, and anti-microbial properties on the skin.

<u>Ingredients:</u>	<u>Wt%</u>
Water	76.4
Disodium EDTA	0.1
Polargel NF (Bentonite)	12.5
Monafax MAP 230	5.0
Propylene Glycol	4.0
Phospholipid CDM	1.0
Germaben IIE	1.0

Procedure:

Heat water to 50-60C, add Na₂ EDTA. Slurry the Polargel NF very slowly with shearing agitation. After slurry is achieved, let it hydrate by having it stand for 10-15 minutes. Add the Monafax MAP 230 slowly allowing it to blend evenly in the slurry. Add the remaining ingredients in order listed, the same way the Monafax MAP 230 was added. Package in tubes.

Important Notes:

- Minimize water loss
- Minimize aeration

SOURCE: Mona Industries, Inc.: Formula F-827

Facial Gel Cleanser

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water	72.25
Schercoquat IAS-LC/Isostearamidopropyl Ethyl Dimonium Ethosulfate	0.55
Schercotaine CAB-G, 35%/Cocamidopropyl Betaine	10.00
Sodium Lauryl Sulfate, 30%	17.00
Preservative	0.20
Fragrance	q.s.

Procedure:

1. Heat water to 50C. With stirring add Schercoquat IAS-LC until it is dissolved.
2. Add the other ingredients in the order given, with continual agitation while allowing the batch to cool.

Appearance: Gel
Viscosity: 8,000 cps

Formula SK 142

SOURCE: Scher Chemicals, Inc.: Formula SK 142

Facial Scrub

<u>Stage Materials:</u>	<u>Wt%</u>
Stage:	
Pre-Mix 1:	
1 Water; Pure	72.050
2 Carbopol 940	0.200
Pre-Mix 2:	
3 Propylene Glycol USP	6.000
4 Preservative as required	0.300
Stage A:	
5 Magnesium Sulphate	0.100
Stage B:	
6 Light Mineral Oil	8.000
7 GMS s/e	4.000
8 Stearic Acid-Triple Pressed	3.000
9 Almond Oil USP, Sweet	1.100
10 Peach Kernel Oil	1.100
Stage C:	
11 Triethanolamine 99%	0.900
Stage D:	
12 AEC Walnut Shell Powder	3.000
Cooling Cycle:	
13 Fragrance	0.250

Mixing Instructions:

Pre-Mix 1: Meter out water and start heating. Sprinkle in Carbopol and mix until all lumps are dispersed.

Pre-Mix 2: Dissolve preservative in Propylene Glycol and add to Mix.

Stage A: Complete Stage A by adding Magnesium Sulphate to mix and bring to temperature (70C).

Stage B: Melt the Oils and waxes of Stage B and mix, bring to temperature.

With the Silverson running slowly add the hot oils to the hot Aqueous Phase, mix briefly then add the Triethanolamine which will thicken the product. Start cooling with mixing, before the product gets too thick add the Walnut Shell and mix until dispersed, add the perfume and mix briefly. (Silverson mixing after addition of walnut shell should be avoided).

SOURCE: A&E Connock Ltd.: Formula Ref.: 784*0

Facial Soap

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet 40-K (Potassium Cocoate)	25.0
Mackam 2C (Disodium Cocoamphodiacetate)	20.0
Mackamide LLM (Lauramide DEA)	2.0
Mackester EGMS (Glycol Stearate)	1.0
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Fragrance	qs to 100.0

Procedure:

1. Add components to water.
2. Heat to 70C.
3. Blend until homogeneous; cool to 50C.
4. Adjust pH to 7.0-7.5 with Citric Acid.
5. Add Mackstat DM and Fragrance.
6. Cool to room temperature.

Sting Free Facial Cleanser

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam 2C (Disodium Cocoamphodiacetate)	40.0
Sodium Laureth-1 Sulfate (25%)	15.0
Mackernium 007 (Polyquaternium 7)	1.5
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfo-succinate)	4.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackam 2C, Sodium Laureth-1 Sulfate, Mackanate DC-30, and Mackester SP to water.
2. Heat to 70C and blend until homogeneous.
3. Cool to 50C and slowly add Mackernium 007.
4. When completely dispersed, add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Cleansing Milk

<u>Raw Materials:</u>	<u>Wt%</u>
Lanolin Anhydrous	5.0
Propylene Glycol Monostearate	3.0
Polysynlane	38.0
IPM	4.0
Paraffin Wax	4.0
Beeswax	16.0
Potassium Hydroxide	0.7
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulation

Lip Balm

This mildly strawberry flavored lip balm formulation exhibits a typical application of Unitwix to form lipstick type products for personal care. A sunscreen has been added in order to lend some protection against UV radiation and Oil of Orchids is added to improve the feel.

<u>Material:</u>	<u>Wt%</u>
A Petrolatum, USP	39.25
B Isopropyl Myristate	10.00
C Stearyl Alcohol	10.00
D Butyl Stearate	15.50
E Volatile Silicone VS-1758	10.00
F 556 Cosmetic Grade Fluid	2.00
G Oil of Orchids (OS)	2.00
H Octyl Dimethyl Paba	2.00
I Unitwix	8.50
J Flavor	0.17
K Calcium Saccharine	0.08
L Duochrome RY	0.50

Procedure:

1. Melt components A,B,C,D,G and I at approximately 70C.
2. Add remainder of components and mix while cooling to 50-55C.
3. Package.

Formulation #92-036-H

Lip Moisturizer

Utilizing Lubrajel CG and Solimate 'E', this formulation exhibits excellent lip moisturization, a pleasant taste and UV protection.

Solimate 'E' is used to microemulsify the sunscreen along with the peppermint and spearmint oils. The ultimate choice in moisturization is Lubrajel CG, which is used at a significant concentration for this purpose.

<u>Material:</u>	<u>Wt%</u>
A Lubrajel CG	50.00
B Deionized Water	46.72
C Solimate 'E'	2.50
D Octyl Salicylate	0.50
E Peppermint Oil, USP	0.05
F Spearmint Oil, USP	0.05
G FD&C Blue #1 (100ppm)	0.18

Procedure:

1. Premix components A and B and label as "Phase I."
2. Premix components C,D,E and F and label as "Phase II."
3. Premix component G (prepare the 100ppm solution) and label as "Phase III."
4. Add "Phase II" to "Phase I" with low speed stirring.
5. Add "Phase III" and continue stirring until uniform. Package.

Formulation #91-112

SOURCE: Guardian Laboratories: Suggested Formulations

Lip Gloss with D-Panthenol

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 645	44.5
Softisan 649	10
Softigen 701 (Glyceryl Ricinoleate)	10
Polyisobutene 1000	13
Lanfrax (Lanolin Wax)	10
Candelilla Wax	2.5
B. Pearlustre Pigment	3
Colour	2
D-Panthenol	5
Fragrance	q.s.

Preparation:

A and B are heated up to 75C. The mixture is chilled to about 40C by stirring. Then B is added. Preferably homogenize mixture before pouring.

Lip Stick

<u>Raw Materials:</u>	<u>Wt%</u>
Softisan 100 (Hydrogenated Cocoglycerides)	20
Miglyol 812 (Caprylic/Capric Triglyceride)	14
Softisan 649	5
Petrolatum	30
Beeswax	20
Paraffin	5
Cetyl Alcohol	5
Carnauba Wax	1

Preparation:

All ingredients are heated to 75C. Then the homogeneous compound is poured into moulds.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Liposilt Black Body Mask

A non-drying body mask that is rich in vitamins and minerals for skin cleansing and nourishment. The Liposilt Black is the source of the nutrients and yields a nourished and soft appearance to the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	37.28
1	Uniphen P-23	0.60
2	Keltrol/Xanthan Gum	0.12
2	Mineral Colloid BP/Montmorillonite	0.10
3	Liposilt Black/Silt	30.00
3	Deionized Water	5.00
4	Lipovol SES/Sesame Oil	15.00
4	Lipo GMS-450/Glyceryl Stearate	2.50
4	Lipopeg 6000 DS/PEG-150 Distearate	0.50
5	Kaolin	7.50
6	Eucalyptus Oil	0.10
7	Deionized Water	1.00
7	Unicide U-13/Imidazolidinyl Urea	0.30

Procedure:

1. In main kettle combine Sequence #1 ingredients, mix with overhead mixer while heating to 78C.
2. Dry mix Sequence #2 together and add to Sequence #1 at medium speed on overhead mixer.
3. In auxiliary kettle combine Sequence #3 ingredients and heat to 65C. Place on homomixer for one (1) minute at medium speed.
4. Add Sequence #3 to batch under homomixer, holding temperature at 78C.
5. Heat Sequence #4 to 78C until completely melted and add to batch under homomixer.
6. Add Sequence #5 to batch under homomixer. Switch to moderate sweep and cool to 42C.
7. At 42C add Sequence #6 and mix until thoroughly dispersed. Cool to 35C.
8. At 35C add premixed Sequence #7 to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 697

Liposilt Black Cleansing Silt

A non-drying cleansing mud that is rich in vitamins and minerals for skin cleansing and nourishment. The Liposilt Black is the source of the nutrients and yields a nourished and soft appearance and feel to the face. Suggested for oily skin.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Wt%</u>
1	Deionized Water	31.85
1	Methylparaben	0.25
2	Keltrol	0.15
2	Veegum HV (4% Disp'n)	0.50
3	Liponic EG-1	6.00
3	Lan-Aqua-Sol 75; 100	4.50
4	Triethanolamine, 99%	1.20
4	Deionized Water	1.00
5	Lipovol SES	12.00
5	Fancol IPL	3.50
5	Liponate NPGC-2	3.50
5	Lipo Stearic Acid	3.00
5	Lipolan Distilled	2.00
5	Lipo GMS-450	1.50
5	DC 200 Fluid (350 cts)	1.00
5	Lipopeg 100-S	0.90
5	Liposorb S	0.75
5	Lipocol C	0.50
5	Propylparaben	0.10
6	Hamposyl C-30	4.00
6	Monawet MO-70R	0.50
7	Liposilt Black	20.00
8	Deionized Water	1.00
8	Unicide U-13	0.30

Procedure:

1. Premix Sequence #1, heat to 80C and mix until dissolved using overhead mixer.
2. Dry mix Sequence #2 and add to Sequence #1 at 80C with overhead mixer at medium/high speed until completely homogeneous.
3. Add Sequence #3 ingredients one at a time to batch while bringing temperature batch to 80C.
4. Premix Sequence #4 and add to batch.
5. Mix Sequence #5 ingredients together and heat until completely melted (approximately 80C) and add to batch with overhead mixer at medium/high speed. Cool slowly to 70C.
6. At 70C add Sequence #6 ingredients in order of addition to batch.
7. Heat Sequence #7 to 50C and mix on homomixer for 1 minute at medium speed.
8. Add Sequence #7 to batch on overhead mixer using sweep blade and cool to 35C.
9. At 35C add premixed Sequence #8, cool to 25C and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 675

Liposilt Green Cleansing Mud

A non-drying cleansing mud that is rich in vitamins and minerals for skin cleansing and nourishment. The Liposilt Green is the source of the nutrients and yields a nourished and soft appearance and feel to the face. Suggested for dry or sensitive skin.

<u>Sequence:</u>	<u>Raw Material:</u>	<u>Wt%</u>
1	Deionized Water	20.80
1	Keltrol F	0.15
1	Veegum HR (4% Disp'n)	12.50
1	Liponic EG-1	6.00
1	Triethanolamine 99%	1.20
1	Lan-Aqua-Sol 50	4.50
1	Methylparaben	0.30
2	Lipovol SES	12.00
2	Fancol IPL	3.50
2	Liponate NPGC-2	3.50
2	Lipo Stearic Acid	3.00
2	Lipolan Distilled	2.00
2	Lipo GMS-450	1.50
2	DC 200 Fluid (350 cts)	1.00
2	Lipopeg 100-S	0.90
2	Lipocol C	0.50
2	Liposorb S	0.75
2	Propylparaben	0.10
3	Hamosyl C-30	4.00
3	Monawet MO-70R	0.50
4	Liposilt Green	20.00
5	Deionized Water	1.00
5	Unicide U-13	0.30

Procedure:

1. In the main kettle, add water and disperse the Keltrol completely using Lightnin' mixing. When completely hydrated, add remainder of Sequence #1 ingredients in order of addition. Heat to 75C with Lightnin' mixing.
2. In a side kettle, combine Sequence #2 ingredients and heat to 78C with mixing.
3. Add combined Sequence #2 ingredients to combined Sequence #1 ingredients under Lightnin' mixing. Mix for 15 minutes or until emulsification is complete. Cool to 70C.
4. At 70C, add Sequence #3 ingredients with continued Lightnin' mixing. Mix for 10 minutes and continue cooling.
5. At 55-60C or when batch begins to thicken, remove Lightnin' mixer and insert variable speed side-wiper mixing.
6. Cool to 42C and add Sequence #4 ingredients.
7. Cool to 35C and add premixed Sequence #5 ingredients. Cool to 25C and package.

SOURCE: Lipo Chemicals Inc.: Formula No. 674

Lipstick Base

<u>Ingredients:</u>	<u>Wt%</u>
Ross Refined Candelilla Wax	9.1
Isopropyl Myristate	9.6
Lanolin Anhydrous	5.0
Ross White Bleached Beeswax	4.0
Fully Refined Paraffin Wax 130/135	2.0
Ross Ozokerite Wax 77W	2.5
Castor Oil Crystal O	54.7
Ross Refined #1 Yellow Carnauba Wax	1.5
Pigments	7.5
Mineral Oil	4.0
Propyl Paraben	0.1

Procedure:

In kettle (A) heat all the ingredients under agitation except 10% of Castor Oil and the pigments. When blended cool to almost solid and hold. In kettle (B) slurry the 10% of castor oil and the pigments till blended. When both kettles are ready add kettle (A) to kettle (B). Pass thru a 3 roll mill till smooth and cast into molds.

High Melting Point Lipstick

<u>Ingredient:</u>	<u>Wt%</u>
Ozokerite Wax 77W	5.0
Refined Candelilla Wax	11.0
Octyl dodecanol	27.0
C30-45 Alkyl Methicone	5.0
Cyclomethicone	4.8
Petrolatum	3.0
Lanolin Oil	9.0
Avocado Oil	2.0
Oleyl alcohol	8.0
Methylparaben	0.2
Pigment/cyclomethicone	25.0

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Liquid Make-up with Panalane L14E and Ultraresistant Pigments
And Increased Wetting Agents

This product provides an even smooth application with a cushioning effect and moisturization combined with transfer proof and long wear properties of the Ultraresistant Pigments.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	66.02
1	CMC 7H3SF/Cellulose Gum	0.30
1	Veegum/Magnesium Aluminum Silicate	0.40
1	Butylene Glycol	3.75
1	Methylparaben	0.20
2	Lipo Lecithin	0.40
2	Liposorb 0-20/Polysorbate 80	0.10
2	Triethanolamine, 99%	1.13
2	Boron Nitride 6069	2.00
2	Titanium Dioxide UH 0082	8.00
2	Iron Oxide Yellow #C-UR0200	0.40
2	Iron Oxide Red #C-UR1800	0.90
2	Iron Oxide Black #C-UR2500	0.10
3	Lipo GMS-470/Glyceryl Stearate SE	1.00
3	Liponate IPP/Isopropyl Palmitate	2.00
3	Lipo Stearic Acid	2.00
3	Liponate 2DH/PEG-4 Diheptanoate	2.00
3	Panalane L-14E/Hydrogenated Polyisobutene	7.00
3	Emersol 871/Isostearic Acid	1.00
3	Propylparaben	0.20
4	Deionized Water	1.00
4	Unicide U-13/Imidazolidinyl Urea	0.10

Procedure:

1. In main kettle, combine Sequence #1 ingredients under Lightnin' mixing and heat to 60-70C.
2. Add Sequence #2 ingredients to Sequence #1 slowly under Lightnin' mixing.
3. Pass combined Sequence #1 and #2 through colloid mill and recirculate until pigments are evenly dispersed.
4. Transfer the bulk to main kettle and mix under Lightnin' mixer and heat to 80C.
5. In auxiliary kettle, combine Sequence #3 ingredients under Lightnin' mixing and heat to 80-85C.
6. At proper temperature (80-86C) add combined Sequence #3 ingredients to batch (water phase pigment grind) under sweep mixing, maintaining temperature until emulsion is complete. Begin cooling to 40C, switching to slow mixing as batch thickens.
7. At 40C add premixed Sequence #4 ingredients to batch and cool to 30C.
8. Pour the batch into a suitable container.

SOURCE: Lipo Chemicals Inc.: Formula No. 916

Liquid Talc

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A) Schercemol CO/Cetyl Octanoate	8.40
Keltrol F/Xanthan Gum	0.50
Kelcoloid S/Propylene Glycol Alginate	0.50
Fragrance	0.25
B) Deionized Water	57.55
Non-Fat Dry Milk	1.00
Dowicil 200/Quaternium-15	0.20
C) Emphos D70-30C/Sodium Glyceryl Oleate Phosphate	1.00
Schercemol GMIS/Glyceryl Isostearate	0.30
D) Schercomid AME-70/Acetamide MEA	4.50
Cucumber Extract/Herbasol Extract Cucumber	1.00
Talc 1629/Talc	10.50
SDA 40	14.00
Methylparaben	0.20
Propylparaben	0.10

Procedure:

1. Combine ingredients of Part A until well dispersed.
2. Combine Part B until uniform.
3. Add Part B to Part A on an Eppenbach type homomixer.
4. Combine Part C and add to Parts A & B.
5. Combine Part D and add to the rest of the batch
6. Mix until well dispersed.

Formulation SK 86

Body Silkening Dry Oil

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Dow Corning 344 Fluid/Cyclomethicone	66.0
Schercemol NGDO/Neopentyl Glycol Dioctanoate	16.0
Schercemol CO/Cetyl Octanoate	12.0
Schercemol DIS/Diisopropyl Sebacate	5.0
Fragrance	1.0

Procedure:

Combine ingredients at room temperature. Mix until clear and homogeneous.

Formulation SK 87A

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Low Temperature Flowable Skin Cleanser

<u>Ingredients:</u>	<u>Wt%</u>
Water	19.3
Sodium Chloride	1.0
Sodium Lauryl Sulfate(28%)	35.7
Sodium Laureth-2 Sulfate(26%)	38.5
Promidium CC (PPG-1 Hydroxyethyl Caprylamide)	3.0
Phospholipid PTC (Cocamidopropyl PG-Dimonium Chloride Phosphate)	2.5

Procedure:

Add ingredients in order listed with gentle agitation. Adjust pH to 5.0.

Formulation Properties:

Appearance: Pearly opaque liquid

Viscosity(cP) @ 25C: 900

Activity(%): 26

Formula F-859

Clear Conditioning Silky Body Cleanser

The following formula provides long lasting foam leaving the body feeling fresh, clean and silky smooth.

<u>Ingredients:</u>	<u>Wt%</u>
Water	14.6
Tetrasodium EDTA(40%)	0.3
Sodium Chloride	1.0
Monafax MAP 230T60(60%) (TEA-C12-13 Phosphate)	6.7
Sodium Laureth (2) Sulfate (26%)	46.4
Sodium Lauryl Sulfate (28%)	27.0
Promidium CO (PPG-2 Hydroxyethyl Cocamide)	4.0

Procedure:

Blend ingredients in the order listed. Adjust the pH to 5.5. Add fragrance, color and preservative as required.

Typical Properties:

Appearance: Clear Viscous Liquid

Viscosity: 11,000 cP

Total Solids(%): 28.8

Formula F-860

SOURCE: Mona Industries, Inc.: Formulas F-859 and F-860

Make-Up Base

SF1214 is a blend of cyclomethicone and high molecular weight dimethicone. The cyclomethicone acts as an emollient and gives a dry, non-greasy feel. The high molecular weight dimethicone gives a soft, silky feel when applied to the skin. SS4267 is a blend of a low molecular weight dimethicone and a silicone resin which is film-forming and provides a more durable product.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Cetyl Acetate (and) Acetylated Lanolin Alcohol (1)/ Emollient	3.00
Myristyl Myristate/Emollient	2.20
Diethyl Sebacate/Emollient	2.00
Stearyl Alcohol (and) Cetareth-20 (1)/Emulsifier	2.00
Ceteth-10/Emulsifier	0.10
Butylparaben/Preservative	0.10
Part B:	
Water	68.35
Magnesium Aluminum Silicate (2)/Thickener	0.50
Xanthan Gum/Suspending agent/Thickener	0.15
Glycerin/Humectant	3.00
Citric Acid/pH adjuster	0.30
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben (3)/Preservative	0.60
Part C:	
Dimethicone (and) Trimethylsiloxysilicate (SS4267)(4)/ Film-former	3.00
Cyclomethicone (and) Dimethicone (SF1214) (4)/Soft, silky feel	1.00
Talc/Feel, pigment	5.00
Titanium Dioxide/Pigment	5.00
Iron Oxides/Pigment	3.70

Procedure:

1. Heat Part A and Part B to 75C.
2. Add Part B to Part A with high shear mixing.
3. Cool to 55C and add Part C with good mixing.
4. Continue mixing until cooled to 25C.

Trade Names/Suppliers:

- (1) Lanatex Products Inc.
- (2) Veegum HV, R.T. Vanderbilt Co., Inc.
- (3) Germaben II, International Specialty Products (ISP)
- (4) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CC 102

Mascara Using Avalure UR 450 PolymerA002

This mascara eyelash makeup cream applies beautifully from an automatic mascara unit containing a brush for application. The urethane polymer (Avalure UR 450 polymer) contributes bulk and adherence to the eyelashes allowing for a long-lasting plump look. It also eliminates the need for any of the other gums such as gum arabic in the product.

INCI-CTFA Name/Trade Name:

	<u>Wt%</u>
<u>Part A:</u>	
1. Deionized Water	59.50
2. Methylparaben	0.10
3. Methocel 40-202	0.20
4. Triethanolamine (99%)	2.80
5. DL-Panthenol	0.50
6. Avalure UR 450 Polymer	6.00
7. PVP-K30	2.00
<u>Part B:</u>	
8. C33-7734 Cosmetic Black/Iron Oxides	10.00
<u>Part C:</u>	
9. Stearic Acid/Emersol 132	5.50
10. Bayberry Wax	1.80
11. Glyceryl Stearate/Protachem GMS-450	1.70
12. Beeswax, White	4.50
13. Carnauba Wax, Prime #1 Yellow, Refined Flakes	2.70
14. WW Gum Rosin	1.80
15. Propylparaben NF	0.10
<u>Part D:</u>	
16. Mirasil SM/Simethicone	0.10
17. Lipovol WGO/Wheat Germ Oil	0.10
18. Phenonip	0.10
19. Germaben II	0.50

Preparation Procedure:Part A:

1. Add the deionized water to a suitable kettle and begin heating the water to 40C. Add the methylparaben and mix until dissolved.
2. Turn the heat off and add the Methocel. Mix until uniformly dispersed and until no lumps appear.
3. Add the triethanolamine and mix until the gum is hydrated and clear. 4. Add the Panthenol and mix until dissolved.
5. Add the Avalure UR 450 polymer and continue mixing until the mixture is uniform.
6. Add the PVP powder and mix until all of the powder is in the solution and Part A is uniform. Maintain the temperature but raise it to 75C just before combining with Parts B & C.

Parts B&C:

7. Mix all of the ingredients of Part C (oil phase) in a suitable kettle and melt to 75C.
8. When all of Part C has been melted, add the pigment of Part B to it and mix until the pigment is completely wetted and uniform. 9. Continue mixing and begin cooling and at 50C add Simethicone, Wheat Germ Oil and preservatives. Continue cooling to room temperature.

SOURCE: BFGoodrich Specialty Chemicals: Formulation A002

"Matte-Finish" Make-Up

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A) Schercemol CO/Cetyl Octanoate	7.0
Schercemol DID/Diisopropyl Dimer Dilinoleate	1.0
Arlacel 60/Sorbitan Monostearate	3.0
Glutamate SSE 20/PEG-20 Methyl Glucose Sesquistearate	3.0
Schercemol GMIS/Glyceryl Isostearate	0.5
Dow Silicone fl. 350 cps	1.0
Escalol 507/Octyl Dimethyl PABA	1.0
B) Veegum (4% aq.)/Magnesium Aluminum Silicate	15.0
Water	55.0
Glycerin	2.0
Germaben II	1.0
C) Pigments:	
Talc 141 BC	2.1
Titanium Dioxide 328	6.4
7055 Iron Oxide Yellow	0.45
7061 Iron Oxide Brown	0.8
7054 Iron Oxide Red	0.25
D) Cucumber Extract	0.50

Procedure:

Phase B:

1. Disperse Veegum slurry in water until uniform.
2. Add the rest of the water phase, mixing well.

Phase C: Mix Phase C:

3. Add Phase C to Phase B and mix for 5 minutes or until fully dispersed. In main beaker mix ingredients of Phase A. Heat both Phases A and Phase B & C to 70C. Add Phase B, C to A with moderate agitation. Cool batch to room temperature with continuous mixing, then add Phase D.

Formulation SK 147

"Matte-Finish" Emollient Make-UpFormula for Lotion

<u>Part A: Ingredients/CTFA Name:</u>	<u>Wt%</u>
Stearic Acid	2.70
Schercemol GMIS/Glyceryl Isostearate	2.00
Schercemol DISD/Diisostearyl Dimer Dilinoleate	5.00
Schercemol IDO/Isodecyl Oleate	4.50
Cetyl Alcohol	0.75
Part B:	
Propylene Glycol	4.50
Triethanolamine	0.90
Water	79.65
Preservative	q.s.

Procedure:

Add Part B to Part A at 80C, mixing slowly. Cool to room temp.

Formula for Make-Up

Lotion	90.00
Pigment Blend	10.00

Procedure:

Slowly add lotion to pigment blend (which has been micronized) in increments to make a paste. Continue to add lotion until a fluid homogeneous emulsion is formed.

Formulation SK 138

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Moisturiser with UV-Protection

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Octyl Palmitate	3.000
2	AEC Diisostearyl Trimethylolpropane Siloxy Silicate	1.500
3	Amphisol K	0.500
4	AEC Hydroxyoctacosanyl Hydroxystearate	3.000
5	Vitamin E Acetate	1.000
Aqueous Phase:		
6	Water; Pure	73.100
7	Xanthan Gum	0.200
8	Veegum Ultra	0.800
9	Glycerine BP	5.000
10	Arlatone 2121	3.000
11	D-Panthenol USP	1.000
12	Tioveil AQ N	6.000
13	Sodium PCA	1.000
14	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
15	Fragrance	0.400
Formula Ref.: 387*		

Moisturiser with UV Protection

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Octyl Palmitate	5.000
2	Cetearyl Octanoate	5.000
3	AEC Dimethicone V100	1.000
4	Beeswax; White Pellets	4.000
Aqueous Phase:		
5	Water; Pure	65.600
6	Xanthan Gum	0.200
7	Veegum Ultra	2.000
8	Propylene Glycol USP	5.000
9	Arlatone 2121	5.000
10	Sodium Lactate 60%	0.300
11	Lactic Acid	0.100
12	Tioveil AQ N	6.000
13	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
14	Fragrance	0.300

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring, only use a Silverson briefly to form an emulsion at start and to homogenise at finish, use a slow speed mixer while cooling.

pH: 5.3-6.5

Formula Ref.: 399*

SOURCE: A&E Connock Ltd.: Suggested Formulations

Moisturiser with UV Protection

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Caprylic/Capric Triglyceride	5.000
2	AEC Dimethicone V100	1.000
3	Cetearyl Alcohol	1.000
4	GMS NSE	5.000
5	Amphisol K	2.000
Aqueous Phase:		
6	Water; Pure	71.600
7	Veegum Ultra	2.000
8	Propylene Glycol USP	5.000
9	Sodium PCA	0.500
10	Lactic Acid	0.100
11	Tioveil AQ N	6.000
12	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
13	Fragrance	0.300

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring, only use a Silverson briefly to form an emulsion at start and to homogenise at finish, use a slow speed mixer while cooling. pH: 6.0-6.5

Formula Ref.: 400*

Moisture Lotion

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Light Mineral Oil	7.000
2	Superhartolan	2.000
3	AEC Dimethicone V100	1.200
4	Amerchol L101	3.000
5	Stearic Acid-Triple Pressed	5.000
Aqueous Phase:		
6	Water; Pure	74.284
7	Glycerine BP	3.000
8	Carbopol 934	0.166
9	Triethanolamine 99%	2.500
10	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
11	Fragrance	0.350

Mixing Instructions:

This is an oil-in-water emulsion.

Heat the Oil Phase to 70/75C and mix well, ensure all waxes are melted.

Heat the Aqueous Phase to 70/75C, carefully dispersing the Carbopol and mix well.

Carefully add the hot oil phase to the hot aqueous phase with mixing.

Cool with continual slow mixing, when below 35C add the fragrance and homogenise.

Formula Ref.: 536*

SOURCE: A&E Connock Ltd.: Suggested Formulations

Moisturizing Eye Gel

A clear gel to be used around the eyes to smooth the skin and give a soft, silky feel.

<u>Ingredients/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	88.64
Disodium EDTA/Chelating agent	0.03
Citric Acid(10% solution)/pH adjustment	0.03
Carbomer(1)/Gelling agent	0.40
Part B:	
1,3 Butylene Glycol/Humectant	2.00
Glycerin(96%)/Humectant	3.50
Panthenol/Moisturizer/Provitamin B	0.30
Part C:	
Phenyl Trimethicone(SF1550)(2)/Non-oily emollient	0.35
Cyclopentasiloxane (and) Dimethicone(SF1214)(2)/ Breathable barrier, smooth, silky feel	3.00
Part D:	
Sodium Hydroxide(10% solution)/Neutralizer	1.60
Part E:	
DMDM Hydantoin (and) Iodopropynyl Butylcarbamate/ Preservative	0.15

Procedure:

1. Meter water of Part A into appropriate vessel. Add EDTA and citric acid to the water and mix with propeller agitation until dissolved. With moderate propeller agitation, slowly add carbomer and when dissolved, mix an additional 20 minutes.
2. Add ingredients of Part B to Part A with moderate propeller agitation.
3. Add Part C to Part AB in order listed with moderate propeller agitation. Mix 20-30 minutes with moderate agitation.
4. Add Part D to batch with sweep agitation and adjust pH to 7.2+-0.1.
5. With sweep agitation, add Part E and mix for 30 minutes.

Trade Names/Suppliers:

- (1) Carbopol ETD 2001, B.F. Goodrich Co.
- (2) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 115

Moisturizing Frosted Lipstick

This lipstick goes on smoothly and has an excellent skin feel. It is very long-lasting, and petrolatum adds superior moisturizing characteristics.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Castor Oil	51.99
Mica (and) Titanium Dioxide/Timiron MP-1001	4.44
Titanium Dioxide/Micro LA 20	0.89
FD&C Red #40 Aluminum Lake	1.77
D&C Red #27 Aluminum Lake	1.77
Mica (and) Titanium Dioxide (and) D&C Red No. 30/ Colorona Imperial Red	1.77
B: Stearyl Alcohol	10.08
Candelilla Wax	7.81
Mineral Oil/Drakeol 21	6.21
Beeswax (and) Candelilla Wax (and) Hydrogenated Soy Glyceride (and) Paraffin (and) Carnauba (and) Stearic Acid/Isobeeswax SP 154	3.55
Amber Petrolatum	2.66
Ozokerite Wax White SP 1020	2.48
Carnauba Wax SP 63	0.89
Cetyl Acetate/Pelemol CA	0.89
Isopropyl Palmitate	0.89
Acetylated Lanolin/Modulan	0.71
Wheat Germ Oil/Super Refined Wheat Germ Oil	0.44
Propylparaben	0.09
BHT	0.05
C: Fragrance	0.62
Homogenize part A until uniform. Heat part B to 60C with stirring. Add part A. Heat to 80C with stirring until the solids are melted. Cool to 75C. Add fragrance. Pour into molds.	
Formula 597-70	

Lip Balm with Sunscreen

The high petrolatum level in this lip balm provides smooth application and helps prevent chapped lips. The sunscreen gives light UV protection.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Petrolatum/Amber Petrolatum	44.00
Octyldodecyl Stearoyl Stearate/Ceraphyl 847	20.00
Beeswax (and) Candelilla Wax (and) Hydrogenated Soy Glyceride (and) Paraffin (and) Carnauba (and) Stearic Acid/Isobeeswax SP 154	10.00
Ozokerite Wax White SP 1020	8.70
Candelilla Wax	6.00
Stearyl Alcohol	5.00
Carnauba Wax SP 63	2.00
Mineral Oil/Drakeol 9	2.00
Octyl Methoxycinnamate/Parsol MCX	2.00
Butylparaben	0.20
BHT	0.10

Heat all ingredients to 80C with stirring until melted. Pour into molds and allow to cool.

Formula 597-83

SOURCE: Penreco: Suggested Formulations

Night Time MoisturizerConcept Statement:

Lactylate based emulsion containing Ritasil 190 as a lubricant

<u>Ingredients/Function:</u>	<u>Wt%</u>
1. Pationic SCL (Sodium Cocoyl Lactylate)/Lactylate	0.70
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	3.00
3. Rita GMS (Glyceryl Stearate)/Emulsifier	3.00
4. Mineral Oil/Emollient	10.00
5. Rita IPP (Isopropyl Palmitate)/Emollient	2.00
6. Ritalan (Lanolin Oil)/Emollient	0.50
7. Ritasil 190 (Dimethicone Copolyol)/Lubricant	1.00
8. Distilled/Deionized Water	78.45
9. Acritamer 941 (Carbomer)/Thickener	0.15
10. Germaben IIE/Preservative	1.00
11. TEA/Neutralizer	q.s.
12. Fragrance/Odor	0.20

Compounding Procedure:

Slowly disperse item 9 in item 8. Add item 11 to adjust pH to 6.5-7.5 and heat to 80C. Separately combine items 1 to 7 and heat to 80C. Add oil phase to water phase. Cool to 40C. Add items 10 and 12.

LI Ref. No. 124-45

Aloe Vera MoisturizerConcept Statement:

Excellent feel, containing Ritaloe and Pationic SBL for skin conditioning.

<u>Ingredients/Function:</u>	<u>Wt%</u>
1. Pationic SBL (Sodium Behenyl Lactylate)/Lactylate	1.56
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	2.00
3. Rita GMS (Glyceryl Stearate)/Emulsifier	4.00
4. Ritachol (Mineral Oil and Lanolin Alcohol)/Emollient	2.00
5. Lanolin USP X-Tra Deo/Emollient	0.50
6. Mineral Oil/Emollient	8.00
7. Ritasol (Isopropyl Lanolate)/Emollient	1.00
8. Ritaceti (Cetyl Esters)/Emollient	1.00
9. Propylparaben/Preservative	0.10
10. Distilled/Deionized Water	73.44
11. Propylene Glycol/Humectant	5.00
12. Ritaloe 200M (Aloe Vera Gel)/Moisturizer	1.00
13. Methylparaben/Preservative	0.20
14. DMDM Hydantoin/Preservative	0.20

Compounding Procedure:

Combine items 1 to 9 and heat to 80C. Combine items 10 to 13 and heat to 80C. Add oil phase to water phase with agitation. Cool to 40C. Add item 14.

LI Ref. No. 124-54

SOURCE: R.I.T.A. Corp.: Facial Care Formulas

O/W-Skin Milk
Manufacturing at room temperature

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat KL 340 N/Trilaureth-4 Phosphate	3.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	5.00
B Carbopol 980/Carbomer	0.45
C Glycerin	3.00
Caustic soda solution (10%)	1.80
Water	76.45
Preservative	q.s.
D Fragrance	0.30

Procedure:

1. Mix A and B, then stir in C.
2. Add D to 1.
3. Homogenize the emulsion.

Formula A VI/1101

O/W-Skin Milk
Manufacturing at room temperature

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat KL 340 N/Trilaureth-4 Phosphate	1.50
Hostacerin DGI/Polyglyceryl-2 Sesquiisostearate	2.00
Mineral oil, low viscosity	18.00
Isopropyl palmitate	6.00
Cetiol 868/Octyl Stearate	5.00
B Carbopol 980/Carbomer	0.40
C Caustic soda solution (10%)	1.60
Water	75.20
Preservative	q.s.
D Fragrance	0.30

Procedure:

1. Mix A and B, then add C and stir well.
2. Add D to 1 while stirring.
3. Finally homogenize the emulsion.

Formula A VI/1118

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

O/W-Skinmilk

contains no ethylene oxide, manufacturing at room temperature

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat CG 120/Isostearyl Phosphate	3.00
Mineral oil, low viscosity	4.00
Cetiol SN/Cetearyl Isononanoate	4.00
Cetiol 868/Octyl Stearate	4.00
D-Panthenol	1.00
DL-Tocopherol acetate	1.00
B Carbopol 980/Carbomer	0.40
C Water	73.55
Glycerine	5.00
Caustic soda solution (10%)	3.10
Allantoin	0.30
Citric acid (10%)	0.25
Aquamollin BC highly conc. Pwd./Ethylendiamine	
Tetraacetic Acid Sodium Salt	0.10
Preservative	q.s.
D Fragrance	0.30

Procedure:

1. Add B to A.
2. Stir C into 1.
3. Stir D into 2.
4. Homogenize the emulsion.

SOURCE: Hoechst Aktiengesellschaft: Formula A VI/1000

Moisturizing Beauty Fluid

This smooth, very light lotion leaves the skin feeling moisturized without being oily

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A Deionized Water	78.70
Glycerin	3.00
Hydroxyethylcellulose	0.50
Methylparaben	0.20
B Mineral Oil/Drakeol 7	4.00
Octyldodecanol Neopentanoate/Elefac I-205	4.00
Glyceryl Stearate/Kessco Glyceryl Monostearate	3.50
PEG-40 Stearate/Myrj 52S	2.00
Cetearyl Alcohol (and) Ceteareth-20/Lipowax D	1.50
Cetyl Alcohol/Lanette 16	1.00
Meadowfoam Seed Oil	1.00
Propylparaben	0.10
C Glycerin (and) Lecithin (and) Palmitoyl Myristyl Serinate/Dermacide	1.00
D Diazolidinyl Urea/Germall II	0.20
Fragrance	q.s.

Procedure:

Heat part A to 75C with stirring. Heat part B to 80C with stirring. Add part C to hot B with stirring and, when dissolved, add this blend to part A with mixing. Continue stirring while allowing the mixture to cool. At 40C, add part D. Continue stirring to 30C.

SOURCE: Penreco: Suggested Formulation

Pan Foundation

<u>Material:</u>	<u>Wt%</u>
1 Part A:	
2 PPG-2 Myristyl Ether Propionate	44.50
3 Talc	15.61
4 Pigments	13.94
5 Part B:	
6 Unitwix	15.06
7 Super Refined Almond Oil	7.08
8 Stearic Acid	2.96
9 Cab-O-Sil M5	0.75
10 Fragrance	0.05
11 Propylparaben	0.05

Procedure:

1. Premix the pigments, talc and titanium dioxide of part A.
2. Add the pigment blend to the PPG-2 Myristyl Ether Propionate while mixing with a low shear propeller blade at moderate speed.
3. In a separate vessel weigh out the Unitwix and the Cab-O-Sil M5. Heat gently with stirring to melt the Unitwix.
4. When the Unitwix is melted add the pigment blend and the Super Refined Almond Oil and mix while heating to 80-85C.
5. Slowly add the remaining components.
6. When well blended remove the heat and cool with mixing to 55C. Pour into desired containers.

Formulation 97048-P

Moisturizing Face Wash

This unique face-wash formulation is based on the ability of Lubrajel DV to provide significant moisturization as well as body. The cleansing properties are provided by the sodium laureth sulfate and Polysorbate 20. This product is characterized by its low foaming, creamy body and its pleasant, but light fragrance.

<u>Material:</u>	<u>Wt%</u>
A Lubrajel DV	61.70
B Deionized Water	30.54
C Sodium Laureth Sulfate (28%)	7.50
D Polysorbate 20	0.25
E Fragrance	0.01

Procedure:

1. Using a paddle blade, mix components A and B.
2. With very slow mixing, add component C.
3. Premix components D and E before adding to step 2. Mix until homogeneous.
4. Package.

Formulation #92037-V

SOURCE: Guardian Laboratories: Suggested Formulations

Pearlized Body Cleanser

The following formula provides copious, well lubricated lather, excellent cleansing and a smooth afterfeel to the skin.

<u>Ingredients:</u>	<u>Wt%</u>
Ammonium Lauryl Sulfate (28% active)	46.4
Ammonium Xylene Sulfonate (40% active)	2.5
Water	13.1
Ammonium Lauryl Ether (2) Sulfate (26% active)	27.0
Promidium SY (PPG-3 Hydroxyethyl Soyamide)	4.0
Monateric CLV (Disodium Cocoamphodiacetate)	4.0
Phospholipid EFA (Linoleamidopropyl PG-Dimonium Chloride Phosphate)	2.0
Glycol Distearate	1.0

Procedure:

Mix ingredients in order listed. Heat to 65-70C to blend the Glycol Distearate into the mixture. Cool to 40-45C. Add color, fragrance and preservative as required. Package.

Appearance: Pearled lotion

Viscosity (cP) @ 25C: 5,000

Krafft Point: 10C

Formula F-849

Moisturizing Body Wash

<u>Ingredients:</u>	<u>Wt%</u>
Di Water	31.1
Monafax MAP 230	20.5
Ammonium Laureth Sulfate (2)	30.9
Monateric CLV	9.5
Pricerine 9083	5.0
Phospholipid SV	3.0

Procedure:

Add water, Monafax MAP 230, Ammonium Laureth Sulfate, Monateric CLV and Pricerine 9083 with agitation. Heat ingredients to 50-55C, add Phospholipid SV and mix until uniform. Stir cool to 30-35C, add preservative. Adjust pH with 50% Citric Acid to 6.3-6.5.

Citric Acid 50%: 1.1

Typical Properties:

pH: 6.41

Viscosity: 3,500 cP

Krafft Point: 17C

Freeze/Thaw: Passed

Solids: 26.3%

Appearance: Clear Liquid

Formula F-839

SOURCE: Mona Industries, Inc.: Formula F-849 and F-839

Powder to Cream Make-Up

This stick application make-up provides a creamy, long wear, silky feel to the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Panalane L-14E/Hydrogenated Polysio-butene	36.20
1	Liponate 2DH/PEG-4 Diheptanoate	6.00
1	Carnauba Wax	6.50
1	Candelilla Wax	2.00
1	Liponate PS-4/Pentaerythrityl Tetrastearate	4.00
1	Lipo Lecithin	1.00
2	Ultra Talc #4006	16.00
2	Kaolin USP BC	8.00
2	Titanium Dioxide #3228	8.00
2	Iron Oxide Red	1.00
2	Iron Oxide Yellow	0.80
2	Iron Oxide Black	0.10
2	Lipomic 601 BN/Mica (and) Boron Nitride	10.00
2	Propylparaben	0.25
2	Methylparaben	0.15

Procedure:

1. In main kettle, combine Sequence #1 ingredients under Light-nin' mixing and heat to 80-85C.
2. Blend Sequence #2 ingredients separately in a blender and add to Sequence #1. Mix until uniformly dispersed. Cool to 75-80C.
3. At 75-80C pour batch into a suitable container for molding.

SOURCE: Lipo Chemicals Inc.: Formula No. 1001

Powder Eye Shadow with Superior Feel

Tospearl 130A is a fine particle silicone resin. The sub-micron spherical particles act as "ball bearings" providing superior slip and lubricity. Tospearl provides a smooth, silky feel, reduces pigment/powder agglomeration and enhances the color of cosmetic products.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Mica (and) Titanium Dioxide/Pigment	6.4
Mica/Pigment	32.0
Iron Oxides/Pigment	3.0
Ultramarine/Pigment	12.7
Iron Blue/Pigment	18.9
Part B:	
Polymethylsilsesquioxane (Tospearl 130A)(1)/ Slip/ Lubricity/Smooth, silky feel	19.5
Part C:	
Dimethicone [SF96 (5)] (1)/Emollient	2.5
Squalene/Moisturizer	2.5
Petrolatum/Moisturizer	2.5
Fragrance	q.s.
Preservative	q.s.

Procedure:

- Mix pigments in Part A except titanium dioxide and mica.
- Add the titanium dioxide, mica, Part C (fragrance and preservative), and Part B to Part A with high shear mixing. Add the fragrance and preservative with the same high shear mixing.
- Press into suitable containers.

Trade Names/Suppliers:

(1) GE Silicones

Formula CC 106

Smooth, Silky Eye Shadow

A formulation using SF1214 to provide slip and spreadability. It gives a smooth, velvety feel, reduces creasing and provides durability.

Ingredient/Function:

	<u>Wt%</u>
Mica (and) Iron Oxides (and) Titanium Dioxide (1)/Pigment	40.5
Talc/Powder Base	32.4
Cyclomethicone (and) Dimethicone (SF1214) (2)/Smooth, silky feel	13.6
Oleyl Erucate/Waxy emollient	13.5

Procedure:

- Mill through a 0.027" herringbone screen.
- Press into a suitable container.

Trade Names/Suppliers:

(1) Timica Golden Bronze, Mearl Corp.

(2) GE Silicones

Formula CC 105

SOURCE: GE Silicones: Personal Care Formulary

Powder Foundation With Smooth, Silky Feel

Tospearl 130A is a fine particle silicone resin. The sub-micron spherical particles act as "ball bearings" providing superior slip and lubricity. Tospearl provides a smooth, silky feel, reduces pigment/powder agglomeration and enhances the color of cosmetic products.

<u>Ingredient:</u>	<u>Wt%</u>
Part A:	
Talc	6.6
Titanium Dioxide/Pigment	19.2
Mica (and) Titanium Dioxide/Pigment	4.8
Iron Oxides/Pigment	11.2
Zinc Oxide/Pigment	6.2
Barium Sulfate/Pigment	13.7
Part B:	
Dimethicone [SF96 (5)] (1)/Emollient	5.5
Lanolin/Emollient	8.2
Petrolatum/Moisturizer	1.4
Liquid Petrolatum/Emollient	1.4
Isopropyl Myristate/Emollient	1.4
Part C:	
Polymethylsilsesquioxane (Tospearl 130A) (1)/Slip/ Lubricity/Smooth, silky feel	20.4
Part D:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Mill all of the pigments in Part A together.
2. Add Part B, Part C, and Part D to Part A with high shear mixing.
3. Press into suitable containers.

Trade Names/Suppliers:

(1) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CC 103

Pressed Powder Makeup

This pressed powder makeup formulation exhibits excellent pay-off and exceptional strength as compared to the same formulation which contains mineral oil and sorbitan diisostearate (2.5% each) in place of the Lubrajel Oil.

<u>Material:</u>	<u>Wt%</u>
A Mearl Talc TCA	36.60
B Zinc Stearate	11.00
C Shinju 100T White	11.00
D Mearl Mica SVA	8.00
E Mearlite GBU	5.00
F Flamenco Ultrasilk 2500	10.00
G Titanium Dioxide	2.00
H D&C Red #6 Barium Lake	3.40
I FD&C Yellow #5 Aluminum Lake	2.00
J Lubrajel Oil	5.00
K Cloisone Super Gold	6.00

Procedure:

1. Components #1-#9 were combined and blended in a roller mill until uniform. This was labeled as Phase "A".
2. Component #10 was added in several portions to Phase "A" with blending in-between additions.
3. Component #11 then added and milling continued until uniform.
4. Powders were pressed to 1000 PSI using a Carver Press.

Lipstick

<u>Materials:</u>	<u>Wt%</u>
1 Lanolin Oil	4.91
2 Oleyl Alcohol	29.48
3 Super Sterol Ester (Croda)	7.37
4 Paraffin Wax 160/165	2.46
5 Unitwix	19.66
6 Fragrance	0.25
7 Castor Oil	21.62
8 Pigment Blend	14.25

Procedure:

Mill the pigment blend in the castor oil. Combine the remaining ingredients with mixing and heat to 80-85C. Add the pigment/castor oil blend to the remaining ingredients with mixing and cool to desired fill temperature and mold.

Formulation 97048-R and 97048-S

SOURCE: Guardian Laboratories: Suggested Formulations

Regenerative Gel (Preregen)

This clear, solid gel is suitable for intensive treatment of tired or slightly damaged skin. Preregen restores the elasticity of the skin.

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A)Deionized Water	79.50
2	Glycerin	3.00
3	Phenonip	0.30
4	Imidazolidinyl Urea	0.20
5	Glucam P-10/PPG-10 Methyl Glucose Ether	4.00
6	Carbopol Ultrez 10/Carbomer	1.00
7	B)Deionized Water	5.00
8	Triethanolamine	1.00
9	C)Preregen/Soybean (Glycine Soya) Protein, Oxido Reductases	5.00
10	D)Solubilizer S12/Noxoxynol-14	0.80
11	Fragrance/Parfex 52255	0.20

Procedure:

Dissolve items 2-6 in water (1).

For thickening and neutralization add phase B).

Add item 9 to the gel and finally incorporate phase D).

Application No. D 037.0/08.96

Lip Gloss (Cerasol/Hyasol-BT)

This lip gloss contains Cerasol to strengthen the barrier function and Hyasol-BT to add a pleasant feel and moisturizing activity to the formulation. The obtained white wax is therefore suitable for damaged and sensitive lips.

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A)Cutina LM	60.00
2	Miglyol 812/Caprylic/Capric Triglyceride	23.00
3	Cerasol	3.00
4	Eusolex 6300/4-Methylbenzylidene Camphor	1.00
5	Parsol 1789/Butyl Methoxydibenzoylmethane	1.00
6	B)Arlamol 801	7.00
7	Hyasol-BT/Sodium Hyaluronate	5.00

Procedure:

Heat the ingredients of phase A) to 70C.

Heat the ingredients of phase B) to 75C.

Under stirring add phase B) to phase A) and stir until mass becomes solid.

Application No. X 001.A/12.97

SOURCE: Pentapharm Ltd.: Suggested Formulations

Sand Beige Makeup (Oil-Free)

This formulation utilizes Eastman AQ55S polymer to improve wearability and water resistance while aiding pigment dispersion.

<u>Formula:</u>	<u>Wt%</u>
Part A:	
Distilled Water	58.44-60.44
Eastman AQ55S Polymer	2.00- 4.00
Veegum (Magnesium Aluminum Silicate)	1.00
Cellulose Gum (Na CMC)	0.25
Propylene Glycol	8.00
Carbowax PEG 200	1.00
Triethanolamine 99%	0.90
Trisodium EDTA	0.20

Part B:	
Talc, Lo-Micron	5.00
Titanium Dioxide 3328	5.32
Iron Oxide, Red C33-8075	0.32
Iron Oxide, Yellow C33-8073	0.64
Iron Oxide, Black C33-134	0.13

Part C:	
Dow Corning 3225C	9.00
Stearic Acid	1.80
Polawax, NF	1.00
Myverol 18-06 Monoglyceride	2.00
Polysorbate 60	1.00

Part D:	
Preservative	q.s.

Procedure:**Part A:**

Heat water to 80C. Slowly sift Eastman AQ55S polymer into water with continuous stirring. Dispersion should be complete in 20-30 minutes.

Slowly sprinkle in Veegum and cellulose gum. Mix at maximum available shear until uniform.

Add remaining Part A ingredients and mix well.

Part B:

Combine and mix ingredients until homogeneous.

Add Part B to Part A with mixing. Maintain temperature at 80C.

Part C:

Combine ingredients and heat with mixing to 80C.

Add Part C to Parts A+B. Mix while cooling.

Part D:

At 40C, add Part D and mix until uniform.

SOURCE: Eastman Chemical Co.: Formulation X22001-200

Silk Cleansing Foam

<u>Raw Materials:</u>	<u>Wt%</u>
A Phase:	
Solulan 75	3.0
Myristic acid	15.0
Stearic acid, XXX	11.0
Hydrogenated beef tallow	3.0
Lauric acid isopropanolamide	5.0
Propyl paraben	0.1
B Phase:	
TEA-lauryl sulfate (50% aq. Soln)	15.0
Na-Lauroyl sarcosinate (30% aq. Soln.)	17.0
Glucam E-20	5.0
Propylene glycol	5.0
Silkpro	2.0
KOH	5.0
Water	13.8
Methyl paraben	0.1

Procedure:

Add the B phase at 85C to the A phase at 85C, while stirring. Continue mixing and cool to 30C. Dissolve A phase at 85C and continue stirring to 70C. Add B phase at 70C to A phase. Add C phase at 70C to (A+B) phase. Continue mixing and cool to 30C.

Silky Makeup Base

<u>Raw Materials:</u>	<u>Wt%</u>
Silk Concentrate:	
Silkall 100	5.0
Pigments	10.0
Span 60	2.5
Isopropyl palmitate	2.0
A Phase:	
Stearic acid, XXX	15.0
B Phase:	
Tween 60	1.5
Propylene glycol	10.0
Water	54.0
Perfume and Preservatives	q.s.

Procedure:

Prepare silk concentrate using sufficient mixing and grinding to produce a fine dispersion. Heat the phase A to 85C. Add silk concentrate to the phase A with mixing. Heat the phase B to 85C. Add the phase B to silk concentrate at 85C and continue mixing to the room temperature.

SOURCE: Polyester Corp.: Suggested Formulations

Silk Moisturizing Makeup

<u>Raw Materials:</u>	<u>Wt%</u>
Silk Concentrate:	
Silkall 100	2.0
Titanium dioxide, U.S.P.	0.5
Pigments	4.5
 A Phase:	
Amerchol L-101	2.0
Ohlan	1.0
Mineral oil, 70 vis.	10.0
Silicone fluid	10.0
Stearic acid, XXX	15.0
Triethanolamine	4.0
 B Phase:	
Propylene glycol	5.0
Water	46.0
Perfume and Preservatives	q.s.

Procedure:

Prepare silk concentrate using sufficient mixing and grinding to produce a fine dispersion. Heat the phase A to 85C. Add silk concentrate to the phase A with mixing. Heat the phase B to 85C. Add the phase B to silk concentrate at 85C and continue mixing to the room temperature.

Compact Rouge

<u>Raw Materials:</u>	<u>Wt%</u>
Silkall 100	5.0
Talc	77.1
Titanium dioxide	5.0
Color	2.7
Perfume	0.2
Emulsion binder	10.0
 (Formula for binder):	
Light mineral oil	25.0
Sorbitan sesquioleate	10.0
Water	64.8
Methyl paraben	0.1
Propyl paraben	0.1

Procedure:

This binder is manufactured according to the procedure for making a good emulsion. It is rather unstable and should be mixed well before staying into rouge. Mix all ingredients until uniform.

SOURCE: Polyester Corp.: Suggested Formulations

Silk Translucent Pressed Powder

<u>Raw Materials:</u>	<u>Wt%</u>
Acetulan	1.0
Zinc stearate	6.0
Kaolin	2.0
Talc	46.8
Silkall 100	20.0
Titanium dioxide coated mica	10.0
Pigments	12.0
Propyl paraben	0.1
Methyl paraben	0.1

Procedure:

Mix all ingredients except Acetulan in a blender. Spray or add Acetulan binder. Micronize, then press.

Liquid Silk Foundation

<u>Raw Materials:</u>	<u>Wt%</u>
A Phase:	
Glyceryl monostearate, s.e.	1.0
Stearic acid, xxx	2.5
Lanogene	3.0
Span 80	0.8
Isopropyl myristate	5.0
Amerchol L-101	3.0
Silicone 200, 350 cstks.	0.8
Solulan 98	2.0
Squalane	6.0
Promulgen D	2.0
Silkall 100	2.0
Pigments	8.0
Propyl paraben	0.1
B Phase:	
Super refined Bentonite (4% aq. Soln.)	25.0
Sodium carboxy methyl cellulose (2% aq. Soln.)	15.0
Triethanolamine	1.2
Propylene glycol	5.0
Water	17.5
Methyl paraben	0.1

SOURCE: Polyester Corp.: Suggested Formulations

Silky Cake Eyeshadow

<u>Raw Materials:</u>	<u>Wt%</u>
Silk concentrate:	
Titanium dioxide coated mica	34.8
Silkall 100	20.0
Talc	5.0
Kaolin	9.0
Zinc stearate	8.0
Color	15.0
Binder:	
Isopropyl myristate	5.5
Acetulan	2.5
Propyl paraben	0.2

Procedure:

Mix the silk concentrate until uniform. And add the binder to silk concentrate, mix well, micronize then press.

Silky Lipstick

<u>Raw Materials:</u>	<u>Wt%</u>
Candelilla wax	5.0
Beeswax	2.0
Microcrystalline wax (m.p. 78.4C)	8.0
Carnauba wax	2.5
Amerlate P	5.0
Isopropyl myristate	10.0
Oleyl alcohol	21.0
Amerchol L-101	5.0
Propyl paraben	0.2
Silkall 100	2.0
Color	5.0
Castor oil	23.3
Perfume	1.0
Titanium dioxide coated mica	10.0

Procedure:

In a suitable steam jacketed stainless steel mixing kettle, add first 12 ingredients in order listed and heat to 85C, cool to 65C. Pass through three-roller mill. Place mass back into mixer, reheat to 85C. Admix the last two ingredients. Cool to 70-75C. Mold, wrap and label.

SOURCE: Polyester Corp.: Suggested Formulations

Skin Gel(O/W)
with ASC III

Raw Materials:

	<u>Wt%</u>
A Almond oil (Sweet Almond (Prunus Amygdalus Dulcis) Oil	7.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	4.00
Oxynex K liquid (Art. No. 108324) (PEG-8 (and) Toco- pherol (and) Ascorbyl Palmitate (and) Ascorbic Acid (and) Citric Acid)	0.50
Luvitol EHO (Cetearyl Octanoate)	4.50
Eutanol G (Octyldodecanol)	5.00
Cetiol V (Decyl Oleate)	5.00
 B Sorbitol F liquid (Art. No. 102993)	 4.00
Tris(hydroxymethyl)-aminomethane (Art. No. 108386) (Tromethamine)	 0.40
Preservatives	q.s
Water, demineralized	ad 100.00
 C Pemulen TR-1 (Acrylates/C10-30 Alkyl Acrylate Cross- polymer)	 0.40
Water, demineralized	29.60
 D ASC III (Art. No. 110154) (Lecithin (and) Dipalmitoyl Hydroxyproline (and) Beta-Sito-Sterol (and) Linoleic Acid (and) Tocopherol (and) Sodium Ascobate (and) Mannitol)	 4.00

Procedure:

Disperse the Pemulen TR-1 in the water of phase C and let swell. Incorporate phase B into phase C while homogenizing. Dissolve phase A and add small amounts to phases B/C during homogenization. Add phase D and homogenize again.

Note:

pH23C=6.3

Viscosity 21,000 mPas (Brookfield RVT, spindle C, 5 rpm) @ 23C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)

0.15% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 14-37/G

Skin Lightening Emulsion

The light emulsion associates 2 skin lighteners: Purac BF P/41 and Dermacare HS plus botanical betaglucans or a good skin-lightening effect.

<u>Ingredient:</u>	<u>Wt%</u>
A. Glyceryl stearate (and) PEG-100 stearate	1.50
Glyceryl stearate (and) ceteth-20	1.50
Cetyl alcohol	3.00
Cetearyl isononanoate	2.00
Cyclomethicone	9.00
Dimethicone	2.00
Preservative	0.35
A. Water (aqua), deionized	qs to 100.00
Preservative	qs
Titanium dioxide	4.00
Xanthan gum	0.30
Magnesium aluminum silicate	1.50
A. Purasal S/PF 60 (Sodium lactate)	8-9.5
Purac PH 90 (Lactic acid)	0.5-2 to required pH
Dermawhite HS (Laboratories Serobiologiques)	2.00
A. Cassia augustifolia seed polysaccharides (Indinyl CA)	3.00
B. Fragrance (parfum)	0.40

Procedure:

Prepare A and B separately at 75 degrees Celsius under turbine stirring. Add A into B under turbine stirring. Follow stirring, and cool to 60 degrees Celsius. At 60 degrees Celsius stop the turbine and follow stirring with planetary. At 50 degrees Celsius, add C and D. At 40 degrees Celsius, add E. Cool to room temperature.

Formula from Laboratories Serobiologiques

Anti Acne CleansingMoisturising Anti-Acne Cream

<u>Ingredient:</u>	<u>Wt%</u>
Mineral oil (25 cS at 25C)	10.00
Polawax GP200 (Nonionic emulsifying wax)	8.00
GMS A/S (Glyceryl stearate (and) PEG-100)	4.00
Crodamol IPM (Isopropyl Myristate)	3.00
Silicone 200/100 (Dimethicone)	1.00
Parsol MCX (Octyl methoxycinnamate)	1.50
Water deionised	to 100
Croderol GA 7000 (glycerin)	4.00
Purasal S/PF 90	8-18
Purac PH 90	0.08-0.23
Tocopherol acetate	0.5
Perfume. Preservative, Colour	qs

Croda Formulation

SOURCE: Purac America Inc.: Suggested Formulations

Skin Oil, Emulsifying

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	10
Miglyol 810 (Caprylic/Capric Triglyceride)	40
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	20
Softigen 701 (Glyceryl Ricinoleate)	1
Mineral Oil	28.6
B. Fragrance	0.4

Preparation:

Components of A are put together, slightly warmed up and stirred homogeneously. Then B is added.

Cleansing Milk

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 960 flakes (Glyceryl Stearate SE)	6
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	3
Dynacerin 660 (Oleyl Erucate)	1
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	5
Sweet Almond Oil	5
Cetyl Alcohol	0.5
B. Keltrol Gel 1% (hydrogel based on xanthan)	7
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated up to 75C. B is brought to the same temperature and emulsified into A. C is added at about 30C.

Skin Milk

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	5
Dynacerin 660 (Oleyl Erucate)	5
Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	4
Imwitor 375 (Glyceryl Citrate/Laurate/Linoleate Oleate)	3
Emulgade F	5
Isopropyl Myristate	4
Silicon Oil AR 200	3
B. Carbopol 980 gel 1%	10
Water ad	100
C. Fragrance	q.s.

Preparation:

A is blended and heated up to about 75C. B is brought to the same temperature and emulsified by portions into A. C is added at about 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Skin-Whitening/Skin-Lightening
Skin-Whitening Cream

<u>Ingredients:</u>	<u>Wt%</u>
Mineral Oil	10.00
Polawax	8.00
GMS	4.00
Crodamol	3.00
Silicone	1.00
Parsol	1.50
Water deionised	to 100
Croderol GA 7000 (glycerin)	4.00
Purasal S/PF 60	13-20
Purac PH 90	0.10-0.25
Tocopherol acetate	0.5
Perfume, Preservative, Colour	qs

Give formulation is based on world standard formulation. Asia Pacific customers do prefer sometimes a less greasy/sticky formulation and/or improve stability at higher temperatures:

Reduce Stickiness/Greasiness:

- * Exchange mineral oil for an emollient ester, Crodamol OP, which is branch chains and imparts a light emollience on the skin. and/or:
- * Add fatty alcohol level to impart dryness to the skin. Note, that increase of fatty alcohol increases the body of the emulsion. and/or:
- * Other emollients that may be suitable to replace mineral oil; Crodamol AB or CAP. They act as a solvent for the Parsol MCX and aid solubilisation.

Improve Temperature Stability (>50C):

- * Add thickening agent in water phase; such as cellulose, guar gum or natural clay thickening agent.
- * Other alternative: add higher melting point wax, possibly Syncrowax.

SOURCE: Purac America, Inc.: Croda Formulation

Smooth Silky Foundation

This smooth silky foundation uses Tospearl 130A, fine particle silicone resin. The sub-micron spherical particles act as "ball bearings" providing superior slip and lubricity. Tospearl 130A provides a smooth, silky feel, reduces pigment/powder agglomeration and enhances the color of cosmetic foundations. This foundation has demonstrated the use of silicones in conjunction with organics.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Panalane L-14E/Emollient	10
Bis-Phenylpropyl Dimethicone(SF1555)(1)/Emollient	10
C30-45 Alkyl Dimethicone(SF1642)(1)/Thickener, Emollient	2
PEG-30 Dipolyhydroxystearate/Secondary Emulsifier	1.0
Part B:	
Titanium Dioxide/Pigment	5.0
Yellow Iron Oxide/Pigment	1.3
Red Iron Oxide/Pigment	0.6
Black Iron Oxide/Pigment	0.1
Polymethylsilsesquioxane (Tospearl 130A)(1)/Lubricity and Feel	3
Part C:	
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528)(1)/Primary Emulsifier	15
Part D:	
Water/Vehicle	q.s.
Butylene Glycol/Humectant	2
NaCl/Stabilizer	1.0
Quaternium-15/Preservative	0.1

Procedure:

1. Combine Part A and heat to 60-65C. Mix until uniform.
2. Mill Part B and add to Part A.
3. Add SF1528 to the batch.
4. In a separate vessel, mix all ingredients of Part D. Heat to 60-65C.
5. Slowly add water phase to oil phase under moderate mixing.
6. Homogenize for 1-2 minutes.

Suppliers:

(1) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CC108

Sprayable Skin Gel

This non-aerosol, low viscosity, clear gel is used in a pump delivery system. It contains Liponic EG-1, Unimoist U-125 and Hylucare to provide complete moisturizing properties. The use of Hypan SA-100H aids in the reduction/elimination of any potential tackiness.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	86.65
1	Uniphen P-23	0.30
2	Hypan SA-100H/Acrylic Acid/Acrylonitrogens Copolymer	0.10
2	Liponic EG-1/Glycereth-26	2.50
3	Viscarin SD 389/Carageenan	1.00
4	Deionized Water	1.00
4	Triethanolamine, 99%	0.20
5	Deionized Water	1.00
5	Unicide U-13/Imidazolidinyl Urea	0.25
6	HTL MYP Hyaluronic Acid 1% sol'n	5.00
6	Unimoist U-125	2.00

Procedure:

1. Heat Sequence #1 to 80C on overhead mixer at medium/high speed.
2. Slowly add Sequence #2 into Sequence #1 while mixing at medium/high speed.
3. Add Sequence #3 to batch at medium/high speed.
4. Add premixed Sequence #4 at medium speed. Cool to 35C.
5. Add premixed Sequence #5 at medium/low speed. Cool to 25C.
6. Add premixed Sequence #6 at medium/low speed.

Specifications:

pH: 7.8+-0.2

Viscosity: LVT #3 @ 12 rpm=7,500 cps+-10%

SOURCE: Lipo Chemicals Inc.: Formula No. 972

Substantive Lip Balm with Sunscreen

SF1318, silicone resin ester, is a copolymer of a silicone resin and a long-chain organic ester. It provides excellent compatibility with organic materials and substantivity to the skin. It is commonly used to enhance the durability of cosmetic products. In this formulation, SF1318 provides a substantive film which makes the lip balm very durable, providing moisturization as well as sun protection for several hours. Pigments could be added to make a colored lip gloss product.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Lily White Petrolatum/Moisturizer	35.87
Mineral Oil/Emollient	11.00
Castor Oil/Emollient	10.00
Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318) (1)/Film-former/Emollient	20.00
Propylparaben/Preservative	0.10
Candelilla Wax/Wax matrix	4.00
Yellow Beeswax/Wax matrix	3.00
Ozokerite Wax/Wax matrix	6.00
Carnauba Wax/Wax matrix	3.00
Hydrogenated Castor Oil/Wax matrix	0.50
Tocopherol/Vitamin E/Antioxidant	0.03
Part B:	
Octyl Methoxycinnamate/UV Absorber	6.00
Part C:	
Flavoring (2)	0.50

Procedure:

1. Combine Part A ingredients in order listed and heat with agitation to 85-90C. Mix at temperature for approximately 15 minutes.
2. Cool to 75C. Add Part B with good agitation.
3. Add Part C to Part AB with agitation and mix for 10 minutes. Pour into containers at 75C.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Pineapple Flavor 4-430, Glidco

SOURCE: GE Silicones: Personal Care Formulary: Formula CC 100

Total Block Lipgloss

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Ozokerite FFW/Ozokerite	3.0
Multiwax W445/Microcrystalline Wax	10.0
Cetyl Alcohol	3.0
Modulan/Acetylated Lanolin	19.9
Schercemol TISC/Triisostearyl Citrate	25.0
Indopol H100/Polybutene	22.0
Dipsal/Dipropylene Glycol Salicylate	1.0
NeoHeliopan AV/Octyl Methoxycinnamate	7.5
NecHeliopan BB/Benzophenone-3	4.5
Propylparaben	0.1
Colors	4.0
Fragrance	q.s.

Procedure:

Weigh and heat all ingredients except for pigments and fragrance, gently to 70C on a steambath until uniform. Remove from heat. Add remaining ingredients and mix slowly to 35C. Pour into pots.
Formula SK-136

Chapstick with Vitamins

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Petrolatum	47.3
Isopropyl Lanolate	6.0
Ozokerite Wax	16.5
Candelilla Wax	4.5
Schercemol DID/Diisopropyl Dilinoleate	25.0
Vitamin A Palmitate	0.5
Vitamin E Acetate	0.2
Fragrance	q.s.

Procedure:

Heat all ingredients to 75-80C until melted and uniform. Cast into molds.
Formula SK-139

SOURCE: Scher Chemicals, Inc.: Formulas SK-136 and SK-139

Total Block Lipgloss

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Ozokerite FFW/Ozokerite	3.0
Multiwax W445/Microcrystalline Wax	9.0
Modulan/Acetylated Lanolin	19.9
Schercemol TISC/Triisostearyl Citrate	20.0
Indopol H100/Polybutene	22.0
Schercemol DID/Diisopropyl Dimer Dilinoleate	7.0
Dipsal/Dipropylene Glycol Salicylate	3.0
NeoHeliopan AV/Octyl Methoxycinnamate	7.5
NeoHeliopan BB/Benzophenone-3	4.5
Propylparaben	0.1
Colors	4.0
Fragrance	q.s.

Procedure:

Weigh and heat all ingredients, except for pigments and fragrance, gently to 70C on a steambath until uniform. Remove from heat. Add remaining ingredients and mix slowly to 35C.

Pour into pots.

Formulation SK 137

Lipgloss with Sunscreen

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercemol TISC/Triisostearyl Citrate	59.4
Candelilla Wax	8.0
Myristyl Lactate	7.5
Microcrystalline Wax	5.0
Carnauba Wax	2.0
Schercemol DID/Diisopropyl Dimer Dilinoleate	10.0
Propylparaben	0.1
Mica (and) Bismuth Oxychloride (and) Carmine	6.0
Zinc Oxide (Z-Cote, Micronized ZnO)	2.0

Procedure:

Heat all ingredients (except last two) to 75-80C or until melted and uniform. Add pigment and zinc oxide. Mix until homogeneous. Cast into molds.

Formulation SK 84

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Undereye and Spot Concealer Makeup Using Avalure UR 445 Polymer
A0003

This undereye and spot concealer makeup can be applied either from an automatic unit containing a brush for application or from a tube with a narrow opening. The urethane polymer contributes to the long lasting film forming properties while providing improved adhesion to the spot or area being covered. It is also a good substitute for the pigment suspending capabilities of colloidal clay, so common to these types of products.

INCI-CTFA Name/Trade Name:Wt%

Part A:

1. Deionized Water	58.95
2. Methylparaben NF	0.10
3. Methocel 40-202	0.20
4. Triethanolamine (99%)	1.00
5. DL-Panthenol USP	0.30
6. Avalure UR 445 Polymer	2.50
7. Protachem GL-26/Glycereth-26	4.50

Part B:

8. Mica/Sericite GMS-4C	5.00
9. Kaolin 2457	0.50
10. Titanium Dioxide 3328 USP Anatase Type	3.20
11. C33-7715 Cosmetic Brown/Iron Oxides	0.50
12. C33-7738 Cosmetic Russet/Iron Oxides	0.10
13. C33-7773 Cosmetic Yellow/Iron Oxides	0.40
14. C33-7775 Cosmetic Red/Iron Oxides	0.10
15. C33-7734 Cosmetic Black/Iron Oxides	0.05

Part C:

16. Emersol 132/Stearic Acid	3.00
17. Protachem GMS-450/Glyceryl Stearate	3.00
18. Protachem IPP/Isopropyl Palmitate	2.00
19. Elfac I205/Octyldodecyl Neo-Pentanoate	1.00
20. Eutanol G/Octyldodecanol	2.00
21. Lipovol G/Grape Seed Oil	0.50
22. Lipovol J/Jojoba Oil	3.00
23. Propyl Paraben	0.10

Part D:

24. Dow Corning 245 Fluid/Cyclomethicone	7.00
25. Vitamin E Acetate/Tocopheryl Acetate	0.10
26. Vitamin A Palmitate/Retinyl Palmitate	0.10
27. Actiphyte of Aloe Vera/Aloe Extract	0.10
28. Germaben II	0.50

Continued Next Page

Undereye and Spot Concealer Makeup Using Avalure UR 445 Polymer
A0003 (Continued)

Properties:

Color, Odor, Appearance: Pigmented, moderately thick cream
with slight wax-like odor

pH: 7.5-8.0

Viscosity* cP at 25C: 5,000-6,000

*Brookfield RVT @ 20 rpm, #4 spindle

Preparation Procedure:

Part A:

1. Add the deionized water to a suitable kettle and then add the methylparaben.
2. Heat the water to 35C to dissolve the methylparaben and then add the methocel.
3. Continue mixing until the methocel is dispersed and no lumps appear.
4. Add the triethanolamine and mix until the solution is clear. Add the Panthenol and mix until dissolved.
5. Add the Avalure UR 445 polymer and mix until it is dispersed and a colloidal white solution occurs.
6. Add the Glycereth-26 and heat to 75C.

Part B:

7. Mix all of the powders together and mill if necessary until the blend is uniform and no streaks or particles of pigment are present.
8. Add this powder blend to Part A and mix until ready to combine with Part C.

Part C:

9. Mix all of the ingredients of Part C in a suitable vessel and heat to 75C.
10. After all of the ingredients are completely melted, add Part C to Parts A&B and continue mixing until the emulsion forms.

Part D:

11. Begin cooling the combined batch to 70C and add the cyclomethicone. Mix well to insure that the cyclomethicone is brought into the emulsion and is uniformly dispersed. Continue cooling and mixing.
12. Add vitamins at 45C and mix well.
13. Add aloe and mix well.
14. Add the Germaben II and continue cooling to room temperature.

SOURCE: BFGoodrich Specialty Chemicals: Formulation A0003

Waterproof Mascara

SF1318, silicone resin ester, is a copolymer of a silicone resin and a long-chain organic ester. It provides excellent compatibility with organic materials, excellent substantivity and is totally non-irritating to the eyes and skin. It is commonly used to enhance the durability of cosmetic products. In this formulation, SF1318 provides a film which is water resistant, smear resistant, non-flaking and non-irritating to the eyes.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	51.45
Propylene Glycol/Humectant	3.0
Methylparaben/Preservative	0.2
Imidazolidinyl Urea/Preservative	0.15
Triethanolamine 99%/Neutralizer/Emulsifier	3.10
Acrylates/Octylacrylamine Copolymer/Dermacryl-79/ Film-former	5.00
Part B:	
Diisostearyl Trimethylolpropane Siloxy Silicate (SF1318)/Film-former/Emollient	5.00
Candelilla Wax/Wax matrix	4.50
Yellow Beeswax/Wax matrix	5.50
Ozokerite Wax/Wax matrix	2.00
Carnauba Wax/Wax matrix	1.00
Cetyl Alcohol/Thickener/Secondary emulsifier	3.00
Stearic Acid/Primary emulsifier	5.00
Propylparaben/Preservative	0.10
Part C:	
Iron Oxides/Pigment	11.00

Procedure:

1. While heating Part A water to 90C, add remaining ingredients in order listed with moderate propeller agitation.
2. Combine Part B and heat to 90C with moderate propeller agitation. When Part B reaches 90C, add Part C to Part B with high shear homomixer agitation (Silverson with square hole screen) for 30-40 minutes.
3. Add Part BC SLOWLY to Part A at 85-90C with moderate propeller agitation. Mix 10 minutes and begin force-cooling with propeller and sweep agitation to room temperature.

SOURCE: GE Silicones: Personal Care Formulary: Formulation CC 101

Section V

Creams

AHA Soft CreamIngredients:

	<u>Wt%</u>
Phase A:	
Arlamol E	9.0
Brij 72	4.0
Brij 721	2.0
Stearic acid	1.5
Dimethicone, 20 cst	1.0
Stearyl alcohol	1.0

Phase B:

Water	to 100
Propylene glycol	4.0

Phase C:

Purasal S/PF 60 (60% sodium lactate)	5-12
Purac PH 90 (Lactic acid) to required pH	2- 5

Procedure:

1. Heat A to 70C, B to 72C.
 2. Add B to A slowly while stirring.
 3. Homogenise for 1 minute.
- ICI formulation

Moisturising CreamIngredients:

	<u>Wt%</u>
Cosmowax D (cetearyl alcohol and Ceteareth 20)	8.00
GMS A/S (glyceryl stearate (and) PEG-100)	4.00
Light mineral oil (25 cS at 25C)	10.00
Crodamol IPM (isopropyl myristate)	3.00
Silicone 200/100 (dimethicone)	1.00
Water deionised	to 100
Croderol GA 7000 (Glycerin)	4.00
Purasal S/HQ 60	5-12
Purac PH 90	0.05-0.15
Perfume, Preservative, Colour	qs

Heat oil phase and water phase separately to 60-70C. Add water phase to oil phase while stirring. Stir to cool. Add perfume at 40-45C.

Croda formulation

SOURCE: Purac America, Inc.: Suggested Formulations

Anti-Cellulite Cream

An oil-in-water cream containing Bentone Gel TNV rheological additive

<u>Ingredients:</u>	<u>Wt%</u>
Methyl Glucose Sesquistearate	4.50
Hexyl Decanol, Hexyldecyl Laurate	4.00
C12-15 Alkyl Benzoate	3.00
Cetearyl Alcohol	3.00
Glycerine 99.5%	4.00
Algae Extract	0.10
Bentone Gel TNV	3.00
Perfume	0.25
Methyldibromoglutaronitrile, Propylene Glycol	0.20
Demineralized Water	Bal to 100%

Method of Manufacture:

1. Mix the liquid oil and the ester. Thoroughly disperse the Bentone Gel TNV in the mixture. Add the Cetearyl Alcohol and the emulsifier to the mix.
2. Heat to 75C.
3. In a separate vessel, blend the glycerine with the water and heat to 75C.
4. Add the oil phase to the water phase with minimal initial stirring, then emulsify with a homogenizer on low speed. Care is needed with the extent of stirring or a water-in-oil emulsion will form then invert to an oil-in-water system with a large particle size on cooling.
5. At around 65C transfer to a propeller stirrer and continue to cool.
6. At below 35C add the algae extract, perfume and preservative.

The major formulation components of the cream, including the active ingredient Bentone Gel TNV, have been specifically selected to be of vegetable origin.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Anti-Wrinkle Treatment CreamConcept Statement:

An elegant, white, creamy emulsion containing Rovisome-AHA, which delivers Sodium Lactate to the skin.

Ingredients/Function:

	<u>Wt%</u>
1. Pationic SBL (Sodium Behenoyl Lactylate)/Lactylate	1.60
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	3.00
3. Rita GMS (Glyceryl Stearate)/Emulsifier	2.60
4. Rita IPP (Isopropyl Palmitate)/Emollient	6.00
5. Rita SSO (Sunflower Seed Oil)/Emollient	6.00
6. Distilled/Deionized Water	71.60
7. Rita Glycerine (Glycerine)/Humectant	3.00
8. Lanodant DM (DMDM Hydantoin)/Preservative	0.20
9. Rovisome-AHA (Sodium Lactate and Alcohol and Lecithin)/Liposome	6.00
10. Fragrance/Odor	q.s.

Compounding Procedure:

Combine items 1 to 5 and heat to 80C. Combine items 6 and 7 and heat to 80C. Add oil phase to water phase. Cool to 35C. Add items 8 and 9. Add item 10.

LI Ref. No. 124-26B

Cleansing CreamConcept Statement:

A cleansing cream with Pationic SCL to provide skin moisture and smoothness, and a pleasant feel.

Ingredients/Function:

	<u>Wt%</u>
1. Rita GMS (Glyceryl Stearate)/Emulsifier	4.00
2. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	1.60
3. Pationic SCL (Sodium Cocoyl Lactylate)/Lactylate	0.50
4. Mineral Oil/Emollient	20.00
5. Ritachol (Mineral Oil and Lanolin Alcohol)/Emollient	4.00
6. Distilled/Deionized Water/Vehicle	64.70
7. Glycerine/Humectant	5.00
8. DMDM Hydantoin/Preservative	0.20

Compounding Procedure:

Combine items 1-5 and heat to 80C. Combine items 6 and 7 and heat to 80C. Add oil phase to water phase. Cool to 35C and add item 8.

LI Ref. No. 124-32

SOURCE: R.I.T.A. Corp.: Facial Care Formulations

Avocado Cream, Paraffin Free

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol Gel B	15
Miglyol 812 (Caprylic/Capric Triglyceride)	8
Imwitor 780K (Isostearyl Glyceryl Succinate)	5
Avocado Oil	6
Lactil	
Sesame Oil	4
B. Karion F (Sorbitol)	5
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.
D. Collagen CLR	3

Preparation:

A is homogeneously stirred and heated up to approx. 75C. B is brought to the same temperature and emulsified into A. C and D are added at about 30C.

Skin Care Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softigen 701 (Glyceryl Ricinoleate)	9
Imwitor 960 flakes (Glyceryl Stearate SE)	8
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Stearic Acid	7
Cetyl Alcohol	2
B. Preservative	q.s.
Glycerol	4
Water ad	100
C. Triethanolamine	1
D. Fragrance	q.s.

Preparation:

A is heated to about 75C. B is brought to the same temperature and put into C. Then B+C is emulsified into A. D is stirred in at about 40C. It is advantageous to homogenize the cream prior to filling.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Barrier Cream

A protective skin cream which acts as a barrier, providing protection to the skin when under occupational and environmental stress. In addition, it provides protection from chafed, chapped or wind-burned skin and falls within the requirements of the FDA monograph for OTC skin protectant products. SF1632 is a silicone alkyl copolymer which provides an occlusive barrier and reduces water loss from the skin (TEWL). SF1214 is a solution of high molecular weight silicone gum in cyclopentasiloxane which provides a breathable barrier and a smooth, silky feel to the skin.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	77.23
Tetrasodium EDTA/Chelating agent	0.05
PEG-8/Humectant	3.00
1,3 Butylene Glycol/Humectant	2.00
Methylparaben/Preservative	0.25
Propylparaben/Preservative	0.10
Imidazolidinyl Urea/Preservative	0.20
Magnesium Aluminum Silicate/Thickener	0.25
Part B:	
Cetearyl Methicone(SF1632)(1)/Occlusive/TEWL reduction	8.00
Cyclopentasiloxane (and) Dimethicone(SF1214)(1)/ Protectant/Smooth/Silky feel	7.00
Acrylates/C10-30 Alkyl Acrylate Crosspolymer(2)/ Emulsifier	0.30
Carbomer(3)/Thickener	0.30
Sorbitan Oleate/Emulsifier	0.60
Part C:	
Fragrance(4)	0.12
Part D:	
Triethanolamine 99% (to pH 7.0)/Neutralizer	0.60

Procedure:

1. Heat water of Part A to 50C. Add remaining ingredients of Part A with moderate propeller agitation. Mix for 10 minutes.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B to Part A with rapid propeller agitation. Mix for 30 minutes or longer to ensure that the polymers are completely dispersed.
4. Cool with moderate agitation to 45C. Add Part C to batch with moderate propeller agitation. Mix for 10 minutes
5. Add Part D to batch at 40C. Mix with moderate agitation for 20 minutes.
6. Cool to room temperature.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Pemulen TR-1, BF Goodrich
- (3) Carbopol 2984, BF Goodrich
- (4) Fragrance #830079, Shaw Mudge

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 110

Care Cream

Solid cream. Good spreadability, good absorption. Leaves a pleasant soft touch.

<u>Ingredients:</u>	<u>Wt%</u>
A: Emulgator E 2155	6.00
Isopropyl Myristate	10.00
Stearyl Alcohol	1.00
Mineral Oil	3.00
Wacker-Belsil DM 100	2.00
Wacker-Belsil SM 6018	5.00
B: Glycerine	3.00
Water	70.00
Preservatives, fragrances, pigments	q.s.

Heat A and B to 65C, mix and homogenize, cool whilst stirring.

SOURCE: Wacker Silicones: Formulation 1325 AH

W/O Basic Cream

<u>Ingredients:</u>	<u>Wt%</u>
A. Miglyol 812	20.00
Imwitor 780K	5.00
Softisan 649	3.00
Petrolatum, white	23.00
Beeswax	7.00
B. Preservative	q.s.
Water, ad	100.00
C. Fragrance	q.s.

Preparation:

A is heated to 75-80C.

B is heated to the same temperature.

B is slowly emulsified into A.

At about 30C C is added.

SOURCE: Huls Aktiengesellschaft: Formulation HUK WOCII

Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A: Polyoxyethylene Sorbitan Monostearate (20EO)	2.5
Sorbitan Monostearate	2.5
Polyoxyethylene Sorbit Tetraoleate (30EO)	1.0
Stearic Acid	3.0
Cetanol	1.0
Cetyl Palmitate	2.0
Paraffin	3.0
MITD (Isotridecyl Myristate)	2.0
Glyceryl Trioctanoate	3.0
Liquid Paraffin	10.0
Alpha-Bisabolol	0.1
Butyl Parahydroxybenzoate	0.1
B: Isoprene Glycol	5.0
Triethanolamine	0.1
Methyl Parahydroxybenzoate	0.1
Purified Water	Up to 100

Moisturizing Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Stearic acid	15.0
Lanolin	5.0
Beeswax	2.0
Robane	20.0
d-Sorbitol 70%	13.0
Sorbitan trioleate	1.0
POE Sorbitan trioleate	1.0
Water, perfume, preservative	q.s. to 100

Moisturizing Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Hexadecyl alcohol	35.0
Robane	10.0
Cetina	2.0
Paraffin 130	2.0
Beeswax	14.0
Lanolin, anhydrous	1.0
Borax	1.0
Water, perfume, preservative	q.s. to 100

SOURCE: Robeco Chemicals Inc.: Suggested Formulations

Cream, Type O/W with Lactokine Fluid and Cutavit Richter

<u>Ingredients:</u>	<u>Wt%</u>
a) Lubrajel MS	15.00
Lanette 16	5.00
Cetiol MM	5.00
Cutavit Richter	1.00
Phenonip	0.30
b) Water, distilled	63.20
Phenonip	0.30
Ultrez 10	0.40
Keltrol	0.20
1,2 Propylene glycol	3.00
D-Panthenol	0.50
NaOH 10%	1.10
c) Lactokine Fluid	5.00

pH value 6.10

Manufacture:

- a) melt and bring to approx. 70C;
- b) heat to approx. 70C and stir into a).
Continue stirring until cooled to approx. 30C;
- c) stir in.
Perfume, homogenize

Cream, Type O/W, with Lactokine Fluid

<u>Ingredients:</u>	<u>Wt%</u>
a) Arlamol HD	10.00
Arlamol M 812	5.00
Stearyl alcohol	5.00
Arlacel 60	2.00
Phenonip	0.30
b) Water, distilled	65.30
Phenonip	0.30
G-2330	1.50
Keltrol	0.10
Arlatone 2121	5.50
c) Lactokine Fluid	5.00

Manufacture:

- a) melt and bring to about 80C;
- b) heat to about 80C and stir into a).
Continue stirring until the cream has cooled to about 30C;
- c) stir in.
Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Day Cream

A photoprotecting and emollient cream for daily use for moist-urising and protection. The inclusion of Lipex Shea-U brings UV-absorbing and anti-inflammatory components to the skin. Lipex 512 helps to soften and smooth the skin to prevent dryness and further improve the excellent skin feel of shea derived products.

<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
A. Arlatone 985/Polyoxyethylene stearyl stearate	4.0
Brij 721/Steareth-21	2.0
Jarcol I-20/Octyldodecanol	8.0
Lipex 512/Shea butter (<i>Bytorosternum parkii</i>)	4.0
Lipex Shea-U/Shea butter unsaponifiables	4.0
B. Atlas G-2330/Sorbeth-30	2.5
Water	75.0
Phenonip/Esters of p-hydroxybenzoic acid	0.45
C. Perfume	0.05

Procedure:

1. Heat the phases A and B to 75C.
2. Add the oily phase A to the water phase B whilst stirring thoroughly.
3. Cool down to 55C, homogenize.
4. Cool down to 35C, add C.
5. Cool down to room temperature whilst stirring.

Rheological Characteristics:

Viscosity after one week at 20C (Bohlin Rheometer VOR):
 10 Pas at shear rate of 1.0 s⁻¹
 1.1 Pas at shear rate of 30.0 s⁻¹

SOURCE: Jarchem Industries, Inc.: Suggested Formulation

Day Protecting Cream (Elhibin/Iricalmin)

This day cream with natural based emulsifier contains UV-filters and different active ingredients. Iricalmin has an anti-irritant effect and promotes the normalization of stressed skin. Elhibin protects the skin from degradation of proteins by its elastase inhibitor activity.

<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
A) Tego Care 450/Polyglyceryl-3 Methylglucose Distearate	2.50
Lanette O/Cetearyl Alcohol	2.00
Cutina GMS V/Glyceryl Stearate	2.00
Cetiol OE/Dicaprylyl Ether	5.00
Cetiol 868/Octyl Stearate	8.00
Fitoderm/Squalane	5.00
Parsol MCX/Octyl Methoxycinnamate	2.00
Parsol 1789/Butyl Methoxydibenzoylmethane	1.00
Vitamin E Acetate/Tocopheryl Acetate	0.20
B) Deionized Water	61.50
Elhibin/Soy Bean (Glycine Soja) Protein	2.00
C) Glycerin/Glycerin	5.00
Iricalmin/Water, Wheat (Tritium Vulgare) Germ Extract, Saccharomyces Cerevisiae Extract, Sodium Hyaluronate	3.00
Phenonip	0.50
D) Fragrance/Rivalia 0/221212	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phase D).

SOURCE: Pentapharm Ltd.: Application No. A 056.0/05.99

Dry Skin Cream with Completech VCB-SM-H

A skin softening moisturizing cream utilizing Completech VCB-SM-H to support the natural defense mechanisms against the adverse effects of free radicals.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	69.15
2	Keltrol/Xanthan Gum	0.25
2	Veegum/Magnesium Aluminum Silicate	0.20
3	Uniphen P-23	0.50
3	Glycerine	1.00
3	Liponic EG-1/Glycereth-26	1.50
4	Ultrapure L/White Petrolatum USP	7.50
4	Meadowfoam Seed Oil	2.00
4	Lipomulse 165	2.00
4	Liponate NPGC-2/Neopentyl Glycol Dicaprylate/ Dicaprata	2.50
4	Lipovol SAF/Safflower Oil	1.00
4	Lipovol SES/Sesame Oil	1.00
4	Lipocol C/Cetyl Alcohol	1.00
4	Lipopeg 6000-DS/PEG-150 Distearate	0.75
4	Lipowax P/Emulsifying Wax, NF	0.50
5	Deionized Water	1.00
5	Unicide U-13/Imidazolidinyl Urea	0.25
5	Citric Acid(50% sol'n)	QS
6	Completech VCB-SM-H	1.20
6	Deionized Water	6.50
7	Unistab S-69/Farnesol (and) Linalool	0.20

Procedure:

- Mix Sequence #1 together with overhead mixer while heating to 78C.
- Dry mix Sequence #2 ingredients and add slowly to Sequence #1 with medium/high agitation. Mix well until both gums are completely hydrated.
- Premix Sequence #3 ingredients and add to batch while holding temperature at 78C.
- Mix Sequence #4 together while heating to 78C or until completely melted and add to batch. Cool to 60C.
- At 60C place batch on sweep blade mixing at low speed while cooling to 35C.
- At 35C add premixed Sequence #5 to batch.
- Add premixed Sequence #6 to batch. Cool to 25C.
- At 25C add Sequence #7 to batch at low speed.

Specifications:

pH: 5.50+/-0.2

Viscosity: T-E @ 3 rpm=38,400cps+/-10%

SOURCE: Lipo Chemicals Inc.: Formula No. 1032

Economy Skin Cream

An economical oil-in-water cream containing Bentone Gel MIO and Bentone LT.

<u>Ingredients:</u>	<u>Wt%</u>
Cetearyl Alcohol, Cetareth 20	3.50
Mineral Oil	5.00
Octyldodecanol	1.50
Cetyl Alcohol	0.75
Octyl Palmitate	5.00
Glycerine 99.5%	2.00
Perfume	0.40
Bentone Gel MIO	1.50
Bentone LT (dispersion)	23.30
Demineralized Water	Bal to 100%
Bentone LT dispersion	
Bentone LT	3.00
Demineralized Water	97.00

Method of Manufacture:

1. Prepare a dispersion of the Bentone LT in water. (See below)
2. Add the glycerine and water to the Bentone LT dispersion and heat to 75-80C.
3. Thoroughly disperse the Bentone Gel MIO in the liquid oils and ester, add the emulsifier and the Cetyl Alcohol and heat to 75-80C.
4. Add the two phases together with high shear stirring.
5. At 50C, transfer to a propeller stirrer and continue to cool.
6. At 30C add the perfume and preservative.

Preparation of Bentone LT dispersion:

1. Prepare a 3% dispersion of Bentone LT in demineralized water using a rotor-stator or similar high-shear mixer (e.g. Silverson). Start the mixer in the water, steadily add the Bentone LT to the vortex and stir until completely dispersed (15-20 mins).
2. Allow the suspension to stand to let any entrapped air escape.

This basic functional skin care cream has been developed to meet the needs of the economy emulsions sector. The formulation provides a rich feeling cream (that would be expected from higher cost ingredients), excellent application properties and leaves a silky after-feel. It demonstrates Bentone Gel can be used in the "economy" end of the market as well as in the usual higher-margin sector products.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Emollient Night Cream

This rich, nongreasy cream is ideal for overnight use. High levels of moisturizers provide excellent treatment for dry skin.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Deionized Water	55.40
Propylene Glycol	3.50
Sodium PCA/Ajidew N-50	1.00
Methylparaben	0.15
B: Petrolatum/Snow Petrolatum	10.00
Benzyl Laurate/Mazon EE-1	7.50
Mineral Oil/Drakeol 500	4.00
Isopropyl Myristate/Estol 1514	3.50
Cetyl Alcohol	3.00
PEG-20 Stearate/Cerasynt 840	3.00
Polysorbate 60/Tween 60	3.00
Stearyl Alcohol	3.00
Arlamol E/PPG-15 Stearyl Ether	2.00
Tocopheryl Acetate/Vitamin E Acetate	0.50
Propylparaben	0.15
C: Imidazolidinyl Urea/Germall 115	0.30
Fragrance	q.s.

Procedure:

Heat part A to 70C with stirring. Heat part B to 75C with stirring until all the solids have dissolved. Add part A to part B with stirring, and continue mixing while allowing the blend to cool. Add part C when the mixture is below 40C. Continue stirring until the mixture is below 30C, then package.

Formula 597-114

Cocoa Butter Skin Cream

This rich, anhydrous cream goes on smoothly and provides excellent moisturization. It gives relief to extremely dry skin and may be beneficial for stretch marks.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Mineral Oil/Drakeol 21	32.00
Microcrystalline Wax	32.00
Cocoa Butter	25.50
Petrolatum/Snow Petrolatum	10.00
Tocopheryl Acetate/Vitamin E Acetate	0.20
Allantoin	0.20
Propylparaben	0.10
Fragrance	q.s.

Procedure:

Mix all ingredients except fragrance at 95C until uniform. Let cool with mixing. Add the fragrance and pour into containers just above the solidification temperature.

Formula 597-122

SOURCE: Penreco: Suggested Formulations

Hand and Nail Cream

A rich textured, nourishing, water-in-oil hand and nail cream containing Bentone Gel VS-5

<u>Ingredients:</u>	<u>Wt%</u>
Laurylmethicone Copolyol	2.00
Cyclomethicone	7.00
Isopropyl Palmitate	2.00
Glyceryl Tricaprylate/caprata	6.00
Sweet Almond Oil	2.00
Silk Protein Gydrolysate	1.00
Sodium Chloride	2.00
Bentone Gel VS-5	4.00
Perfume	0.15
Preservative	0.10
EDTA Disodium	0.10
Demineralized Water	Bal to 100%

Method of Manufacture:

1. Mix together the silk protein, Sodium Chloride, EDTA, glycerine and water.
2. Mix the Bentone Gel VS-5 thoroughly with the cyclomethicone. This is a simple blending operation and does not require heating.
3. Add the gel pre-mix to the rest of the oil phase and blend thoroughly.
4. Using high-shear mixing, slowly add approximately 1% of the water phase to the oil phase and continue to homogenize for several minutes before further addition. Very slowly add the remainder of the water phase, a little at a time, waiting until the previous addition has been incorporated into the system before further water is added. Continue to homogenize for several minutes after the addition is complete.
5. Add perfume and preservative.

Water-in-oil creams of this type tend to be somewhat heavy in texture and have residual tack. The use of Bentone Gel VS-5 retains a rich texture, yet gives the cream a light feel and eliminates both the greasy feel and tack.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formulas

Light Daycream, Skin Smoothing

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric/Triglyceride)	4
Imwitor 928 (Glyceryl Cocoate)	1
Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	8
Dynacerein 660 (Oleyl Erucate)	4
Imwitor 960 flakes (Glyceryl Stearate SE)	8
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	2
PCL liquid (Synthetic rump fat)	2
Cetyl Alcohol	0.5
B. Glycerol	6
Allantoin	0.2
Preservative	q.s.
Water ad	100

Preparation:

A is heated to about 75C. B is brought to the same temperature and emulsified into A. C is added at about 40C.

Eye Cream with UV-filter and Evening Primrose Oil

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 818 (Caprylic/Capric/Linoleic Triglyceride)	5
Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	5
Dynacerein 660 (Oleyl Erucate)	5
Imwitor 370 (Glyceryl Stearate Citrate)	5
Imwitor 375 (Glyceryl Citrate/Lactate/Linoleate/Oleate)	8
Evening Primrose Oil	3
Hombitec L5 (Micronized TiO ₂)	3
B. Carbopol 980-Gel 1%, neutralized with KOH	15
Preservative	q.s.
Water ad	100
C. Extrapon Biopollin Spezial (plant extract)	2

Preparation:

A is put together, heated up to about 75-80C and is homogenized. B is stirred homogeneously, brought to the same temperature and emulsified into A. C is added at about 30C and then stirred cold.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Moisture Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	12
Imwitor 370 (Glyceryl Stearate Citrate)	5
Imwitor 928 (Glyceryl Cocoate)	5
B. Hygroplex HHG (Moisture factor)	5
Carbopol 980 (Carbomer)	0.2
NaOH 10%	0.4
Preservative	q.s.
Water ad	100

Preparation:

A is heated to ca. 75C. B is mixed and brought to the same temperature. Then B is emulsified into A. C is added at about 30C.

W/O Cream, Basic Receipt

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol Gel B	10
Imwitor 780K (Isostearyl Glyceryl Succinate)	3
Mineral oil	17
B. Paraffin	3
C. Preservative	q.s.
Water ad	100

Preparation:

A is homogeneously stirred, B is added into A and the mixture is heated to approx. 75C. C is brought to the same temperature and emulsified into A+B.

Nightcream with Wheat Germ Oil

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol Gel B	20
Imwitor 780K (Isostearyl Glyceryl Succinate)	5
Wheat Germ Oil	5
Mineral Oil	8
Paraffin	3
B. Magnesium Sulphate	2
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is homogeneously stirred and warmed up to about 75C. B is brought to the same temperature and emulsified into A+B. C is admixed at approx. 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Moisture Cream-I

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Formula A:	
Schercemol DID/Diisopropyl Dimer Dilinoleate	11.0
Stearic Acid	5.0
Schercemol GMIS/Glycerol Monoisostearate	8.0
Hydroxylated Lanolin	0.5
Synthetic Spermaceti Wax/Cetyl Esters	4.0
Formula B:	
Propylene Glycol	3.0
Triethanolamine (99%)	1.5
Deionized Water	67.0
Preservative	q.s.

Procedure:

Heat both phases to 70C. Add water to oil with moderate agitation. Cool to room temperature with mixing.

Moisture Cream-#2

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Formula A:	
Schercemol 185/Isostearyl Neopentanoate	11.0
Stearic Acid	5.0
Schercemol GMIS/Glycerol Monoisostearate	8.0
Hydroxylated Lanolin	0.5
Formula B:	
Propylene Glycol	3.0
Triethanolamine (99%)	1.5
Deionized Water	67.0
Preservative	q.s.

Procedure:

Heat both phases to 70C. Add water to oil with moderate agitation. Cool to room temperature with mixing.

SOURCE: Scher Chemicals, Inc.: Formulation SK 145

Moisturizing Cream #3

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A. Schercemol PGMS (Propylene Glycol Stearate)	2.00
Schercemol TIST (Triisostearyl Trimerate)	2.00
Cetyl Alcohol	3.00
Arlacel 165 (Glyceryl Stearate & PEG 100 Stearate)	2.50
Schercemol DID (Diisopropyl Dimerate)	8.00
B. Water, Deionized	75.75
Carbopol 934	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide	0.50
E. Fragrance (Givaudan)	0.25

Procedure:

1. Prepare Part A by heating the ingredients to 75C to dissolve the solids.
2. Part B. Prepare Carbopol solution by dispersing Carbopol into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion to about 80C until a smooth, viscous solution is formed.
3. Combine Part C at 55C and add to Part B.
4. Add Part B & C to Part A with continual mixing. Allow the batch to cool.
5. At 55C, add Part D. Then add fragrance at room temperature.

Cleansing Cream #4

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A. Schercemol MM/Myristyl Myristate	4.00
Stearic Acid, Triple Pressed	3.00
Schercemol 318/Isopropyl Isostearate	7.00
Schercemol PGMS/Propylene Glycol Stearate	4.00
Propyl Paraben	0.20
Arlacel 165/Glycerol Stearate & PEG 100 Stearate	2.50
Cetyl Alcohol	1.00
B. Triethanolamine	1.50
Carbowax 400	5.00
Water, Deionized	71.35
Methyl Paraben	0.20
C. Fragrance (Givaudan)	0.25

Procedure:

1. Prepare Part A. Heat it to 70-75C.
2. Prepare Part B. Heat it to 70-75C.
3. Add Part B to Part A with continual stirring.
4. Cool to 40C with agitation. Add fragrance.

SOURCE: Scher Chemicals, Inc.: Formulary

Moisturizing Day Cream (Fitobroside/Mariscan)

This soft cream for daily use is based on many natural ingredients. Fitobroside positively influences the skin moisture content by its barrier repairing activity. Mariscan increases the skin moisture by its water binding capacity and gives a smooth feel to the formulation.

<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
A) Cremophor GS 32/Polyglyceryl-3 Distearate	4.00
Lanette O/Cetearyl Alcohol	3.00
Stearic Acid/Stearic Acid	1.00
Sesame Oil/Sesame Oil	6.00
Cetiol LC/Coco-Caprylate/Caprates	3.00
Abil-350/Dimethicone	2.00
B) Deionized Water	69.20
Mariscan/Glycosaminoglycans	4.00
C) 1,3-Butandiol/Butylene Glycol	5.00
Phenonip	0.50
Fitobroside/Wheat (Triticum Vulgare) Germ Extract	2.00
D) Fragrance/Rivalia 0/221212	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phase D.

Application No. A 055.0/05.99

Anti-Ozone Cream (Preregen)

In this simple cream, with "PEG-free" raw materials, Preregen protects the skin from damage due to an enhanced ozone concentration in the atmosphere (summer smog).

<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
A) Tego Care 450/Polyglyceryl-3 Methylglucose Distearate	3.00
Lanette O/Cetearyl Alcohol	2.25
Cutina GMS V/Glyceryl Stearate	2.25
Cetiol 868/Octyl Stearate	10.00
Fitoderm/Squalane	5.00
B) Deionized Water	67.00
C) Glycerin/Glycerin	5.00
Phenonip	0.50
D) Preregen/Soybean (Glycine Soya) Protein, Oxido Reductases	5.00

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phase D).

Application No. A 053.A/06.99

SOURCE: Pentapharm Ltd. Suggested Formulations

Multifunctional Day Cream

In this simple, white emulsion the active ingredients Cerasol and Sericin exert barrier regeneration and therefore protecting and moisturizing functions. A pleasant and multifunctional day cream with sun protection filters is obtained.

Item:	Ingredients/INCI Name:	Wt%
1	A) Emulgade SE	8.00
2	Lanette O/Cetearyl Alcohol	2.50
3	Paraffin Oil/Mineral Oil	4.50
4	Miglyol 812/Caprylic/Capric Triglyceride	3.00
5	Abil-350/Dimethicone	0.50
6	Parsol MCX/Octyl Methoxycinnamate	2.00
7	Parsol 1789/Butyl Methoxydibenzoylmethane	1.00
8	Cerasol	1.50
9	B) Deionized Water	70.20
10	Phenonip	0.50
11	Glycerin	3.00
12	Sericin	3.00
13	C) Fragrance/Kaya EV 2940	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold.

SOURCE: Pentapharm Ltd.: Application No. A 044.0/12.97

Peeling Cream (O/W) with Allantoin

Raw Materials:	Wt%
A Emulsifier E 2155/Stearyl Alcohol (and) Steareth-7 (and) Steareth-10	2.00
Teginacid H/Glyceryl Stearate (and) Ceteth-20	2.00
Luvitol EHO/Cetearyl Octanoate	10.00
Imwitor 900/Glyceryl Stearate	3.00
Cetiol/Oleyl Oleate	5.00
Lunacera M/Microwax	1.00
Miglyol 812 neutral oil/Caprylic/Capric Triglyceride	3.00
B Allantoin	20.00
Propanediol-1,2/Propylene Glycol	4.00
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring. Add perfume at 40C as required.

Note:

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck-Art.-No. 107427)

0.15% Methyl-4-hydroxybenzoate (Merck-Art.-No. 106757)

SOURCE: Rona-Merck: Formulation 03-19/K

Night CreamConcept Statement:

A elegant, non-greasy cream that conditions and moisturizes the skin with Pationic SBL. Raffermine and Tensine protect the elastin fibers and reinforce skin firmness.

Ingredients/Function:

	<u>Wt%</u>
1. Pationic SBL (Sodium Behenyl Lactylate)/Lactylate	1.50
2. Rita Cetearyl Alcohol 50/50/Emulsifier	3.00
3. Rita GMS (Glyceryl Stearate)/Emulsifier	2.60
4. Rita IPP (Isopropyl Palmitate)/Emollient	6.00
5. Ritachol SS (Stearyl Stearate)/Emollient	3.00
6. Petrolatum	5.00
7. Dimethicone/Lubricant	0.50
8. Rita Propylparaben (Propylparaben)/Preservative	0.20
9. Distilled/Deionized Water	65.70
10. Glycerine/Humectant	3.00
11. Tetrasodium EDTA/Chelating Agent	0.10
12. Rita Methylparaben (Methylparaben)/Preservative	0.20
13. DMDM Hydantoin/Preservative	0.20
14. Raffermine (Hydrolyzed Soy Flour)/Skin Tightener	4.00
15. Tensine (Wheat Protein)/Film Former	5.00

Compounding Procedure:

Combine items 1 to 8 and heat to 80C. Combine items 9 to 12 and heat to 80C. Add oil phase to water phase with agitation. Cool to 40C and add items 13 to 15.

SOURCE: R.I.T.A. Corp.: Facial Care Formula LI Ref. No. 124-83

Moisturizing Face CreamRaw Materials:

	<u>Wt%</u>
Spermwax	5.0
Cetina	5.0
Robane	5.0
Isopropyl Myristate	3.0
Glycerin	5.0
Water, perfume, preservative	q.s. to 100

SOURCE: Robeco Inc.: Suggested Formula

O/W-Cream

"contains no ethylene oxide"
without mineral oil,
manufacturing at room temperature

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGI/Polyglyceryl-2 Sesquiosostearate	2.00
Cetiol V/Decyl Oleate	7.00
Jojoba oil	5.00
Isopropyl palmitate	6.00
B Carbopol 980/Carbomer	0.70
C Hostapon KCG/Sodium Cocoyl Glutamate	0.80
Caustic soda solution (10%)	2.80
Glycerin	3.00
Water	72.30
Preservative	q.s.
D Fragrance	0.40

Procedure:

1. Stir B into 1, then add C and stir well.
2. Add D to 1.
3. Homogenize if necessary.

Formula A VI/1753

O/W-Cream

"contains no ethylene oxide"
without mineral oil

<u>Recipe:</u>	<u>Wt%</u>
A Hostacerin DGMS/Polyglyceryl-2 Stearate	5.00
Isopropyl palmitate	5.00
Almond oil	7.00
Cetiol V/Decyl Oleate	10.00
B Carbopol 980/Carbomer	0.50
C Hostapon KCG/Sodium Cocoyl Glutamate	0.40
Caustic soda solution (10%)	0.80
Aquamollin BC pdr.h.c./Ethylenediamine Tetraacetic Acid Sodium Salt	0.10
Citric acid (10%)	0.25
Glycerin	3.00
Water	66.35
Preservative	q.s.
D Fragrance	0.40

Procedure:

1. Melt A at approx. 80C, then add B.
2. Heat C to approx. 80C.
3. Stir 2 into 1.
4. Stir until cool.
5. Add D to C at approx. 35C.
6. Homogenize if necessary.

Formula A VI/1754

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

O/W-Cream
with a bacteriostatic effect

Recipe:

	<u>Wt%</u>
A Hostaphat KW 340 N/Triceteareth-4 Phosphate	2.00
Hostacerin DGSB/Polyglyceryl-2 PEG-4 Stearate	7.00
Mineral oil, low viscosity	5.00
Eutanol G/Octyldodecanol	8.00
Isopropyl isostearate	5.00
B Carbopol 980/Carbomer	0.30
C Octopirox/Piroctone Olamine	0.20
D 1,2-Propylene glycol	10.00
E Caustic soda solution (10%)	0.40
Water	61.80
Preservative	q.s.
F Fragrance	0.30

Procedure:

1. Melt A at approx. 60C, then add B.
 2. Dissolve C in D while heating.
 3. Stir 2 into 1.
 4. Heat E to approx. 60C.
 5. Stir 4 into 3 and stir until cool.
 6. At approx. 35C add F to 5.
 7. Homogenize the emulsion.
- Formula A VI/8608

Depilatory CreamRecipe:

	<u>Wt%</u>
A Hostacerin DGSB/Polyglyceryl-2 PEG-4 Stearate	6.00
Hostacerin T-3/Ceteareth-3	5.00
Mineral oil, high viscosity	2.00
Isopropyl palmitate	1.00
Coconut oil	2.00
Antioxidant	q.s.
B Urea	3.00
1,2-Propylene glycol	5.00
Water	66.70
Preservative	q.s.
C Calcium thioglycolate trihydrate	7.50
Calcium hydroxide (powder)	1.50
D Fragrance	0.30

Procedure:

1. Melt A at ca. 70C.
 2. Heat B to ca. 70C.
 3. Stir 2 into 1.
 4. Stir until cool.
 5. At room temperature stir the components of C into 4, then add D.
 6. Homogenize the emulsion.
- Formula A VI/8703

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Paraffin Free Glycerol Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 370 (Glyceryl Stearate Citrate)	6
Inwitor 900 (Glyceryl Stearate)	7
Miglyol 812 (Caprylic/Capric Triglyceride)	18
Miglyol 840 (Propyleneglycol Dicaprylate/Dicaprate)	9
B. Glycerol	15
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated up to about 75C. B is heated to the same temperature and emulsified into A. C is added at about 30C.

Day Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 900 (Glyceryl Stearate)	7
Inwitor 370 (Glyceryl Stearate Citrate)	4
Miglyol 812 (Caprylic/Capric Triglyceride)	16
PCL-liquid (Synthetic rump fat)	3
B. Glycerol	20
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated ca. 75C and B of same temperature is emulsified into A. C is added at about 30C.

Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Inwitor 370 (Glyceryl Stearate Citrate)	5
Inwitor 900 (Glyceryl Stearate)	6
Dynacerin 660 (Oleyl Erucate)	6
Dynasan 114 (Trimyristin)	6
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Isopropyl Myristate	4
Sesame Oil	0.7
Wheat Germ Oil	0.5
Antioxidant	q.s.
B. Preservative	q.s.
Water ad	100
C. Placentaliquid, aqueous	0.5

Preparation:

A is mixed and heated up to 75C. B is brought to the same temperature and emulsified into A. C is added at about 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Protective Cream with Cromoist CM Glucan

Due to the incorporation of Cromoist CM Glucan, this cream can protect skin from environmental insult and help it to function better. Cromoist CM Glucan is a unique protective and therapeutic agent that works by stimulating the skin's own defense mechanisms, resulting in protective effects that enhance skin function and increase the skin's resistance to UVA-induced oxidative stress. Crodafos CES is a substantive phosphate-based emulsifying system that enhances the delivery of the other ingredients and improves the application properties of the cream.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	4.0
Crodamol GTCC (Caprylic/Capric Triglyceride)	5.0
Corona PNL (Lanolin)	1.0
Part B:	
Deionized Water	69.8
Triethanolamine (98%)	0.2
Part C:	
Deionized Water	5.0
Hydrotriticum WAA (Wheat Amino Acids)	1.0
Part D:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben	1.0
Cromoist CM-Glucan (Sodium Carboxymethyl B-Glucan)	1.0
Incromectant LAMEA (Acetamide MEA (and) Lactamide MEA)	5.0
Part E:	
Deionized Water	5.0
DL Panthenol	2.0

pH=4.5+-0.5

Viscosity=20,000 cps+-10% (RVT Spindle #TC @ 10 rpm @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add ingredients of Part A to B with mixing and cool to 50C. Add ingredients of Part C, D and E with mixing and cool to desired fill temperature.

SOURCE: Croda Inc.: Formulation SC-265

Pure as Water Cleansing Cream

<u>Ingredient/Tradename:</u>	<u>Wt%</u>
Phase A:	
Cyclomethicone & dimethiconol copolyol/Dow Corning 3225C	8.00
Cyclomethicone & dimethiconol/Dow Corning 1401	6.00
Cyclomethicone/Dow Corning 435	4.00
Hydrogenated Polybutene/Panalene L-14E	5.00
DL-Alpha-Tocopherol Linoleate/Vit E-linoleate	1.00
Bisabolol/Dragosantol	0.20
Perf Compound/Perf. Rainforest	0.20
Phase B:	
Hexylene Glycol	12.40
Glycerin	11.00
Polyethylene Glycol-16 (PEG-800)	16.00
Dimethicone Copolyol/Dow Corning 2501	2.00
Plant extract/Extrapone Witch Hazel	3.00
D-Panthenol/Panthenol 50P	1.00
Purac PF/P 41	4.00
Propylene Glycol/Germaben II-E	
Diazolidinyl Urea	
Methyl Paraben	
Propyl Paraben	
Water	25.60

Procedure:

- Mix ingredients of oil phase (a) and measure RI (RII), then warm them slightly (up to 35 degrees C).
- Mix ingredients of water phase (B) until homogeneous and warm them slightly to solubilise DC 2501 and PEG 800.
- Measure RI of water phase (R12).
- Adjust R12 to match RII on a way:
 - if $R12 > R11$ add some water
 - if $R12 < R11$ add some polyol (glycerin, hexyleneglycol or PEG 800)
- When RI of both phases are the same proceed with emulsification as: slowly add water phase to oil phase which is mixing with turbulent mixing.
- The addition of water phase should be 5-10 mins.
- When the whole of water phase is added, continue mixing for another 10-20 minutes to get thicker gel.

SOURCE: Purac America, Inc.: Dow Corning Formulation

Regenerating Night Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A Polyglyceryl-2 Sesquiosostearate (and) Beeswax (and) Mineral Oil (and) Magnesium Stearate (and) Aluminum Stearate	11.00
Dipentaerthrityl Hexacaprylate/Hexacaprate (and) Tridecyl Trimellitate (and) Tridecyl Stearate (and) Neopentyl Glycol Dicaprylate/Dicaprate	7.00
PEG-2/Dodecyl Glycol Copolymer	1.10
Microcrystalline Wax	2.40
Macadamia Ternfolia Nut Oil	1.00
Cetearyl Isononanoate	7.00
B Safester A-75	1.00
Unitrienol T-27	3.00
Uniphen P-23	0.60
Unipherol U-14	0.30
C Water	54.00
Glycerin	3.00
D Allantoin	0.20
Uniphen P-23	0.40
Magnesium Sulfate-7H2O	0.70
E Unimoist U-125	3.00
F Unicide U-13 (in 10% Water)	4.00
G Fragrance	0.30

Procedure:

Manufacturing is best performed in a closed apparatus (as eg. Fryma, Krieger) provided with vacuum and a speed-regulated stirrer with integrated rotor-stator homogenizer. Care has to be given on the microbiological quality of the deionized water. Manufacturing is performed under vacuum.

1. Melt sequence A while stirring in the machine at 85C. Before emulgating add sequence B immediately (=AB).
2. Sequence D is dissolved separately in sequence C at 85C (=CD).
3. Under vacuum, while stirring at a medium speed and homogenizing at low speed add CD in small portion to AB.
4. Homogenize ABCD 10 min at highest speed and let mixture cool down.
5. At 50C add E and homogenize during 5 min at medium speed.
6. Add at 45C F and at 38C add G. Homogenize at highest speed for 10 min and let mixture cool down.
7. At 25C the mixture can be removed from the machine.

SOURCE: Induchem AG: Formula 1.35

Silk Protein Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Mineral Oil	10.0
Cocoa Butter	2.0
Cetearyl Alcohol & Cetareth 20	4.0
Emulsifying Wax N.F.	6.0
Stearic Acid	1.0
Glyceryl Monostearate	2.8
Glycerin	2.0
Propylene Glycol	2.0
Mackamide AME-100 (Acetamide MEA)	0.5
Triethanolamine	0.2
Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/ Silkhydroxypropyl Dimonium Chloride)	1.5
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Fragrance	qs to 100.0

Procedure:

1. Melt first nine components in separate container to 75C.
2. In mixing tank, heat water to 78C then add Triethanolamine and Mackpro NSP.
3. Start mixing; add hot mixture of nine components slowly with good agitation; mix for 20 minutes then start cooling.
4. At 50C, add Mackstat DM, D.I. Water, and Fragrance; mix until everything is homogeneous.
5. Adjust pH to 5.4-6.5 with Triethanolamine or acid solution.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Soft Day Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Polysynlane	15.0
Stearic Acid	3.0
Cetanol	1.5
Arlacel 60	2.0
Tween 60	1.0
Propylene Glycol	6.0
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulation

Silk Skin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A Phase:	
Stearic acid, XXX	5.0
Isopropyl myristate	8.0
Cetyl alcohol	3.0
P.G. monostearate, s.e.	2.0
Myristyl myristate	4.0
Tween 80	1.0
Paraffin wax, 130F	3.0
Propyl paraben	0.1
B Phase:	
NaOH (2% aq. Soln.)	5.0
Glucam E-10	7.0
Silkpro	3.0
Carbopol 940 (2% aq. Soln.)	5.0
Water	53.8
Methyl paraben	0.1

Night Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Polysynlane	15.0
Paraffin Wax	2.0
Lanolin Oil	4.0
Hydrogenated Lanolin	6.0
Beeswax	3.0
Stearic Acid	1.5
Glyceryl Monostearate	2.5
IPM	6.0
PEG-200 Monostearate	2.0
Potassium Hydroxide	0.2
Preservatives & Perfume	q.s.
Water	ad. 100.0

Vanishing Cream

<u>Raw Materials:</u>	<u>Wt%</u>
Stearic Acid	15.0
Cetanol	1.5
Glyceryl Monostearate	N.S.E. 1.5
Polysynlane	7.0
Potassium Hydroxide	0.5
Glycerine	5.0
Perfume & Preservatives	q.s.
Water	ad. 100.0

SOURCE: Polyester Corp.: Suggested Formulations

Skin Cream

White, creamy, silky shine

<u>Ingredients:</u>	<u>Wt%</u>
A: Wacker-Belsil PDM 20	3.60
Stearic Acid	4.20
Cetyl Alcohol	1.00
B: Glycerin	2.00
Triethanolamine	0.80
Water	88.40
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 80C, stir A into B.

Temperature stability: at 45C over 10 weeks

Formulation 187/3 AH

Cover Cream

Firm cream with a good covering effect.

<u>Ingredients:</u>	<u>Wt%</u>
A: Candelilla Wax	5.50
Wacker-Belsil SDM 6022	6.70
B: Stearic Acid	3.00
Water	44.80
Propylene Glycol	3.40
Triethanolamine	1.30
C: Titanium Dioxide	14.00
D: Wacker-Belsil CM 040	18.30
Preservatives, perfume, pigments	q.s.

Heat A and B each to 70C. Mix B into A. Work in C homogeneous-ly. Leave to cool somewhat, stir in D at 30C.

Temperature stability: at 45C over 10 weeks.

Formulation 308AH

SOURCE: Wacker Silicone: Suggested Formulations

Soft Glycerol Cream for Dry and Stressed Skin

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	5
Imwitor 900 (Glyceryl Stearate)	4
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Petrolatum	5
Cetyl Alcohol	4
B. Glycerol	5
Keltrol F (Xanthane based hydrogel builder)	0.5
Preservative	q.s.
Water up to	100
C. Fragrance	q.s.

Preparation:

A is heated to about 70-80C, B is stirred together and brought to the same temperature. B is emulsified into A. C is added at about 30C.

Night Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 780K (Isostearyl Diglyceryl Succinate)	6
Miglyol Gel B	10
Dynacerin 660 (Oleyl Erucate)	10
B. Mowiol 10-98 (Polyvinyl Alcohol Copolymer)	2
Magnesium Sulphate	2
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is mixed and heated up to approx. 75C. B is brought to the same temperature and emulsified into A. C is added at about 30C.

Nutrition Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
Miglyol Gel B	20
Wheat Germ Oil	3
Paraffin	3
Mineral Oil	8
B. Preservative	q.s.
Magnesium Sulphate	2
Water ad	100
C. Fragrance	q.s.

Preparation:

A is warmed up to about 75C. B is brought to the same temperature and emulsified into A. C is stirred in at about 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Tube-Dispensed Hand Cream

A tube dispensed hand cream utilizing SF96 (1000), dimethicone, to provide lubricity and a smooth feel. SF96 (1000) also provides anti-whitening properties as well as skin protection. The use of dimethicone in this formulation falls within the requirements of the FDA monograph for OTC skin protectant products.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Dimethicone [SF96(1000)](1)/Protectant/Anti-whitening	2.50
Isopropyl Myristate/Emollient	2.00
Stearic Acid/Thickener/Emulsifier	7.00
Lanolin/Emollient	0.50
Emulsifying Wax NF(2)/Emulsifier	4.00
Sorbitan Oleate/Co-emulsifier	0.50
Polysorbate-60/Emulsifier	2.50
Part B:	
Propylene Glycol/Humectant	7.00
Deionized Water/Diluent	66.00
Magnesium Aluminum Silicate(3)(5% aqueous dispersion)/Thixotropic thickener	8.00
Part C:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Prepare a 5% magnesium aluminum silicate dispersion using a homogenizer. Mix the dispersion for 20 minutes.
2. Mix together Part B water and 5% dispersion of magnesium aluminum silicate using a propeller mixer. Heat to 70C.
3. Add propylene glycol and mix for 5 minutes.
4. Weigh Part A ingredients into a separate vessel, mix and heat to 70C.
5. Add Part A to Part B with good propeller agitation. Mix 10 minutes at 70C.
6. Slow mixing and begin cooling.
7. At 40C or less, blend in part C.

Suppliers:

- (1) GE Silicones
- (2) Croda, Inc.
- (3) R.T. Vanderbilt Co., Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 101

Vanishing CreamRaw Materials:Parts by Wt.

Part I:

Rosswax 63-0412	(1)	6.0
Ross Spermaceti Wax Sub. 573	(1)	9.0
Amerlate P	(2)	1.0
Emerest 2314	(3)	1.0
Emerest 2316	(3)	1.0
Glycerol Monostearate SE	(4)	1.0
Emery 916 Pure Glycerine	(3)	5.0
Dow Corning 200 Fluid 100 Cst	(8)	1.0
Drakeol Mineral Oil 35	(7)	1.0

Part II:

Water		69.0
Triethanolamine		1.0
Aloe Vera Liquid (1:1)	(6)	2.0
Maltrin MO40	(5)	1.0

Part III:

Germaben IIE	(9)	1.0
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Part IV:

Fragrance	(10)	q.s.
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Procedure:

In separate heated vessels heat both Part I and Part II to 170F with agitation. When the temperature is reached add Part II to Part I with continued agitation. Next add Part III to the batch. Reduce the temperature to 140F and add Part IV. Continue to cool down to 125F and pack into containers.

Suppliers:

(1) Frank B. Ross Co.	(6) Madis Laboratories
(2) Amerchol	(7) Penreco
(3) Henkel-Emery	(8) Dow Corning
(4) Stepan Chemical	(9) ISP-Van Dyk
(5) Grain Processing	(10) Robertet-Novarome

SOURCE: Frank B. Ross Co., Inc.: Formula No. 286

Waterfree Massage Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	50
Miglyol 812 (Caprylic/Capric Triglyceride)	20
Petrolatum	20
Mineral Oil	10
B. Fragrance	q.s.

Preparation:

A is completely melted and stirred cold. B is stirred in at about 40C. Homogenisation is convenient prior to filling.

Fat Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Alugel DF 30	2
Petrolatum	11
B. Softisan 378 (Caprylic/Capric/Stearic Triglyceride)	11
Imwitor 780K (Isostearyl/Diglyceryl Succinate)	10
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Beeswax	2
C. Preservative	q.s.
Water ad	100
D. Fragrance	q.s.

Preparation:

A is heated to about 90C until gelling. B is melted at about 75C and slowly added to A. C is also heated to about 75C and emulsified into A+B. D is added at approximately 40C.

Chamomile Handcream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 601	38
Miglyol 829 (Caprylic/Capric/Succinic Triglyceride)	6
Paraffin	3
B. Karion F	5
Propylene Glycol	3
Extrapon Kamille Spezial	2
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated to about 75C. B is brought to the same temperature and emulsified into A. Stir cold to about 30C and then add C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Section VI

Hair Care Products

Alcohol-Free No Voc Hair Spray Formulation

A commercially-proven medium-hold no-voc pump formulation for the rapidly emerging alcohol-free hair spray arena. This non-flaking formulation will not dry out the hair like conventional hair sprays and is ultra-environmentally friendly.

Ingredients:

	<u>Wt%</u>
Water	84.46
AMP Regular	0.99
50% Acylates Copolymer	14.00
Monawet MO-70R	0.30
Glycerin	0.25

AMP=Aminomethylpropanol

Acrylates Copolymer=Balance 0/55

Procedure:

Combine ingredients in order shown with mild agitation. Add fragrance and preservative. Package in pump hair spray container.

Typical Properties:

pH: 8.5

Viscosity: 8 cps

Appearance: Clear

SOURCE: Mona Industries, Inc.: Formula F-833

Hair PomadeIngredients/CTFA Name:

	<u>Wt%</u>
Petrolatum	66.2
Schercemol DID/Diisopropyl Dimer Dilinoleate	20.0
Schercemol BE/Behenyl Erucate	9.0
Cetyl Alcohol	4.2
Propylparaben	0.1
Fragrance	0.5
Colors	q.s.

Procedure:

Heat all ingredients gently in a water bath or hot plate to 65C. Gently mix to 50C. Pour into containers.

SOURCE: Scher Chemicals, Inc.: Formula SK 141

Apricot Hair Conditioner

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercoquat APAS (90%)/Apricotamidopropyl Ethyldimonium Ethosulfate	3.0
Cetyl Alcohol	2.0
Schercomid AME (70%)/Acetamide MEA	6.0
Schercemol GMIS/Glyceryl Monoisostearate	4.0
Herbasol Extract Apricot	0.5
Preservative	0.2
Color, Fragrance	q.s.
Water	84.3

Procedure:

Blend and heat to 70C Schercoquat APAS, Cetyl Alcohol, Schercomid AME and Schercemol GMIS.

Slowly add water at 70C to the blend and mix until uniform.

Add extract, preservative and fragrance and mix until uniform.

Formula SK 146

Wheat Germ Hair Conditioner

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercoquat WOAS (90%)/Wheat Germ Amidopropyl Ethyldimonium Ethosulfate	1.0
Schercemol PEG 400 DS/PEG 8 Distearate	4.0
Cetyl Alcohol	2.0
Schercomid AME (70%)/Acetamide MEA	6.0
Schercemol GMIS/Glyceryl Isostearate	4.0
Herbasol Extract Wheat Germ/Wheat Germ Extract	0.5
Preservative	0.2
Color, Fragrance	q.s.
Water	82.3

Procedure:

1. Blend and heat to 70C Schercoquat WOAS, Schercemol PEG 400 DS, Cetyl Alcohol, Schercomid AME and Schercemol GMIS.

2. Slowly add water at 70C to the blend and mix until uniform.

3. Add extract, preservative & fragrance & mix until uniform.

Formula SK 149

SOURCE: Scher Chemicals, Inc.: Formulas SK 146 and SK 149

Balsam Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackine 301 (Stearamidopropyl Dimethylamine)	1.6
Cetyl Alcohol	1.8
Phosphoric Acid (85%)	0.9
Sodium Chloride	0.3
Mackstat DM (DMDM Hydantoin)	qs
Balsam of Peru	qs
Water, Dye	qs to 100.0

Procedure:

1. Add first four components to water.
2. Heat to 70C.
3. Blend until homogeneous.
4. Cool to 45C and add Mackstat DM and Balsam of Peru.
5. Cool to room temperature.

Clear Conditioner with Wheat Germ Cationic

<u>Raw Materials:</u>	<u>Wt%</u>
Mackalene 716 (Wheatgermamidopropyl Dimethylamine Lactate)	1.0
Hydroxyethylcellulose	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Completely disperse Hydroxyethylcellulose in cold water.
2. Heat to 45C and add Mackalene 716.
3. Adjust pH to 5.0 with Lactic Acid.
4. Blend until clear.
5. Add remaining components.
6. Cool to room temperature.

Clear Leave-On Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Hydroxyethylcellulose	1.0
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Completely disperse Hydroxyethylcellulose in cold water.
2. Add Mackalene 426.
3. Blend until clear.
4. Heat to 40C.
5. Add remaining components.
6. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Clear Conditioner for Daily Use

This light rinse-off clear conditioner contains SME253 which is a 20% Trimethylsilylamodimethicone micro emulsion with particle size less than 20nm. It has been designed for global markets. All components of SME253 comply with regulations related to personal care products in the U.S., European Union, Canada and China. This formulation remains clear upon adding SME253 with excellent conditioning effects which are soft, smooth, and silky feel.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	90.15
Hydroxyethylcellulose/Thickener	1.50
Glycerin/Humectant	2.00
Methylparaben/Preservative	0.20
Propylparaben/Preservative	0.10
Part B:	
Cetrimonium Chloride (28-30%)/Conditioner	3.00
Methylchloroisothiazolinone (and) Methylisothiazolinone(1)/Preservative	0.05
Trimethylsilylamodimethicone (and) C11-15 Pareth-7 (and) C12-16 Pareth-9 (and) Glycerin (and) Trideceth-12(SME253)(2)/Conditioner	3.00

Procedure:

1. Heat water, glycerin, methylparaben, propylparaben at 65C. Slowly add Hydroxyethylcellulose and mix until uniform.
2. Cool the batch down to 45C and add Part B as the order listed.

Daily Use Conditioner for Normal to Dry HairIngredients/Function:

	<u>Wt%</u>
Water/Diluent	86.00
Dimethiconol(SM2765)(1)/Conditioning agent	5.00
Quaternium-27/Antistatic agent and conditioner	3.30
Stearyl Alcohol/Emulsifier	3.00
Glyceryl Stearate/Thickener	1.50
Propylene Glycol/Humectant	1.00
Germaben II/Preservative	0.20

Procedure:

1. Melt together Glyceryl Stearate and Stearyl Alcohol.
2. Separately combine Water, Quaternium-27, Propylene Glycol and Germaben II with moderate propeller agitation. Heat to 65C.
3. When both phases are at the same temperature, add wax phase to aqueous phase with rapid agitation for approximately 5 minutes. Remove heat and reduce stir speed to moderate. Continue mixing.
4. Add dimethiconol emulsion under 45C and continue stirring until cool.

SOURCE: GE Silicones: Formulas CP 113 and CP 116

Conditioner for Dry/Damaged Hair with SM2101

This conditioner is designed for daily use on dry/damaged hair. SM2101 is an effective conditioner for hard-to-condition hair due to its high level of substantivity, yet is readily removed and does not result in build-up.

Ingredient/Function:

Part A:

	<u>Wt%</u>
Deionized Water/Diluent	76.40
Propylparaben/Preservative	0.10
Methylparaben/Preservative	0.20

Part B:

Behentrimonium Methosulfate (and) Cetearyl Alcohol(1)/ Conditioner/Emulsifier	2.70
Pentaerythrityl Tetrastearate(2)/Thickener	1.50
Cetyl Alcohol/Refatting agent/Emulsifier	2.30
Stearamidopropyl Dimethylamine/Conditioner	2.50

Part C:

Trimethylsilylamodimethicone (and) Isolaureth-6 (and) Octoxynol-40 (SM2101)(3)/Conditioner	5.00
FD&C Yellow No. 5 (1.0% solution)/Color	0.30

Part D:

Polysorbate-80/Emulsifier/Solubilizer	1.50
Glycerin/Humectant	2.75
Fragrance (4)	0.50
Tocopherol/Vitamin E/Antioxidant	0.05

Part E:

Cyclomethicone (SF1204)(3)/Wet combing	4.20
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Procedure:

1. Dissolve parabens in water and heat with moderate propeller agitation to 65C.
2. Melt together Part B ingredients and add to the water phase. Remove heat and continue stirring 15-20 minutes.
3. Mix together Part C and add to Part AB. Stir approximately 15 minutes.
4. Mix together Part D; add to batch below 40C with moderate stirring for 15 minutes. Add SF1204 cyclomethicone and continue stirring for an additional 10-15 minutes.

Trade Names/Suppliers:

- (1) Incroquat Behenyl TMS, Croda, Inc.
- (2) Crothix, Croda, Inc.
- (3) GE Silicones
- (4) Fragrance J-6636, Bell Fragrances & Flavors

SOURCE: GE Silicones: Personal Care Formulary: Formula CP 102

Conditioning Color Sealant for Temporary Hair Dyes

SM2115 is a microemulsion of an amine functionalized silicone polymer of high amine content. Due to its small particle size and high amine content, it is extremely substantive to hair and provides intensive conditioning. In addition, SM2115 acts as a color sealant, providing protection against wash-out of temporary dyes.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	88.10
Quaternium-15/Preservative	0.20
Stearamidopropyl Dimethylamine/Conditioner	0.50
Acetic Acid/pH adjuster	0.19
Sodium Acetate/Buffer	0.11
Part B:	
Fragrance	0.75
Octoxynol-40/Surfactant	0.85
Isolaureth-6/Surfactant	1.96
Glycerin/Humectant	1.09
Part C:	
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115) (1)/Color sealant/ Conditioner	6.25

Procedure:

1. Combine Part A with moderate propeller agitation and heat to 60C. Continue stirring for 15 minutes. Remove from heat.
2. Combine Part B ingredients and add to Part A with moderate propeller agitation.
3. Slowly add Part C to Part AB and continue mixing 15 minutes.

Trade Names/Suppliers:

(1) GE Silicones

Formula CP 112

Cuticle Coat with Enhanced Shine

An excellent leave-in conditioner similar to the cuticle coat formulation CP 106, with the addition of SF1550 to enhance shine.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Cyclopentasiloxane (and) Dimethicone (SF1214)(1)/ Conditioning	60.0
Phenyl Trimethicone (SF1550) (1)/Shine	30.0
Isohexadecane/Carrier/Dry time	10.0
Fragrance	q.s.

Procedure:

1. Mix together SF1214 and isohexadecane until uniform.
2. Slowly add SF1550 to isohexadecane mixture and continue mixing for 15 minutes.
3. Add fragrance and color as desired, stirring well.

Trade Names/Suppliers: (1) GE Silicones
Formula CP107

SOURCE: GE Silicones: Personal Care Formulary: Formulations

Conditioning Pretreatment for Chemical Processing

SM2115 is a microemulsion of an amine functionalized silicone polymer with a high amine content. It is extremely substantive to hair and provides conditioning which is substantive through chemical processing, making this product an ideal pretreatment for perms, dyes, bleaching, and relaxers. Hair feels soft, conditioned and less damaged even after chemical processing.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	85.10
Quaternium-15/Preservative	0.20
Acetic Acid/pH adjustment	0.19
Sodium Acetate/Buffer	0.11
Part B:	
Fragrance	0.50
Octoxynol-40/Surfactant	0.85
Isolaureth-6/Surfactant	1.96
Glycerin/Humectant	1.09
Part C:	
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115)/Conditioner	10.00

Procedure:

1. Combine Part A with moderate propeller agitation and heat to 60C. Continue stirring for 15 minutes. Remove from heat.
 2. Combine Part B ingredients and add to Part A with moderate propeller agitation.
 3. Slowly add Part C to Part AB and continue mixing 15 minutes.
- Formula CP 111

Hair Gloss Spray

A leave-in conditioner which can be sprayed onto the hair and used throughout the day to provide shine and conditioning. SF1550 provides gloss and sheen to the hair, while SF1202 makes the product fast-drying without an oily residue.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Phenyl Trimethicone (SF1550)(1)/Shine/Conditioning	10.0
Cyclopentasiloxane (SF1202)(1)/Fast dry/Conditioning	90.0
Color	q.s.
Fragrance	q.s.
Procedure:	
1. Mix together SF1550 and SF1202 until uniform.	
2. Add color and fragrance as desired with stirring.	
Trade Names/Suppliers:	
(1) GE Silicones	

Formula CP108

SOURCE: GE Silicones: Personal Care Formulary

Cream Hair Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Part A:	
Oleyl Alcohol	10.0
Cetyl Alcohol	2.5
Mackester SP (Glycol Stearate (and) Stearamide MEA)	3.0
BHA	0.1
Propylparaben	0.1
Part B:	
Mackalene 316 (Stearamidopropyl Dimethylamine Lactate)	25.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Heat Part A components to 70C.
2. Add Mackalene 316 to water and heat to 70C.
3. Add Part A to Part B and with continuous blending, cool to 45C
4. Add remaining components.
5. Cool to room temperature.

Conditioner and Setting Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Mackalene 316 (Stearamidopropyl Dimethylamine Lactate)	4.0
Gafquat 755	8.0
Cetyl Alcohol	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Completely disperse Gafquat 755 in water.
2. Add Mackalene 316 and Cetyl Alcohol.
3. Heat to 70C.
4. Blend until completely homogeneous.
5. Cool to 45C and add remaining components.
6. Cool to room temperature.

Curl Conditioner and Oil Sheen

<u>Raw Materials:</u>	<u>Wt%</u>
Glycerine	47.0
Propylene Glycol	3.0
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	4.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfo succinate)	3.0
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water	qs to 100.0

Procedure:

1. Add components in order.
2. Blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Cream Rinse

<u>Recipe:</u>	<u>Wt%</u>
A Genamin KDMP/Behentrimonium Chloride	2.00
Hostaphat KL 340 N/Trilaureth-4 Phosphate	1.50
Cetyl alcohol	2.00
Mineral oil, high viscosity	2.00
B Water	92.70
Preservative	q.s.
C Fragrance	0.30
Dyestuff solution	q.s.
D Citric acid-->pH 4.0	q.s.

Procedure:

1. Melt A at approx. 75C.
2. Heat B to approx. 75C.
3. Stir 2 into 1.
4. Stir until cool.
5. At approx. 35C add the components of C to 4.
6. Finally adjust the pH with D.

Formula B II/1055

Cream Rinse

<u>Recipe:</u>	<u>Wt%</u>
A Genamin CTAC/Cetrimonium Chloride	6.00
Hostaphat KML/Laureth-4 Phosphate, Polyglyceryl-2 Sesquiosostearate	1.20
Cetylstearyl alcohol	3.00
Mineral oil	1.00
B Water	88.20
Preservative	q.s.
C Fragrance	0.30
Panthenol	0.30
Dyestuff solution	q.s.
D Citric acid-->pH 4.0	q.s.

Procedure:

1. Melt A at approx. 75C.
2. Heat B to approx. 75C.
3. Add 2 under stirring to 1. Stir until cool.
5. At approx. 35C add the components of C.
6. Adjust the pH with D.

Formula B II/1067

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Cream Rinse

<u>Recipe:</u>	<u>Wt%</u>
A Genamin EQ/Distearoylethyl Dimonium Chloride	2.00
Hostacerin DGSB/PEG-4 Polyglyceryl-2 Stearate	1.20
Hostacerin DGI/Polyglyceryl-2 Sesquiisostearate	1.00
Cetyl alcohol	1.80
Almond oil	1.00
B Tylose H 10000/Hydroxyethylcellulose	0.20
C Water	91.80
D Fragrance	0.30
Panthenol	0.50
Extrapon Henna	0.20
Preservative	q.s.
Dyestuff solution	q.s.
E Citric acid-->pH 4.0	q.s.

Procedure:

1. Melt A at approx. 75C.
 2. Stir B into C, heat it to approx. 75C.
 3. Add 2 under stirring to 1.
 4. Stir until cool.
 5. At approx. 35C add the components of D.
 6. Adjust the pH with E.
- Formula B II/1063

Cream Rinse

<u>Recipe:</u>	<u>Wt%</u>
A Genamin STACP/Steartrimonium Chloride	1.50
Genamin CTAC/Cetrimonium Chloride	1.00
Hostacerin DGSB/PEG-4 Polyglyceryl-2 Stearate	1.20
Cetylstearyl alcohol	2.50
B Tylose H 10000/Hydroxyethylcellulose	0.50
C Water	92.20
D Fragrance	0.30
Panthenol	0.30
Extrapon Henna	0.50
Preservative	q.s.
Dyestuff solution	q.s.
E Citric acid-->pH 4.0	q.s.

Procedure:

1. Melt A at approx. 75C.
 2. Stir B into C, heat to approx. 75C.
 3. Add 2 under stirring to 1. Stir until cool.
 4. at approx. 35C add the components of D.
 5. Adjust the pH with E.
- Formula B II/1066

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Cream Rinse Conditioner

This cream rinse formula features Crodafos CES, a conditioning and emulsifying system from Croda, together with a cationic conditioner, Incroquat CTC-30. By its ability to promote fast release of oils and conditioning agents to the hair and its compatibility with quaternary conditioners, Crodafos CES enables this cream rinse to provide enhanced conditioning effects. Increased sheen, silkier, softer feel, and improved texture. The product rinses out extremely easily without incidence of drag or a waxy deposit.

Ingredients:Weight%**Part A:**

Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.0
Crodacol CS-50 (Cetearyl Alcohol)	1.5
Super Refined Wheat Germ Oil (Wheat Germ Oil)	2.0
Crodamol OS (Octyl Stearate)	2.0
Crodamol OPG (Octyl Pelargonate)	2.0

Part B:

Deionized Water	83.65
Incroquat CTC-30 (Cetrimonium Chloride)	1.50
TEA 99%	0.35

Part C:

Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
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pH=5.5+-0.5

Viscosity=18,500cps+-10% (Spindle TD @ 10 RPM @ 25C)

Procedure:

Combine ingredients of Part A with mixing and heat to 75-80C. Combine ingredients of Part B with mixing and heat to 75-80C. Add Part B to Part A with mixing and cool to 50C. Add Part C while mixing and cool to desired fill temperature.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation HP-181

Daily Protection Spray

Designed for use on damp hair after showering, at the beach or by the poolside, this Daily Protection Spray contains a trio of ingredients that can protect hair from sun damage or blow-dryer burnout. Crodasone W is a heat-activated protein/silicone copolymer and provides thermal protection that helps prevent hair from becoming heat-damaged by styling appliances. Incroquat UV-283 guards against UVB damage caused by the sun. Hydrosesame AA provides moisturizing benefits throughout the day.

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	94.0
Crodasone W (Hydrolyzed Wheat Protein Hydroxypropyl Polysiloxane)	1.0
TEA	q.s.
Crovol PK-70 (PEG-45 Palm Kernel Glycerides)	2.0
Part B:	
Hydrosesame AA (Sesame Seed Amino Acids)	1.0
Incroquat UV-283 (Cinnamidopropyltrimonium Chloride)	1.0
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben/Germaben II	1.0
pH: 4.6+-0.5	

Procedure:

Combine first two ingredients of Part A with mixing. Continue mixing and add TEA until pH is 5.5, at which point mixture will become clear. Add remaining ingredient of Part A and mix well. Add ingredients of Part B individually with mixing. When uniform add Part C and mix until ready to fill.

Formula HP-202

Leave-On Detangling Spray

This formula is an easy cold-mix system and is designed to highlight the detangling effects and wet combing properties of Incroquat Erucyl HE. Hydrotritricum WAA is used to moisturize the hair, and the copolyol, to add shine.

<u>Ingredients:</u>	<u>Wt%</u>
Deionized Water	94.5
Incroquat Erucyl HE (Hydroxyethyl Erucamidopropyl Dimonium Chloride)	3.0
Hydrotritricum WAA (Wheat Amino Acids)	1.0
Dimethicone Copolyol/D.C. Surfactant 193	0.5
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben/Germaben II	1.0
pH: 5.6+-0.5	

Procedure:

Combine ingredients in order given and mix until clear and uniform. Fill.

Formulation HP-200

SOURCE: Croda, Inc.: Suggested Formulations

Deep Conditioning Curl Enhancing SprayIngredients/CTFA Name:

	<u>Wt%</u>
A) SDA 40 Alcohol	25.00
Herbasol Extract Chamomile/Chamomile Extract	5.00
Schercoquat DAS/Quaternium 61	1.00
Schercoquat IAS/Isostearamidopropyl Ethyldimonium Ethosulfate	1.00
Dow Corning 193 Surfactant/Dimethicone Copolyol	1.50
Germall 115	0.20
Fragrance	q.s.
B) Water, distilled or deionized	66.30

Procedure:

1. Disperse each ingredient in Part A in alcohol, one at a time, stirring until clear after each addition.

2. Add water.

Formula SK 153

Oil Free Clear Hair ConditionerIngredients/CTFA Name:

	<u>Wt%</u>
Schercomid AME-70/Acetamide MEA	10.0
Arlasolve 200/Isoceteth-20	3.0
Schercoquat 21AP/Bis Isostearamidopropyl Hydroxypropyl Diammonium	1.0
PEG-400/PEG-8	3.0
Water	82.5
Fragrance	0.1
Glycolic Acid (70% Tech)	0.4
Preservative	qs

Procedure:

1. Heat water to 40-50C. With stirring, add Schercoquat 21AP until it is dissolved.

2. With continuous agitation, add Schercomid AME-70, Arlasolve 200, and PEG-400.

3. Adjust pH if necessary to 4.5 with Glycolic Acid.

4. QS with fragrance and preservative.

Formula SK 154

SOURCE: Scher Chemicals, Inc.: Formulas SK 153 and SK 154

Easy to Manufacture Creme Rinse

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet CBC (Cetyl Alcohol (and) Stearyl Alcohol (and) Stearalkonium Chloride (and) Dimethyl Stearamine (and) Lactic Acid)	4.0-6.0
Potassium Chloride	qs
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Heat water to 70C.
2. Add Mackadet CBC and mix until completely dispersed.
3. Adjust pH as needed with Citric Acid.
4. Cool to 50C and add Paragon III, Dye and Fragrance.
5. Adjust viscosity with Potassium Chloride if necessary.
6. Cool and fill.

Spray Detangler for Children

<u>Raw Materials:</u>	<u>Wt%</u>
Mackpro WLW (Wheatgermamidopropyl Hydroxypropyl Dimonium Hydrolyzed Wheat Protein)	1.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	3.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add components to water.
2. Heat to 40C and blend until clear.

Natural Lipid Styling Mousse

<u>Raw Materials:</u>	<u>Wt%</u>
PVP/VA E335	4.5
SDA 40 Alcohol	21.5
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	4.0
D.I. Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Combine components and blend until clear.
2. Pressurize with suitable propellant.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Hair Balm with Repair Effect

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 601	18
Marlpal 1618/25 (Ceteareth-25)	5
Softisan 645	5
Mineral Oil	6
Castor Oil	3
Aloe Vera Lipo Quinon	1
B. Glycerol	5
Propylene Glycol	3
Preservative	q.s.
Water ad	100
C. Extrapon Phytostimulin Spezial	3
Placenta liquid, water soluble	3
D. Fragrance	q.s.

Preparation:

A is heated to about 75C. B is brought to the same temperature and emulsified into A. C is added at about 30C.

Hair Fixative

<u>Raw Materials:</u>	<u>Wt%</u>
Softigen 767	1.5
Luviskol VA 64 (PVA-VA Copolymer)	2
Isopropanol or Ethyl Alcohol	38
Lactic acid	1
Fragrance	q.s.
Water ad	100

Preparation:

All ingredients are mixed and stirred homogeneously.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Hair Conditioner for Damaged Hair

SM2115 is a substantive amine functional emulsion, 20% active, which is particularly good for damaged, chemically processed or hard-to-condition hair. At low levels, it can be used in daily use products, providing softness, shine and body. Build-up is a concern at higher levels.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Ceteareth-20/Emulsifier	1.0
Stearyl Alcohol/Refatting agent/Emulsifier/Thickener	2.0
Stearamidopropyl Dimethylamine/Conditioner	0.8
Quaternium-18/Conditioner	1.4
Cyclomethicone (SF1202)(1)/Wet-combing/Quick dry time	3.0
Part B:	
Water	89.7
Part C:	
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115)(1)/Conditioner/ Shine	2.0
Methylchloroisothiazolinone (and) Methylisothiazolinone (2)/Preservative	0.1

Procedure:

1. Preheat Part A to 75C.
2. Preheat the water in Part B, to 75C.
3. Add Part B to Part A with moderate agitation.
4. Cool with agitation to 40 to 50C.
5. Blend in SM2115.
6. Blend in the preservative.
7. Cool to room temperature.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Kathon, Rohm and Haas

SOURCE: GE Silicones: Personal Care Formulary: Formula CP 101

Hair Conditioner for Superior Body

SF1214 is a blend of cyclopentasiloxane and high molecular weight dimethicone. It provides wet combing plus imparts body, softness and shine. The high molecular weight dimethicone smooths damaged, split ends.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Ceteareth-20/Emulsifier	0.5
Steareth-20/Emulsifier	0.5
Stearyl Alcohol/Refatting agent/Emulsifier/Thickener	2.0
Stearamidopropyl Dimethylamine/Conditioner	0.8
Dicetyldimonium Chloride/Conditioner	1.5
Part B:	
Water	92.6
Hydroxyethylcellulose (1)/Thickener	0.5
Part C:	
Dimethicone (and) Cyclopentasiloxane (SF1214)(2)/Conditioner	1.5
Methylchloroisothiazolinone (and) Methylisothiazolinone (3)/Preservative	0.1

Procedure:

1. Mix together Part A. Preheat to 75C.
2. Separately mix together the water and the hydroxyethylcellulose. When the hydroxyethylcellulose is dissolved, preheat to 75C.
3. Add Part B to Part A with moderate agitation.
4. Cool with agitation to 60 to 65C.
5. Blend in the SF1214.
6. Cool to 40 to 50C and add the preservative.
7. Cool to room temperature.

Comments:

For thin, straight hair, use only 1% dicetyldimonium chloride. Increase the stearyl alcohol wt% for a thicker system.

Trade Names/Suppliers:

- (1) Natrosol 250 HHR, Aqualon
- (2) GE Silicones
- (3) Kathon, Rohm and Haas

SOURCE: GE Silicones: Personal Care Formulary: Formula CP 100

**Hair Conditioner with Moisturizers and Quaternium-79
Hydrolyzed Collagen**

<u>Raw Materials:</u>	<u>Wt%</u>
Cetearyl Alcohol	3.0
Mackernium SDC-85 (Stearalkonium Chloride)	3.0
Propylene Glycol	1.0
Glycerin	1.0
Mackamide AME-100 (Acetamide MEA)	1.0
Mineral Oil	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	2.0
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Dye, Fragrance	qs to 100.0

pH: 3.5-4.5

Viscosity (cps 25C): 1500-3000

Procedure:

1. Melt waxes and oils to 70C.
2. Separately heat water plus Mackpro NLP to 70C.
3. Add hot water solution to hot waxes and oils.
4. Start stirring vigorously for 10 minutes. Then start slow cooling while mixing.
5. At 40C, add Mackstat DM then Dye and Fragrance; slow mixing down close to room temperature and stop mixing at 30C.
6. Adjust pH to 3.5-4.5 with Citric Acid.

Natural Lipid Conditioner for Professional Salon

<u>Raw Materials:</u>	<u>Wt%</u>
Mackernium SDC-85 (Stearalkonium Chloride)	1.5
Mackalene NLC (Oleamidopropyl Dimethylamine Lactate (and) Palmitamidopropyl Dimethylamine Lactate (and) Palmitoleamidopropyl Dimethylamine Lactate)	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	2.0
Cetearyl Alcohol	1.8
Steareth-2	1.8
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first five components to water.
2. Heat to 70C.
3. Cool to 45C and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Hair Defining Complex

Styling aid and anti-frizz oil-in-water/water-in-oil emulsion containing Bentone Gel M10 rheological additive.

<u>Ingredients:</u>	<u>Wt%</u>
Polyvinylpyrrolidone Vinyl Acetate Copolymer	2.0
Cetearyl Alcohol, Behenyl Trimonium Methosulphate	4.0
Cyclomethicone, Dimethiconol	10.0
Glycerin 99.5%	4.0
Perfume	0.3
Methyldibromoglutaronitrile	0.2
and Propylene Glycol	0.4
Bentone Gel M10	1.0
Sodium Hydroxide	qs to pH 5.5
Demineralized Water	Bal to 100%

Method of Manufacture:

1. Heat the Bentone Gel M10 and Cetearyl Alcohol, Behenyl Trimonium Methosulphate to 75-80C.
2. In a separate vessel, heat the water, glycerine and Polyvinylpyrrolidone Vinyl Acetate Copolymer to 75-80C.
3. Add the two phases together with high shear stirring.
4. Add the Cyclomethicone, Dimethiconol.
5. At 50C, transfer to a propeller stirrer and continue to cool.
6. At 30C, add the perfume and preservative.

Applied sparingly to towel-dried, wet, freshly shampooed hair prior to drying, this formulation containing Bentone Gel M10 at 1% provides noticeable benefits. Direct comparisons against the same formulation without the gel reveals enhanced application, curl definition and style management in salon half-head studies. Without the gel the product sits on the wet hair rather than dissipates into it.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Hair Nourishing Treatment

This formula contains a mixture of Croda ingredients, each of which has 'nourishing' effects that help keep hair looking healthy and shiny. Hydrolupin AA is a plant-based amino acid complex that can moisturize hair from within. Cropure Wheat Germ and Solan 50 both add emolliency. Hydrotriticum QM is a substantive wheat protein with enhanced conditioning. Incroquat Behenyl TMS provides dual action, acting as a detangling aid, as well as the emulsifier.

Ingredients:

	<u>Wt%</u>
Part A:	
Incroquat Behenyl TMS (Behentrimonium Methosulfate (and) Cetearyl Alcohol)	4.00
Cropure Wheat Germ (Wheat Germ Oil)	1.00
Crodacol C-70 (Cetyl Alcohol)	0.50
Part B:	
Deionized Water	83.40
Propylene Glycol	5.00
Solan 50 (PEG-60 Lanolin)	1.00
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben/Germaben II	1.00
Part D:	
Panthenol/DL-Panthenol Liquid, 50%	2.00
Hydrolupin AA/Lupin Amino Acids	1.00
Hydrotriticum QM (Cocodimonium Hydroxypropyl Hydrolyzed Wheat Protein)	1.00

pH: 6.0+-0.5

Viscosity: 2,530 cps+-10% (RVT Spindle #3 @ 10 rpm)

Procedure:

Combine ingredients of Part A with mixing and heat to 75C. Combine ingredients of Part B with mixing and heat to 75C. Add Part A to Part B with mixing and cool to 50C. Add Part C with mixing and cool to 40C. Add Part D ingredients individually, mixing well. Cool to 25C and adjust pH to 6.0 with a 10% solution of NaOH.

SOURCE: Croda Inc.: BFGoodrich: Formulation HP-203

Hair Pomade

<u>Raw Materials:</u>	<u>Wt%</u>
Witco White Petrolatum	35.0
Ross Microcrystalline Wax 1275WH	21.0
Ross Microcrystalline Wax 1275W	12.0
Ross Microcrystalline Wax 1329/1	12.0
Finetex Finsolv TN	2.5
Penreco Drakeol #7 Mineral Oil	17.5

Mixing Procedures:

Heat the waxes and the petrolatum in a steam jacketed kettle to 230F. In a separate kettle heat the oils to 200F. Next add the oils to the waxes and agitate down to 225F. Continue to agitate at this temperature for at least 30 minutes. (Note: Time of agitation will change as the batch size changes). Next cool the batch to 165F and pour into containers.

Formula #201

Hair Pomade

<u>Raw Materials:</u>	<u>Wt%</u>
Witco Petrolatum	35.0
Ross Microcrystalline Wax 1275WH	21.0
Ross Microcrystalline Wax 1329/1	24.0
Finetex-Finsolv TN	2.5
Penreco Drakeol #7 Mineral Oil	17.5

Procedure:

Melt the first three waxes to 185F in a steam jacketed vessel and add the last two ingredients that have been heated to 140F in a separate vessel to the wax base under agitation. Cool to 158F and package.

Formula No. 153

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulations

Hair Rinse with Dehyquart L 80

<u>Component:</u>	<u>Wt%</u>
I. Dehyquart L80/Dicocoylethyl Hydroxyethylmonium Methosulfate (and) Propylene Glycol	1.3
Lanette O/Cetearyl Alcohol	2.5
Cutina GMS-V/Glyceryl Stearate	0.5
II. Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	2.0
III. Water	ad 100.0
IV. Preservative	q.s.

Viscosity Brookfield, mPas: 1800

Preparation in the Laboratory:

Melt the components listed under I at 80-85C and stir until homogeneous. Heat the components listed under III (water) to 80-85C and add to phase I while stirring. Stir for 5 minutes at this temperature. Add the components under II (Lamesoft PO 65, room temperature) to the hot emulsion phase while stirring. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid the incorporation of air. Add at approx. 40C perfume and preservatives.
Formulation No.: 97/197/9

Hair Rinse with Dehyquart L 80

<u>Component:</u>	<u>Wt%</u>
I. Dehyquart L 80/Dicocoylethyl Hydroxyethylmonium Methosulfate (and) Propylene Glycol	2.5
Lanette O/Cetearyl Alcohol	4.0
Cutina GMS-V/Glyceryl Stearate	0.5
II. Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	2.5
III. Water	ad 100.0
IV. Preservative	q.s.

Viscosity Brookfield, mPas: 9,500

Preparation in the Laboratory:

Melt the components listed under I at 80-85C and stir until homogeneous. Heat the components listed under III (water) to 80-85C and add to phase I while stirring. Stir for 5 minutes at this temperature. Add the components under II (Lamesoft PO 65, room temperature) to the hot emulsion phase while stirring. Allow the emulsion to cool with stirring in such a way that it remains in continual motion. Avoid the incorporation of air. Add at approx. 40C perfume and preservatives.
Formulation No. 97/197/15

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Hair Silt Conditioner

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	50.75
1	Methylparaben	0.25
1	Hampene Na3T/Tetrasodium EDTA	0.10
2	Lipocol C/Cetyl Alcohol	4.00
2	Lipo GMS-450/Glyceryl Stearate	3.20
2	Emcol 4/Stearalkonium Chloride	5.00
2	Lipovol A/Avocado Oil	5.00
2	FG-10 Antifoam Emulsion/Simethicone	0.10
3	Liposilt Green/Silt	30.00
4	Eucalyptus Oil	0.20
4	Spearmint Oil RM-110	0.20
4	Peppermint Oil RM-116	0.20
5	Lipamide LMEA/Lactamide MEA	1.00

Procedure:

1. In main kettle combine Sequence #1 ingredients under moderate Lightnin' mixing and heat to 78C.
2. In auxiliary kettle combine Sequence #2 ingredients under moderate Lightnin' mixing and heat to 80C.
3. Add Sequence #2 to Sequence #1 under moderate Lightnin' mixing. Switch to slow sweep as batch thickens and cool to 35C.
4. At 35C, add Sequence #3 to batch under slow sweep mixing.
5. Add premixed Sequence #4 ingredients, being sure it is thoroughly dispersed.
6. Add Sequence #5 to batch and cool to 25C.

SOURCE: Lipo Chemicals Inc.: Formula No. 681

Hair Styling Gel

A light gel with a soft set. Does not contain any alcohol. If a stronger hold is desired, increase the concentration of H2OLD. The concentration of AMP-95 will also need to be increased, although not proportionately. To use, just apply a small amount to towel dried hair and rub in vigorously. Blow dry as usual.

<u>Material:</u>	<u>Wt%</u>
1 Deionized Water	86.74
2 H2OLD EP-1	5.00
3 AMP-95	0.20
4 Lubrajel Oil	1.00
5 Thixotrate	2.00
6 Deionized Water	4.50
7 Germall 115	0.50
8 Fragrance	0.03
9 Polysorbate 80	0.03

Procedure:

1. Disperse item #2 into #1.
2. Add item #3 and mix until clear.
3. Add item #4 and mix for a few minutes before adding item #5.
4. Premix item #7 and #6 and add into gel.
5. Premix item #8 and #9 and add into the gel.

Hair Treatment Gel

This formulation is a clear, light straw colored gel with excellent flow characteristics. It has excellent substantivity and may be used as a wash-off or leave-on conditioner.

<u>Material:</u>	<u>Wt%</u>
A Deionized Water	76.80
B Dowicil 200	0.20
C Ucare Polymer JR-400	2.00
D Polyjel	20.00
E Crotein CAA SF	0.33
F Aminogluten MG	0.33
G Crotein HKP SF	0.33

Procedure:

1. Dissolve components B and C into A by heating to 60-65C with high shear mixing. Continue mixing until the polymer is in solution.
 2. Remove heat and using a paddle blade mixer, add components D, E, F and G.
 3. Cool to less than 30C and add fragrance if desired.
- Formulation #93-086-M

SOURCE: Guardian Laboratories: Suggested Formulations

High Quality Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackernium SDC-25 (Stearalkonium Chloride)	10.0
Cetearyl Alcohol	2.0
Brij 72	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add components to water and heat to 70C.
2. With mild agitation, blend until homogeneous.
3. Cool to 50C and add Dye and Fragrance.
4. Cool to room temperature.

Mild Opaque Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackalene 326 (Stearamidopropyl Morpholine Lactate)	8.0
Cetyl Alcohol	1.8
Phosphoric Acid	0.6
Sodium Chloride	0.3
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first four components to water.
2. Heat to 70C.
3. With continuous stirring, cool to 40C and add Mackstat DM, Dye and Fragrance.

Mild Pearl Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackalene 326 (Stearamidopropyl Morpholine Lactate)	7.0
PEG 400 Distearate	0.5
Sodium Chloride	0.5
Paragon II (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first three components to water.
2. Heat to 65C.
3. With continuous stirring, cool to 40C and add Paragon II, Dye and Fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Intensive Conditioner with Microemulsion of Amine Functional Silicones

This rinse-off conditioner contains SME253 which is a 20% Trimethylsilylamodimethicone micro emulsion with particle size less than 20 nm. All components of SME253 comply with regulations related to personal care products in the U.S., European Union, Canada and China. It gives excellent conditioning effects which are soft, smooth, and silky feel.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized water/Diluent	88.85
Hydroxyethylcellulose/Thickener	0.50
Glycerin/Humectant	2.00
Methylparaben/Preservative	0.20
Propylparaben/Preservative	0.10
Part B:	
Cetearyl alcohol (and) Dicapryldimonium Chloride (and) Stearamidopropyl Dimethylamine(1)/Conditioner	3.00
Glyceryl Stearate/Thickener	0.80
Cetyl Alcohol/Thickener	1.50
Part C:	
Methylchloroisothiazolinone (and) Methylisothiazolinone(2)/Preservative	0.05
Trimethylsilylamodimethicone (and) C11-15 Pareth-7 (and) C12-16 Pareth-9 (and) Glycerin (and) Trideceth-12(SME253)(3)/Conditioner	3.00

Procedure:

- Heat together all ingredients of Part A at 65C.
- Heat Part B in a separate container and add to Part A when melted.
- Cool mixtures to 40C and add Part C in the order listed.

Trade Names/Suppliers:

- (1) Varisoft CRC, Witco Corp.
- (2) Kathon CG, Rohm and Haas
- (3) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CP114

Intensive Rinse-off Conditioner

Rinse-off conditioner providing deep, intensive conditioning for damaged or hard-to-condition hair. SM2115 is a 20% micro-emulsion of an amine functional silicone fluid with a high amine content. It is very substantive and provides conditioning durable through several shampoos.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Cetearyl Alcohol (and) Dicapryldimonium Chloride (and) Stearamidopropyl Dimethylamine (1)/Conditioning/Static	5.00
Citric Acid/pH adjustment	0.05
Quaternium-15/Preservative	0.10
Water/Diluent	89.85
Part B:	
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115) (2)/Conditioning agent	5.00
Citric Acid/pH adjustment	q.s.

Procedure:

1. Heat water, citric acid and quaternium-15 to 65C. Slowly add remaining Part A ingredients until completely melted and emulsion forms.
2. Cool to 45-50C and add SM2115. Adjust pH to 4.5 with citric acid.
3. Cool and package.

Trade Names/Suppliers:

- (1) Varisoft CRC, Witco Corp.
 - (2) GE Silicones
- Formula CP 109

Cuticle Coat

An excellent leave-in conditioner which can be used throughout the day to provide shine, split end control and overall conditioning. It is applied to the hands and then smoothed through the hair for a soft, silky feel.

Ingredient/Function:

	<u>Wt%</u>
Cyclopentasiloxane (and) Dimethicone (SF1214) (1)/Conditioning/Shine	65.0
Isohexadecane/Carrier/Dry time	33.0
Octyl Methoxycinnamate/UV absorber	2.0

Procedure:

1. Dissolve octyl methoxycinnamate in isohexadecane or isohexadecane/SF1173 blend.
2. Slowly add SF1214 to isohexadecane mixture. Mix until homogeneous.

Trade Names/Suppliers: (1) GE Silicones
Formula CP106

SOURCE: GE Silicones: Personal Care Formulary: Formulations

Leave-on Conditioner with Gluadin WP

<u>Phase:</u>	<u>Component:</u>	<u>Wt%</u>
I.	Sepigel 305 Thickener	3.0
	Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	
	Water, de-ionized	78.2
II.	Glycerin 86%	5.0
	Ethanol	10.0
	Gluadin WQ/Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein	0.8
	Gluadin WP/Hydrolyzed Wheat Protein	1.5
	Plantacare 1200 UP/Lauryl Glucoside	0.8
	Cetiol J600/Oleyl Erucate	0.5
	Copherol 1250/Tocopherol	0.2

pH-Value: 7.5

Viscosity (mPas), Brookfield RVF: 6,150

Preparations in the Laboratory:

- Mix components listed under phase I till homogeneous.
- Add ingredients of phase II one by one and stir till homogeneous.
- Finish if necessary with adding the preservative and adjust pH-value.

Formulation No. DE/97/030/16

Sprayable Hair Milk

<u>Component:</u>	<u>Wt%</u>
Dehyquart L 80/Dicocoylethyl Hydroxyethylmonium Metho- sulfate (and) Propylene Glycol	2.0
Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	2.0
Water	ad 100
Preservatives	q.s.

pH Value: 3.5

Preparation in the Laboratory:

Mix the ingredients at room temperature.

Formulation No.: 97/203/4

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Leave-on with Gluadin WQ

<u>Component:</u>	<u>Wt%</u>
I. Sepigel 305 Thickener	3
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7	1
Comperlan KD/Cocamide DEA	5
Glycerine 86%	76
II. Water, de-ionized	0.5
Plantacare 1200 UP/Lauryl Glucoside	0.5
Cetiol J600/Oleyl Erucate	0.2
Copherol 1250/Tocopherol	3
III. Gluadin Almond/Hydrolyzed Sweet Almond Protein	0.8
Gluadin WQ/Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein	10
IV. Ethanol	q.s.
Perfume	q.s.
Preservative	

pH-value: 7

Viscosity (mPas)/Brookfield RVT, 23C, spindle 4, 10 rpm: 3200

Preparations in the Laboratory:

Mix slowly the Phase I to obtain an homogeneous phase.

Under stirring, add slowly the Phase II.

Add the Phase III.

Formulation DE/96/099/4

Conditioner with Dehyquart L80

<u>Component:</u>	<u>Wt%</u>
I. Dehyquart L80	1.3
Lanette O/Cetearyl Alcohol	3.5
Monomuls 60-35C Powder/Hydrogenated Palm Glycerides	1.0
Eumulgin B2 Flakes/Ceteareth-20	0.8
II. Water, de-ionized/preservative	ad 100
III. Gluadin WQ/Laurdimonium Hydroxypropyl Hydrolyzed Wheat Protein	2.0

pH-value: 3.5

Viscosity (mPas), Brookfield RVF, 23C, spindle 4, 10 rpm: 4800

Preparations in the Laboratory:

Melt phase I at 80-85C. Heat phase II to 80-85C and stir into phase I. Stir for 5 minutes at this temperature. Cool down to 40C while stirring. Add preservative and, if necessary, heat-sensitive additives. Cool down to 30C while stirring.

Formulation DE97/197/1

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Overnight Repair Gel

SM2115 is a 20% microemulsion of an amine functional fluid with a high amine content which provides substantive conditioning. The overnight repair gel is an intensive conditioner, providing a soft, silky feel to the hair plus does not stain fabric. Apply to the hair before sleeping, wash out in the morning with normal shampooing.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Carbomer (1)/Thickener	0.5
Sodium Hydroxide (50%)/Neutralizer	2.0
Deionized Water/Diluent	73.5
Part B:	
Quaternium-15/Preservative	0.2
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115) (2)/ Conditioner	5.0
Deionized Water/Diluent	17.8
Part C:	
Glycerin/Humectant	1.0
Fragrance	q.s.
Acetic Acid/pH adjustment	q.s.

Procedure:

- Mix Part A by slowly adding the carbomer to the water until thoroughly dispersed, then add sodium hydroxide to bring the pH up to 9.
- Mix together quaternium-15, SM2115 and remaining water.
- Slowly add Part A to Part B with good stirring.
- Add glycerin, fragrance and color.
- Adjust pH to approximately 6 with acetic acid.

Trade Names/Suppliers:

- Carbopol 980, B.F. Goodrich Co.
- GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula CP 110

Protein Lotion Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackine 301 (Stearamidopropyl Dimethylamine)	1.5
Cetyl Alcohol	2.5
Lactic Acid (88%)	0.7
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	1.5
Sodium Chloride	0.5
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Dissolve sodium chloride in water.
2. Add first four components and heat to 70C.
3. Blend until homogeneous.
4. Cool to 45C and add remaining components.
5. Cool to room temperature.

Pearl Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet LCB (Liquid Conditioner Concentrate that can be cold blended)	10.0
Triethanolamine	1.0
Sodium Chloride	0.5
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Warm water to 40C.
2. Add Sodium Chloride and Triethanolamine.
3. Add Mackadet LCB and blend slowly.
4. When completely dispersed, add Mackstat DM, Dye, and Fragrance
5. Cool to room temperature.

Hair Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet CBC (Conditioner Concentrate for Viscous Cream Consistency)	5.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackadet CBC to water.
2. Heat to 70C.
3. With continuous mixing, cool to 50C.
4. Add remaining components.
5. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Setting Lotion
for blow-dried hair

<u>Recipe:</u>	<u>Wt%</u>
A Aristoflex A 60/VA/Crotonates Copolymer, Isopropyl Alcohol	1.50
Genamin KSL/PEG-5 Stearyl Ammonium Lactate	1.00
PEG 400/PEG-8	0.20
Iso-Adipate/Diisopropyl Adipate	0.20
Fragrance	0.20
B Isopropyl alcohol	45.00
Water	51.90
Preservative	q.s.

Procedure:

Dissolve the components of A one after another in B.
Formula B V/1020

Antidandruff Setting Lotion

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.10
Luviskol VA 64I/PVP/VA Copolymer, Isopropyl Alcohol	5.50
Iso-Adipate/Diisopropyl Adipate	0.60
Genamin KSL/PEG-5 Stearyl Ammonium Lactate	0.70
PEG 400/PEG-8	0.50
Fragrance	0.30
B Isopropyl alcohol	35.00
C Water	57.30
D Citric acid-->pH 5.0-6.0	q.s.

Procedure:

1. Dissolve the components of A one after another in B.
2. Stir C into 1.
3. Finally adjust the pH with D.

Formula B V/5002

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Simplified Hair Tonic Preparation

<u>Raw Materials:</u>	<u>Wt%</u>
Mackpro WWP (Wheatgermamidopropyl Dimethylamine Hydrolyzed Wheat Protein)	3.0
Hydroxyethylcellulose	0.4
Mackstat DM (DMDM Hydantoin)	0.3
Menthol Crystals	0.2
Ethyl Alcohol	14.0
PEG-8	4.0
Mackamide AME-75 (Acetamide MEA)	1.0
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Dissolve Hydroxyethylcellulose in water using heat as needed.
2. When dissolved, add Mackpro WWP, PEG-8, Mackamide AME-75, and Mackstat DM.
3. Dissolve Menthol Crystals in Ethyl Alcohol and add to batch
4. Add Dye and Fragrance; cool and fill.

Leave-On Conditioner

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet INC (Conditioner Concentrate)	10.0-12.5
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water and Fragrance	qs to 100.0

Procedure:

1. Vary the amount of Mackadet INC depending on the set desired. 10% use level is suggested for regular set and 12.5% for firm set.
2. Completely disperse the fragrance in the Mackadet INC.
3. Add Mackstat DM to protect the diluted solution. (Note: The concentrate contains only enough preservative to protect the concentrate. Please add additional preservative to protect diluted solution.)
4. Add D.I. Water.
5. Apply finished product to shampooed and towel dried hair; do not rinse; style hair.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

55% VOC Aerosol Hair Spray

This formula utilizes Eastman AQ 48 Ultra polymer to give fast-drying, moderate hold with good curl retention in a 55% VOC system.

<u>Formula:</u>	<u>Wt%</u>
Part A:	
Eastman AQ 48 Ultra Polymer	5.0
Deionized Water	36.1
Part B:	
Eastman Ethanol (SDA-40)	20.0
AMP-95	0.6
Balance-47 (28-4947)	3.0
Silwet L-7657 (Dimethicone Copolyol)	0.3
Dymel A (Dimethyl Ether)	35.0

Procedure:**Part A:**

Start agitation of deionized water and add Eastman AQ 48 Ultra polymer pellets.

Heat pellet/water mixture to 40C with continuous rapid agitation.

Mix until polymer is completely dispersed.

Part B:

Dissolve AMP-95 in ethanol.

While maintaining good agitation, slowly sift in Balance-47.

Mix until polymer is dissolved.

Add Part B to Part A:

Add dimethicone copolyol.

Mix until homogeneous.

Filter, and fill cans.

Charge with dimethyl ether propellant.

Suggested Valve System:

Item:	Description:
Seaquist Valve	XT-91
Stem Orifice	0.013"
Gasket	Butyl 0.035" THK. Code: 502
Spring	0.023" SS
Body Orifice	0.016" XT-Standard
Cup	XT Aluminum Ann. Ring, Epoxy Top, Micoflex Bottom, Buna-N Cup Gasket
Vapor Tap	0.013"
Dip Tube	0.122" Inside Diameter
Actuator	XT-150 Misty, 0.020" Misty (0702-05480-20)

SOURCE: Eastman Chemical Co.: Formulation No. X23368-79-1

55% VOC Aerosol Hair Spray with AQUAREZ HS Polymer

<u>Formula:</u>	<u>Wt%</u>
Aquarez HS Polymer Emulsion (41% Solids) (a)	17.07
Deionized Water	26.79
Eastman Ethanol (SDA-40), Anhydrous	20.00
AMP-95 (b)	1.14
Fragrance and Other Additives	q.s.
Dymel A (Dimethyl Ether) (c)	35.00

Procedure:

Combine Aquarez HS polymer emulsion and deionized water. While maintaining good agitation, add ethanol. Add AMP-95 sufficient for 75% neutralization of Aquarez HS. Add remaining ingredients. Mix until homogeneous. Fill cans and charge with dimethyl ether propellant.

Valve Recommendations (d):

Item:	Description:
SeaquistPerfect Valve	XT-91
Stem Orifice	0.013"
Gasket	Butyl 0.035" THK, Code: 502
Spring	0.023" Stainless Steel
Body Orifice	0.016" XT-Standard
Cup	XT Aluminum Ann. Ring, Epoxy Top, Microflex Bottom, Buna-N Cup Gasket
Vapor Tap	0.013"
Dip Tube	0.122" Inside Diameter
Actuator	ST-200 Misty, 0.018" Misty (1102-05480-18)

- (a) Eastman Chemical Company
- (b) Angus Chemical Company
- (c) DuPont
- (d) SeaquistPerfect

SOURCE: Eastman Chemical Co.: Formulation X26330-093

55% VOC High Performance Aerosol Hair Spray

This low VOC formulation is designed to provide excellent spray aesthetics, hold, fast drying time, and less initial curl droop compared to standard 55% VOC systems.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Amphomer LV-71	2.28
(2) Resyn 28-2930	0.97
(3) AMP Regular	0.55
(4) Citroflex 2	0.25
Deionized Water	18.44
Ethanol, SDA-23A (190 proof)	52.51
Propellant, A-17	10.00
Hydrofluorocarbon, 152a	15.00

Valve Specifications:	Seaquist VX-81
Stem: 0.011"	Gasket: Buna-P 0.0145"
Body: 008 Standard	Cup: HI Profile, Epoxy Top
Vapor Tap: None	Spring: SS
Tubing ID: 0.122"	Actuator: 0.023" Misty

Preparation:

Dissolve AMP in ethanol and water. While maintaining good agitation, slowly sift in Amphomer LV-71 and Resyn 28-2930. Once in solution, add remaining ingredients and mix until homogeneous. Filter and fill. Charge with propellants.

Formulation 9612:101

High Performance, Low Cost 55% VOC Aerosol Hair Spray

This low VOC formulation is designed to provide excellent sprayability, hold, fast drying time, and less initial curl droop compared to standard 55% VOC systems.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Resyn 28-2930	5.00
(2) AMP Regular	0.47
(3) Fragrance, Q-14662	0.30
Deionized Water	14.23
Acetone	15.00
Anhydrous Ethanol	40.00
(4) N-Butane	15.00
(5) Dymel 152A	10.00

Preparation:

Dissolve AMP in ethanol, acetone and water. While maintaining proper agitation, slowly sift in the Resyn 28-2930. When solution is complete, add remaining ingredients. Filter and fill aerosol containers. Charge cans with propellant.

Valving and Actuators:	Seaquist NS-31
Stem: 0.013"	Vapor Tap: None
Gasket: Butyl .042" thick code: 501	Dip Tube: 0.165"
Spring: 0.020" SS	A-D Dim: 8"
Body: 0.010" STD	Actuator: Excel 200 Misty .023"

Formulation 8897:22-A

SOURCE: National Starch & Chemical Co.: Suggested Formulations

55% VOC Pump Hair Spray

<u>Formula:</u>	<u>Wt%</u>
Eastman AQ48 Ultra Polymer	5.0
Deionized Water	36.1
Eastman Ethanol (SDA-40)	55.0
AMP-95 (a)	0.6
Balance 47 (28-4947) (b)	3.0
Dimethicone Copolyol	0.3

Procedure:

Start agitation of deionized water and add Eastman AQ48 Ultra polymer pellets.

Heat pellet/water mixture to 40C (104F) with continuous rapid agitation.

Mix until polymer is completely dispersed.

Cool to room temperature and add ethanol.

Add AMP-95 sufficient for 80% neutralization of Balance 47.

Add Balance 47 slowly with agitation.

Add dimethicone copolyol.

Mix until uniform.

Suggested Valve System(c):

<u>Item:</u>	<u>Description:</u>
Pump	37MS Air Force II, 20/410 (150 ul Delivery Volume)
Actuator	Smooth Top A-6
Dip Tube	0.055" Inside Diameter
Gasket	GP Plastic/Rubber
Housing	A
Insert	1620-1010 Natural Celcon
Spring	SS (2513)
Stem	Ribbed

(a) Angus Chemical Company

(b) National Starch and Chemical

(c) Emson

SOURCE: Eastman Chemical Co.: Formulation X20190-104

55% VOC Pump Hairspray

This low VOC formulation provides good sprayability, medium hold and good humidity resistance.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance 0/55 (50% solids)	7.20
(2) Lovocryl 47	2.40
(3) AMP (reg)	1.01
(4) Silsoft A-843	0.10
Deionized Water	34.29
*Anhydrous Ethanol	55.00

*Substitution of Anhydrous Ethanol with 64.17% SDA-23A (190 proof and containing 7.3% acetone denaturant) would result in improved tack and dry times while maintaining 55% VOC compliance.

Preparation:

Dissolve AMP in ethanol and water. While maintaining proper agitation, slowly sift in Balance 0/55 and Lovocryl-47. Mix until homogeneous. Filter and fill containers.

Valving and Actuators: Seaquist Perfect-Euromist II
 Body: 160 mcl Output Closure: 24-410, White
 Liner: PE/Butyl Blend Insert: .010" X .020" Deep
 Formulation 9612:79B

55% VOC Pump Hairspray

This low VOC formulation provides excellent sprayability, low tack, fast drying, flexible hold and good humidity resistance

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance CR (45% solids)	8.88
KOH	0.34
Deionized Water	35.78
*Anhydrous Ethanol	55.00

*Substitution of Anhydrous Ethanol with 64.17% SDA-23A (190 proof and containing 7.3% acetone denaturant) would result in improved tack and dry times while maintaining 55% VOC compliance.

Preparation:

Dissolve KOH in ethanol and water. While maintaining proper agitation, slowly sift in Balance CR. Mix until homogeneous. Filter and fill containers.

Valving and Actuators: Seaquist Perfect: Euromist II
 Body: 160 mcl Output Closure: 24-410, White
 Insert: .010" X .010" Deep Liner: PE/Butyl Blend
 Formulation 9612:79C

SOURCE: National Starch & Chemical Co.: Suggested Formulations

55% VOC Pump Hairspray

This low VOC formulation provides good sprayability, low tack, fast drying, max hold and excellent humidity resistance.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance CR (45% solids)	8.88
(2) Balance Extra (45% solids)	3.60
KOH (100% active)	0.50
(3) Citroflex-2	0.10
(4) Silsoft A-843	0.10
Deionized Water	31.82
*Anhydrous Ethanol	55.00

*Substitution of Anhydrous Ethanol with 64.17% SDA-23A (190 proof and containing 7.3% acetone denaturant) would result in improved tack and dry times while maintaining 55% VOC compliance.

Preparation:

Dissolve the KOH in ethanol and water. While maintaining proper agitation, slowly sift in Balance CR and Balance Extra. Mix until homogeneous. Filter and fill containers.

Valving and Actuators: Seaquist Perfect: Euromist II
 Body: 160 mcl Output Liner: PE/Butyl Blend
 Closure: 24-410, White Insert: .010" X .010" Deep
 Formulation 9612:80A

55% VOC Pump Hairspray

This low VOC formulation provides excellent sprayability, firm hold and good humidity resistance.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance 0/55 (50% solids)	12.00
(2) AMP (reg)	0.85
Deionized Water	32.15
*Anhydrous Ethanol	55.00

*Substitution of Anhydrous Ethanol with 64.17% SDA-23A (190 proof and containing 7.3% acetone denaturant) would result in improved tack and dry times while maintaining 55% VOC compliance.

Preparation:

Dissolve AMP in ethanol and water. While maintaining proper agitation, slowly sift in Balance 0/55. Mix until homogeneous. Filter and fill containers.

Valving and Actuators: Seaquist Perfect: Euromist II
 Body: 160 mcl Output Liner: PE/Butyl Blend
 Closure: 24-410, White Insert: .010" X .010" Deep
 Formulation 9612:80B

SOURCE: National Starch and Chemical Co.: Suggested Formulations

55% VOC Pump Hair Spray with AQUAREZ HS Polymer

<u>Formula:</u>	<u>Wt%</u>
Aquarez HS Polymer Emulsion (41% Solids)	17.07
Deionized Water	27.01
Eastman Ethanol (SDA-40), Anhydrous	55.00
AMP-95	0.92
Fragrance and Other Additives	q.s.

Procedure:

Combine Aquarez HS polymer emulsion and deionized water. While maintaining good agitation, add ethanol. Add AMP-95 sufficient for 60% neutralization of Aquarez HS. Add remaining ingredients. Mix until homogeneous.

Suggested Valve System (c):

<u>Item:</u>	<u>Description:</u>
Pump	Euromist, 160 mcl Output
Body	160 mcl Output
Insert	0.016" X 0.010" Deep (Natural)
Spring	302 SS, 1 lb 0 oz
Piston	Natural
Liner	PE/Butyl Blend
Dip Tube	0.060" Inside Diameter
Seal Valve	Standard
Poppet	Standard
Turret	24 mm

(c) Seaquist Perfect

Formulation X26330-094

Styling Mousse (Alcohol-Free)

This alcohol-free mousse offers styling with a natural look and moderate hold.

Formula:

	<u>Wt%</u>
Distilled Water	q.s. to 100
Eastman AQ48 Ultra Polymer	8.0
Myvatex Texture Lite Emulsifier	5.5
Monamid 150 ADD	1.0
Polysorbate 60	0.15
Myvacet 9-45 Distilled Acetylated Monoglyceride	0.15
Preservative	q.s.
Fragrance	q.s.
Citric Acid	q.s.

Procedure:

Heat deionized water to above 40C.

Disperse Eastman AQ48 Ultra polymer with rapid agitation.

Cool to room temperature and add preservative.

Slowly add Myvatex Texture Lite emulsifier with high-speed agitation. Care should be taken when mixing to avoid aeration.

Prewarm and mix polysorbate 60, Myvacet 9-45 distilled acetylated monoglyceride, and Monamid 150, when uniform, add to batch. Add fragrance.

Adjust pH to 6.5-7.0 with citric acid.

Aerosol final concentrate at 5.23 g/mL of A-46 propellant.(1)

(1) Aeropres

Formulation X25231-156

SOURCE: Eastman Chemical Co.: Suggested Formulations

55% VOC Reduced Cost, Hard Holding Hair Spray

This formulation has excellent stiffness, good sprayability, and a reduced cost. The use of acetone results in reduced particle size and improved spray.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance CR (45% active)	5.45
(2) Resyn 28-2930	3.00
Potassium Hydroxide (87% active)	0.47
(3) Citroflex-2	0.25
(4) Sodium Benzoate	0.25
Acetone	7.00
Anhydrous Ethanol	22.00
Deionized Water	28.58
(5) DME propellant	33.00

Preparation:

Dissolve potassium hydroxide in ethanol and water. While maintaining proper agitation, slowly sift in Balance-CR and Resyn 28-2930. When the solution is complete, add the remaining ingredients. Mix until homogeneous. Filter and fill containers. Charge cans with propellant.

Valving and Actuators:

Valve Type: Seaquist ST-71/Cup: Hi Prof, Epoxy Top, Laminate
 Stem: 0.013" Vapor Tap: 0.013" Bottom
 Gasket: Butyl .042" thick code: 502 Dip Tube: 0.122"
 Spring: 0.023" SS A-D Dim: 8"
 Body: 0.016" STD Actuator: ST-150 Misty 0.020"
 Formulation 9747:71

Fast Drying 55% VOC Aerosol Hair Spray

This formulation is designed to provide fast drying times, high stiffness, good subjective properties, no initial curl droop, and lower corrosion potential.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Amphomer 4910	4.00
(2) AMP regular	0.66
(3) Citroflex-2	0.10
Anhydrous Ethanol	55.00
(4) Dymel 152a	40.24

Preparation:

Dissolve AMP in ethanol and water. While maintaining proper agitation, slowly sift in Balance-CR and Resyn 28-2930. When the solution is complete, add the remaining ingredients. Mix until homogeneous. Filter and fill containers. Charge cans with propellant.

Valving and Actuators:

Valve Type: Seaquist NS-31
 Stem: 0.013" Vapor Tap: None
 Body: 0.010" STD Actuator: Excel 200 Misty 0.023"
 Dip Tube: 0.165"
 Formulation: 8409:85D

SOURCE: National Starch and Chemical Co.: Suggested Formulations

55% VOC Sculpting Aerosol Hair Spray

This formulation is designed to provide fast drying times, flexible stiffness, good hold and subjective properties, no initial curl droop, and lower corrosion potential.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance 47	4.50
(2) AMP Regular	0.98
(3) Crotein ADW	0.20
(4) Sodium Benzoate	0.25
Fragrance	0.25
Deionized Water	12.82
(5) SDA-23A	56.00
(6) N-Butane	7.00
(7) Dymel 152A	18.00

Preparation:

Dissolve AMP in ethanol. While maintaining good agitation, slowly sift in the Balance-47. When the solution is complete, add remaining ingredients. Filter and fill aerosol containers. Charge cans with propellant.

Valving and Actuators: Seaquist NS-31

Stem: 0.013"

Vapor Tap: None

Gasket: Butyl .042" thick code: 502 Dip Tube: 0.122"

Body: 0.010" Std

Actuator: 0.023" Excell 200 Misty

Formulation 9612:99

55% VOC Pump Hairspray

This low VOC formulation provides good sprayability, firm hold and excellent humidity resistance.

<u>Ingredients:</u>	<u>Wt%</u>
(1) Balance 0/55 (50% solids)	8.40
(2) Amphomer 4910	1.80
(3) AMP (reg)	0.89
(4) Silsoft A-843	0.20
Deionized Water	33.71
*Anhydrous Ethanol	55.00

*Substitution of Anhydrous Ethanol with 64.17% SDA-23A (190 proof and containing 7.3% acetone denaturant) would result in improved tack and dry times while maintaining 55% VOC compliance.

Preparation:

Dissolve AMP in ethanol and water. While maintaining proper agitation, slowly sift in Balance 0/55 and Amphomer. Mix until homogeneous. Filter and fill containers.

Valving and Actuators: Seaquist Perfect: Euromist II

Output: 160 mcl Output

Liner: PE/Butyl Blend

Closure: 24-410, White

Insert: .010" X .020" Deep

Formulation 9612:79A

SOURCE: National Starch and Chemical Co.: Suggested Formulations

Section VII

Lotions

After Sport Massage Lotion

A low viscosity "emulsifier-free" lotion containing Bentone Gel EUG rheological additive.

<u>Ingredients:</u>	<u>Wt%</u>
Caprylic/Capric Triglyceride	5.00
Octyldodecanol	4.00
Isopropyl Myristate (and) Soya Bean Oil (and) Arnica Extract	2.00
Propylene Glycol	3.00
Acrylic Acid/Vinyl Ester Copolymer	0.30
Triethanolamine 99%	0.15
Perfume	0.20
Methyldibromoglutaronitrile (and) Dipropylene Glycol	0.20
Bentone Gel EUG	3.00
Demineralized Water	Bal to 100%
	(pH approx 5.5)

Method Of Manufacture:

1. Thoroughly disperse the Bentone Gel EUG additive in the oil phase, then disperse the Acrylic Acid/Vinyl Ester Copolymer, then heat to 45C.
2. Add the Triethanolamine to the aqueous phase and heat to 45C.
3. Add the two phases, with mixing, and continue to stir.
4. Add the perfume and preservative below 30C.

This "emulsifier free" lotion is easy to apply to the skin and the emulsion breaks rapidly on contact with the skin. The presence of Bentone Gel EUG additive provides body to the lotion and eliminates the "wetness" often associated with Carbomer-stabilized emulsions.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

AHA High Viscosity Lotion with Uninontan U-34

An AHA Glycolic lotion with Uninontan U-34 and Gorgonian Extract to provide an even skin tone and help minimize skin irritation. This formula also contains a balanced emulsifier system for excellent stability and a variety of emollient moisturizers for skin softness.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	78.65
1	Uniphen P-23	0.50
1	Liponic EG-1/Glycereth-26	1.50
2	Keltrol/Xanthan Gum	0.25
2	Veegum/Magnesium Aluminum Silicate	0.15
3	Ultrapure L/Petrolatum	1.50
3	Lipo GMS 450/Glyceryl Stearate	1.50
3	Lipopeg 6000 DS/PEG-150 Distearate	1.75
3	Lipowax G/Stearyl Alcohol (and) Ceteareth-20	0.25
3	Lipowax P/Emulsifying Wax, NF	0.45
3	Lipocol C/Cetyl Alcohol	1.00
3	Liponate NPGC-2/Neopentyl Glycol Dicaprylate/Dicaprate	4.00
3	Lipovol SAF/Safflower Oil	0.50
3	Lipovol SES/Sesame Oil	0.50
4	Glycolic Acid, 99%	2.00
4	Uninontan U-34	5.00
5	Gorgonian Extract/Butylene Glycol (and) Sea Whip Extract	0.50
6	Triethanolamine, 99%	Q.S.*

* To adjust pH

Procedure:

- Mix sequence #1 together with overhead mixer while heating to 78C.
- Dry mix sequence #2 together and add slowly to sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous).
- Mix sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C).
- At 45C, premix sequence #4 together at room temperature and add to batch using sweep blade at low speed. Lower temperature to 40C.
- At 40C, add sequence #5 to the batch.
- Cool down to 25C and remove from mixer.
- Adjust pH to 3.8-4.2 with sequence #6.

Specifications:

pH: 4.0+/-0.2

Viscosity: 32,730cps+-10%

SOURCE: Lipo Chemicals Inc.: Formula No. 923

AHA Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Mineral oil (25 cS at 25C)	6.0
GMS A/S (Glyceryl stearate and PEG-100)	6.0
GMS N/E (Glyceryl stearate)	2.5
Crodacol C90 (Cetyl alcohol)	1.5
Silicone 200/100 (Dimethicone)	0.5
Water deionised	0.3
Kelzan S (Xanthan gum)	0.3
Propylene glycol	5.0
Purasal S/PF 60 (Sodium lactate)	5-12
Purac PH 90 (Lactic acid) to required pH	2- 5
Perfume, preservative, colour	qs

Croda formulation

Water in Oil Moisturizing Lotion

<u>Ingredients:</u>	<u>Wt%</u>
<u>Phase A:</u>	
Veegum (MgAlSilicate)	1.30
Water	to 100%
Magnesium sulphate	0.50
<u>Phase B:</u>	
Mineral oil, Light	9.00
Polysynlane	10.00
Nimlesterol D	7.50
Amerchol L101	9.00
Purasal S/HQ 60	5-12
Purac PH 90 to required pH	0.05-0.15
Witcamide 511	2.00
Preservative	q.s.

It is not 100% sure whether the Purac products have to be added to Phase A or Phase B.

Polyester Corp. formulation

SOURCE: Purac America, Inc.: Suggested Formulations

Body Forming Lotion(Pentacare-HP/Revitalin-BT)

In this emulsifier-free lotion Pentacare-HP reduces the fine lines and wrinkles directly after application. Revitalin-BT activates the cell metabolism. The combination of all actives makes this light and agreeable formulation to an ideal product for body forming application.

Ingredients/INCI Name:

	<u>Wt%</u>
A) Pemulen TR-1/Acrylates/C10-30 Alkyl Acrylate Cross-polymer	0.30
Cetiol 868/Octyl Stearate	8.00
Almond Oil/Sweet Almond Oil	10.00
Vitamin E Acetate/Tocopheryl Acetate	0.50
B) Deionized Water	68.80
Carbopol Ultrez 10/Carbomer	0.10
Glycerin/Glycerin	2.00
Phenonip	0.50
Caffeine/Caffeine	0.50
C) Sodium Hydroxide 18% Solution q.s. pH 6.0	
D) Ivy Extract/Ivy Extract	2.00
Pentacare-HP/Water, Locust Bean (Ceratonia Siliqua)	
Gum, Hydrolyzed Casein	5.00
Revitalin-BT/Glycoproteins	2.00
Fragrance/Number one 908 CK	0.30

Procedure:

Mix phase A) and homogenize for 2 minutes. Under stirring add phase B) to phase A) and homogenize. Neutralize with phase C). Finally incorporate items of phase D) one after the other.

SOURCE: Pentapharm Ltd.: Application No. C 031.0/05.99

Body Lotion with AHAIngredients:

	<u>Wt%</u>
Phase A:	
Water, deionised	53.60
Stabileze 06/QM	2.00
Suttocide A	0.50
Phase B:	
Water, deionised	10.00
Sodium lactate (Purasal S/PF 60)	8.40
Lactic Acid (Purac PH 90) (adjust to pH 4)	3.00
Phase C:	
Glyceryl Stearate (Cerasynt 945)	4.00
PEG-20 Stearate (Cerasynt 840)	2.00
Beeswax	3.00
Maleated Soybean Oil (Ceraphyl GA-D)	2.00
Diisopropyl Adipate (Ceraphyl 230)	2.00
Myristyl Myristate (Ceraphyl 424)	2.50
Isocetyl Alcohol (Ceraphyl ICA)	3.00
Mineral oil	3.00
Germaben II-E	1.00

Procedure:

1. Disperse Stabileze 06/QM in water and heat to 80 degrees Celsius with constant stirring until a translucent gel is formed.
2. Cool to 60 degrees Celsius. Add Suttocide A and mix until a clear gel is obtained.
3. Add premix (Phase B) with pH adjusted to 4, into Phase A.
4. Heat Phase C with uniform stirring and cool to 60 degrees Celsius. Add to Phase AB.
5. Mix and homogenize to 45 degrees Celsius.
6. Add Germaben II-E at 40 degrees Celsius.

SOURCE: Purac America, Inc.: ISP Formulation

Body Lotion with Sunscreens

SFE839 Elastomer Dispersion is silicone elastomer dispersed in cyclopentasiloxane. It acts as an emollient and provides smooth, silky and luxurious afterfeel.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Octyl Methoxycinnamate/UV absorber	7.5
Benzophenone-3/UV absorber	3.0
Stearic Acid/Emulsifier	2.5
Glyceryl Stearate SE/Emulsifier	1.0
PVP/Eicosene Copolymer (1)/Film former	2.0
Cetyl Alcohol/Thickener	0.3
Caprylic/Capric Triglyceride/Emollient	3.0
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (2)/ Emulsifier/Thickener	0.25
Part B:	
Glycerin/Humectant	3.0
Disodium EDTA/Chelating agent	0.05
Methylparaben/Preservative	0.2
Propylparaben/Preservative	0.1
Xanthan Gum/Thickener	0.4
Water	70.5
Part C:	
Triethanolamine/Neutralizer/Emulsifier	0.9
Part D:	
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer (SFE839)(3)/Emollient	5.0
Sorbitan Oleate/Emulsifier	0.3

Procedure:

1. Combine Part A and heat with agitation to 75C.
2. Mix together all Part B and heat to 70C.
3. Add Part A to Part B under high shear mixing.
4. Cool with agitation to 45C and add Part C.
5. Combine Part D and add to the batch with moderate agitation until uniform.

Trade Names/Suppliers:

- (1) Ganex V-220, ISP
- (2) Pemulen TR-1, BF Goodrich
- (3) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula SC105

Body Lotion with Sunscreens

This water-in-oil formulation using SF1528 is a light, non-greasy, less tacky sunscreen. SF1642 acts as an emollient/thickener and provides smooth, silky and luxurious afterfeel. This sunscreen demonstrates the use of silicones in conjunction with organics.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Octyl Methoxycinnamate/UV-absorber	7.5
Octyl Salicylate/UV-absorber	3
Benzophenone-3/UV-absorber	3
Part B:	
Bis-Phenylpropyl Dimethicone(SF1555)(1)/Emollient	5
C30-45 Alkyl Dimethicone(SF1642)(1)/Thickener, Emollient	1
Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Thickener, Emollient	5
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528)(1)/Primary Emulsifier	10
PEG-30 Dipolyhydroxystearate/Secondary Emulsifier	1
Sorbitan Oleate/Secondary Emulsifier	0.5
Part C:	
Water/Vehicle	q.s.
Butylene Glycol/Humectant	2
NaCl/Stabilizer	1.0
Quaternium-15/Preservative	0.1

Procedure:

1. Combine Part A and mix until uniform.
2. Add ingredients of Part B to Part A and heat to 60-65C.
3. In a separate vessel, mix all ingredients of Part C. Heat to 60-65C.
4. Slowly add water phase to oil phase under moderate mixing.
5. Homogenize for 1-2 minutes.

Suppliers:

- (1) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula SC108

Daily Protective Lotion (With Sunscreen)
Oil Free, Fragrance Free

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Amphisol/Cetyl Phosphate (and) DEA Cetyl Phosphate	1.00
Arlacel 165/Glyceryl Stearate (and) PEG 100 Stearate	1.00
Cetyl Alcohol	1.50
Schercemol DISD/Diisostearyl Dimerate	1.00
Schercemol CO/Cetyl Octanoate	8.00
Silicone fl. 350 cps	0.10
A2 Parsol MCX/2-Ethyl Hexyl P-Methoxycinnamate	3.00
Dipsal/Dipropylene Glycol Salicylate	2.30
B-B1 Deionized Water	67.40
Carbopol 941 2% Aq. Soln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Rose Extract	0.50

Procedure:**Phase B:**

In the main beaker, disperse B1 together at 75-85C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

Phase A:

Blend Phase A1 to at least 85C. Once completely clear add A2.

Blend Phase A together until a homogeneous oil phase is obtained.

Add Phase A to Phase B with continuous mixing at 80-85C for 15 minutes.

Cool batch to 60C, then add C. Continue to cool batch to 30C, then add D.

Formulation L-213-3

Cationic Emollient Lotion

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Part A:	
Deionized Water	q.s.
Schercoquat IALA/Isostearamidopropyl Laurylaceto-dimonium Chloride	5.0
Schercomid LME-75/Lactamide MEA	3.0
Germaben II	1.0
Part B:	
Schercemol 185/Isostearyl Neopentanoate	15.0
Schercemol MM/Myristyl Myristate	1.0
Cetyl Alcohol	4.0
Schercemol GMIS/Glyceryl Isostearate	4.5

Procedure:

1. Part A. Disperse Schercoquat IALA in water. When solution is uniform, add the rest of the ingredients and heat to 70C.

2. Prepare Part B and heat to 70C.

3. Add Part A to Part B, stirring continuously.

4. Cool to room temperature. Continue with moderate agitation.

Formulation SK 135

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

European Body Lotion

A water-in-oil formulation producing a lotion with a light, non-greasy feel. SF1328 acts as a water-in-oil emulsifier. SF1202, cyclopentasiloxane, is an emollient providing spreadability, detackification and a dry, non-greasy feel.

(1)

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Sorbitan Stearate/Emollient/Co-emulsifier	0.91
Lanolin/Emollient	0.96
Part B:	
Glycerin/Humectant	1.05
Sodium Chloride/Stabilizing aid	1.80
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben(3)/Preservative	0.60
Water	54.69
Part C:	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)(4)/Emulsifier	25.24
Cyclopentasiloxane(SF1202)(4)/Emollient/Detackifier	14.75

(2)

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Sucrose Distearate(1)/Emollient/Co-emulsifier	0.40
Sorbitan Stearate/Emollient/Co-emulsifier	0.50
Lanolin/Emollient	0.80
Perfluoromethylisopropyl Ether(2)/Film-former	0.50
Part B:	
Magnesium Aluminum Silicate/Viscosity adjuster	0.30
Glycerin/Humectant	2.50
Sodium Chloride/Stabilizing aid	1.80
Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben(3)/Preservative	0.60
Water	64.60
Part C:	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)(4)/Emulsifier	14.00
Cyclopentasiloxane(SF1202)(4)/Emollient/Detackifier	14.00

Procedure:

1. Add Part B to Part C with high-speed mixing.
2. Melt Part A and quickly add to Part BC emulsion with continued high-speed mixing.
3. Homogenize to a stable emulsion.

Comments:

- * Improve freeze-thaw stability by using 1% sorbitan isostearate
- * Increase viscosity with lower SF1202 level and/or increased magnesium aluminum silicate.

Trade Names/Suppliers:

- | | |
|-----------------|------------------|
| (1) Croda, Inc. | (2) Ausimont |
| (3) Germaben II | (4) GE Silicones |

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 109

Facial Cleansing Lotion

Dual purpose make-up remover and skin conditioner for every day use. The lotion provides mild cleansing, emollience and skin protection. The inclusion of Akoline MCM offers anti-microbial properties to the formulation and helps solubilising impurities on the skin. Lipex Canola-U adds natural tocopherols and phyto-sterols to protect and reduce skin irritancy from environmental stress and other aggressions against the skin. Akorex L and Lipex together with Lipex Canola-U imparts a nice soft skin feel.

<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1. Water, dem./Aqua	ad 100.00
Glycerin 99.5%	5.00
2. Pationic SCL/Sodium Cocoyl Lactylate	0.50
Rita Cetearyl Alcohol	2.50
Rita GMS/Glyceryl Stearate	4.00
Akoline MCM/Caprylic/capric glycerides	2.00
Akomed R/Caprylic/capric triglycerides	2.50
Lipex Canola-U/Canola oil unsaponifiables	2.00
Akorex L/Hydrogenated Canola oil	0.50
Lipex 203/Mango (Magnifera Indica) seed oil	0.50
Arlamol HD/Isohexadecane	8.00
3. Euxyl K 400/Methyldibrome Glutaronitrile (and) Phenoxyethanol	0.20
Trimaran 61636/Parfum	0.07
4. Sicovit Patentblau 85 E131/C.I.42051/Acid Blue 3	q.s.

Manufacturing Procedure:

Take the ingredients for Position 1. Heat to 80-85C. Melt the ingredients for Position 2 at a temperature of 80-85C. Once the product has reached the prescribed temperature, slowly work Position 1 into Position 2, stirring and homogenising all the time. Stir while cooling down. Once a temperature of 30C has been reached, add the ingredients for Position 3. Finally add Position 4 as a solution in a small amount of water from Position 1. Cool down to 28C, stirring all the time.

Appearance: Smooth, shiny, blue colored lotion.

SOURCE: Jarchem Industries, Inc.: Suggested Formulation

Facial Lotion for Acne and Shine Control

A Hydroxypropyl Beta Cyclodextrin (and) Salicylic Acid lotion containing Uninontan U-34 and Gorgonian Extract to provide even skin tone and help minimize skin irritation. This formula reduces shine by absorbing and normalizing facial oil while providing moisturization to the skin.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	57.70
1	Uniphen P-23	0.50
1	Liponic EG-1/Glycereth-26	3.00
2	Keltrol/Xanthan Gum	0.20
2	Veegum/Magnesium Aluminum Silicate	0.15
3	Ultrapure L/Petrolatum	1.50
3	Lipo GMS 450/Glyceryl Stearate	1.50
3	Lipopeg 6000 DS/PEG-150 Distearate	1.75
3	Lipowax G/Stearyl Alcohol (and) Ceteareth-20	0.25
3	Lipowax P/Emulsifying Wax, NF	0.45
3	Lipocol C/Cetyl Alcohol	1.00
3	Liponate NPGC-2	4.00
3	Lipovol SAF/Safflower Oil	0.50
3	Lipovol SES/Sesame Oil	0.50
4	Orgasol 2002 D Nat Cos/Nylon-12	1.50
5	Lipo CD-SA	20.00
5	Uninontan U-34	5.00
6	Gorgonian Extract	0.50
7	Triethanolamine, 99%	*QS

*To adjust pH

Procedure:

- Mix sequence #1 together with overhead mixer while heating to 78C.
- Dry mix sequence #2 together and add slowly to sequence #1 with medium/high agitation. (Mix well until both gums are completely hydrated/homogeneous.)
- Mix sequence #3 together and heat to 78C until completely melted and add to batch. (Cool to 55C, place on sweep blade and continue to cool to 45C.)
- At 45C, add sequence #4 to batch using sweep blade at low speed. Lower temperature to 40C.
- At 40C, add sequence #5 to the batch. Cool to 35C.
- At 35C, add sequence #6 to batch.
- Cool down to 25C and remove from mixer.
- Adjust pH to 3.8-4.2 with sequence #7.

Specifications:

pH: 4.0+/-0.2

Viscosity: LVT #4 @ 30 rpm: 7,400 cps +_10%

SOURCE: Lipo Chemicals Inc.: Formula No. 951

Four Season's LotionRaw Materials:

	<u>Wt%</u>
Part A:	
Stearic Acid No. 63-0412 (1)	3.0
Rosswax 2540 (1)	5.9
Emerest 2314 (2)	1.7
Emerest 2316 (2)	1.7
GMS SE (3)	0.5
Mineral Oil #35 (4)	0.3
Dow Corning #344 (5)	1.5
Acetulan (6)	1.2
Jojoba Oil (7)	2.0
Escalol 507 (8)	5.0

Part B:

Water	70.7
Aloe-Vera (1:1) (9)	4.0
Triethanolamine	1.2

Part C:

Germaben IIE (10)	1.0
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Part D:

Fragrance Pina Colada (11)	0.3
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Procedure:

Heat Part A and Part B to 170F in separate heated vessels. Next add Part B to Part A with agitation until thoroughly mixed. Then add Part C under agitation and finally add Part D. Cool the batch to 135F and package.

Suppliers:

(1) Frank B. Ross Co.	(7) Arista Industries Inc.
(2) Henkel-Emery Group	(8) ISP-Van Dyk
(3) Stepan Co.	(9) Madis Botanicals Inc.
(4) Penreco Inc.	(10) ISP-Sutton Labs
(5) Dow Corning Corp.	(11) Robertet-Novarome
(6) Amerchol Corp.	

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation

General Purpose Skin Lotion

This is a simple base formulation for an all-purpose oil-in-water skin lotion. It is a light product for the face and hands. SF96 (100), dimethicone, provides emollient and anti-whitening properties as well as skin protection.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
PEG-8 Stearate/Emulsifier	1.31
Dimethicone [SF96 (100)](1)/Emollient/Anti-whitening	6.50
Myristyl Alcohol/Emollient/Viscosity	3.80
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier/ Opacifier	4.00
Sodium Dioctylsulfosuccinate(2)/Surfactant	0.17
Myristyl Lactate/Emollient	2.70
Cetyl Acetate/Emollient	2.70
Methylparaben/Preservative	0.17
Part B:	
Disodium EDTA/Chelating agent	0.05
Water/Diluent	78.60

Procedure:

1. Heat Part A and Part B to 80C.
2. Add Part A to Part B with agitation.
3. Continue to mix until product is cooled to 25C. Force-cool if needed.

Comments:

- * Methylparaben may be added to Part B or it may be substituted with Germaben II-E.
- * Greater viscosity may be achieved by replacing myristyl alcohol with cetyl, cetearyl, stearic or behenyl alcohol.
- * Greater elegance may be achieved by replacing SF96 (100) with SF1214.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Monawet MO85P, Mona Industries, Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 100

General Purpose Skin Lotion

This is a simple formulation for an all-purpose oil-in-water skin lotion. It is a light product for the face and hands. SFE839 Elastomer Dispersion, provides emollient and anti-whitening properties as well as skin protection.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
PEG-8 Stearate/Emulsifier	1.31
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Emollient/Anti-whitening	6.50
Myristyl Alcohol/Emollient/Viscosity Building Agent	3.80
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier/ Opacifier	4.00
Sodium Dioctylsulfosuccinate(2)/Emulsifier	0.17
Myristyl Lactate/Emollient	2.70
Cetyl Acetate/Emollient	2.70
Methylparaben/Preservative	0.17
Part B:	
Disodium EDTA/Chelating agent	0.05
Water/Diluent	78.60

Procedure:

1. In separate vessels, heat Part A and Part B to 80C.
2. Add Part A to Part B with agitation.
3. Continue to mix until product is cooled to 25C. Force-cool if needed.

Comments:

- *Methylparaben may be added to Part B or it may be substituted with Germaben II-E, International Specialty Products (ISP)
- *Greater viscosity may be achieved by replacing myristyl alcohol with cetyl, cetearyl, stearic or behenyl alcohol.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Monawet MO85P, Mona Industries, Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SP117

Hand and Body Lotion for Dry Skin

A non-greasy lotion designed for daily use as a moisturizing lotion on the hands or entire body. This formulation demonstrates the use of SF1632 in a moisturizing product. SF1632 is a silicone wax which melts when applied to the skin and forms an occlusive barrier which reduces water loss from the skin (TEWL). It has a light, non-greasy feel and is ideal when formulating moisturizing products.

Ingredients/Function:

	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	73.53
Disodium EDTA/Chelating agent	0.02
Butylene Glycol/Humectant	3.00
Panthenol/Moisturizer/Provitamin B	0.40
Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (1)/Preservative	0.80
Part B:	
Cyclopentasiloxane (SF1202)(2)/Emollient	5.00
Cetearyl Methicone (SF1632)(2)/Occlusive/TEWL reduction/ Emollient	10.00
Glyceryl Stearate (and) PEG-100 Stearate/Emulsifier	1.00
Tocopherol (and) Cococaprylate/Caprates/Vitamin E/ Antioxidant	0.50
Part C:	
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7(3)/Emulsifier	1.40
Part D:	
Fragrance (4)	0.35
Aluminum Starch Octenylsuccinate/Slip/Feel	4.00

Procedure:

1. Heat water of Part A to 75C with moderate propeller agitation. Add remaining ingredients in order listed with moderate stirring.
2. Combine Part B and heat to 75C with slow agitation. Add Part B to Part A with moderate propeller agitation. Mix for 5 minutes, then begin cooling batch.
3. At 50C add Part C to Part AB and mix with rapid propeller agitation until uniform and viscosity increases. Mix 10 minutes with moderate homogenizer agitation. Cool to 45C.
4. Add Part D to batch in order listed and mix with moderate propeller agitation for 15 minutes.
5. Cool to room temperature with continued stirring.

Trade Names/Suppliers:

- (1) Phenonip, Nipa Laboratories, Inc. (2) GE Silicones
(3) Sepigel 305, Seppic (4) Fragrance HJ-416, Shaw Mudge

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 105

Hand-Protection Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Polyethyleneglycol 400	2.20
Isopropyl Myristate	2.20
Cetyl Alcohol	0.60
Lanolin Acid	0.60
Stearic Acid	3.30
B: Triethanolamine	0.60
Propylene Glycol	5.50
Water	82.00
C: Wacker-Belsil CM 1000	2.20
Preservatives, perfume, pigments	q.s.

Heat A and B to 80C. Add A to B with fast agitation. Add C.
Formulation 576 AH

Body Lotion

<u>Ingredients:</u>	<u>Wt%</u>
A: Hostacerin WO	8.00
Wacker-Belsil CM 1000	10.00
Isopropyl Palmitate	10.00
B: Water	72.00
Preservatives, perfume, pigments	q.s.

W/O Lotion

Heat A and B to 75-80C. Stir B into A.

Temperature stability: at 45C 8 weeks.

Formulation 813 AH

Body Lotion

Thick lotion with good absorption and non-greasing properties. With UV-protection.

<u>Ingredients:</u>	<u>Wt%</u>
A: Mineral Oil	1.00
Cetyl Alcohol	1.00
Stearic Acid	1.50
Wacker-Belsil SM 6018	5.00
B: Triethanolamine	0.80
Propylene Glycol	3.00
Water	85.20
C: Parsol MCX	2.50
Preservatives, fragrances, pigments	q.s.

Heat A and B each to 85C, stir B into A and stir cold.

Formulation 1210/1AH

SOURCE: Wacker Silicones: Suggested Formulations

Lotion with Alcohol

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	8.5
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
Softigen 701 (Glyceryl Ricinoleate)	1.5
B. Carbopolgel 2%-ig (Carbomer)	12.5
Preservative	q.s.
Water ad	100
C. Ethanol, 96%	10
Fragrance	q.s.

Preparation:

A is mixed and warmed up to about 75C. B is brought to the same temperature and gradually emulsified into A with hi-speed agitator. C is stirred in at approx. 30C.

Sport Body Lotion, Low-Viscous

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 370 (Glyceryl Stearate Citrate)	2.5
Imwitor 375	2.5
Miglyol 812 (Caprylic/Capric Triglyceride)	8
Imwitor 928 (Glyceryl Cocoate)	3
B. Keltrol F (Xanthan Gum)	0.5
Preservative	q.s.
Water ad	100

Preparation:

A is heated up to about 75C. B is mixed, brought to the same temperature and emulsified into A.

W/O-Lotion, Quickly Penetrating

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan Gel	7
Softisan 100 (Hydrogenated Coco-Glyceride)	2
Imwitor 780K (Isostearyl Diglyceryl Succinate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	8
Dynacerein 660 (Oleyl Erucate)	7
Pionier WWH soft (Ointment base)	6
Arlacel 989 (Hydrogenated Castor Oil)	2
B. Magnesium Sulphate	0.5
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is heated to approx. 75C and homogeneously stirred. B is brought to the same temperature and gradually admixed into A with hi-speed agitator. C is added at approx. 30C.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Milky Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A: Polyoxyethylene Sorbitan Monostearate (20EO)	1.0
Sorbitan Monostearate	0.5
Polyoxyethylene Sorbitan Tetraoleate (40EO)	1.0
Stearic Acid	1.0
Cetanol	0.5
Behenyl Alcohol	0.5
Myristyl Myristate	2.0
MITD (Isotridecyl Myristate)	5.0
Liquid paraffin	10.0
Alpha-Bisabolol	0.2
Butyl Parahydroxybenzoate	0.1
B: Isoprene Glycol	5.0
Methyl Parahydroxybenzoate	0.1
Purified Water	Up to 100

- 1) Heat (A) to 80C and mix it.
- 2) Mix IPG with purified water and heat it to 80C. Dissolve Methyl Paraben into it.
3. Mix A and B. Then cool it to room temp.

Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
POE (60) Hydrogenated Castor Oil	0.5
POE (20) POP (6) Decyl Tetradecylether	0.5
Squalane	0.1
Ethanol	5.0
Isoprene Glycol	5.0
Sodium dl-Pyrrolidone Carboxylate	2.0
Citric Acid	*
Alpha-Bisabolol	0.1
Purified Water	Up to 100
*Adjust pH to 5-6 with Citric Acid.	

Hand Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Hexadecyl alcohol	1.5
Silicone 200	1.5
Lanolin oil	2.0
Robane	3.0
Cetina	3.0
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robeco Chemicals, Inc.: Suggested Formulations

Moisturizing Body Lotion-922/1

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	76.10
Propylene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
Part B:	
Robane (Squalane NF)	10.00
SPM wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
Part C:	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

Moisturizing Body Lotion 922/2

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	76.10
Butylene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
Part B:	
Robane (Squalane NF)	10.00
SPM Wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
Part C:	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

Procedure:

1. Mix and heat Part A and Part B to 78-80C. Stir each until uniform.
2. Add Part B to Part A and stir for 15 minutes at 78-80C.
3. Cool, with stirring at 40-42C, add Part C to batch.
4. Cool to 25C.

SOURCE: Robeco Chemicals, Inc.: Suggested Formulations

Moisturizing Body Lotion 922/3

<u>Ingredients:</u>	<u>Wt%</u>
Part A:	
Deionized Water	76.10
Isoprene Glycol	5.00
Trisodium EDTA	0.05
Triethanolamine	1.20
Methylparaben	0.25
Part B:	
Robane (Squalane NF)	10.00
SPM Wax (Cetyl Esters)	0.25
Cetyl Alcohol	1.00
Stearic Acid	4.50
Silicone Fluid 200 (200 cs) (Dimethicone)	0.25
Propylparaben	0.10
Butylparaben	0.05
Part C:	
Deionized Water	1.00
Germall 115 (Imidazolidinyl Urea)	0.25

Procedure:

1. Mix and heat Part A and Part B to 75-80C. Stir each until uniform.
2. Add Part B to Part A and stir for 15 minutes at 78-80C.
3. Cool, with stirring to 40-42C, add Part C to batch.
4. Cool to 25C

Emollient Body Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Isopropyl myristate	4.0
Glyceryl monostearate	2.0
Stearic acid TP	2.6
Cetina	1.0
Robane	4.0
Veegum	1.0
Propylene Glycol	4.0
Triethanolamine	1.5
Water, perfume, preservative	q.s. to 100.0

SOURCE: Robane Chemical, Inc.: Suggested Formulations

Moisturizing Facial Lotion

A facial lotion which demonstrates the use of SF1632 in a light moisturizing product. SF1632 is a silicone wax which melts when applied to the skin and forms a semi-occlusive barrier which reduces water loss from the skin (TEWL). It has a light, non-greasy feel and is ideal when formulating moisturizing products.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	76.58
Tetrasodium EDTA/Chelating agent	0.02
Propylene Glycol/Humectant	3.00
Panthenol/Moisturizer/Provitamin B	0.50
Phenoxethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben (1)/Preservative	0.80
Part B:	
Cetearyl Methicone (SF1632)(2)/Occlusive/TEWL reduction/ Emollient	5.00
Dicaprylyl Ether/Emollient	4.00
Floraester-20/Emollient	3.00
Maleated Soybean Oil/Emollient	4.50
Cetyl Alcohol/Bodifying agent/Secondary emulsifier	1.00
Part C:	
Polyacrylamide (and) C13-14 Isoparaffin (and) Laureth-7(3)/Primary emulsifier/Thickener	1.40
Floral Fragrance	0.20

Procedure:

1. Heat water of Part A to 75C with moderate propeller agitation. Add remaining ingredients in order listed with moderate stirring.
2. Combine Part B and heat to 75C with slow agitation. Add Part B to Part A with moderate propeller agitation. Mix for 5 minutes, then begin cooling batch to 60C.
3. At 60C add Part C (Sepigel, then fragrance) to Part AB and mix with rapid propeller agitation until uniform and viscosity increases. As viscosity develops, increase mixing speed.
4. Cool to room temperature with adequate agitation.

Trade Names/Suppliers:

- (1) Phenonip, Nipa Laboratories, Inc.
- (2) GE Silicones
- (3) Sepigel 305, Seppic

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 103

Moisturizing Lotion (SK-104)

<u>Raw Materials:</u>	<u>Wt%</u>
A. Amerchol L-101	8.00
Solulan 98 (Laneth-10 Acetate)	0.50
Klearol (Mineral Oil)	15.00
Propylene Glycol	5.00
Arlacel 165	1.00
Cetyl Alcohol	0.50
B. Water, Deionized	61.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Moisturizing Lotion (SK-105)

<u>Raw Material:</u>	<u>Wt%</u>
A. Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
Schercemol DID (Diisopropyl Dimerate)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B. Water, Deionized	76.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Manufacturing Procedure:

1. Prepare Phase "A" by heating the ingredients to 75C to dissolve the solids.
2. Prepare the Carbopol solution by dispersing Carbopol 941 into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion at about 80C until a smooth viscous solution is formed.
3. Dissolve the parabens in propylene glycol by warming solution to 55C. Add Phase "C" to "B".
4. Add Phase "B" & "C" to "A" with mixing.
5. When base is at 55C, add in Phase "D" stirring until the base is completely mixed in.
6. Add Germall solution and perfume when cool.

SOURCE: Scher Chemicals, Inc.: Formulas SK-104 and SK-105

Moisturizing Lotion (SK-106)

<u>Raw Materials:</u>	<u>Wt%</u>
A. Lanolin Alcohol	0.50
Solulan 98 (Laneth-10 Acetate)	0.50
Schercomid AME-70 (Acetamide MEA)	8.00
Propylene Glycol	4.00
Arlacel 165	1.00
Cetyl Alcohol	1.00
B. Water, deionized	76.25
Carbopol 941 (Carbomer-941)	0.50
C. Propylene Glycol	0.70
Methyl Paraben	0.20
Propyl Paraben	0.10
D. Water, Deionized	4.50
Potassium Hydroxide (40%)	0.50
E. Water, Deionized	1.80
Germall 115 (Imidazolidinyl Urea)	0.20
F. Perfume Oil	0.25

Manufacturing Procedure:

1. Prepare Phase "A" by heating the ingredients to 75C to dissolve the solids.
2. Prepare the Carbopol solution by dispersing Carbopol 941 into water using high speed agitation until a smooth slurry is obtained. Then heat the dispersion at about 80C until a smooth viscous solution is formed.
3. Dissolve the parabens in propylene glycol by warming solution to 55C. Add Phase "C" to "B".
4. Add Phase "B & C" to "A" with mixing.
5. When base is at 55C, add in Phase "D" stirring until the base is completely mixed in.
6. Add Germall solution and perfume when cool.

SOURCE: Scher Chemicals, Inc.: Formula SK-106

Nutritive Lotion
Oil Free

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Schercemol DISD/Diisostearyl Dimer Dilinoleate	2.00
Schercemol CO/Cetyl Octanoate	12.00
Arlacel 165/Glyceryl Stearate (and) PEG 100 Stearate	2.00
Stearyl Alcohol	0.60
Cetyl Alcohol	0.60
Stearic Acid	3.00
Silicone fl 350 cps	0.20
A2 Triethanolamine	1.00
B-B1 Deionized Water	57.50
Carbopol 941 2% Aq. Sln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
C- Germaben II	1.00
D- Tocopherol Acetate	0.05
Retinyl Palmitate	0.05
E-E1 Concentrate R	5.00
E2 Ginseng Extract	1.00
F- Fragrance	0.20
G- FD&C Red 4 0.10% Aq. Sln.	0.40
FD&C Yellow 5 0.10% Aq. Sln.	0.20

Procedure:**Phase B:**

In the main beaker, disperse B1 at 75C. Add Glycerin. Add Triethanolamine to neutralize the Carbopol gel. Mix until a smooth gel is obtained.

Phase A:

Blend A1 and A2 together at 75-80C until homogeneous. Add Phase A to Phase B with continuous mixing at 75-80C for fifteen minutes. Cool batch to 60C and add Phase C. Continue to cool with mixing to 37C, than add Phase D, E, F, G in sequence. Continue mixing while cooling batch to 25-28C.

SOURCE: Scher Chemicals, Inc.: Formulation L-213-2

O/W Spray Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	2
Imwitor 928 (Glyceryl Cocoate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	8
B. Keltrol F (Xanthane based hydrogel builder)	0.5
Preservative	q.s.
Water up to	100
C. Fragrance	q.s.

Preparation:

A is heated to about 75C. B prepared and brought to the same temperature. B is emulsified into A. C is added at about 30C.

Rich Basic Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	7
Cetyl Alcohol	2.5
Imwitor 900 (Glyceryl Monostearate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	7
B. Glycerol	3
Preservative	q.s.
Water up to	100
C. Fragrance	q.s.

Preparation:

A warmed up to about 75C. B is brought to the same temperature and is emulsified into A. C is added at about 30C.

Thin Lotion for Towelettes

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 377 (Glyceryl Laurate/Citrate/Lactate)	1
Ampholyt JB 130/K (Cocamidopropyl Betaine)	1
Preservative	q.s.
Water up to	100

Preparation:

All components are put together, heated to about 60C and stirred while cooling.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Protective Facial Lotion with Superior Substantivity

This formulation produces a light lotion for daily facial use. It contains UVB sunscreen and exhibits superior substantivity, providing sun protection throughout the day, even when active.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Stearic Acid/pH Modifier	2.50
Cetyl Alcohol/Opacifier	1.80
Cetyl Phosphate (and) DEA Cetyl Phosphate(1)/Emulsifier	2.50
Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318)(2)/Emollient/Film-former	5.00
Octyl Methoxycinnamate/UV absorber	7.00
Cyclopentasiloxane (SF1202)(2)/Emollient	5.00
Part B:	
Glycerin/Humectant	4.00
Quaternium-15/Preservative	0.10
Xanthan Gum/Thickener/Stabilizer	0.25
Fragrance	q.s.
Water/Diluent	71.85

Procedure:

1. Heat Parts A and B in separate containers to 85-90C with agitation.
2. Add Part A to Part B with high shear agitation.
3. Cool to room temperature with continued mixing.

Trade Names/Suppliers:

- (1) Amphisol, Givaudan
- (2) GE Silicones

Facial Lotion

This lotion is a water-in-oil emulsion which is an excellent product for everyday facial use. It applies easily, with a wet feel, yet leaves a non-greasy, dry, silky finish. The use of SF1328 as a water-in-oil emulsifier is demonstrated in this formulation.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Cyclomethicone (and) Dimethicone Copolyol (SF1328)(1)/Emulsifier	10.0
Cyclopentasiloxane (SF1202)(1)/Emollient (oil carrier)	8.5
Cyclopentasiloxane and Dimethicone (SF1214)(1)/Emollient/Film former	7.5
Part B:	
Glycerin/Humectant	13.0
Sodium Chloride/Stabilizer	1.0
Polysorbate-80/Emulsifier	0.2
Quaternium-15/Preservative	0.1
Deionized Water/Diluent	59.7

Procedure:

1. Combine Part A ingredients in order shown, thoroughly mixing each component until homogeneous before adding the next ingredient. 2. Mix all ingredients of Part B together.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
4. Mill on homogenizer for 1-2 minutes.

SOURCE: GE Silicones: Formulas SP 104 and SP 102

Protective Skin Lotion

This formulation employs Lubrajel TW which moisturizes the skin. The Panalane and stearyl alcohol leaves a protective occlusive barrier which slows down moisture efflux.

<u>Material:</u>	<u>Wt%</u>
1 Deionized Water	67.19
2 Oil of Orchids (WS)	1.50
3 Triethanolamine	0.24
4 Diammonium EDTA	0.10
5 Panalane L14E	7.00
6 Stearic Acid	2.00
7 Stearyl Alcohol	1.60
8 Polysorbate 80	1.00
9 Glycerol Monostearate	0.60
10 Propylene Glycol	1.00
11 Methyl Paraben	0.18
12 Propyl Paraben	0.05
13 Lubrajel TW	17.50
14 Floral Gardenia Fragrance 169-724	0.02
15 Rose Fragrance 34844	0.02

Procedure:

1. Prepare Phase "A" by combining components 1,2,3 and 4 in a vessel suitable for heating. Heat to 70-80C with stirring until homogeneous.
2. Prepare Phase "B" by combining components 5,6,7,8 and 9. Heat to 70-80C with stirring until all solids are melted.
3. Prepare Phase "C" by combining components 10,11 and 12. Heat to 50C with stirring until all solids are dissolved.
4. While maintaining 70-80C, slowly add Phase "B" to Phase "A" with high speed dispersion blade mixing.
5. Allow mixture to cool with continued mixing to less than 50C. Switch to low shear mixing and add Phase "C", the Lubrajel and the two fragrances.

SOURCE: Guardian Laboratories: Formulation #90213-A

Protective Skin Lotion with Sunscreen (SP107)

A water-in-oil formulation producing a light protective lotion with a SPF of 5-6 for daily use on the face or other exposed skin areas. Although the formulation is water-in-oil, it dries to a dry, non-greasy feel due to the use of silicone emulsifier SF1328.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Cyclomethicone (SF1202) (1)/Emollient (oil carrier)	12.0
Mineral Oil (light)/Emollient (solubilizer)	1.0
Octyl Methoxycinnamate/UVB protection	5.0
Dimethicone (and) Trimethylsiloxysilicate (SS4267) (1)/ Film-former	3.0
Cyclomethicone (and) Dimethicone Copolyol (SF1328) (1)/ Emulsifier	10.0
Lanolin/Emollient	0.5
Titanium Dioxide (micronized)/UVA/UVB protection	3.0
Part B:	
Polysorbate-80/Emulsifier	0.2
Glycerin/Humectant	3.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water	61.2

Procedure:

1. Combine Part A ingredients in order shown, thoroughly mixing each until homogeneous before adding the next ingredient. The solution should remain clear until TiO₂ is added.
2. Mix together all Part B ingredients.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 5-10 minutes. Mixture will become very thick.
4. Mill on homogenizer for 1-2 minutes.

Trade Names/Suppliers:

(1) GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula SC 102

Shea Butter Hand and Body LotionConcept Statement:

An elegant, emollient lotion and lactylate-based formula that provides consistent moisturization, softening and a pleasant skin feel.

Ingredients/Function:

	<u>Wt%</u>
1. Distilled/Deionized Water	77.05
2. Propylene Glycol/Humectant	3.00
3. Glycerine/Humectant	3.00
4. Tetrasodium EDTA/Stability	0.10
5. Methylparaben/Preservative	0.15
6. Pationic SSL (Sodium Stearoyl Lactylate)/Lactylate	0.45
7. Rita EGMS (Glycol Stearate)/Emulsifier	2.00
8. Rita GMS (Glyceryl Stearate)/Emulsifier	2.00
9. Shebu Refined (Shea Butter)/Emollient	2.00
10. Hydrogenated Coconut Oil/Emollient	4.00
11. Rita IPP (Isopropyl Palmitate)/Emollient	5.00
12. Ritalan (Lanolin Oil)/Emollient	1.00
13. Propylparaben/Preservative	0.05
14. DMDM Hydantoin/Preservative	0.20
15. Fragrance/Odor	q.s.

Compounding Procedure:

Combine items 1-5 and heat to 80C. Mix items 6-13 and heat to 80C. Add oil phase to water phase. Cool to 35C. Add items 14 and 15.

SOURCE: R.I.T.A. Corp.: LI Ref. No. 124-67B Formula

Silk Protein Skin Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
Mineral Oil	3.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	2.0
Emulsifying Wax N.F.	3.0
Glyceryl Stearate & PEG-100 Stearate	2.0
Polysorbate 80	0.66
Sorbitan Palmitate	0.6
Glycerin	2.0
Mackamide AME-100 (Acetamide MEA)	1.0
Mackpro NSP (Oleyl/Palmityl/Palmitoleamidopropyl/Silk-hydroxypropyl Dimonium Chloride)	2.5
Mackstat DM (DMDM Hydantoin)	qs
D.I. Water, Fragrance	qs to 100.0

Procedure:

1. Melt first eight components in separate container to 75C.
2. In mixing tank, heat water to 78C then add Mackpro NSP.
3. Start mixing; add hot mixture of eight components slowly with good agitation; mix well for 20 minutes.
4. Start slow cooling with good mixing without aeration.
5. At 45C, add Mackstat DM and fragrance; mix until blended.
6. Adjust pH, if necessary, to 4.8-5.0

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Enriched Moisturizing Lotion (Before & After Tanning)

<u>Raw Materials:</u>	<u>Wt%</u>
Sesame Oil U.S.P.	15.0
Polysynlane	20.0
Glyceryl Monostearate	3.0
Isopropyl Myristate	10.0
Carbopol 934	0.2
Propylene Glycol	10.0
Triethanolamine	1.0
Anhydrous Lanolin	5.0
Water	ad 100.0

Other Uses:

1. Polysynlane has food additive approval from the Welfare Ministry of Japan and was authorized for use as an additive for a chewing gum base.
2. Polysynlane is a refined hydrogenated polyisobutene, which has FDA approval (Subpart 121.2511) for use as a plasticizer in polyethylene food wrap.
3. Polysynlane has found use as a special lubricant for fine instruments and watches, and is being investigated as an ultra low temperature lubricant and motor oil additive.

SOURCE: Polyester Corp.: Suggested Formulation

Skin Lightening Lotion

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water deionised	40.70
Stabileze 06	0.80
Phase B:	
Glyceryl Stearate and PEG-100 Stearate	6.50
Glyceryl stearate (Cerasynt SD)	4.00
Isocetyl stearate (Ceraphyl 494)	2.00
Octyldodecyl Stearoyl Stearate (Ceraphyl 847)	2.00
Diisopropyl Adipate (Ceraphyl 230)	2.50
Octyl palmitate (Ceraphyl 368)	3.00
Octyl methoxy cinnamate (Escacol 557)	4.00
Benzophenone (Escacol 567)	3.00
Octyl Salicylate (Escacol 587)	3.00
Phase C:	
Water, deionised	10.00
Polyvinylpyrrolidone (Povidern SK3)	1.00
Diazolidinyl Urea (Germall Plus)	0.20
Lactic acid (Purac PH 90)	4.50
Sodium lactate (Purasal S/PF 60)	9.00
Propylene Glycol	3.00
Fragrance	q.s.

Procedure:

- In phase A, disperse Stabileze 06 in water and heat to 80 degrees Celsius with constant stirring until a translucent gel is obtained.
- Cool down to 60 degrees Celsius and add triethanolamine and mix well. A clear gel will form.
- Heat phase B to 70 degrees Celsius and stir until uniform.
- Add Phase B to Phase A and homogenize.
- In Phase C, dissolve Povidern and Germall Plus in deionised water. Then add in Purac PH 90, Purac S/PF 60 and propylene glycol with mixing after each addition.
- Add Phase C to mixture in step 4 at 40-45 degrees Celsius. Continue stirring to room temperature.

Note: pH of lotion should be in the range of 4-4.5.

To date formula passed 1 month stability test @ 50 degrees Celsius.

SOURCE: Purac America Inc.: ISP Formulation

Substantive Skin Lotion Using Polymeric Emulsifiers

A skin lotion which uses SF1318 as an emollient/film-former. SF1318 provides a breathable barrier which is very substantive, keeping active ingredients on the skin and providing water resistant properties. This is a simple formulation to demonstrate the film-forming properties of SF1318.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	85.05
Disodium EDTA/Chelating agent	0.05
Methylparaben/Preservative	0.20
Propylene Glycol/Humectant	2.00
Part B:	
Diisostearoyl Trimethylolpropane Siloxy Silicate (SF1318)(1)/Emollient/Film-former	10.00
Propylparaben/Preservative	0.10
Acrylates/C10-30 Alkyl Acrylate Crosspolymer(2)/ Polymeric emulsifier	0.25
Carbomer(3)/Thickener	0.35
Oleth-10/Solubilizer	0.30
Fragrance(4)	0.15
Part C:	
Triethanolamine/Neutralizer	1.50
Quaternium-15/Preservative	0.05

Procedure:

1. Heat water of Part A to 60C. Add remaining ingredients of Part A with moderate propeller agitation. Mix for 10 minutes.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B to Part A with rapid propeller agitation. Mix 30 minutes or longer to ensure that polymers are completely dispersed.
4. Cool with moderate agitation to 40C. Add Part C to batch with moderate propeller agitation. Mix 20 minutes at 40C and cool to room temperature with agitation.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Pemulen TR-1, B.F. Goodrich Co.
- (3) Carbopol 981, B.F. Goodrich Co.
- (4) Fragrance HB-635, Shaw Mudge

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 106

Velvety Body Lotion

A water-in-oil formulation which demonstrates the use of SF1528 as an emulsifier. The product applies as a rich moisturizing lotion, yet dries to a dry, non-greasy feel. SFE839 Elastomer Dispersion provides a soft, velvety feel to the skin and helps to produce a dry, non-tacky, non-greasy afterfeel.

<u>Ingredients/Function:</u>	<u>Wt%</u>
Part A:	
Sorbitan Oleate/Co-emulsifier	0.6
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528)(1)/Emulsifier	10.0
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer(SFE839)(1)/Emollient/Detackifier	12.0
Cyclopentasiloxane(SF1202)(1)/Emollient	4.0
Part B:	
Glycerin/Humectant	1.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water/Diluent	71.3

Velvety Body Lotion

A water-in-oil formulation which demonstrates the use of SF1328 as an emulsifier. The product applies as a rich moisturizing lotion, yet dries to a dry, non-greasy feel. SF1214 provides a soft, velvety feel to the skin. SF1202, cyclopentasiloxane, helps to produce a dry, non-tacky, non-greasy afterfeel.

<u>Ingredients/Function:</u>	<u>Wt%</u>
Part A:	
Sorbitan Oleate/Co-emulsifier	0.6
Cyclomethicone (and) Dimethicone Copolyol(SF1328)(1)/Emulsifier	10.0
Cyclopentasiloxane(SF1202)(1)/Emollient/Detackifier	6.0
Cyclopentasiloxane (and) Dimethicone(SF1214)(1)/Smooth/Silky Feel	10.0
Part B:	
Glycerin/Humectant	1.0
Sodium Chloride/Stabilizer	1.0
Quaternium-15/Preservative	0.1
Water/Diluent	71.3

Procedure (Both Formulas):

1. Combine Part A ingredients in order shown, thoroughly mixing each component until homogeneous before adding next ingredient.
2. Mix all ingredients of Part B together. Stir until homogeneous.
3. Slowly add Part B to Part A with good mixing. Gradually increase agitation to high shear as mixture thickens. Continue agitation for 20 minutes. Mixture will become very thick.
3. Homogenize for 1-2 minutes.

SOURCE: GE Silicones: Formulas SP116 and SP118

Velvety Body Lotion with Sunscreens

SFE839, Elastomer Dispersion is a substantive emollient, providing extraordinary smooth, silky and luxurious feel. This sunscreen gives a moisturizing and cushioning feel with smooth, soft and powdery finish.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	74.13
Tetrasodium EDTA/Chelating agent	0.05
PEG-8/Humectant	4.00
Phenoxyethanol (and) Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben (1)/Preservative	0.25
Magnesium Aluminum Silicate/Thickener	0.25
Part B:	
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Crosspolymer (SFE839) (2)/Film-former/Emollient	7.00
Octyl Methoxycinnamate/UV absorber	7.00
Octyl Salicylate/UV absorber	3.00
Benzophenone-3/UV absorber	3.00
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (3)/ Emulsifier/Thickener	0.30
Carbomer (4)/Thickener	0.15
Sorbitan Oleate/Emulsifier	0.20
Part C:	
Fragrance	0.12
Part D:	
Triethanolamine 99%/Neutralizer	0.55

Procedure:

1. Heat water of Part A to 75C. Add remaining ingredients in order with moderate propeller agitation, making sure that all parabens have dissolved. Mix for 15 minutes, while cooling to 50C.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B at room temperature to Part A (at 50C) with rapid propeller agitation. Mix for 30 minutes, or longer to ensure that the polymers are completely dispersed.
4. Cool with agitation to 45C. Add Part C to batch with propeller agitation. Mix 10 minutes.
5. Add Part D to batch at 40C. Mix with moderate agitation for 20 minutes. Cool to room temperature.
6. The pH should be 6-7.

Trade Names/Suppliers:

- (1) Phenonip, Nipa
- (2) GE Silicones
- (3) Pemulen TR-1, B.F. Goodrich
- (4) Carbopol-2984, B.F. Goodrich

SOURCE: GE Silicones: Personal Care Formulary: Formula SC106

Section VIII

Shampoos

Aloe Vera Gel Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Aloe Vera Gel Liquid (1:1)	50.0
Water	14.5
Mackernium 007 (Polyquaternium 7)	3.0
Mackstat SBC-8 (Mild Shampoo Blend)	32.0
Mackstat DM (DMDM Hydantoin)	qs
Dye, Fragrance	qs to 100.0

Procedure:

1. Disperse Mackernium 007 in water and Aloe Vera Gel Liquid.
2. Add Mackadet SBC-8 and heat to 45C.
3. Blend until homogeneous.
4. Adjust viscosity with Sodium Chloride.
5. Add remaining components and blend until clear.
6. Cool to room temperature.

Acid Balanced Conditioning Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
TEA Lauryl Sulfate (40%)	35.0
Mackam 35HP (Cocamidopropyl Betaine)	10.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add components to water.
2. Heat to 40C.
3. Blend until clear.
4. Adjust pH to 4.0 with Citric Acid.
5. Cool to room temperature.

All Purpose Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet SBC-8 (Mild Shampoo Blend)	20.0
Sodium Chloride	qs
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackadet SBC-8 to water.
2. Blend until clear.
3. Add Mackstat DM.
4. Adjust viscosity to 2000-3000 cps with Sodium Chloride.
5. Add Dye and Fragrance.
6. Blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Amide Free Shampoo
Formulated to be amide-free

<u>Ingredients:</u>	<u>Wt%</u>
Water	q.s. to 100
Carbopol 1382 (Goodrich)	0.25
Quickpearl II	5.00
Chembetaine OL-30	0.50
Sulfochem ES-2	26.00
Sulfochem SLS	12.00
Chembetaine C	4.00
Chembetaine S	3.00
Fragrance, color, preservatives, etc.	q.s.
NaCl	(0.50 typical) q.s.

Blending Procedure:

Blend ingredients in order listed, allowing Carbopol to solubilize completely before adding remaining ingredients. Add NaCl to desired viscosity.

Typical Physical Properties:

Appearance: Pearly liquid

Viscosity: Brookfield LVT, Sp. 3, 6 rpm, 25C: 9,000 cps

Formulation No. F1001

Premium Clarifying Shampoo

Preliminary formulation. Normal, dry, fine, and damaged hair type versions may be made by increasing the amount of dimethicone to achieve more conditioning or increasing the amount of EA-2 and ALS to increase cleansing.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem EA-2	35.00
Sulfochem ALS	32.00
Preservatives	q.s.
Amidex CME	1.00
Water, soft	to 100
AXS	0.75
Panthenol	0.50
Fragrance, color, etc.	q.s.
Other ingredients	q.s.

Blending Procedure:

With medium agitation, mix water, Sulfochem EA-2, and ALS in main vessel. Heat to 145-155F, add Amidex CME and citric acid, and mix until solution is clear and homogeneous. Turn on cooling and add preservatives, fragrance, color, and remaining ingredients. Adjust pH to 5.0-5.5 with citric acid. Adjust viscosity to 5,000-7,500 cps (NH₄Cl to bring viscosity up, AXS to bring it down).

Formulation No. F1006

SOURCE: Chemron Corp.: Suggested Formulations

Anti-Dandruff Lotion Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Part A:	
Veegum	1.0
Methocel FYM	0.8
Water	qs to 100.0
Part B:	
Sodium Olefin Sulfonate (40%)	35.0
Mackamide LLM (Lauramide DEA)	4.0
Mackamide S (Soyamide DEA)	1.0
Mackpro NLP (Quaternium-79 Hydrolyzed Collagen)	2.0
Part C:	
Zinc Omadine (48%)	4.0

Procedure:

1. Thoroughly disperse Veegum in water at 70C.
2. Slowly add Methocel FYM and blend until homogeneous.
3. Add Part B to Part A and adjust pH to 6.5 with Citric Acid.
4. Add Zinc Omadine (Part C) and blend until homogeneous.

Anti-Dandruff Cream Type Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	61.8
Mackam 35HP (Cocamidopropyl Betaine)	10.0
Sodium Chloride	7.0
Triple Pressed Stearic Acid	5.0
Mackamide LLM (Lauramide DEA)	4.0
Propylene Glycol	4.0
Zinc Pyrithione (48%)	4.0
Mackamide PKM (Palmkernelamide MEA)	2.0
Caustic Soda (50%)	1.6
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Heat Stearic Acid, Mackamide LLM, Mackamide PKM, and Propylene Glycol to 70C.
2. Heat SLS, Mackam 35HP, Sodium Chloride, Caustic Soda, and water to 70C.
3. Add oil to water and cool to 55C.
4. Slowly add Zinc Pyrithione.
5. Cool to 45C and add remaining components.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Antidandruff Shampoo
clear, 13.6% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.50
B Water	10.00
C Genapol LRO liquid/Sodium Laureth Sulfate	30.00
D Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Fragrance	0.30
E Polymer JR 400/Polyquaternium-10	0.30
F Water	40.90
G Dyestuff solution	q.s.
Extrapon Chamomile Special	2.00
Genagen CAB/Cocamidopropyl Betaine	8.00
Genapol L-3/Laureth-3	1.50
H Sodium chloride	1.50

Procedure:

- Mix A and B.
 - Add C to 1 and keep stirring until a clear solution has been obtained.
 - Stir the components of D one after another into 1.
 - Dissolve E in F under stirring while heating slightly and then stir into 1.
 - Stir the components of G one after another into 1.
 - If necessary adjust the pH.
 - Finally adjust the viscosity with H.
- Formula B I/6144

Antidandruff Shampoo
clear, 13.1% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.50
B Water	10.00
C Genapol LRO liquid/Sodium Laureth Sulfate	30.00
D Genapol SBE/Disodium Laureth Sulfosuccinate	5.00
Fragrance	0.30
Merquat 550/Polyquaternium-7	1.00
Water	43.20
Dyestuff solution	q.s.
Genagen CAB/Cocamidopropyl Betaine	8.00
Genapol L-3/Laureth-3	0.50
E Sodium chloride	1.50

Procedure:

- Mix A and B.
 - Add C to 1 and keep stirring until a clear solution has been obtained.
 - Stir the components of D one after another into 1.
 - If necessary adjust the pH.
 - Finally adjust the viscosity with E.
- Formula B I/6143

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Antidandruff Shampoo

clear, 12.3% active ingredient

Recipe:

	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.50
B Water	10.00
C Genapol LRO liquid/Sodium Laureth Sulfate	30.00
D Belsil DMC 6032/Dimethicone Copolyol Acetate	0.50
Fragrance	0.30
E Allantoin	0.30
F Water	46.40
G Dyestuff solution	q.s.
Panthenol	1.00
Genagen CAB/Cocamidopropyl Betaine	8.00
Genapol L-3/Laureth-3	1.50
H Sodium chloride	1.50

Procedure:

- Mix A and B.
 - Add C to 1 and keep stirring until a clear solution has been obtained.
 - Stir the components of D one after another into 1.
 - Dissolve E in F under stirring while heating slightly and then stir into 1.
 - Stir the components of G one after another into 1.
 - If necessary adjust the pH.
 - Finally adjust the viscosity with H.
- Formula B I/6146

Conditioning Shampoo

with a silk-lustre effect, 20.6% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
Hostapon SCID/Sodium Cocoyl Isethionate	2.00
Coconut fatty acid diethanolamide	3.00
B Water	37.20
C Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Belsil DMC 6032/Dimethicone Copolyol Acetate	1.00
Fragrance	0.30
Genapol L-3/Laureth-3	4.00
Genagen CAB/Cocamidopropyl Betaine	9.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	4.00
Dyestuff solution	q.s.
Preservative	q.s.
D Sodium chloride	2.00

Procedure:

- Dissolve the components of A stirring into B and warming to approx. 60C.
 - Cool down and add the components of C at approx. 35C while stirring.
 - If necessary adjust the pH.
 - Finally adjust the viscosity with D.
- Formula B I/6148

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Apricot Shower Shampoo Gel

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	25.1
Schercotaine APAB (40%)/Apricotamidopropyl Betaine	12.6
Schercamox CAA-G (35%)/Cocamidopropylamine Oxide	3.8
Schercoquat APAS (90%)/Apricotamidopropyl Ethyl- dimonium Ethosulfate	0.6
Herbasol Extract Apricot/Apricot Extract	1.0
Preservative	0.2
Color, Fragrance	q.s.
Water (deionized)	56.7

Procedure:

1. Heat water to 50C. With stirring add Schercoquat APAS to dissolve.
 2. Add Schercotaine APAB, mix.
 3. Add Schercamox CAA-G, mix.
 4. Add preservative, mix.
 5. Add Apricot Extract, mix.
 6. Increase stirring and add Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
 7. To clear up bubble formation, warm finished product at 45-50C.
- Formulation 221-89

Clear 2-in-1 Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Deionized Water	54.4
Schercoquat DAS	3.0
Rhodacal A246/L/Sodium C14-16 Olefin Sulfonate	30.0
Schercomid AME-70/Acetamide MEA	2.0
Schercotaine CAB-G/Cocamidopropyl Betaine	10.0
Schercoquat IALA/Isostearamidopropyl Laurylacetodimonium Chloride	0.6
Preservative	q.s.

Procedure:

Dissolve Schercoquat DAS in water with gentle heat to 40C. Add the rest of the ingredients one by one in order listed, mixing well after each addition.

Formulation SK 140

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Clear Conditioning Shampoo with SM2101

A conditioning shampoo designed for daily use on normal to dry hair. SM2101 is an excellent conditioner providing softness and combability. SF1188A provides additional conditioning, enhances wet combing and stabilizes foam. Both products are readily removed, and therefore build-up is not a problem. As is, this formulation is clear but may be opacified if desired.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	38.32
Guar Hydroxypropyltrimonium Chloride (1)/Conditioner/ Thickener	0.75
Propylparaben/Preservative	0.05
Methylparaben/Preservative	0.15

Part B:	
Ammonium Lauryl Sulfate (26%)/Primary surfactant	24.00
Ammonium Laureth Sulfate (28%)/Primary surfactant	14.30
Cocoamidopropyl Betaine (35%)/Secondary surfactant	11.43

Part C:	
Lauramide DEA/Foam booster	2.00
Cocamide MEA/Foam booster	2.50

Part D:	
Trimethylsilylamodimethicone (and) Isolaureth-6 (and) Octoxynol-40 (SM2101) (2)/Conditioner	4.00
Dimethicone Copolyol (SF1188A or SF1288A) (2)/ Conditioner/Foam stabilizer	1.00

Part E:	
Polysorbate-80/Solubilizer	1.00
Fragrance (3)	0.50

Procedure:

1. Combine parabens. Slowly sprinkle mixture into water with rapid propeller agitation. Add guar hydroxypropyltrimonium chloride in same manner.
2. When thoroughly solvated, reduce to slow agitation. Add ingredients of Part B individually, allowing each ingredient to be thoroughly mixed. After addition of Part B is complete, heat to 65C with continued slow agitation.
3. Melt together Part C, add to Part AB at 65C. Remove heat and continue stirring.
4. Add Part D below 45C with slow-moderate propeller mixing for 15 minutes.
5. Mix fragrance into polysorbate-80 and add to batch below 40C. Continue stirring to room temperature.

Trade Names/Suppliers:

- (1) Jaguar C-13S, Rhone-Poulenc
- (2) GE Silicones
- (3) Fragrance J-6636, Bell Fragrance & Flavor

SOURCE: GE Silicones: Personal Care Formulary: Formula SH103

Clear Conditioning Shampoo with SM2115

SM2115 is a 20% active emulsion of a substantive, non-curable amine functional silicone fluid. It is a microemulsion which remains clear upon dilution, enabling the formulation of a clear product. This is an excellent conditioning shampoo which provides a soft, smooth, silky feel to hair and puts an end to dry, frizzy ends.

Materials/Function:

	<u>Wt%</u>
Part A:	
Water/Diluent	37.12
Methylparaben/Preservative	0.15
Propylparaben/Preservative	0.05
Part B:	
Dimethicone Copolyol (SF1188A or SF1288) (1)/ Conditioning agent/Foam stabilizer	1.00
Ammonium Lauryl Sulfate (26%)/Primary surfactant	24.00
Ammonium Laureth Sulfate (28%)/Primary surfactant	14.30
Cocamidopropyl Betaine/Secondary surfactant	11.43
Part C:	
Cocamide MEA/Foam booster	4.00
PEG-150 Pentaerthrityl Tetrastearate (2)/Thickener	0.95
Part D:	
Trimethylsilylamodimethicone (and) Octoxynol-40 (and) Isolaureth-6 (and) Glycerin (SM2115) (1)/Conditioning agent	2.50
Part E:	
Fragrance	q.s.
Polysorbate-80/Solubilizer	2.50
Glycerin/Solubilizer/Humectant	2.00

Procedure:

1. Heat water to 65C. Feather in methylparaben and propylparaben until dissolved with rapid agitation.
2. Reduce agitation to moderate agitation. Add ingredients of Part B to Part A in the order listed.
3. Melt Part C in a separate container. Add to Part AB when melted.
4. Cool mixture to 40C and add Part D.
5. In a separate container, mix together Part E. Add to the mixture when temperature is 40C or less.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) Croda, Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SH 104

Clear Shampoo

<u>Component:</u>	<u>Wt%</u>
Texapon NSO/Sodium Laureth Sulfate	27.0
Dehyton PK 45/Cocamidopropyl Betaine	6.0
Plantacare 818/Coco Glucoside	4.0
Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	2.5
Jaguar C 162/Guar Hydroxypropyl Trimonium Chloride	0.1
NaCl	0.9
Water	59.5
Perfume/preservative	q.s.
pH-value: 5.5	
Viscosity in mPas: 6,600	

Preparation in the Laboratory:

Swell Jaguar C 162 in water (pH approx. 5-6). Add Texapon NSO by stirring. Add Lamesoft PO 65 and mix until homogeneous. Incorporate successively the other ingredients. Adjust the pH value.

Formulation No.: 98/040/2

Clear Shampoo with Gluadin WP

<u>Component:</u>	<u>Wt%</u>
Plantacare 1200 UP/Lauryl Glucoside	4.0
Texapon K 14S 70 spec./Sodium Myreth Sulfate	11.0
Dehyton K/Cocamidopropyl Betaine	7.0
Gluadin WP/Hydrolyzed Wheat Protein	1.5
Water, de-ionized	72.6
Arlypon F/Laureth-2	0.9
NaCl	3.0
pH-value: 5.5	
Viscosity mPas, 23C: 1950	

Preparations in the Laboratory:

Add all ingredients in the order as shown. Mix at room temperature. Set pH value, then adjust viscosity with salt.

Formulation DE/97/030/2

Gel-Shampoo with Gluadin WP

<u>Component:</u>	<u>Wt%</u>
Plantacare 1200 UP/Lauryl Glucoside	6.0
Texapon NSO/Sodium Laureth Sulfate	31.0
Texapon SB 3F/Disodium Laureth Sulfosuccinate	8.0
Gluadin WP/Hydrolyzed Wheat Protein	2.0
Water, de-ionized	49.0
NaCl	4.0
Viscosity (mPas) Brookfield RVF, 23C, Sp4, 20 rpm: 4,250	

Preparations in the Laboratory:

Add all ingredients in the order as shown. Mix at room temperature. Set pH-value, then adjust viscosity with salt.

Formulation DE/97/030/1

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Conditioner Shampoo

<u>Component:</u>	<u>Wt%</u>
Texapon N70/Sodium Laureth Sulfate	10.0
Plantacare 818UP/Coco Glucoside	4.0
Dehyton K/Cocamidopropyl Betaine	5.0
Lamesoft PO65/Coco-Glucoside (and) Glyceryl Oleate	1.5
Euperlan PK3000AM/Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine	3.2
Polymer JR400/Polyquaternium-10	0.3
Sodium chloride	1.5
Water de-ionized	ad 100

pH-Value: 5.5

Viscosity in mPas: Brookfield, RVF, 23C, Spindle 4,
rpm 10: 8500**Preparation in the Laboratory:**

Add the ingredients in the order as shown. Mix at room temperature.

Formulation 97/007/2

Conditioner Shampoo

<u>Component:</u>	<u>Wt%</u>
Texapon NSO/Sodium Laureth Sulfate	27.0
Dehyton PK 45/Cocamidopropyl Betaine	3.7
Lamesoft PO 65/Coco-Glucoside (and) Glyceryl Oleate	5.0
Euperlan PK 1200/Coco-Glucoside (and) Glycol Distearate (and) Glycerin	3.0
Cosmedia Guar C261/Guar Hydroxypropyl Trimonium Chloride	0.1
Arlypon F-T/Laureth-2	1.55
Water	59.65
Perfume/preservative	n.B.

WAS%: 11.6

pH-value: 5.7

Viscosity in mPas: 9,300

Preparation in the Laboratory:

The Cosmedia-Swelling is prepared with water. Add Texapon NSO and Lamesoft PO 65 and mix until homogeneous. Incorporate successively Euperlan PK 1200 and Dehyton PK 45 and adjust viscosity With Arlypon F-T.

Formulation No.: 94/193/236

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Conditioner Shampoo

<u>Component:</u>	<u>Wt%</u>
Cosmedia Guar C 261/Guar Hydroxypropyl Trimonium Chloride	0.5
Cetiol HE/PEG-7 Glyceryl Cocoate	0.5
Texapon K14S spec./Sodium Myreth Sulfate Wheat Protein	40.0
Lamepon S/Potassium Cocoyl Hydrolyzed Collagen	10.0
Euperlan PK3000AM/Glycol Distearate (and) Laureth-4 (and) Cocamidopropyl Betaine	2.0
Glycerin 86%	2.0
Nutrilan I	5.0
Arlypon F/Laureth-2	2.5
Water	ad 100.0

pH Value: 5.5

Preparation in the Laboratory:

Mix ingredients at room temperature. Set pH value, then adjust viscosity with salt.

Formulation No.: 91/165/11

Shampoo with PIT

<u>Component:</u>	<u>Wt%</u>
I. Texapon NSO/Sodium Laureth Sulfate	40.0
Dehyton K/Cocamidopropyl Betaine	12.5
Lamesoft PW45/Lipid layer enhancer	5.0
II. Cosmedia Guar C261N/Guar Hydroxypropyl Trimonium Chloride	0.25
III. Methocel E4M Premium EP/Hydroxypropyl Methylcellulose	1.5
Water and preservation	ad 100

Viscosity mPas: Brookfield, RVF 20C, Spindle 4: 6000

pH-value: 5.5

Preparation in the Laboratory:

Of Methocel E4M Premium EP and Water has to be manufactured a clear swelling. In this swelling Cosmedia Guar C261N has to be strewed and homogeneous distributed. With addition of citric acid the pH value will be slightly acidified, which means that Cosmedia Guar is also starting to swell. After completed swelling Texapon NSO, Dehyton K and Lamesoft PW45 will be stirred homogeneous into the swelling. At the end the pH value will be focused.

Formulation No.: 93/176/97

SOURCE: Henkel KGaA: Care Chemicals Division: Suggested Formulas

Conditioning Shampoo

This formula uses Incroquat HO-80PG, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat HO-80 PG has been found to work especially well with polymeric quaternaries, like the Jaguar Cl4S used here, as it appears to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	57.05
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10

Part B:	
SLES (3 mole)	15.00
SLS	5.00
Incronam 30 (Cocoamidopropyl Betaine)	6.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat HO-80PG (Dioleoylamidoethyl Hydroxyethylmonium Methosulfate)	2.50
Glycol Stearate	0.50
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00

Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	3.00
Dimethicone Copolyol	1.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.5+-0.5

Viscosity=3,000 cps+-10%, Spindle #4 @ 10 rpm

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-96

Conditioning Shampoo

This formula uses Incroquat Behenyl HE, a quaternary conditioning agent suitable for 2-in-1 shampoos, in combination with Incromine Oxide C and Crodafos SG to give hair improved wet combing and a soft, dry feel. Incroquat Behenyl HE also works especially well with polymeric quaternaries, like the Jaguar C14S used here, and has been found to enhance the effects of these polyquats, resulting in greater conditioning.

<u>Ingredients:</u>	<u>Weight%</u>
Part A:	
Deionized Water	59.55
Guar Hydroxypropyltrimonium Chloride	0.35
Citric Acid	0.10
Part B:	
SLES (3 mol)	15.00
SLS	5.00
Incronam 30 (Cocamidopropyl Betaine)	6.00
Incromine Oxide C (Cocamidopropylamine Oxide)	2.00
Incromide LR (Lauramide DEA)	3.00
Crodafos SG (PPG-5-Ceteth-10 Phosphate)	2.00
Glycerox HE (PEG-7 Glyceryl Cocoate)	1.00
Incroquat Behenyl HE (Behenamidopropyl Hydroxyethyl Dimonium Chloride)	2.50
Part C:	
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00
Hexylene Glycol	2.50

Procedure:

Combine Part A ingredients with good mixing. Heat Part A ingredients to 45C. Add Part B ingredients to Part A as listed. Heat batch up to 70-75C with good mixing. Make sure all ingredients are dissolved. Start cooling batch. At 50C, add Part C.

pH=5.0+-0.5

Viscosity=10,000+-10%, Spindle #4 @ 10 rpm.

N.A.T.C. Approved

SOURCE: Croda Inc.: Formulation SH-97

Conditioning Shampoo

Prototype formula for a premium 2-in-1 shampoo.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem EA-2	34.90
Sulfochem ALS	31.00
Preservative (Kathon CG)	q.s.
Amidex CME	1.20
EGDS	1.00
Water, soft	to 100
AXS	0.75
Propylene glycol	0.65
Fragrance, color, etc.	q.s.
Quatrex S	0.50
Dimethicone	1.25

Blending Procedure:

With medium agitation, mix water and ALS in vessel. Heat to 145-155F, add EGDS, and mix until melted. Turn on cooling and add EA-2, Quatrex S, Dimethicone, and citric acid. Add Amidex CME (temperature must still be above 125F). Premix AXS, propylene glycol, and zinc, and add to main vessel. When temperature reaches 45F, add Kathon CG, fragrance, and color. Adjust pH to 5.5-6.5 with citric acid. Adjust viscosity to 5,000-7,500 cps (use NaCl to bring viscosity up and AXS to bring it down).

Formulation No. F1009

Conditioning Shampoo

Prototype formulation for a mild, high-foaming conditioning shampoo.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem DLS	40.00
Preservative	q.s.
Amidex CME	1.20
EGDS	1.00
Water, soft	to 100
AXS	0.75
Propylene glycol	0.65
Fragrance, color, etc.	q.s.
Quatrex S	0.50
Dimethicone	0.75

Blending Procedure:

With medium agitation, mix water and DLS in vessel. Heat to 145-155F, add EGDS, and mix until melted. Turn on cooling and add Quatrex S, Dimethicone, and citric acid. Add Amidex CME (temperature must still be above 125F). Add AXS and propylene glycol. When temperature reaches 45F, add preservative, fragrance, and color. Adjust pH to 5.5-6.5 with citric acid. Adjust viscosity to 5,000-7,500 cps (use NaCl to bring viscosity up and AXS to bring it down).

Formulation No. F1014

SOURCE: Chemron Corp.: Suggested Formulations

Conditioning Shampoo

Starting formulation for an economical conditioning shampoo

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem B-209OP	35.00
Water, soft	63.10
Fragrance	0.15
NaCl	typical: 0.55
Citric acid	typical: 0.10
Preservatives	q.s.
Quatrex S	0.30
Dimethicone	0.75
Color	q.s.

Blending Procedure:

With medium agitation, mix water, Sulfochem B-209, Quatrex S, and dimethicone in main vessel. Add citric acid and mix until solution is homogeneous. Add preservatives, fragrance, color, and remaining ingredients. Adjust pH to 6.0-6.5 with citric acid. Adjust viscosity to 7,500-9,500 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 7,500-9,500 cps

pH: 6.0-6.5

Formulation No. E3132

Regular Shampoo

Starting formulation for a high quality shampoo for normal hair.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem B-209	35.00
Water, soft	63.99
Fragrance	0.15
NaCl	typical: 0.75
Citric acid	typical: 0.12
Color	q.s.
Preservatives	q.s.

Blending Procedure:

With medium agitation, mix water and Sulfochem B-209 in main vessel. Mix until solution is clear and homogeneous. Add preservatives, fragrance, color, and remaining ingredients. Adjust pH to 6.75-7.75 with citric acid. Adjust viscosity to 10,000-12,000 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 10,000-12,000 cps

pH: 6.75-7.75

Formulation No. E3127

SOURCE: Chemron Corp.: Suggested Formulations

Conditioning Shampoo with Botanicals

Conditioning shampoo containing natural ingredients to enhance the conditioning and shine of the hair. SM2169 is utilized to provide combability, shine and softness.

<u>Materials/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	52.85
Polyquaternium-10 (1)/Thickener/Conditioner	0.40
Part B:	
Sodium Laureth Sulfate (and) Glycol Stearate (30%)/ Primary surfactant	20.00
Disodium Laureth Sulfosuccinate/Primary surfactant	10.00
Cocamidopropyl Betaine/Secondary surfactant	4.00
PEG-120 Jojoba Acid (and) PEG-120 Jojoba Alcohol (2)/ Conditioning/Shine	3.50
Part C:	
Lauramide DEA/Foam booster	4.00
Part D:	
Panthenol/Conditioning/Shine	0.50
Nettle Extract (and) Chamomile Extract (and) Comfrey Extract (and) Henna Extract (and) Rosemary Extract (3)/ Botanicals/Conditioning	0.50
Part E:	
Dimethicone (and) Laureth-4 (and) Laureth-23 (SM2169)(4)/ Conditioning/Shine	3.40
Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Butylparaben (and) Propylparaben (5)/Preservative	0.80
Fragrance	q.s.
Disodium EDTA/Preservative	0.05
Part F:	
Color	q.s.

Procedure:

1. Charge water of Part A. With medium propeller stirring, slowly sprinkle in the polyquaternium-10. Mix 20 minutes until all polyquaternium-10 is dispersed and heat to 50C.
2. With batch at 50C, slowly add Part B to Part A in given order and mix until dissolved.
3. Add Part C and slowly mix until dissolved. Begin force-cooling of batch to 45C.
4. Add Part D to batch in given order and mix with slow to moderate propeller agitation.
5. Add Part E to batch in given order and mix with slow to moderate propeller agitation.
6. Adjust color with Part F. Mix until uniform.

Trade Names/Suppliers:

- (1) Celquat SC-240, National Starch and Chemical Corp.
- (2) International Flora Technologies, Ltd.
- (3) Vege-Tech
- (4) GE Silicones
- (5) Nipa Laboratories, Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SH 102

Conditioning Shampoo with SM2169

SM2169 is a 60% non-ionic emulsion of a 60,000 centistoke dimethicone fluid. In conditioning shampoos, it is a conditioning agent providing combability, softness and shine. This formulation provides conditioning for normal hair.

Materials/Function:

	<u>Wt%</u>
Part A:	
Polyquaternium-10 (1)/Thickener/Conditioner	0.4
Polyquaternium-10 (2)/Thickener/Conditioner	0.4
Distilled Water	56.0
Part B:	
Ammonium Lauryl Sulfate (and) Ammonium Laureth Sulfate (and) Cocamidopropyl Betaine (and) Cocamide DEA (42%)(3)/Surfactant/Foam booster	38.0
Part C:	
Ethylene Glycol Distearate/Pearlizing agent	1.0
Ceteareth-20/Emulsifier	0.3
Part D:	
Dimethicone (and) Laureth-4 (and) Laureth-23 (SM2169)(4)/ Conditioning agent	3.4
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl- paraben (and) Propylparaben (5)/Preservative	0.5
33% Citric Acid and/or 25% NaOH/pH adjuster	q.s.
Distilled Water	q.s.

Procedure:

1. Stir Part A ingredients until polyquaternium-10 materials are completely dissolved.
2. Add Part B ingredient to Part A with moderate agitation.
3. Heat mixture of Part A and Part B to 60-65C.
4. Melt Part C ingredients and add to warm mixture.
5. With continued agitation, cool mix below 40C.
6. Add SM2169 and preservative.
7. Adjust pH to approximately 6.0.
8. Add fragrance and water to bring to 100%.

Trade Names/Suppliers:

- (1) Ucare Polymer LR-400, Amerchol Corp.
- (2) Ucare Polymer LR-30M, Amerchol Corp.
- (3) Stepanol AEG, Stepan Co.
- (4) GE Silicones
- (5) Sutton Labs

SOURCE: GE Silicones: Personal Care Formulary: Formula SH101

Conditioning Shampoo with Viscasil 60M

Viscasil 60M is a high molecular weight dimethicone fluid. It provides conditioning in a daily use conditioning shampoo. A suspension system is typically used to provide formulation stability.

<u>Materials/Function:</u>	<u>Wt%</u>
Part A:	
Sodium Laureth Sulfate (28%)/Primary surfactant	35.7
Cocamide DEA/Secondary surfactant	4.0
Part B:	
Water/Diluent	56.9
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (1)/ Thickening/Suspending	0.8
Methylchoroisothiazoline (and) Methylisothiazolinone (2)/ Preservative	0.1
Part C:	
Sodium Hydroxide (50%)/Neutralizer	q.s.
Part D:	
Dimethicone (Viscasil 60M) (3)/Conditioning/Shine	2.5
Part E:	
Citric Acid (33%)/pH adjustment	q.s.

Procedure:

- Mix Part B ingredients with moderate agitation until completely dissolved.
- Add Part A to Part B with moderate agitation.
- Add Part C to pH=7.5.
- Add Part D slowly with moderate agitation.
- Add Part E to pH=6.0

Trade Names/Suppliers:

- Carbopol, BF. Goodrich Co.
- Rohm and Haas Co.
- GE Silicones

SOURCE: GE Silicones: Personal Care Formulary: Formula SH 100

Cream Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate LO-Special (Disodium Lauryl Sulfosuccinate)	88.0
Cetyl Alcohol	2.0
Brij 52	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance	qs to 100.0

Solids, %: 40.0(+/-1.0)

pH (as is): 5.5-6.0

Appearance: Pearly Cream

Procedure:

1. Add Cetyl Alcohol, Brij 52 and Water to Mackanate LO-Special.
2. Heat to 70C.
3. Blend until homogeneous.
4. Adjust pH to 5.5-6.0 with Sodium Hydroxide.
5. Cool to 50C and add Mackstat DM and Fragrance.
6. Adjust solids to 40.0(+/-1.0)% at this point.
7. Cool to room temperature.

Mild Conditioning Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate EL (Disodium Laureth Sulfosuccinate)	10.0
Mackam 35 (Cocamidopropyl Betaine)	25.0
Sodium Laureth Sulfate (60%)	10.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	1.0
Mackamide C (Cocamide DEA)	2.0
Polysorbate 20	1.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

pH: 5.5-6.7

Viscosity (cps, 25C): 600-1200

Procedure:

1. Add surfactants to water.
2. Start mixing at room temperature until all components are clearly dissolved.
3. Blend Fragrance with Polysorbate and add to batch.
4. Adjust pH to 5.5-6.7 with Citric Acid.
5. Adjust viscosity to 600-1200 cps with Sodium Chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Dry/Damaged Hair Shampoo

Starting formulation for a mild shampoo for dry or damaged hair.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem SBS	37.00
Water, soft	62.33
Fragrance	0.20
NaCl	q.s.
Preservatives	q.s.
Citric acid	typical: 0.02
Quatrex S	0.25
Panthenol	0.20

Blending Procedure:

Charge mixing vessel with water and Sulfochem SBS, and mix until dissolved. Adjust pH with citric acid to 6.5-7.0. Add preservatives, color, fragrance, and remaining ingredients. Adjust viscosity to 2,500-3,500 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 2,500-3,500 cps

pH: 6.5-7.0

Formulation No. E3147

Botanical Shampoo

Starting formulation for a very mild shampoo containing botanical extracts.

<u>Ingredients:</u>	<u>Wt%</u>
Sulfochem SBS	35.00
Water, soft	63.85
Fragrance	0.15
NaCl	q.s.
Preservatives	q.s.
Botanical extracts	1.00
Color	q.s.

Blending Procedure:

Charge mixing vessel with water and Sulfochem SBS, and mix until dissolved. Adjust pH with citric acid to 6.5-7.5. Add preservatives, color, fragrance, and remaining ingredients. Adjust viscosity to 2,000-3,500 cps with sodium chloride.

Typical Physical Properties:

Viscosity: 2,000-3,500 cps

pH: 6.5-7.5

Formulation No. E3146

SOURCE: Chemron Corp.: Suggested Formulations

Hair Shampoo

Hair Shampoo containing Bentone EW rheological additive.

<u>Ingredients:</u>	<u>Wt%</u>
Sodium Laureth Sulphate	28.0
Cocamidopropylbetaine	6.0
Coco Glucoside	6.0
Glycol Distearate, Steareth 4	3.0
Dimethicone Copolyol	0.2
D-Panthenol	1.0
Bentone EW (3% in dist. water)	50.0
Methyldibromoglutaronitrile, Propylene Glycol	0.2
Laureth 3	2.0
Lactic Acid	qs to pH 5.5-6.0
Demineralized Water	bal to 100%

Method of Manufacture:

1. Prepare a dispersion of Bentone EW in most of the distilled water.
2. Using a propeller stirrer, add the surfactants one by one, in the order listed.
3. Add the pearlizing agent and the silicone.
4. Dissolve the panthenol in the remaining water by warming slightly, and then add to the batch.
5. Add the perfume and preservative, then add laureth 3.
6. Adjust the pH if required.

Bentone EW is incorporated at a level of 1.5% w/w. This level was selected to ensure easy handling during product manufacture and also to minimize cost. However, it is high enough to demonstrate a considerable difference in performance from the control product when evaluated in salon trials.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Hair Shampoo

for daily use, clear, 15.9% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol AMS/TEA-PEG-3 Cocamide Sulfate	6.00
Fragrance	0.30
Water	46.45
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	10.00
Genapol L-3/Laureth-3	1.00
C Sodium chloride	1.25

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula B I/1132

Hair Shampoo

clear, 17.7% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol SBE/Disodium Laureth Sulfosuccinate	12.30
Fragrance	0.30
Genapol L-3/Laureth-3	1.00
Water	41.15
Panthenol	0.50
Genagen CAB/Cocamidopropyl Betaine	8.00
Dyestuff solution	q.s.
Preservative	q.s.
C Sodium chloride	1.75

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula B I/1133

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Hair Shampoo

clear, 13.8% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol SBE/Disodium Laureth Sulfosuccinate	6.00
Fragrance	0.30
Water	55.00
Genapol L-3/Laureth-3	2.00
Genagen CAB/Cocamidopropyl Betaine	5.00
Dyestuff solution	q.s.
Preservative	q.s.
C Sodium chloride	1.70

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula B I/1128

Hair Shampoo

for daily use, clear, 15.6% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	30.00
B Genapol SBE/Disodium Laureth Sulfosuccinate	6.00
Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Fragrance	0.30
Water	48.70
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	6.00
Genapol L-3/Laureth-3	2.00
C Sodium chloride	2.00

Procedure:

1. Stir the components of B one after another into A.
2. If necessary adjust the pH.
3. Finally adjust the viscosity with C.

Formula B I/1134

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Hair Shampoo

for dry hair, with a pearl-lustre effect, 16.0% active ingredient

Recipe:

	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	30.00
Polymer JR 400/Polyquaternium-10	0.20
Hostapon SCID/Sodium Cocoyl Isethionate	3.00
B Water	49.00
C Hostapon KCG/Sodium Cocoyl Glutamate	6.00
Fragrance	0.30
Genapol L-3/Laureth-3	0.50
Genapol PGM/Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA	4.00
Genagen CAB/Cocamidopropyl Betaine	6.00
Dyestuff solution	q.s.
Preservative	q.s.
D Sodium chloride	1.00

Procedure:

1. Stir A into B while heating to approx. 60C.
 2. Cool down and add the components of C at approx. 35C while stirring.
 3. If necessary adjust the pH.
 4. Finally adjust the viscosity with D.
- Formula B I/2131

Hair Shampoo

with a pearl-lustre effect, 19.1% active ingredient

Recipe:

	<u>Wt%</u>
A Hostapon SCID/Sodium Cocoyl Isethionate	6.40
B Water	37.60
C Genapol L-3/Laureth-3	2.00
Hostapon KCG/Sodium Cocoyl Glutamate	7.20
Genapol LRO liquid/Sodium Laureth Sulfate	40.00
Fragrance	0.30
Genapol PGL/Glycol Distearate, Cocamide MEA, PPG-4 Deceth-4	5.00
Dyestuff solution	q.s.
Preservative	q.s.
D Sodium chloride	1.50

Procedure:

1. Stir A into B while heating to approx. 60C and cool down.
 2. At approx. 30C stir the components of C into 1.
 3. If necessary adjust the pH.
 4. Finally adjust the viscosity with D.
- Formula B I/2132

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Hair Shampoo

with a pearl-lustre effect, 16.6% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon SCID/Sodium Cocoyl Isethionate	3.60
B Water	43.95
C Genapol LRO liquid/Sodium Laureth Sulfate	40.00
Fragrance	0.30
Genapol PGM/Sodium Laureth Sulfate, Glycol Distearate, Cocamide MEA	5.00
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	6.00
D Sodium chloride	1.15

Procedure:

1. Stir A into B while heating to approx. 60C and cool down.
2. At approx. 30C stir the components of C into 1.
3. If necessary adjust the pH.
4. Finally adjust the viscosity with D.

Formula B I/2134

Conditioning Shampoo

clear, 17.2% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	35.00
B Genapol AMS/TEA-PEG-3 Cocamide Sulfate	6.00
Belsil DMC 6032/Dimethicone Copolyol Acetate	0.50
Merquat 550/Polyquaternium-7	1.00
Fragrance	0.30
Genapol L-3/Laureth-3	2.00
C Water	41.70
Glycerin	2.00
Genagen CAB 818/Cocamidopropyl Betaine	10.00
Dyestuff solution	q.s.
Preservative	q.s.
D Sodium chloride	1.50

Procedure:

1. Add the components of B into A and keep stirring until a clear solution has been obtained.
2. Stir the components of C one after another into 1.
3. If necessary adjust the pH.
4. Finally adjust the viscosity with D.

Formula B I/6147

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

High Foaming Adult Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet BW-173 (Sodium Lauryl Sulfate (and) Cocamide DEA (and) Cocamidopropyl Betaine)	32.0
Sodium Chloride	0.1-1.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

This shampoo will be a viscous liquid with a pH of 6.0-7.0 and a concentration of approximately 12-13%.

Procedure:

1. Completely disperse Mackadet BW-173 in warm water (approximately 40C).
2. Add appropriate amount of Sodium Chloride and blend until clear and homogeneous.
3. Add Citric Acid, if necessary, to adjust pH to 6.0-7.0.
4. Add Paragon III, Fragrance, and Dye.
5. Cool and fill.

Wheat Germ Conditioning Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate OPS (Disodium Oleamido MIPA Sulfosuccinate)	20.0
Sodium Laureth Sulfate (30%)	24.0
Mackanate WGD (Disodium Wheatgermamido PEG-2 Sulfo- succinate)	8.0
Mackam WGB (Wheatgermamidopropyl Betaine)	5.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add surfactants to water.
2. Heat to 40C.
3. Adjust pH to 5.5 with Citric Acid.
4. Add remaining components.
5. Adjust viscosity to 2000 cps with Sodium Chloride.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

High Foaming 2 in 1 Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Ammonium Lauryl Sulfate (28%)	65.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	4.0
Mackester EGDS (Glycol Distearate)	1.0
Mackamide PKM (Palmkernelamide MEA)	2.0
Mackernium 007 (Polyquaternium 7)	0.4
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Combine first five components and heat to 70C with continuous mixing.
2. Dilute Mackernium 007 in remaining water and slowly add to the blend.
3. Blend until product is homogeneous and cool to 50C.
4. Add Mackstat DM, Dye, and Fragrance.
5. Adjust pH to 5.0-6.0 with Citric Acid and cool.

Silicone Free 2:1 Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Ammonium Lauryl Sulfate (30%)	40.0
Mackanate LA (Diammonium Lauryl Sulfosuccinate)	20.0
Mackalene 426 (Isostearamidopropyl Morpholine Lactate)	6.0
Mackamide CMA (Cocamide MEA)	2.0
Mackernium 007 (Polyquaternium 7)	1.2
Mackester EGDS (Glycol Distearate)	1.0
Sodium Chloride	0.8
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first seven components to water.
2. Heat to 70C.
3. Cool to 50C and add Paragon, Dye, and Fragrance.
4. Adjust pH to 5.5-6.0 with citric acid.
5. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Highly Pearlescent Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Sodium Laureth Sulfate (60%)	20.0
Mackamide C (Cocamide DEA)	2.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	2.0
Stearic Acid	2.0
Magnesium Sulfate (7H ₂ O)	6.0
Diethanolamine	0.67
Paragon II (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
D.I. Water, Dye, Fragrance	qs to 100.0

pH: 7.5-8.0

Viscosity (cps, 25C): 1000-2500

Procedure:

1. Heat water to 75C and add Magnesium Sulfate; dissolve completely.
2. Add other surfactants and DEA, then add waxes.
3. Keep temperature at 70C for 20 minutes; start cooling slowly.
4. At 35C add remainder of components and cool while mixing to room temperature.
5. Adjust pH to 7.5-8.0 with dilute TEA or dilute Sulfuric Acid.

Economy Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet SBC-8 (Mild Shampoo Blend)	10.0
Sodium Chloride	qs
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackadet SBC-8 to water and blend until clear.
2. Add Mackstat DM.
3. Adjust viscosity to 3000-4000 cps with Sodium Chloride.
4. Add Dye and Fragrance and blend until clear.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Natural Conditioning Shampoo-Pearlescent

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water (Deionized)	52.50
Ethylene Glycol Monostearate/Glycol Stearate	1.0
Schercoquat SOAS (90%)/Soyamidopropyl Ethyldimonium Ethosulfate	1.5
Schercotaine CAB-G (35%)/Cocamidopropyl Betaine	20.0
Schercamox CAA-G (35%)/Disodium Oleamido PEG-2 Sulfosuccinate	7.0
Sodium Lauryl Ether Sulfate(30%)/Sodium Laureth (3.0 EO) Sulfate	18.0
Preservative	q.s.
Fragrance	q.s.

Procedure:

1. Heat water to 60C.
2. Gently melt Ethylene Glycol Monostearate (m.p.-56-60C) and, with stirring, add to water.
3. Add Schercoquat SOAS to dissolve.
4. Add Schercotaine CAB-G, followed by Schercamox CAA-G.
5. Slowly add Sodium Lauryl Ether Sulfate, mix thoroughly, as viscosity will build rapidly.
6. Cool, add Preservative and Fragrance.

Formula SK-156

Shower-Shampoo Gel

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	20
Alpha Olefin Sulfonate (40%)/Sodium C14-16 Olefin Sulfonate	10
Schercopol OMES-Na (35%)/Disodium Oleamido PEG-2 Sulfosuccinate	10
Schercotaine CAB-G (35%)/Cocamidopropyl Betaine	10
Schercamox CAA-G (35%)/Cocamidopropylamine Oxide	3
Schercoquat IAS-LC (90%)/Isostearamidopropyl Ethyl Dimonium Ethosulfate	1
Color, Fragrance, Preservative	q.s.
Water (deionized)	q.s. to 100

Procedure:

1. Heat water to 50C. With stirring add Schercoquat IAS-LC to dissolve.
2. Add Schercotaine CAB-G.
3. Add Schercamox CAA-G and Schercopol OMES-Na.
4. Slowly add Alpha Olefin Sulfonate, viscosity builds slightly.
5. Increase stirring and slowly add Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
6. To clear up bubble formation heat finished product in an oven (at 45-50C).

Typical Specifications:

Activity: 19%

Viscosity @ 25C: 16,000 cps (without fragrance)

pH @ 25C: 6.8

Formula SO-006

SOURCE: Scher Chemicals, Inc.: Formulas SK-156 and SO-006

Natural Mild (Apricot) Conditioning Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercoquat APAS/Apricotamidopropyl Ethyldimonium Ethosulfate	0.5
Schercotaine APAB (40%)/Apricot Amidopropyl Betaine	6.0
Schercotaine CAB-G (45%)/Cocamidopropyl Betaine	14.0
Sipon ES-2 (27%)/Sodium Lauryl Ether Sulfate	18.0
Herbasol Extract Apricot/Apricot Extract	1.0
Schercomid SAP/Apricot Kernel DEA	1.0
Preservative	0.2
Water (deionized)	59.3
Color, Fragrance	q.s.

Procedure:

1. Heat water to 50C. With stirring add Schercoquat APAS to dissolve.
 2. Add preservative, mix.
 3. Add Schercotaine APAB & Schercotaine CAB-G. Heat & mix to 50C until uniform.
 4. Add Schercomid SAP, mix.
 5. Add Apricot Extract, mix.
 6. Add Sipon ES-2. Mix thoroughly until uniform.
- Formula 220-195

Conditioning Shampoo
(Self Preserved)

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water (Deionized)	48.5
Schercoquat IIS-LC (98%)/Isostearyl Ethyl Imidonium Ethosulfate	1.5
Schercotaine UAB (35%)/Bis (Undecylenic Amidopropyl Dimethyl Glycine)	10.0
Schercotaine CAB-G (45%)/Cocamidopropyl Betaine	10.0
Schercopol OMS-Na (35%)/Disodium Oleamido MEA Sulfosuccinate	10.0
Sodium Lauryl Ether Sulfate (30%)/Sodium Laureth (2 OEO) Sulfate	20.0
Fragrance	q.s.

Procedure:

1. Heat water to 45C. With stirring add Schercoquat IIS-LC to dissolve.
2. Add Schercotaine CAB-G and Schercotaine UAB.
3. Add Schercopol OMS-Na.
4. Slowly add Sodium Lauryl Ether Sulfate; mix thoroughly as viscosity will build rapidly.
5. Cool, q.s. with fragrance.

Typical Specifications:

Activity: 19%

Viscosity @ 25C: 2600 cps (without Fragrance)

Formula SO-0027

SOURCE: Scher Chemicals, Inc.: Formula 220-195 & SO-0027

Natural Mild (Wheat Germ) Conditioning Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Schercoquat WOAS/Wheat Germ Amidopropyl Ethyldimonium Ethosulfate	0.5
Schercotaine WOAB/Wheat Germ Amidopropyl Betaine	6.0
Schercotaine CAB-G (45%)/Cocamidopropyl Betaine	14.0
Sipon ES-2 (27%)/Sodium Lauryl Ether Sulfate	18.0
Herbasol Extract Wheat Germ/Wheat Germ Extract	1.0
Schercomid SWG/Wheat Germ Diethanolamide	1.0
Preservative	0.2
Water (deionized)	59.3
Color, Fragrance	q.s.

Procedure:

1. Heat water to 50C. With stirring add Schercoquat WOAS to dissolve.
 2. Add preservative, mix.
 3. Add Schercotaine WOAB & Schercotaine CAB-G. Heat & mix to 50C until uniform.
 4. Add Schercomid SWG, mix.
 5. Add Wheat Germ Extract, mix.
 6. Add Sipon ES-2. Mix thoroughly until uniform.
- Formula SK 151

Clear Moisturizing Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water	53.3
Schercoquat IALA/Isostearamidopropyl Laurylacetodimonium Chloride	2.5
Sodium Lauryl Sulfate	35.0
Schercomid AME-70/Acetamide MEA	5.0
Schercomid SCO-EX/Cocamide DEA	4.0
Perfume	q.s.
Preservative	0.2

Procedure:

1. Dissolve Schercoquat IALA in 60C water. Add Schercomid AME-70.
 2. Add while mixing, Sodium Lauryl Sulfate and Schercomid SCO-EX.
 3. Mix until uniform.
 4. At 35-40C add preservative.
 5. When cool, add fragrance.
- Formula SK 150

SOURCE: Scher Chemicals, Inc.: Formulas SK 150 and SK 151

Natural Mild Conditioning Shampoo
(With Wheat Germ)

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water (Deionized)	46.5
Schercoquat WOAS (90%)/Wheat Germamidopropyl Ethyl-dimonium Ethosulfate	0.5
Schercotaine CAB-G (45%)/Cocamidopropyl Betaine	20.0
Schercopol OMES-Na (35%)/Disodium Oleamido PEG-2 Sulfosuccinate	10.0
Sodium Lauryl Ether Sulfate (30%)/Sodium Laureth (3.0 EO) Sulfate	20.0
Schercomid SWG/Wheat Germamide DEA	3.0
Preservative	q.s.
Fragrance	q.s.

Procedure:

1. Heat water to 45C. With stirring add Schercoquat WOAS to dissolve.
2. Add Schercotaine CAB-G, followed by Schercopol OMES-Na.
3. Add Sodium Lauryl Ether Sulfate.
4. Add Schercomid SWG; mix thoroughly, as viscosity will build.
5. Cool, q.s. with Preservative and Fragrance.

Typical Specifications:

Activity: 20%
 Viscosity @ 25C: 2900 cps (without fragrance)
 pH @ 25C: 5.5

Conditioning Shampoo for Dry Scalp

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Part A:	
Water (Distilled)	34.00
Na Lauryl Sulfate	20.00
Schercotaine CAB-Z/Cocamidopropyl Betaine-Zinc	20.00
Part B:	
Water (Distilled)	20.00
Schercoquat IAS-LC/Isostearamidopropyl Ethyl Dimonium Ethosulfate	1.00
Part C:	
Schercomid SL-ML/Lauramide DEA	5.00
Part D:	
Fragrance	q.s.
Preservative	q.s.

Procedure:

1. Prepare Part A, stirring until a clear and uniform solution is formed.
2. Dissolve Schercoquat IAS-LC in water. Add solution to Part A, warming slightly if necessary to produce a clear solution.
3. Add Part C to Part D.

SOURCE: Scher Chemicals, Inc.: Formulary

Pearlescent Shampoo Concentrate

<u>Raw Materials:</u>	<u>Wt%</u>
TEA Lauryl Sulfate	50.0
Mackamide LLM (Lauramide DEA)	30.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	5.0
Propylene Glycol	5.0
Sodium Chloride	1.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add first five components to water.
2. Heat to 70C and blend until homogeneous.
3. Cool to 40C and add Paragon III, Dye, Fragrance.
4. Adjust pH to 7.5 with Phosphoric Acid.

NOTE: Product can be diluted one pint to a gallon with water.
Viscosity can be controlled by regulating the propylene glycol.

Neutralizer Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate OM (Disodium Oleamido MEA Sulfosuccinate)	30.0
Sodium Laureth Sulfate (30%)	20.0
Mackamine CAO (Cocamidopropylamine Oxide)	6.0
Mackamine WGO (Wheatgermamidopropylamine Oxide)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Solids, %: 19.5
pH: 5.0-5.5
Viscosity (cps, 25C): 1500

Procedure:

1. Add surfactants to water and blend until clear.
2. Adjust pH to 5.0-5.5 with Citric Acid.
3. Add Dye and Fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Premium High Foaming Mild Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet CA (Sodium Laureth Sulfate (and) Sodium Lauryl Sulfate (and) Disodium Oleamido MEA Sulfosuccinate (and) Cocamide DEA (and) Cocamidopropyl Betaine)	32.0
Sodium Chloride	qs
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

This shampoo will be a viscous liquid with a pH of 6.0-7.0 and a concentration of approximately 9-10%.

Procedure:

1. Completely disperse Mackadet CA in warm water (approximately 40C).
2. Add appropriate amount of Sodium Chloride and blend until clear and homogeneous.
3. Add Citric Acid, if necessary, to adjust pH to 6.0-7.0.
4. Add Paragon III, Dye, and Fragrance.
5. Cool and fill.

Economic High Foaming All-Purpose Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackadet CA (Sodium Laureth Sulfate (and) Sodium Lauryl Sulfate (and) Disodium Oleamido MEA Sulfosuccinate (and) Cocamide DEA (and) Cocamidopropyl Betaine)	20.0
Sodium Chloride	1.0-2.0
Paragon III (Phenoxyethanol (and) DMDM Hydantoin (and) Methylparaben (and) Propylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

This shampoo will be a viscous liquid with a pH of 6.0-7.0 and a concentration of approximately 9-10%.

Procedure:

1. Completely disperse Mackadet CA in warm water (approximately 40C).
2. Add appropriate amount of Sodium Chloride and blend until clear and homogeneous.
3. Add Citric Acid, if necessary, to adjust pH to 6.0-7.0.
4. Add Paragon III, Dye, and Fragrance.
5. Cool and fill.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Shampoo for Permed Hair

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate OP (Disodium Oleamido MIPA Sulfosuccinate)	20.0
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	12.0
Sodium Laureth Sulfate (30%)	15.0
Mackamine WGO (Wheatgermamidopropylamine Oxide)	4.0
Mackalene 716 (Wheatgermamidopropyl Dimethylamine Lactate)	1.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add surfactants to water.
2. Heat to 40C.
3. Blend until clear.
4. Adjust pH to 6.0 with Citric Acid.
5. Add remaining components.
6. Adjust viscosity to 2000 cps with Sodium Chloride.

Shampoo for Color-Treated Hair

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate CP (Disodium Cocamido MIPA Sulfosuccinate)	30.0
Ammonium Lauryl Sulfate (28%)	25.0
Mackamine CAO (Cocamidopropylamine Oxide)	7.0
Mackanate WGD (Disodium Wheatgermamido PEG-2 Sulfosuccinate)	2.0
Sodium Chloride	2.0
Water, Dye, Preservative, Fragrance	qs to 100.0

Solids, %: 22.0

pH: 6.2

Viscosity (cps, 25C): 2300

Procedure:

1. Add surfactants to water and blend until clear.
2. Adjust pH to 6.0-6.5 with Citric Acid or Sodium Hydroxide.
3. Adjust viscosity with Sodium Chloride.
4. Add dye, preservative and fragrance.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Shampoo with Unicerin C-30

<u>Raw Materials:</u>		<u>Wt%</u>
A	1 Water	66.95
	2 Propylene Glycol	1.50
	3 Uniphen P-23	0.25
	4 Unicide U-13	0.40
	5 Citric Acid	0.30
	6 Carrageenan (Chondus Crispus)	2.50
B	7 Decyl Glucoside	24.00
	8 Uniphen P-23	0.50
	9 Fragrance	0.40
C	10 FD&C Blue No. (C.I. 42090)	0.20
D	11 Unicerin C-30	3.00

Procedure:

Manufacturing is best performed in a closed apparatus (as eg. Fryma, Krieger) provided with vacuum and a speed-regulated stirrer with rotor-stator homogenizer. The microbiological quality of the demineralized water must be checked carefully.

1. Presoak 11 in aqua conservans (preserved solution containing 0.4% Uniphen P-23 and 0.3% Unicide U-13) and leave the suspension for 24 h at room temperature to soften Unicerin C-30.
2. Dissolve 3 in 1 and 2 at 100C. Let cool down to 40C and dissolve 4 and 5. Disperse 6 with a propeller stirrer at high speed. Continue stirring at reduced speed for 30 minutes, then homogenize intensively for 3 minutes and let cool overnight.
3. Dissolve separately 8 and 9 in 7. Prevent foam building (see note below).
4. At reduced stirrer speed suck B from below into A and mix further 15 minutes, then homogenize for additional 3 minutes at medium intensity.
5. Add 10 and mix 10 minutes, then homogenize 3 minutes at low speed.
6. Add 1 at low stirrer speed as long until a homogeneous distribution is obtained.

NOTE:

If manufacturing equipment is not provided with vacuum, set the stirrer below the liquid.

SOURCE: Induchem AG: Formula 14.2

Shampoo with Unispheres YE-501**Raw Materials:**

	<u>Wt%</u>
A 1 Water	52.30
2 Propylene Glycol	0.75
3 Uniphen P-23	0.25
4 Disodium EDTA	0.10
5 Unicide U-13	0.40
6 Acrylates/C10-30 Alkyl Acrylate Crosspolymer	1.00
B 7 Sodium Laureth Sulfate	40.00
8 Uniphen P-23	0.50
9 Fragrance	0.40
C 10 Sodium Hydroxide	3.50
11 FD&C Blue No. (C.I. 42090)	0.20
D 12 Unispheres YE-501 Yellow	0.60

Procedure:

Manufacturing is best performed in a closed apparatus (as eg. Fryma, Krieger) provided with vacuum and a speed-regulated stirrer with rotor-stator homogenizer. The microbiological quality of the demineralized water must be checked carefully.

1. Dissolve 3 and 4 in 1 and 2 at 100C. Let cool down to 40C and dissolve 5. Disperse 6 with a propeller stirrer at high speed. Continue stirring at reduced speed for 30 minutes, then homogenize intensively for 3 minutes and let cool overnight.
2. Dissolve separately 8 and 9 in 7. Prevent foam building (see note below).
3. At reduced stirrer speed suck B from below into A and mix further 15 minutes, then homogenize for additional 3 minutes at medium intensity.
4. Add 10 and 11, mix 10 minutes, then homogenize 3 minutes at low speed.
5. Add 12 at low stirrer speed as long until a homogeneous distribution is obtained.

NOTE:

If manufacturing equipment is not provided with vacuum, set the stirrer below the liquid level to prevent foaming.

SOURCE: Induchem AG: Formula 14.1

Shower-Shampoo Gel

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	20
Alpha Olefin Sulfonate (40%)/Sodium C14-16 Olefin Sulfonate	10
Schercotaine CAB-G (35%)/Cocamidopropyl Betaine	10
Schercamox CAA-G (35%)/Cocamidopropylamine Oxide	13
Schercoquat IAS-LC (90%)/Isostearamidopropyl Ethyl Dimonium Ethosulfate	1
Color, Fragrance, Preservative	q.s.
Water (deionized)	q.s. to 100

Procedure:

1. Heat water to 50C. With stirring add Schercoquat IAS-LC to dissolve.
2. Add Schercotaine CAB-G.
3. Add Schercamox CAA-G.
4. Slowly add Alpha Olefin Sulfonate, viscosity builds slightly.
5. Increase stirring and slowly add Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
6. To clear up bubble formation heat finished product in an oven (at 45-50C) overnight.

Typical Specifications:

Activity: 19%

Viscosity @ 25C: 16,000 cps (without fragrance)

pH @ 25C: 6.8

Formulation SK 148

Clear Super-Conditioning Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water	55.3
Schercoquat IIS-LC/Isostearyl Ethyl Imidonium Ethosulfate	0.5
Katemu IGU-70/Isostearamidopropyl Dimethylamino Gluconate	2.0
Sodium Lauryl Sulfate	33.0
Schercomid AME-70/Acetamide MEA	5.0
Schercomid SCO-EX/Cocamide DEA	4.0
Perfume	q.s.
Preservative	0.2

Procedure:

1. Dissolve Schercoquat IIS-LC in 60C water. Add Schercomid AME-70 and Katemu IGU-70.
2. Add while mixing, Sodium Lauryl Sulfate and Schercomid SCO-EX.
3. Mix until uniform.
4. At 35-40C add preservative.
5. When cool, add fragrance.

Formulation SK 143

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Shower Shampoo Liquid

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Sodium Lauryl Sulfate (30%)	15
Sodium Lauryl Ether Sulfate (30%)/Sodium Laureth (3) Sulfate	5
Alpha Olefin Sulfonate (40%)/Sodium C14-16 Olefin Sulfonate	10
Schercopol OMES-Na (35%)/Disodium Oleamido PEG-2 Sulfosuccinate	10
Schercotaine CAB-G (35%)/Cocamidopropyl Betaine	10
Schercamox CAA-G (35%)/Cocamidopropylamine Oxide	3
Schercoquat IAS-LC (90%)/Isostearamidopropyl Ethyl Dimonium Ethosulfate	1
Color, fragrance, preservative	0.1
Water (deionized)	q.s. to 100

Procedure:

1. Heat water to 50C. With stirring add Schercoquat IAS-LC to dissolve.
2. Add Schercotaine CAB-G.
3. Add Schercamox CAA-G and Schercopol OMES-Na.
4. Slowly add Alpha Olefin Sulfonate, viscosity builds slightly.
5. Increase stirring and slowly add Sodium Laureth and Sodium Lauryl Sulfate. Mix thoroughly at high rpm until uniform.
6. To clear up bubble formation heat finished product in an oven (at 45-50C) overnight.

Typical Specifications:

Activity: 19%
 Viscosity @ 25C: 9,000 cps (without fragrance)
 pH @ 25C: 6.8

Clear Conditioning Shampoo

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Water	64.5
Schercoquat IIS-LC/Isostearyl Ethyl Imidonium Ethosulfate	0.5
Ammonium Lauryl Sulfate 28%	30.0
Schercomid SCO-EX/Cocamide DEA	5.0

Procedure:

1. Dissolve Schercoquat IIS-LC in 60C water.
 2. Add while mixing, Ammonium Lauryl Sulfate and Schercomid SCO-EX.
 3. Mix until uniform.
- Formula SK 90

SOURCE: Scher Chemicals, Inc.: Formulary

Stripper Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Dodecylbenzene Sulfonic Acid	21.5
Caustic Soda (50%)	5.4
Sodium Laureth Sulfate (60%)	4.0
Mackam 35 (Cocamidopropyl Betaine)	5.5
Sodium Xylene Sulfonate (40%)	8.0
Paragon (Propylene Glycol (and) DMDM Hydantoin (and) Methylparaben)	qs
Water, Dye, Fragrance	qs to 100.0

Solids, %: 30(+/-1.0)
 pH: 6.5-7.0
 Viscosity (cps, 25C): 250-350
 Cloud Point: 5C

Procedure:

1. Add Caustic Soda to water.
2. Adjust pH to 7.0-8.0 with Dodecylbenzene Sulfonic Acid.
3. Add remaining components and adjust pH to 6.5-7.0 with Citric Acid.
4. If necessary, lower viscosity with Sodium Xylene Sulfonate or raise viscosity with Sodium Chloride.

Sting Free 2:1 Shampoo

<u>Raw Materials:</u>	<u>Wt%</u>
Mackam 2C (Disodium Cocoamphodiacetate)	35.0
Sodium Laureth-1 Sulfate	20.0
Mackanate DC-30 (Disodium Dimethicone Copolyol Sulfosuccinate)	4.0
Mackernium 007 (Polyquaternium 007)	3.0
Mackester SP (Glycol Stearate (and) Stearamide MEA)	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Procedure:

1. Add Mackam 2C, Sodium Laureth-1 Sulfate, Mackanate DC-30 and Mackester SP to water.
2. Heat to 70C and blend until homogeneous.
3. Slowly add Mackernium 007.
4. Cool to 50C and add Mackstat DM.
5. Add Dye and Fragrance.
6. Adjust pH to 7.0-7.5 with Citric Acid.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

3 in 1 Antidandruff Shampoo
17.2% active ingredient

Recipe:

	<u>Wt%</u>
A Octopirox/Piroctone Olamine	0.40
B Water	10.00
C Genapol LRO liquid/Sodium Laureth Sulfate	30.00
Hostapon KCG/Sodium Cocoyl Glutamate	5.00
Genamin KSL/PEG-5 Stearyl Ammonium Lactate	2.00
Cetiol HE/PEG-7 Glyceryl Cocoate	1.00
Belsil DMC 6032/Dimethicone Copolyol Acetate	2.00
Merquat 550/Polyquaternium-7	5.00
Fragrance	0.30
D Water	30.30
E Glucamate DOE 120/PEG-120 Methyl Glucose Dioleate	1.00
F Genagen CAB/Cocamidopropyl Betaine	8.00
Genapol L-3/Laureth-3	2.00
Genapol TSM/PEG-3 Distearate, Sodium Laureth Sulfate	3.00

Procedure:

1. Mix A with B.
2. Add the components of C to 1 and stir well.
3. Dissolve E in D, add to 1 and stir well.
4. Stir the components of F one after another into 1.
5. Adjust the pH to 6.0

SOURCE: Hoechst Aktiengesellschaft: Formula B I/6142

Section IX

Shaving Products

After Shave Balm

A soothing water-in-oil lotion containing Bentone Gel EUG rheological additive

<u>Ingredients:</u>	Wt%
Sorbitan Isostearate	2.50
Glycerine BP	3.00
Magnesium Sulphate	0.70
Caprylic/Capric Triglyceride	4.00
Octyldodecanol	4.00
Beeswax BP	0.50
Bisabolol	0.20
D-Panthenol	0.50
Cetearyl Octanoate, Isopropyl Myristate	5.00
2-Phenoxyethanol, Methyl dibromoglutaronitrile, 2-Bromo-2-Nitropropane-1,3-Diol, Butyl 4-Hydroxy- benzoate, Isobutyl 4-Hydroxybenzoate	0.20
Perfume	0.20
Bentone Gel EUG	3.00
Demineralized Water	Bal to 100%

Method of Manufacture:

1. Thoroughly disperse the Bentone Gel EUG in the oil phase and heat to 75-80C.
2. In a separate vessel, heat 98% of the water with the Glycerine and the Magnesium Sulphate to 75-80C.
3. Add the water phase to the oil phase steadily mixing with a propeller stirrer on medium speed.
4. Dissolve the D-Panthenol in the remaining 2% of the water.
5. Add the D-Panthenol premix below 50C to the cooling emulsion.
6. Transfer to a high shear stirrer for around 10 minutes and continue to cool.
7. At 30C add the perfume and preservative.

The balance of richness and light, easy-to-spread characteristics provided by Bentone Gel EUG additive makes this After Shave Balm pleasant on the skin. This formulation is designed to be soothing and combat irritation on freshly shaved skin through the action of the Bisabolol.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formulas

After Shave Balsam

<u>Recipe:</u>	<u>Wt%</u>
A Hostaphat KML/Laureth-4 Phosphate, Polyglyceryl-2 Sesquiosostearate	1.50
Hostacerin DGSE/Polyglyceryl-2 PEG-4 Stearate	2.50
Isopropyl palmitate	2.00
Isopropyl isostearate	3.00
Abil 100/Dimethicone	1.00
Menthol	0.10
Camphor	0.10
B Carbopol 980/Carbomer	0.30
C Caustic soda solution (10%)	1.75
Allantoin	0.30
PEG 400/PEG-8	3.00
Milfoil extract	2.00
Water	82.15
Preservative	q.s.
Dyestuff solution	q.s.
D Fragrance	0.30
1. Melt A at approx. 60C, then add B.	
2. Heat C to approx. 60C.	
3. Stir 2 into 1 and stir until cool.	
4. At approx. 35C add D to 3.	
5. Finally homogenize the emulsion.	
Formula A VI/1151	

Shaving Cream

<u>Recipe:</u>	<u>Wt%</u>
A Stearic acid	10.20
Myristic acid	5.10
Coconut fatty acid	5.80
B Water	46.20
Potassium hydroxide	6.80
Sodium hydroxide	0.35
Triethanolamine	0.95
PEG 400/PEG-8	5.40
C Stearic acid	10.20
Myristic acid	5.10
D Genapol LRO paste/Sodium Laureth Sulfate	2.70
E Menthol	0.20
Fragrance	1.00

Procedure:

1. Melt A at ca. 90C.
2. Heat the solution of B to ca. 90C.
3. Stir 2 into 1, continue stirring at 70-80C for ca. 30 minutes.
4. Melt C at ca. 90C.
5. Stir 4 into 3.
6. Carefully stir 5 until cool (avoid foam formation).
7. Stir D into 6 at ca. 50C, and at ca. 40C add solution E.
8. Homogenize at room temperature and homogenize again one day later.

Note: The loss of water is approx. 10%.

Formula A III/1003

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

After Shave Lotion

An after shave balm which uses SF1632 to add moisture due to its ability to reduce water loss from the skin (TEWL). SF1202, cyclopentasiloxane, is used to provide a quick dry which does not sting or cool the skin.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	59.61
Disodium EDTA/Chelating agent	0.02
SD Alcohol-40/Astringent	15.00
Phenoxyethanol (and) Methylparaben (and) Ethylparaben (and) Propylparaben (and) Butylparaben(1)/Preservative	0.60
Sorbital 70%/Humectant	3.00
Part B:	
Cyclopentasiloxane(SF1202) (2)/Emollient/Quick dry	5.00
Cetearyl Methicone(SF1632)(2)/Occlusive/TEWL reduction/ Emollient	8.00
Bisabolol/Reduces irritation and redness	0.20
Tocopheryl Acetate/Vitamin E/Antioxidant	0.20
Coco-Caprylate/Caprates/Emollient	0.80
Aluminum Starch Octenylsuccinate/Slip/Feel/Viscosity	5.00
Polysorbate-85/Preservative	1.50
Part C:	
Fragrance(3)	1.00
D&C Green No. 5(0.1% solution)/Color	0.07

Procedure:

1. Combine Part A at room temperature and mix for 15 minutes with moderate propeller agitation.
2. Combine Part B and mix with moderate propeller agitation for 20 minutes until uniform.
3. Add Part B to Part A SLOWLY with moderate stirring. Continue mixing for 15 minutes.
4. Add Part C to Part AB and mix with moderate propeller agitation for 20 minutes.

Trade Names/Suppliers:

- (1) Phenonip, Nipa Laboratories, Inc.
- (2) GE Silicones
- (3) Shaw-Mudge

SOURCE: GE Silicones: Personal Care Formulary: Formula SP 114

Clear Shaving Gel

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Deionized Water	46.5
Glucamate DOE-120/PEG 120 Methyl Glucose Dioleate	3.0
Sodium Laureth Sulfate	25.0
Schercotaine SCAB-G/Cocamidopropyl Hydroxy Sultaine	20.0
Schercomid AME-70/Acetamide MEA	2.0
Phytoderm Complex G/Propylene Glycol (and) Licorice Extract	1.0
Dow Corning 193 Surfactant/Dimethicone Copolyol	2.5
Preservative	q.s.
Fragrance	q.s.

Procedure:

Dissolve DOE-120 in water with gentle heat to 60-65C. Add the rest of the ingredients one by one, mixing well after each addition.

Formulation SK 89

Cooling After Shave
Oil Free/Alcohol Free

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
Deionized Water	86.9
Carbopol 941 3% Aq. Sln.	5.0
Dow Corning 193 Surfactant/Dimethicone Copolyol	1.0
Schercomid AME-70/Acetamide MEA	1.0
Schercemol GMIS/Glyceryl Isostearate	4.0
Herbasol Extract Cucumber/Cucumber Extract	1.0
Herbasol Extract Chamomile/Chamomile Extract	1.0
Preservatives	q.s.
Triethanolamine (99.0%)	0.1
Fragrance	q.s.

Procedure:

Disperse Carbopol in water until uniform. Add the rest of the ingredients one by one, mixing well after each addition.

Formulation SK 88

SOURCE: Scher Chemicals, Inc.: Suggested Formulation

Moisturizing After Shave Treatment (Eashave)

Eashave in this pleasant light after shave cream has moisturizing properties and calms the skin after shaving.

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A)Emulgade SE	6.00
2	Lanette O/Cetearyl Alcohol	1.00
3	Cetiol V/Dicaprylyl Ether	8.00
4	Eutanol G/Octylododecanol	4.00
5	B)Deionized Water	69.20
6	Glycerin	3.00
7	Phenonip	0.50
8	Carbopol Ultrez 10/Carbomer	0.30
9	C)Triethanolamine	
10	D)Bisabolol	0.20
11	Ethyl Alcohol 96%	3.00
12	Eashave	4.00
13	Fragrance/Courage 0/243101	0.80

Procedure:

Heat the ingredients of fatty phase A) to 80C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then adjust the pH with phase C) to 5.7.

Finally incorporate items of phase D) one after the other and stir cold.

Application No.: I 006.0/11.97

Refreshing After Shave (Eashave)

This alcohol containing, clear after shave formulation refreshes the face and leaves a decent touch of perfume on the skin. Eashave combats the negative effects of the alcohol (e.g. "burning" feeling and washing out of skin lipids).

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A)Irgasan DP 300/Triclosan	0.01
2	Crodamol DA/Diisopropyl Adipate	1.00
3	Ethyl Alcohol 96%	50.00
4	B)Propylene Glycol	2.00
5	Deionized Water	41.49
6	C)Fragrance/Courage 0/243101	0.50
7	D)Eashave	5.00

Procedure:

Dissolve phase A). Mix phase B).

Slowly add phase B) to phase A). Then add item 6.

Finally add item 7.

Application No.: I 001.D/05.96

SOURCE: Pentapharm Ltd.: Suggested Formulations

Soft After Shave Balm (Eashave)

This white, elegant balm contains 20% alcohol and gives a fresh feeling on the face. Eashave reduces irritation and strengthens the lipid barrier of the skin after shaving. The balm has soothing and moisturizing properties.

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A) Deionized Water	69.70
2	Allantoin	0.10
3	Carbopol 941/Carbomer 941	0.40
4	B) PCL Solid/Stearyl Heptanoate, Stearyl Caprylate	2.00
5	Bisabolol	0.20
6	Cremonophor RH40/PEG-40 Hydrogenated Castor Oil	0.30
7	C) Ethyl Alcohol 96%	20.00
8	Menthol	0.10
9	Fragrance/Aras 0/221807	1.50
10	D) Eashave	5.00
11	Triethanolamine	0.70

Procedure:

Dissolve items 2+3 in water (1) and heat to 60C.

Heat the ingredients of phase B) to 60C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to room temperature.

Then add phase C). Finally incorporate item 10 and neutralize with item 11.

Application No. I 004.0/0.5.96

Mild After Shave Balm (Eashave)

This white, alcohol free balm is designed especially for men with sensitive skin. Eashave reduces the irritation from shaving and gives the skin a soft feeling.

<u>Item:</u>	<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
1	A) Deionized Water	75.80
2	Glycerin	10.00
3	Phenoxyethanol	0.50
4	Allantoin	0.10
5	Imidazolidinyl Urea	0.20
6	Carbopol 980/Carbomer 980	0.20
7	B) Crodamol EHO/Oleyl Oleate	3.00
8	Glucamate SSE 20/PEG-20 Methyl Glucose	3.00
9	Glucate SS/Methyl Glucose Sesquistearate	1.00
10	C) Triethanolamine	0.20
11	D) Eashave	5.00
12	Fragrance/DRN-20/232146	1.00

Procedure:

Dissolve items 2-6 in water (1) and heat to 60C.

Heat the ingredients of fatty phase B) to 60C.

Under stirring add phase B) to phase A), homogenize and cool to room temperature.

Neutralize with item 10. Finally add items 11 and 12 one after the other.

Application No. I 005.0/05.96

SOURCE: Pentapharm Ltd.: Suggested Formulations

Section X

Soaps and Hand Cleaners

Antibacterial Handwash

A premium liquid cleansing system that leaves a long lasting soft and smooth after-feel.

<u>Ingredients:</u>	<u>Wt%</u>
Water	44.3
Ammonium Lauryl Sulfate(28%)	23.0
Sodium Laureth-2 Sulfate(26%)	21.5
Promidium CO	3.5
Monateric LMAB	3.0
Phospholipid CDM	2.5
Pricerine 9083	1.0
Triclosan	0.2
Monamate RMEA-40	0.7
Disodium EDTA	0.2
Cutric Acid	0.1

Procedure:

With stirring, combine all ingredients except Triclosan. Heat mixture to 55C and add Triclosan. While cooling, add color and fragrance. Adjust the pH to 6 with citric acid.

Typical Properties:

Appearance: Clear Liquid
 Solids(%): 18
 Viscosity (cP) @ 25C: 5400
 Formula F-858

Clear Antibacterial Hand Wash

<u>Ingredients:</u>	<u>Wt%</u>
Part 1:	
Ethanol(95%)	63.0
Hydroxyethyl Cellulose	1.0
Part 2:	
Propylene Glycol	5.0
Phospholipid CDM	3.0
Part 3:	
Water	28.0

Procedure:

Blend hydroxyethyl cellulose and ethanol with high speed agitation. Separately, mix Phospholipid CDM, propylene glycol and water. Add part 1 to part 2. Mix until uniform. Add water, color and fragrance. Package.

Typical Properties:

Appearance: Clear colorless liquid
 pH: 6.0
 Formula F-853

SOURCE: Mona Industries, Inc.: Formulas F-858 and F-853

Clear Liquid Hand Soap with Suspended Mineral Oil Beads

<u>Ingredient:</u>	<u>Wt%</u>
DI Water	68.00
Carbopol ETD 2020	0.90
Glycerin	2.00
Triethanolamine	0.20
Ammonium lauryl sulfate (30%)	20.00
Lauryl ether sulfosuccinate (40%)	2.00
Disodium EDTA	0.10
Propylene glycol	2.00
Triclosan	0.50
DMDM hydantoin	0.70
Triethanolamine	0.60
Cocamidopropyl betaine (35%)	2.00
Mineral oil beads	1.00

Physical Properties:

- Brookfield RVT Viscosity-20 rpm: 5,000 cP
- Product pH: 5.0-6.0
- Product Clarity/Appearance: Clear

Procedure:

1. Using moderate agitation (800 rpm) provided by a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations, disperse or screen the Carbopol polymer into the DI water. Mix the slurry for approximately 15 minutes or until the slurry is homogeneous. Heating the water to 40-50C will increase the wetting and dispersability of the Carbopol ETD polymers.
2. With minimal agitation to avoid excessive air entrapment, add in the glycerin, TEA, lauryl sulfate, sulfosuccinate, and the EDTA.
3. Premix the propylene glycol and the triclosan. Add the mixture.
4. Continue agitation and add the DMDM hydantoin followed by the triethanolamine and the cocamidopropyl betaine surfactant. Add the mineral oil beads with reduced agitation to avoid breaking the beads.
5. Add color and fragrance, as desired.

SOURCE: BFGoodrich Co.: Formulation HIT-410

d-Limonene Hand Soap

Starting formulation for a hand soap containing d-Limonene as a grease cutter.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water, DI	77.40
Carbopol 1382	1.00
Triethanolamine 99%	1.50
Phase B:	
Sulfochem ES-2	5.10
Phase C:	
d-Limonene	15.00

Blending Procedure:

Charge water and begin vigorous agitation. Add the Carbopol 1382 and mix. After adequate mixing, add the TEA-99 (Note: This will form a thick gel.) To this, add the Sulfochem ES-2 and mix until homogeneous. Add the d-Limonene. Adjust the pH up with TEA and down with citric.

Formulation No. F1027

d-Limonene Hand Soap

Starting formulation for a hand soap containing d-Limonene as a grease cutter.

<u>Ingredients:</u>	<u>Wt%</u>
Phase A:	
Water, DI	73.40
Carbopol 1382	1.00
Triethanolamine 99%	1.50
Phase B:	
Sulfochem ES-2	5.10
Amidex O	2.00
Neodol 91-8	2.00
Phase C:	
d-Limonene	15.00

Blending Procedure:

Charge water and begin vigorous agitation. Add the Carbopol 1382 and mix. After adequate mixing, add the TEA-99. (Note: This will form a thick gel.) To this, add the Sulfochem ES-2, Amidex O, and the Neodol 91-8, and mix until homogenous. Add the d-Limonene. Adjust the pH up with TEA and down with citric.

Formulation No. F1028

SOURCE: Chemron Corp.: Suggested Formulations

d-Limonene Waterless Hand Cleaner**Ingredient:**

	<u>Wt%</u>
DI water	69.85
Carbopol ETD 2001	0.35
d-Limonene	25.00
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.30
 Pumice*	 10.00

Physical Properties:

Brookfield RVT Viscosity, 20 rpm: 35,000 cP

*addition of pumice may increase viscosity

Product pH: 5.5-5.8

Product Clarity/Appearance: Thick, white, creamy emulsion

Procedure:

1. Using moderate agitation (800 rpm) provided by a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations, disperse or screen the Carbopol polymer into the DI water. Mix the slurry for approximately 15 minutes or until the slurry is homogeneous. Heating the water to 40-50C will increase the wetting and dispersability of the Carbopol ETD polymers.
2. Using moderate agitation, add the d-Limonene to the polymer dispersion and mix for 10 minutes.
3. Premix the propylene glycol, glycerin, alcohol ethoxylate and preservative together. Add to the solvent/water mixture.
4. Add the sodium hydroxide to the formulation-check the pH frequently-until pH 5.8 is achieved. For best results, keep pH under 6.0.
5. Add the pumice, or other abrasive, as desired.
6. Add color and fragrance, as desired.

SOURCE: BFGoodrich Co.: Formulation HIT-400

d-Limonene Waterless Hand Cleaner

<u>Ingredient:</u>	<u>Wt%</u>
d-Limonene	25.00
Pemulen TR-1	0.20
Deionized water	70.10
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.20
Pumice	10.00

Physical Properties:

Brookfield RVT Viscosity 20 rpm: 11,400 cP
 Product pH: 5.8
 Product Clarity/Appearance: Opaque

d-Limonene Waterless Hand Cleaner

<u>Ingredient:</u>	<u>Wt%</u>
d-Limonene	25.00
Pemulen TR-2	0.20
Deionized water	70.10
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.20
Pumice	10.00

Physical Properties:

Brookfield RVT Viscosity 20 rpm: 6,500 cP
 Product pH: 5.8
 Product Clarity/Appearance: Opaque

Procedure:

1. Use a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations. Add the Pemulen polymer into the vortex of the rapidly agitating d-limonene (800 rpm). Allow to mix until homogeneous and free of polymer lumps.
2. Using moderate agitation, add the deionized water to the oil phase and mix for 10 minutes.
3. Premix the propylene glycol, glycerin, alcohol ethoxylate and preservative together. Add to the solvent/water mixture.
4. Add the sodium hydroxide to the formulation-check the pH frequently-until pH 5.8 is achieved. For best results keep pH under 6.0.
5. Add the pumice, or other abrasive, as desired.
6. Add color and fragrance, as desired.

SOURCE: BFGoodrich Co.: Formulation HIT-401

Emollient Liquid Soap (With Conditioner)Ingredients/CTFA Name:

	<u>Wt%</u>
Deionized Water	49.00
Schercoquat DAS/Quaternium-61	3.00
Schercotaine CAB-G/Cocamidopropyl Betaine	10.00
Schercopol DOS-70/Dioctyl Sodium Sulfosuccinate	15.00
Rhodacal A246/L/Sodium C14-16 Olefin Sulfonate	16.50
Schercomid AME-70/Acetamide MEA	3.00
Glycerine	1.50
Schercemol DISD/Diisostearyl Dilinoleate	1.00
Germaben II	1.00

Procedure:

Dissolve Schercoquat DAS in water at room temperature (or with gentle heat to 40C). Add the rest of the ingredients one by one, mixing well after each addition.

Formula SK 134

Liquid Hand Soap
(Pearlescent)Ingredients/CTFA Name:

	<u>Wt%</u>
Water (Deionized)	51.8
Dowicil-200/Quaternium-15	0.2
Schercoquat IAS (90%)/Isostearamidopropyl Ethyldimonium Ethosulfate)	1.0
Schercotaine CAB-G (45%)/Cocamidopropyl Betaine	10.0
Schercomid SLM-LC/Lauramide DEA	1.0
Ethylene Glycol Monostearate/Glycol Stearate	1.0
Stepanol WA Paste (30%)/Sodium Lauryl Sulfate	35.0
Fragrance	q.s.

Procedure:

1. Heat water to 45-50C. With stirring add Dowicil-200 and Schercoquat IAS. Mix to dissolve.
2. Add Schercotaine CAB-G.
3. Dissolve (melt) EGMS in Schercomid SLM-LC, then add to above.
4. Add Stepanol WA Paste.
5. When uniform, cool and add fragrance.

Specifications:

Activity, %: 18

Viscosity @ 25C*: 4,000-6,000 cps

pH @ 25C: 8.0

*To increase viscosity, decrease % amide.

*To decrease viscosity, increase % amide.

Formula SO-021

SOURCE: Scher Chemicals, Inc.: Suggested Formulations

Hand Sanitizing Gel

<u>Ingredient:</u>	<u>Wt%</u>
DI water	38.75
Carbopol ETD 2001	0.20
Propylene glycol	0.50
Ethanol	60.00
PEG-60 almond glycerides	0.30
Triisopropanolamine	0.25

Physical Properties:

Brookfield RVT Viscosity-20 rpm: 7,000 cp
 % Transmission 420nm: 95-97
 (Brinkman Colorimeter)
 pH range: 7.3-7.6

Hand Sanitizing Gel

<u>Ingredient:</u>	<u>Wt%</u>
DI Water	38.65
Carbopol Ultrez 10	0.30
Propylene glycol	0.50
Ethanol	60.00
PEG-60 almond glycerides	0.30
Triisopropanolamine	0.25

Physical Properties:

Brookfield RVT Viscosity-20 rpm: 11,000 cp
 % Transmission 420nm: 92-94
 (Brinkman Colorimeter)
 pH range: 7.3-7.6

Procedure:

- Using moderate agitation (800 rpm) provided by a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations, disperse or screen the Carbopol polymer into the DI water. Mix the slurry for approximately 15 minutes or until the slurry is homogeneous. Heating the water to 40-50C will increase the wetting and dispersability of the Carbopol ETD polymers.
- Slowly add the ethanol with gentle mixing. Allow as much air to escape as possible before proceeding.
- Add the PEG-60 almond glycerides with gentle mixing.
- Add the triisopropanolamine with gentle sweeping motion to minimize air entrapment. Mix until uniform.
- Add dye or fragrance if desired.

SOURCE: BFGoodrich Co.: Formulation HIT-420

Hand Sanitizing Gel (Continued)

<u>Ingredient:</u>	<u>Wt%</u>
DI water	38.55
Carbopol ETD-2020	0.40
Propylene glycol	0.50
Ethanol	60.00
PEG-60 almond glycerides	0.30
Triisopropanolamine	0.25

Physical Properties:

Brookfield RVT Viscosity-20 rpm: 7,000 cp

% Transmission 420 nm: 96-98

(Brinkman Colorimeter)

pH range: 7.3-7.6

Procedure:

1. Using moderate agitation (800 rpm) provided by a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations, disperse or screen the Carbopol polymer into the DI water. Mix the slurry for approximately 15 minutes or until the slurry is homogeneous. Heating the water to 40-50C will increase the wetting and dispersability of the Carbopol ETD polymers.
2. Slowly add the ethanol with gentle mixing. Allow as much air to escape as possible before proceeding.
3. Add the PEG-60 almond glycerides with gentle mixing.
4. Add the triisopropanolamine with gentle sweeping motion to minimize air entrapment. Mix until uniform.
5. Add dye or fragrance if desired.

SOURCE: BFGoodrich Co.: Formulation HIT-420

Liquid Hand Soap

Starting formulation for a mild hand soap.

Ingredients:

	<u>Wt%</u>
Sulfochem B-209	28.00
Water, soft	70.81
Fragrance	0.10
NaCl	typical: 1.00
Citric acid	typical: 0.09
Preservatives	q.s.

Blending Procedure:

Charge water into mixing vessel and add remaining ingredients in order listed. Mix until homogeneous.

Typical Physical Properties:

Viscosity: 5,000-7,000 cps

pH: 7.0-7.5

Formulation No. E3128

Liquid Hand Soap

Starting formulation for a mild hand soap

Ingredients:

	<u>Wt%</u>
Sulfochem B-2090P	29.00
Water, soft	70.04
Fragrance	0.15
NaCl	typical: 0.75
Citric acid	typical: 0.06
Preservatives	q.s.

Blending Procedure:

Charge water into mixing vessel and add remaining ingredients in order listed. Mix until homogeneous.

Typical Physical Properties:

Viscosity: 5,000-7,500 cps

pH: 7.0-7.5

Formulation No. E3133

SOURCE: Chemron Corp.: Suggested Formulations

Liquid Soap

with a pearl-lustre effect, 14.6% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Hostapon SCID/Sodium Cocoyl Isethionate	4.00
B Water	53.90
C Genapol ZRO liquid/Sodium Laureth Sulfate	30.00
Fragrance	0.30
Genapol PGL/Glycol Distearate, Cocamide MEA, PPG-4 Deceth-4	4.00
Dyestuff solution	q.s.
Preservative	q.s.
Genagen CAB/Cocamidopropyl Betaine	6.00
D Sodium chloride	1.80

Procedure:

1. Dissolve A in B at approx. 60C.
 2. Cool 1 to approx. 35C.
 3. Stir the components of C one after another into 2.
 4. If necessary adjust the pH.
 5. Finally adjust the viscosity with D.
- Formula A II/1033

Liquid Soap

clear, 9.6% active ingredient

<u>Recipe:</u>	<u>Wt%</u>
A Genapol LRO liquid/Sodium Laureth Sulfate	20.00
B Hostapur SAS 60/Sodium C14-17 Sec Alkyl Sulfonate	5.00
Genagen CA-050/PEG-5 Cocamide	1.00
Fragrance	0.30
Water	72.60
Dyestuff solution	q.s.
Preservative	q.s.
C Tylose H 100000 yp/Hydroxyethyl Cellulose	1.10

Procedure:

1. Stir the components of B one after another into A.
 2. Add C to 1 while stirring continuously until a homogeneous product free of lumps has been obtained.
- Formula A II/1019

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Mild Hand Cleanser

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate LO-Special (Disodium Lauryl Sulfosuccinate)	83.0
Mackamide PKM (Palmkernelamide MEA)	4.0
Mackernium 007 (Polyquaternium 7)	0.8
Mackstat DM (DMDM Hydantoin)	qs
Water, Fragrance	qs to 100.0

Procedure:

1. Add Mackamide PKM to Mackanate LO-Special.
2. Heat to 70C.
3. Blend until homogeneous.
4. Dissolve Mackernium 007 in water and add to product.
5. Blend until completely homogeneous.
6. Cool to 50C with mild agitation.
7. Add Mackstat DM and Fragrance.
8. Cool with continuous agitation.

Facial Cleanser

<u>Raw Materials:</u>	<u>Wt%</u>
Mackanate LO-Special (Disodium Lauryl Sulfosuccinate)	88.0
Cetyl Alcohol	2.0
Brij 52	2.0
Mackstat DM (DMDM Hydantoin)	qs
Water, Dye, Fragrance	qs to 100.0

Solids, %: 40.0 (+-1.0)

pH (as is): 5.5-6.0

Appearance: Pearly Cream

Procedure:

1. Add Cetyl Alcohol, Brij 52, and water to Mackanate LO-Special.
2. Heat to 70C.
3. Blend until homogeneous.
4. Adjust pH to 5.0-6.0 with Sodium Hydroxide.
5. Cool to 50C and add Mackstat DM and Fragrance.
6. Adjust solids to 40.0 (+-1.0)% at this point.
7. Cool to room temperature.

SOURCE: McIntyre Group Ltd.: Personal Care Formulary: Formulas

Mineral Spirits Waterless Hand Cleaner**Ingredient:**

	Wt%
DI water	64.90
Carbopol ETD 2001	0.30
Mineral Spirits	30.00
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.30
 Pumice*	 10.00

Physical Properties:

Brookfield RVT Viscosity, 20 rpm: 45,000 cP

*addition of pumice may increase viscosity

Product pH: 5.5-5.8

Product Clarity/Appearance: Thick, white, creamy emulsion

Procedure:

1. Using moderate agitation (800 rpm) provided by a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations, disperse or screen the Carbopol polymer into the DI water. Mix the slurry for approximately 15 minutes or until the slurry is homogeneous. Heating the water to 40-50C will increase the wetting and dispersability of the Carbopol ETD polymers.
2. Using moderate agitation, add the mineral spirits to the polymer dispersion and mix for 10 minutes.
3. Premix the propylene glycol, glycerin, alcohol ethoxylate and preservative together. Add to the solvent/water mixture.
4. Add the sodium hydroxide to the formulation-check the pH frequently-until pH 5.8 is achieved. For best results keep pH under 6.0.
5. Add the pumice, or other abrasive, as desired.
6. Mix color and fragrance, as desired.

SOURCE: BFGoodrich Co.: Formulation HIT-402

Mineral Spirits Waterless Hand Cleaner

<u>Ingredient:</u>	<u>Wt%</u>
Mineral Spirits	25.00
Pemulen TR-1	0.20
Deionized water	70.10
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.20
Pumice	10.00

Physical Properties:

Brookfield RVT Viscosity-20 rpm: 11,500 cP
 Product pH: 5.8
 Product Clarity/Appearance: Opaque

Mineral Spirits Waterless Hand Cleaner

<u>Ingredient:</u>	<u>Wt%</u>
Mineral Spirits	25.00
Pemulen TR-2	0.20
Deionized water	70.10
Propylene glycol	1.00
Glycerin	2.00
C12-15 linear alcohol, 7 moles EO	0.50
Germaben IIE	1.00
Sodium hydroxide (18%)	0.20
Pumice	10.00

Physical Properties:

Brookfield RVT Viscosity-20 rpm: 7,200 cP
 Product pH: 5.8
 Product Clarity/Appearance: Opaque

Procedure:

1. Use a Lightnin' Mixer or similar variable speed unit and an impeller suitable for general mixing and blending operations. Add the Pemulen polymer into the vortex of the rapidly agitating mineral spirits (800 rpm). Allow to mix until homogeneous and free of polymer lumps.
2. Using moderate agitation, add the deionized water to the oil phase and mix for 10 minutes.
3. Premix the propylene glycol, glycerin, alcohol ethoxylate and preservative together. Add to the solvent/water mixture.
4. Add the sodium hydroxide to the formulation-check the pH frequently-until pH 5.8 is achieved. For best results keep pH under 6.0.
5. Add the pumice, or other abrasive, as desired.
6. Add color and fragrance, as desired.

SOURCE: BFGoodrich Co.: Formulation HIT-403

Section XI

Sun Care Products

After Sun Gel

This non tacky, smooth clear gel contains the combination of super moisturizers, and humectants (Aloe Vera Gel, Liponic EG-1, Unimoist U-125 and Hyaluronic Acid) to counteract the drying effects of the sun. It is suitable for all skin types, including sensitive.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Deionized Water	40.12
1	Aloe Vera Gel	4.00
1	Uniphen P-23	0.30
2	Liponic EG-1/Glycereth-26	2.00
2	Hypan SA-100H/Acrylic Acid/Acrylonitrogens Copolymer	0.15
3	Deionized Water	1.00
3	Triethanolamine, 99%	0.23
4	Carbopol ETD 2001/Carbomer (2% sol'n)	22.50
5	Deionized Water	1.00
5	Triethanolamine, 99%	0.45
6	Lubrajel MS	20.00
6	Unimoist U-125	1.50
7	Gorgonian Extract BG*	0.50
8	Deionized Water	1.00
8	Unicide U-13/Imidazolidinyl Urea	0.25
9	Hyaluronic Acid (1% sol'n)	5.00

*Patent #4,849,410 (and) 4,745,104

Procedure:

1. Combine Sequence #1 ingredients and heat to 80C while mixing on overhead mixer at medium/high speed with propeller blade at bottom of vessel to avoid aeration of batch.
2. Mix Sequence #2 ingredients into a slurry and add to Sequence #1 with medium/high mixing while holding batch temperature at 80C.
3. Premix Sequence #3 and add to batch at 80C on overhead mixer at medium/high speed for approximately 15-20 minutes or until Hypan is completely hydrated and clear (without fish eyes).
4. Heat Sequence #4 to 60C and add to batch while mixing at medium/high speed. Hold temperature at 75C.
5. Premix Sequence #5 and add to batch at medium/high speed. Continue mixing while holding temperature at 75C until mixture is completely into solution and clear (5-15 minutes). Cool batch to 60C after completely into solution.
6. Add Sequence #6 to batch at medium speed. Cool to 40C.
7. At 40C add Sequence #7 to batch with low speed mixing using propeller blade. Lower temperature to 35C.
8. Premix Sequence #8 and add to batch held at 35C mixing with overhead mixer at low speed. Cool to room temperature.
9. At room temperature, add Sequence #9 to batch.

Specifications:

pH: 5.9+-0.2

Viscosity: 367,000 cps+-10% T-E @ 0.6 rpm

SOURCE: Lipo Chemicals Inc.: Formula No. 935

After Sun Lotion

A smooth, soothing lotion for use after sun-bathing to restore moisture, and to add natural oils to the skin, whilst reducing the erythema caused very excessive UV exposure. The inclusion of Lipex Canola-U brings natural antioxidants and anti-inflammatory components to the UV-stressed skin. Akogel has a slightly cooling effect and helps to soften and smooth the skin to prevent dryness and flaking.

Raw Material/INCI Name:

<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
A. Arlatone 985/Polyoxyethylene stearyl stearate	4.0
Brij 721/Steareth-21	2.0
Jarcol I-20/Octyldodecanol	6.0
Akogel/Hydrogenated vegetable oil	6.0
Lipex Canola-U/Canola oil unsaponifiables	4.0
B. Atlas G-2330/Sorbeth-30	2.5
Water	75.0
Phenonip/Esters of p-hydroxybenzoic acid	0.45
C. Perfume	0.05

Procedure:

1. Heat the phases A and B to 75C.
2. Add the oily phase A to the water phase B whilst stirring thoroughly.
3. Cool down to 55C, homogenize.
4. Cool down to 35C, add C.
5. Cool down to room temperature whilst stirring.

Rheological Characteristics:

Viscosity after one week at 20C (Bohlin Rheometer VOR):
 10 Pas at shear rate of 1.0 s⁻¹
 1.1 Pas at shear rate of 30.0 s⁻¹

SOURCE: Jarchem Industries, Inc.: Suggested Formulation

After Sun Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 840 (Propylene Glycol Dicaprylate/Dicaprate)	10
Imwitor 380 (Glyceryl Cocoate/Citrate/Lactate)	5
Imwitor 900 (Glyceryl monostearate)	3
Imwitor 928 (Glyceryl Cocoate)	3
Propylene glycol monostearate	1
Plurol Stearique (Polyglyceryl-6 Distearate)	1
B. D-Panthenol	2
Allantoin	0.3
Keltrol F (Xanthane)	0.5
Preservative	q.s.
Water ad	100
C. Vitamin E	0.5
Fragrance	q.s.

Preparation:

A is mixed together and heated up to 75-80C. B is stirred homogeneously and brought to the same temperature. B is emulsified into A. Subsequently emulsion is stirred cold down to about 30C and then C is added.

Sun Protection Cream, SPF 6

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan Gel	10
Mineral oil	12
Imwitor 780K (Isostearyl Diglyceryl Succinate)	4
Softigen 701 (Glyceryl Ricinoleate)	4
Paraffin	4
Neo Heliopan E1000 (Isopropyl Methoxycinnamate (and) Ethyl-Diisopropylcinnamate)	4
Elfacos ST 9 (PEG-45 Dodecyl Glycol Copolymer)	1
B. Magnesium Sulphate	1
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is put together and heated up to approx. 75C. B is brought to the same temperature. Then A is homogenized and B emulsified into A. Then the mixture is stirred cold to 30C and after that C is added.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

After Sun Lotion (Iricalmin)

This modern after sun lotion with Iricalmin regenerates the protective lipid layer of the skin and has anti-irritant activity. In addition Iricalmin has moisturizing properties. The alcohol in the formulation gives an agreeable cooling effect.

Ingredients/INCI Name:

	<u>Wt%</u>
A) Tego Care 450/Polyglyceryl-3 Methylglucose Distearate	1.50
Lanette O/Cetearyl Alcohol	1.15
Cutina GMS V/Glyceryl Stearate	1.15
Cetiol 868/Octyl Stearate	8.00
Fitoderm/Squalane	5.00
Bisabolol/Bisabolol	0.20
Wacker-Belsil CM 040/Cyclomethicone	2.00
B) Deionized Water	65.10
Keltrol/Xanthan Gum	0.10
C) Glycerin/Glycerin	5.00
Phenonip	0.50
Iricalmin/Water, Wheat (Tritium Vulgare) Germ Extract, Saccharomyces Cerevisiae Extract, Sodium Hyaluronate	5.00
D) Ethyl Alcohol 96%/Alcohol	5.00
Fragrance/Rivalia 0/221212	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phase D).

SOURCE: Pentapharm Ltd.: Application No. C 029.0/05.99

After Sun Soother with Aloe Vera

A refreshing creamy lotion which soothes, cools and moisturizes sun-dried skin.

<u>Ingredients:</u>	<u>Wt%</u>
A. Water	86.23
Phospholipid SV	3.0
Propylene Glycol	2.0
B. Monafax MAP 160	1.0
Cetyl Alcohol	2.0
Hexyl Laurate	1.0
Monasil PCA	2.0
C. AMP (95%)	0.35
D. Titanium Dioxide	0.4
E. Aloe Vera Gel 1:1	2.0

Procedure:

Combine Part A while heating to 70C. Separately, mix Part B while heating to 70C. Add Part B to Part A slowly with rapid agitation. Add Part C. Add Part D, homogenize, cool to 50C. Add aloe vera, color, fragrance and preservative. Package.

Typical Properties:

Appearance: White flowable lotion
 Viscosity: 23,400 cP
 pH: 6.1
 Formula F-836

Sunscreen Stick

The following formulation produces a waterproof sunscreen stick which has a SPF factor of approximately 10-20.

<u>Ingredients:</u>	<u>Wt%</u>
Monalac ML (Refined Milk Lipid)	75.0
Ozokerite #1	15.0
Octyl Methoxycinnamate	7.0
Benzophenone-3	3.0
Fragrance	q.s.

Procedure:

Blend the Monalac ML and Ozokerite #1 together at 65-75C. Avoid air entrainment. When uniform, add other ingredients one at a time and continue blending until clear. Reduce heat, add fragrance, antioxidant (optional) and preservative and pour at 50-60C into package. A rich, smooth, protective and non-greasy skin covering will be provided.

Formula F-835

SOURCE: Mona Industries, Inc.: Formulas F-836 and F-835

Daily UV Protection Lotion

Chemical sunscreens and titanium dioxide provide moderate UV protection in this lotion. Petrolatum adds moisturizing properties, yet the lotion is not greasy and has a dry afterfeel.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Octyl Dimethyl PABA/Escalol 507	4.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	3.50
Benzophenone-3/Escalol 567	3.00
Titanium Dioxide (and) Mineral Oil (and) Caprylic/ Capric Triglyceride/Tioveil MOTG	3.00
Petrolatum/Snow Petrolatum	2.00
Polysorbate 20/T-Maz 20	2.00
Lauryl Lactate/Ceraphyl 31	2.00
Cetyl Alcohol	1.00
Cyclomethicone/DC 344 Fluid	1.00
B: Deionized Water	74.65
Propylene Glycol	2.50
Carbomer/Carbopol Ultrez 10	0.20
C: Triethanolamine	0.15
D: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben/Germaben II-E	1.00
Fragrance	q.s.

Stir the part B ingredients together and heat to 75C. Heat part A to 80C with gentle mixing until all the solids have dissolved. Add part A to B with stirring. Continue mixing while allowing the mixture to cool. After 30 minutes, add part C. Let this mixture slowly cool with continued stirring. At 40C, add part D. Continue mixing to 30C.

Waterproof Natural Sunblock

Approx. SPF 15

This rich, waterproof sunblock cream is extremely light and goes on smoothly. It rubs in quickly without whitening and leaves a dry afterfeel. Mineral oil adds moisturization and enhances the cream's lightness.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Deionized Water	71.90
Carbomer/Carbopol 2984	0.20
B: Titanium Dioxide (and) Isopropyl Myristate/ Tioveil IPM	12.50
Mineral Oil/Drakeol 7	3.00
Myristyl Myristate/Ceraphyl 424	2.70
Cetyl Alcohol	2.70
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	2.00
Tricontanyl PVP/Ganex WP-660	2.00
Oleth-20/Volpo 20	1.20
C: Sodium Hydroxide (10% solution)	0.80
D: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben/Germaben II-E	1.00
Fragrance	q.s.

Disperse the carbomer in rapidly stirred deionized water. Heat to 75C. Heat part B to 80C with gentle mixing until all the organic solids have dissolved. Add part B to A with stirring. After 5 minutes, add part C and continue mixing while allowing the mixture to cool. At 40C, add part D. Continue stirring to 30C

SOURCE: Penreco: Formulas 597-109-B & 597-110

Moisturizing Sunscreen

Emollients in this rich sunscreen help to leave the skin feeling soft, smooth, and moisturized

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Octyl Methoxycinnamate/Escalol 557	7.50
Octyl Salicylate/Uvinul O-18	5.00
Benzophenone-3/Escalol 567	3.00
Mineral Oil/Drakeol 7	2.50
Stearic Acid	2.00
Cetearyl Alcohol (and) Polysorbate 60/Lipowax P	1.50
Hexyl Laurate/Cetiol A	1.00
Butyl Myristate/Bumyr	1.00
Cetyl Palmitate	1.00
Glyceryl Stearate (and) PEG-100 Stearate/Arlacel 165	0.50
B: Deionized Water	66.00
Butylene Glycol	1.50
Carbomer/Carbopol ETD 2001	0.25
Tetrasodium EDTA/Hamp-Ene 220	0.05
C: Triethanolamine	0.60
D: Propylene Glycol (and) Diazolidinyl Urea (and)	
Methylparaben (and) Propylparaben/Germaben II	1.00
Fragrance	0.20

Procedure:

Disperse the Carbopol in rapidly agitated DI water. Add the remaining part B ingredients and heat to 80C with stirring. Heat part A to 80C with gentle mixing until all the solids have dissolved. Add part A to B with stirring and continue mixing while allowing the mixture to cool. After stirring for 20 minutes, add part C. Let the mixture cool with continued stirring. At 40C, add part D. Continue mixing to 30C.

SOURCE: Penreco: Formula 597-105

Natural Everyday Sunblock

This light, smooth cream has nice emolliency and spreads easily. It incorporates both titanium dioxide and zinc oxide as the natural sunblocks.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Deionized Water	55.50
Propylene Glycol	2.50
Water (and) Titanium Dioxide/Tioveil AQ-G	10.00
B: Zinc Oxide (and) Isopropyl Myristate/Spectraveil IPM	10.00
Mineral Oil/Drakeol 7	7.00
Cyclomethicone/DC 344 Fluid	2.50
Apricot Kernel Oil	2.50
Steareth-21/Brij 721S	2.50
Glyceryl Stearate/Cerasynt GMS	2.00
PPG-15 Stearyl Ether/Arlamol E	2.00
Cetyl Alcohol/Lanette 16	1.50
Isocetyl Alcohol/Eutanol G-16	1.00
C: Propylene Glycol (and) Diazolidinyl Urea (and) Methylparaben (and) Propylparaben/Germaben II-E	1.00
Fragrance	q.s.

Procedure:

Mix the part A ingredients and heat to 70-75C with stirring. Heat part B (except for the Spectraveil) to 75-80C with gentle stirring until all the solids have dissolved. Add the Spectraveil to part B, mix well, then add part B to A with stirring. Continue stirring while allowing the mixture to cool. Add part C at 40C. Continue mixing to 30C.

Sunscreen Gelee

This light, smooth anhydrous gelee contains mineral oil and other emollients which help moisturize the skin while exposed to the sun.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Mineral Oil/Drakeol 7	55.00
Polyethylene/Epolene N-21	9.75
Isopropyl Palmitate	9.00
Octyl Methoxycinnamate/Escalol 557	7.00
Super Petrolatum	5.25
Kukui Nut Oil	4.00
Maleated Soybean Oil/Ceraphyl GA-D	3.00
Cetearyl Alcohol (and) Ceteareth-20/Lipowax D	3.00
Macadamia Nut Oil	2.00
Peanut Oil	1.00
Dimethicone/DC 200 Fluid 2 cSt	0.95
BHT	0.05
Fragrance	q.s.

Procedure:

Heat all ingredients except fragrance to 75-80C with stirring until homogeneous. Allow the mixture to cool and add fragrance just before solidification occurs. Continue gentle mixing during cooling to give a creamy, light gel. Package at 30C.

SOURCE: Penreco: Suggested Formulations

O/W-Sun Screen Milk
Manufacturing at room temperature

Recipe:

	<u>Wt%</u>
A Hostaphat KL 340 N/Trilaureth-4 Phosphate	3.00
Mineral oil, high viscosity	10.00
Isopropyl palmitate	5.00
B Neo-Heliopan E 1000/Isoamyl p-Methoxycinnamate	8.50
Neo-Heliopan BB/Benzophenone-3	1.50
C Carbopol 980/Carbomer	0.50
D Glycerin	3.00
Caustic soda solution (10%)	2.00
Water	66.20
Preservative	q.s.
E Fragrance	0.30

Procedure:

1. Add solution B to A, then add C.
2. Stir D into 1, then add E.
3. Homogenize the emulsion.

Formula A VI/7007

O/W-Sun Blocker

Recipe:

	<u>Wt%</u>
A Hostacerin DGL/Polyglyceryl-2 PEG-10 Laurate	1.00
Hostacerin DGSB/Polyglyceryl-2 PEG-4 Stearate	4.00
Mineral oil, low viscosity	10.00
Isopropyl palmitate	5.00
Eusolex 6300/4-Methylbenzylidene Camphor	5.00
D-Panthenol	0.50
B PNC 400/Sodium Carbomer	1.30
C Eusolex 232/Phenylbenzimidazole Sulfonic Acid	5.00
D Tris(hydroxymethyl)-aminomethane	2.21
Water	65.69
Preservative	q.s.
E Fragrance	0.30

Procedure:

1. Melt A at approx. 70C, then add B.
2. Dissolve C in D at approx. 70C.
3. Stir 2 into 1 and stir until cool.
4. At approx. 35C add E to 3.
5. Homogenize the emulsion.

Formula A VI/7204

SOURCE: Hoechst Aktiengesellschaft: Guide Recipes

Physical Sunscreen Body Lotion

This sunscreen lotion provides a light, soft, smooth and non-tacky feel for daily use. This unique after-feel results from SFE839 elastomer dispersion, SF1642 silicone alkyl copolymer and SF1528 silicone emulsifier. All three ingredients are both functional ingredients and aesthetic ingredients. SF1528 silicone emulsifier gives a stable water in oil emulsion where SFE839 elastomer dispersion and SF1642 silicone alkyl copolymer act as thickening agents. In addition, SFE839 elastomer dispersion is a detackifier and gives substantivity to the formulation.

<u>Ingredient/Function:</u>	<u>Wt%</u>
Part A:	
Cyclopentasiloxane (and) Dimethicone Copolyol(SF1528) (1)/Emulsifier	10.0
Cyclopentasiloxane(SF1202)(1)/Emollient	16.0
Cyclopentasiloxane (and) Dimethicone/Vinyl Dimethicone Copolymer(SFE839)(1)/Emollient, Thickener	3.0
Sorbitan Oleate/Emulsifier	0.5
Part B:	
Titanium Dioxide (2)/Physical Sunscreen	5.0
Part C:	
C30-45 Alkyl Dimethicone(SF1642)(1)/Thickener	1.0
Part D:	
Butylene Glycol/Humectant	2.0
NaCl/Stabilizer	0.5
Quaternium-15/Preservative	0.1
Water/Diluent	61.9

Procedure:

1. Combine SF1528, SFE839, SF1202 and mix until uniform, then add Sorbitan Oleate.
2. Slowly add TiO₂ to Oil Phase. Mix until uniform.
3. Heat the batch to 65C.
4. Melt SF1642 and add to 3.
5. Separately mix together water, butylene glycol, NaCl, and preservative.
6. Slowly add water phase to oil phase and continue mixing for 30 min.
7. Homogenize and package.

Trade Names/Suppliers:

- (1) GE Silicones
- (2) UV-Titan X161, Presperse Inc.

SOURCE: GE Silicones: Personal Care Formulary: Formula SC107

Self Tanning Cream for Bright Skin (Erythrulose)

The emulsifying system of this cream is of high-quality vegetable origin. Erythrulose and Dihydroxyacetone give an even, long lasting and naturally looking tan. The UV-filters protect the skin from photodamage and consequent premature aging.

Ingredients/INCI Name:

	<u>Wt%</u>
A) Emulgade PL68/50/Cetearyl Glucoside, Cetearyl Alcohol	2.50
Lanette O/Cetearyl Alcohol	2.50
Miglyol 812/Caprylic/Capric Triglyceride	8.00
Cetiol 868/Octyl Stearate	4.00
Abil-350/Dimethicone	0.50
Parsol MCX/Octyl Methoxycinnamate	2.00
Parsol 1789/Butyl Methoxydibenzoylmethane	1.00
B) Deionized Water	63.60
Keltrol/Xanthan Gum	0.10
C) Glycerin/Glycerin	5.00
Phenonip	0.50
D) Deionized Water	5.00
Erythrulose/Erythrulose	3.50
Dihydroxyacetone/Dihydroxyacetone	1.50
E) Fragrance/Rivalia 0/221212	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phases D) and E) one after the other and adjust the pH to 4.5.

SOURCE: Pentapharm Ltd.: Application No. A 057.0/05.99

Self Tanning Body Lotion (Erythrulose/Phytaluronate)

Erythrulose and Dihydroxyacetone in this body lotion is the ideal combination for a natural, uniform and long lasting tan. Phytaluronate adds moisture to the skin and in combination with glycerin combats the drying out.

<u>Ingredients/INCI Name:</u>	<u>Wt%</u>
A) Emulgade PL68/50/Cetearyl Glucoside, Cetearyl Alcohol	1.50
Lanette O/Cetearyl Alcohol	1.50
Miglyol 812/Caprylic/Capric Triglyceride	8.00
Cetiol 868/Octyl Stearate	4.00
Abil-350/Dimethicone	0.50
B) Deionized Water	66.60
Keltrol/Xanthan Gum	0.10
Phytaluronate/Locust Bean (Ceratonia Siliqua) Gum	3.00
C) Glycerin/Glycerin	5.00
Phenonip	0.50
D) Deionized Water	5.00
Erythrulose/Erythrulose	3.00
Dihydroxyacetone/Dihydroxyacetone	1.00
E) Fragrance/Rivalia 0/221212	0.30

Procedure:

Heat the ingredients of fatty phase A) to 70C.

Heat the ingredients of water phase B) to 75C.

Under stirring add phase B) to phase A), cool to 50C, homogenize and cool to 30C.

Then add phase C) and stir cold. Finally incorporate phases D) and E) one after the other and adjust the pH to 4.5.

SOURCE: Pentapharm Ltd.: Application No. C 030.0/05.99

Self Tanning Lotion

An oil-in-water Self Tanning Lotion containing Bentone Gel TN and Bentone LT rheological additives.

<u>Ingredients:</u>	<u>Wt%</u>
Glyceryl Stearate, PEG-100 Stearate	4.0
Caprylic/Capric Triglyceride	5.0
Propylene Glycol	4.0
Cetearyl Alcohol	1.2
Dihydroxy Acetone	5.0
C12-15 Alkyl Benzoate	4.0
Bentone Gel TN	2.5
Bentone LT (3% dispersion)	8.0
Methyl Paraben	0.1
Propyl Paraben	0.1
Citric Acid	qs to pH 4
Demineralized Water	bal to 100%

Bentone LT dispersion:

Bentone LT	3.0
Deionized Water	97.0

Method of Manufacture:

1. Prepare a dispersion of the Bentone LT in water. (see below)
2. Disperse the two preservatives in 90% of the water, add the Propylene Glycol and the Bentone LT premix.
3. Heat to 75-80C.
4. Mix the liquid oil and the ester, and thoroughly disperse the Bentone Gel TN in the mixture. Add the Cetearyl Alcohol and emulsifier to the mix.
5. Heat to 75-80C.
6. Add the two phases together with high-shear stirring.
7. At 50C, transfer to a propeller stirrer and continue to cool.
8. Mix the Dihydroxyacetone with the remaining 10% of the water.
9. At 40C add the DHA premix.
10. At 25C check the pH and adjust if necessary with Citric Acid to pH 4.

Preparation of Bentone LT Dispersion:

1. Prepare a 3% dispersion of Bentone LT additive in deionized water using a rotor-stator or similar high-shear mixer (e.g. Silverson).
Start the mixer in the water, steadily add the Bentone LT to the vortex and stir until completely dispersed. (15-20 mins).
2. Allow the premix to stand to let any entrapped air escape.

The Dihydroxy Acetone has a pH of about 4.0 and therefore present a problem for many aqueous thickeners. Bentone LT additive, however, provides stable viscosity build. Additionally, the even distribution and spreadability of the lotion together with its silky residual feel are imparted by the Bentone TN additive.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Self Tanning Milk (O/W)

<u>Raw Materials:</u>	<u>Wt%</u>
A Emulsifier E 2155 (Stearyl Alcohol (and) Steareth-7 (and) Steareth-10)	2.00
Teginacid H (Glyceryl Stearate (and) Ceteth-20)	2.00
Luvitol EHO (Cetearyl Octanoate)	10.00
Imwitor 900 (Glyceryl Stearate)	3.00
Cetiol (Oleyl Oleate)	5.00
Lunacera M (Microwax)	1.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	3.00
B Propanediol-1,2 (Art. No. 107478) (Propylene Glycol)	4.00
Preservatives	q.s.
Water, demineralized	ad 100.00
C Dihydroxyacetone (Art. No. 110150)	5.00
Water, demineralized	10.00

Procedure:

Heat phase A to 75C, phase B to 80C. Add phase B slowly to phase A while stirring. Homogenize. Cool down while stirring and add phase C at 40C.

Note:

pH24C=3.6

Viscosity 15,000 mPas (Brookfield RVT, Sp. C, 10 rpm) at 24C
Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)

0.15% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 03-07/K

Leave-On Hair Treatment Spray with Sunscreen

A light hair and scalp treatment containing Lipamide MEAA and Lipoquat R for conditioning and shine, with Unitrienol T-27 for oil control. The Unipabol U-17 helps protect the hair from UV induced color damage.

<u>Sequence:</u>	<u>Raw Material/INCI Name:</u>	<u>Wt%</u>
1	Liponic EG-1/Glycereth-26	3.00
1	Lipamide MEAA/Acetamide MEA	3.50
1	Lipoquat R/Ricinoleamidopropyl Ethyldimonium Ethosulfate	0.50
2	Deionized Water	3.00
2	Unipabol U-17/PEG-25 PABA	7.50
3	SD Alcohol 40-B (190 proof)	73.50
4	Unitrienol T-27/Farnesyl Acetate (and) Farnesol (and) Panthenyl Triacetate	2.00
4	Lipovol J/Jojoba (Buxus Chinensis) Oil	1.00
4	Liponate NPGC-2/Neopentyl Glycol Dicaprylate/Dicaprate	6.00

Procedure:

1. Premix Sequence #1 ingredients at ambient temperature on overhead mixer at low/medium speed.
2. Premix Sequence #2 and add to Sequence #1 at low/medium speed.
3. Add combined Sequence #1 and Sequence #2 to Sequence #3 on overhead mixer at medium/low speed.
4. Add premixed Sequence #4 to batch at medium speed until solution is clear and homogeneous.

SOURCE: Lipo Chemicals Inc.: Formulation No. 1005

Solar Protection with Cherry Pit Oil

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	AEC Cherry Pit Oil	7.500
2	AEC Hydroxyoctacosanyl Hydroxystearate	5.000
3	AEC Methoxy PEG 22 Dodecylglycol Copolymer	2.000
4	AEC PEG 45 Dodecylglycol Copolymer	4.000
5	Tioveil TG	12.500
6	Cocoa Butter, Refined	5.000
7	AEC Diisostearyl Trimethylolpropane Siloxy Silicate	3.000
8	AEC Dimethicone V100	2.000
Aqueous Phase:		
9	Water; Pure	53.250
10	Propylene Glycol USP	5.000
11	Preservative as required	0.400
Cooling Cycle:		
12	Fragrance; Cherry AG6328	0.350

Mixing Instructions:

NOTE: The Aqueous is added to the Oil Phase. The product is a w/o emulsion and is water resistant. Weigh the items of the Oil Phase into a jacketed vessel and heat to 80/85C with stirring, ensure the Tioveil TG is fully dispersed before slowly adding the Aqueous Phase while vigorously mixing. Once addition is complete the emulsion is cooled with slow speed stirring, the perfume added and the product given a final high shear mix.

IN-VITRO TEST RESULTS: SPF: 14.5/MAR: 0.64

Formula Ref.: 749*

Broad Spectrum Protection Cream

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Spectraveil TG 40% Dispersion	18.000
2	Cetaeryl Octanoate	3.000
3	AEC Dimethicone V100	1.000
4	Beeswax; White Pellets	3.500
Aqueous Phase:		
5	Water; Pure	62.700
6	Xanthan Gum	0.200
7	Veegum Regular	1.000
8	Arlatone 2121	5.500
9	Sodium Lactate 60%	0.300
10	Tioveil AQ N	4.000
11	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
12	Fragrance	0.300

Mixing Instructions:

This is an o/w emulsion, the two phases are heated separately to 75C and the Oil Phase added slowly to the Aqueous with high shear mixing. Once addition is complete the emulsion is cooled with slow speed stirring and given a final high shear mix when cold.

Formula Ref.: 528*

SOURCE: A&E Connock Ltd.: Suggested Formulations

Solar Protection Cream

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	AEC Dimethicone V100	2.000
2	AEC Hydroxyoctacosanyl Hydroxystearate	5.000
3	AEC Methoxy PEG 22 Dodecylglycol Copolymer	2.000
4	AEC PEG 45 Dodecylglycol Copolymer	4.000
5	Tioveil FIN	12.500
6	Cocoa Butter, Refined	3.000
7	Octyl Palmitate	5.000
8	AEC Diisostearyl Trimethylolpropane Siloxy Silicate	7.500
Aqueous Phase:		
9	Water; Pure	53.350
10	Preservative as required	0.400
11	Propylene Glycol USP	5.000
Cooling Cycle:		
12	Fragrance	0.250
Mixing Instructions:		

NOTE: The Aqueous is added to the Oil Phase. The product is a w/o emulsion and is water resistant. Weigh the items of the Oil Phase into a jacketed vessel and heat to 80/85C with stirring, ensure the Tioveil TG is fully dispersed before slowly adding the Aqueous Phase while vigorously mixing. Once addition is complete the emulsion is cooled with slow speed stirring, the perfume added and the product given a final high shear mix. Formula Ref.: 780*2

Solar Protection Lotion

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	AEC Diisostearyl Trimethylolpropane Siloxy Silicate	5.000
2	AEC Dimethicone V100	1.500
3	Amphisol K	0.500
4	Tioveil FIN	12.500
5	AEC Hydroxyoctacosanyl Hydroxystearate	3.500
6	AEC Sorbitan Palmitate	3.500
Aqueous Phase:		
7	Water; Pure	68.050
8	Xanthan Gum	0.200
9	Veegum Ultra	0.800
10	AEC Polysorbate 20	3.500
11	Sodium Lactate 60%	0.300
12	Preservative as required	0.400
Cooling Cycle:		
13	Fragrance	0.250
Mixing Instructions:		

This is an o/w emulsion, the two phases are heated separately to 75C and the Oil Phase added slowly to the Aqueous with high shear mixing. Once addition is complete the emulsion is cooled with slow speed stirring and given a final high shear mix when cold.

Formula Ref.: 781*2

SOURCE: A&E Connock Ltd.: Suggested Formulations

Soothing After Sun Lotion

This emollient lotion contains actives to soothe sunburned skin.
Petrolatum helps moisturize dry skin exposed to the sun.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Deionized Water	78.10
Aloe Vera Gel/Activera 104	2.00
Glycerin	1.00
Acrylates/Octylacrylamide Copolymer/Dermacryl LT	1.00
Triethanolamine	1.00
Carbomer/Carbopol 941	0.20
Methylparaben	0.20
Tetrasodium EDTA/Hamp-Ene 220	0.05
B: Dioctyl Malate/Ceraphyl 45	3.50
PEG-7 Glyceryl Cocoate/Cetiol HE	3.30
Petrolatum/Snow Petrolatum	2.50
Glyceryl Stearate/Cerasynt GMS	2.00
PEG-40 Stearate/Myrj 52-S	1.00
Shea Butter Unsaponifiables (and) Decosahexanoic Acid (and) Eicosapentaenoic Acid (and) Tocopheryl Acetate (and) Corn Oil Unsaponifiables/Destressine 2000	1.00
Retinyl Palmitate/Vitamin A Palmitate	0.50
Propylparaben	0.15
C: Imidazolidinyl Urea/Germall 115	0.30
Fragrance	0.20

Procedure:

Disperse the Carbopol and Dermacryl in rapidly agitated DI water. Add the triethanolamine and heat to 75C with stirring. Add the remaining part A ingredients and continue stirring and heating to 75C. Heat part B to 80C with gentle mixing until all the solids have dissolved. Add part B to A with stirring and continue mixing while allowing the mixture to cool. At 40C, add part C. Continue gentle stirring to 30C.

SOURCE: Penreco: Formula 597-107

Sunblock with TiO₂**Formula A:**

<u>Raw Material/CTFA Name:</u>	<u>Wt%</u>
Schercemol DID/Diisopropyl Dimer Dilinoleate	10.0
Schercemol CO/Cetyl Octanoate	1.5
Arlacel 60/Sorbitan Stearate	3.0
Schercemol GMIS/Glyceryl Isostearate	1.0
Dow Corning 193/Dimethicone Copolyol	1.0
Tioveil TG/Titanium Dioxide (and) Caprylic Capric Triglyceride	12.5
Promulgen D/Cetearyl Alcohol (and) Ceteareth-20	1.0
Dow Corning 556 Fluid/Phenyl Trimethicone	1.5

Formula B:

<u>Raw Material/CTFA Name:</u>	<u>Wt%</u>
Deionized Water	52.7
Veegum 4% Aq. Soln./Magnesium Aluminum Silicate	10.0
Keltrol F/Xanthan Gum	0.3
Propylene Glycol	2.0
Tween 60/Polysorbate 60	3.0
Preservative	q.s.

Procedure:

Heat both phases to 70C. Add water phase to oil phase with thorough agitation. Cool to room temperature. Homogenize briefly.

SOURCE: Scher Chemicals, Inc.: Formula SK 85

Sun Care SPF 15
PABA Free, Oil Free

<u>Ingredients/CTFA Name:</u>	<u>Wt%</u>
A-A1 Schercemol CO/Cetyl Octanoate	10.00
Schercemol DISD/Diisostearyl Dimer Dilinoleate	1.00
Schercemol TISC/Triisostearyl Citrate	5.00
Silicone fl. 350 cps	0.20
Cetyl Alcohol	1.50
Schercemol GMIS/Glyceryl Isostearate	4.00
Amphisol/Cetyl Phosphate (and) DEA Cetyl Phosphate	2.50
 A2 Parsol MCX/Octyl Methoxycinnamate	 7.50
Dipsal/Dipropylene Glycol Salicylate	5.00
 B-B1 Deionized Water	 48.40
Carbopol 940 2% Aq. Sln.	10.00
B2 Glycerin	3.00
B3 Triethanolamine	0.20
 C- Germaben II	 1.00
D- Aloe Vera Extract	0.50
E- Fragrance	0.20

Procedure:**Phase B:**

In the main beaker, disperse B1 together at 75-85C.

Add Glycerin.

Add Triethanolamine to neutralize the Carbopol gel.

Mix until a smooth gel is obtained.

Phase A:

Blend Phase A1 at 85C.

Once completely clear add A2.

Blend Phase A together until a homogeneous oil phase is obtained.

Add Phase A to Phase B with continuous mixing at 80-85C for fifteen minutes.

Cool batch to 60C with continuous mixing then add Phase C.

Continue to cool batch to 30C, then add Phase D and Phase E in sequence

Continue to cool batch with mixing to 25-28C

SOURCE: Scher Chemicals, Inc.: Formulation SK 144

Sun Lotion with TiO2

<u>Raw Materials:</u>	<u>Parts By Weight</u>
Part I:	
Water	560.0
Carbomer 934 (1)	2.0
Part II:	
Rosswax 2540 (2)	10.0
GMS SE (3)	4.0
Dow Corning 344 (4)	4.0
Jojoba Oil (5)	4.0
Escalol 507 (6)	32.0
Arlacel C (7)	3.0
Part III:	
TiO2 Sperse BG (8)	20.0
Part IV:	
Fragrance (9)	q.s.
Part V:	
Germaben II (10)	6.0
Part VI:	
Triethanolamine (11)	4.0

Procedure:

Heat the water in Part I to 140F with agitation and slowly add the Carbomer 934 til mixed. In a separate heated vessel heat all the ingredients in Part II to 140F with agitation. Next add Part II to Part I mixing thoroughly while maintaining 140F. Now add Part III, then Part IV, then Part V and finally add Part VI slowly. Continue to maintain good agitation. Cool to 130F and package.

Suppliers:

- (1) B.F. Goodrich
- (2) Frank B. Ross Co., Inc.
- (3) Stepan Chemical
- (4) Dow Corning
- (5) Arista Industries
- (6) ISP Van Dyk
- (7) ICI Surfactants
- (8) Collaborative Labs
- (9) Novarome
- (10) ISP Sutton Labs
- (11) Mutchler Chemical

SOURCE: Frank B. Ross Co., Inc.: Suggested Formulation

Sun Protection Cream (W/O)
SPF 22 (Sun Protection Factor, Colipa Method with 5 Volunteers)

Raw Materials:

	<u>Wt%</u>
A: Eusolex OCR (Art. No. 1.05377) (Octocrylene)	3.00
Eusolex 9020 (Art. No. 1.05844) (Butyl Methoxydi-benzoylmethane)	1.50
Elfacos E 200 (Methoxy PEG-22/Dodecyl Glycol Copolymer)	1.00
Elfacos ST 9 (PEG-45/Dodecyl Glycol Copolymer)	3.00
Elfacos C 26 (Hydroxyoctacosanyl Hydroxystearate)	5.00
Paraffin Oil Liquid (Art. No. 1.07162) (Mineral Oil)	8.00
Isopropyl Stearate	9.00
DL- α - Tocopherol acetate (Art. No. 5.00952) (Tocopheryl Acetate)	0.50
 B: Eusoflex 232 (Art. No. 1.05372) (Phenylbezimidazole Sulfonic Acid)	 2.00
Tris(hydroxymethyl)-aminomethane (Art. No. 1.08386) (Tromethamine)	0.89
Tritiplex III (Art. No. 1.08421) (Disodium EDTA)	0.10
Allantoin (Art. No. 1.01015)	0.10
Glycerine (Art. No. 1.04093)	3.00
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-aminomethane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while stirring. Homogenize and cool down while stirring.

Notes:

Viscosity 41,000 mPas (Brookfield RVT, Sp. C, 5 rpm) at 24C
 Samples contain as preservatives:
 0.050% Propyl-4-hydroxybenzoate (Merck Art. No. 107427)
 0.150% Methyl-4-hydroxybenzoate (Merck Art. No. 106757)

SOURCE: Rona-Merck: Formulation 04-02/K

Sun Protection Gel (aqueous)
SPF 10 (Sun Protection Factor, FDA-Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A Eusolex 232 (Art. No. 105372) (Phenylbenzimidazole Sul- fonic Acid)	4.00
Tris-(hydroxymethyl)-aminomethane (Art. No. 108386) (Tromethamine)	1.77
Allantoin (Art. No. 101015)	0.20
Sorbitol F liquid (Art. No. 102993)	5.00
Preservatives	q.s.
Water, demineralized	ad 100.00
B Perfume 72979	0.30
Arlatone 980 (PEG-35-Hydrogenated Castor Oil)	1.00
C Carbomer 940	1.50
Water, demineralized	36.10
D Tris(hydroxymethyl)-aminomethane (Art. No. 108386) (Tromethamine)	2.40
Water, demineralized	10.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-aminomethane in the water of phase A and add Eusolex 232 while stirring. When uniform add the remaining ingredients of Phase A. Heat to 70C until homogeneous and cool while stirring. Blend ingredients of phase B. Disperse Carbomer 940 in the water of phase C and homogenize. Dissolve the Tris(hydroxymethyl)-aminomethane in the water of phase D. Combine phases C and D and homogenize. Incorporate phases A and B. Homogenize again.

Note:

Transparent gel
 Viscosity 35,000 mPas (Brookfield RVT, Sp. C, 5 rpm) at 25C
 pH22C=6.7
 Samples contain as preservatives:
 0.20% Methyl-4-hydroxybenzoate (Merck-Art.-No. 6757)

SOURCE: Rona-Merck: Formulation 32-02/E

Sun Protection Lotion (O/W)SPF 23 (Sun Protection Factor, Colipa Method with 5 Volunteers)

<u>Raw Materials:</u>	<u>Wt%</u>
A Eusolex T-2000 (Art. No. 1.05373) (Micron. Titanium Dioxide)	10.00
Emulsifier E-2155 (Stearyl Alcohol (and) Steareth-7 (and) Steareth-10)	3.00
Teginacid H (Glyceryl Stearate (and) Ceteth-20)	3.00
Luvitol EHO (Cetearyl Octanoate)	10.50
Imwitor 900 (Glyceryl Stearate)	3.00
Cetiol (Oleyl Oleate)	4.00
Lunacera M (Microwax)	1.00
Miglyol 812 neutral oil (Caprylic/Capric Triglyceride)	4.00
B Propanediol-1,2 (Art.-No. 1.07478) (Propylene Glycol)	4.00
Allantoin (Art.-No. 1.01015)	0.20
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

Heat phase A to 75C and phase B to 80C. Add phase B slowly to phase A while stirring, homogenize and cool down while stirring.

Note:

Viscosity 24,600 mPas (Brookfield RVT Sp. C, 10 rpm) at 24C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Art. No. 1.07427)

0.15% Methyl-4-hydroxybenzoate (Art. No. 1.06757)

Formulation 03-36/K

Self Tanning Milk (W/O)

<u>Raw Materials:</u>	<u>Wt%</u>
A Dow Corning 3225 C	23.600
B Dihydroxyacetone (Art.-No. 10150)	5.000
Propanediol-1,2 (Art.-No. 7478)	35.900
Preservatives	q.s.
Water, demineralized	ad 100.000

Procedure:

Dissolve phase B and add it to phase A.

Note:

Transparent, oil-free W/O

Adjusting of transparency through variation of ratio water/propanediol-1,2.

Viscosity 12,000 mPas (Brookfield RVT, Sp.4, 10 rpm) at 24C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Merck-Art.-No. 7427)

0.15% Methyl-4-hydroxybenzoate (Merck-Art.-No. 6757)

Formulation 01-01/L

SOURCE: Rona-Merck: Suggested Formulations

Sun Protection Lotion (W/O)SPF 20 (Sun Protection Factor, Colipa Method with 5 Volunteers)Raw Materials:

	<u>Wt%</u>
A Eusolex T 2000 (Art.-No. 105373) (Micron. Titandioxid)	3.00
Eusolex 6300 (Art.-No. 1.05385) (4-Methylbenzylidene Camphor)	2.00
Abil WE 09 (Polyglyceryl-4 Isostearate (and) Cetyl Dimethicone Copolyol (and) Hexyl Laurate)	5.00
Jojoba Oil (Jojoba (Buxus Chinensis) Oil)	6.00
Cetiol V (Decyl Oleate)	6.00
Prisorine 2021 (Isopropyl Isostearate)	4.50
Castor Oil (Ricinus Communis)	1.00
Lunacera M (Microwax)	1.80
Miglyol 812 Neutral Oil (Caprylic/Capric Triglyceride)	4.50
DL- α -Tocopherolacetate (Art.-No. 5.00952) (Tocopheryl Acetate)	1.00
Vitamin-A-palmitate (Retinyl Palmitate)	0.50
 B Eusolex 232 (Art.-No. 105372) (Phenylbenzimidazole Sulfonic Acid)	 2.00
Tris(hydroxymethyl)-aminomethane (Art.-No. 1.08386) (Tromethamine)	0.90
Glycerol (about 87%) (Art. No. 1.04091)	2.00
Sodium Chloride (Art. No. 1.06400)	0.40
Allantoin (Art.-No. 1.01015)	0.20
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

To neutralize Eusolex 232 dissolve Tris(hydroxymethyl)-amino-methane in the water of phase B and add Eusolex 232 while stirring. When uniform add the remaining ingredients of phase B and heat to 80C. Heat phase A to 75C. Add phase B slowly to phase A while stirring. Homogenize and cool down while stirring.

Notes:

Viscosity 24,600 mPas (Brookfield RVT, Sp. C) at 24C

Samples contain as preservatives:

0.05% Propyl-4-hydroxybenzoate (Art. No. 1.07427)

0.15% Methyl-4-hydroxybenzoate (Art. No. 1.06757)

SOURCE: Rona-Merck: Formulation 39-44/E

Sunscreen Cream W/O, fatty

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 840 Gel B	20
Softisan 649	5
Imwitor 780K (Isostearyl Glyceryl Succinate)	5
Mineral Oil	8
Neo Heliopan E 1000	3
Paraffin	3
B. Magnesium Sulphate	2
Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is homogeneously stirred and heated up to approx. 75C. B is brought to the same temperature and emulsified into A. C is added at about 30C.

Sunscreen Cream, W/O-type

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol Gel B	24
Softisan 649	12
Imwitor 780K (Isostearyl Glyceryl Succinate)	5
Softigen 701 (Glyceryl Ricinoleate)	1.5
Petrolatum	20
Paraffin	8
Neo Heliopan E 1000 (sun filter)	2.5
B. Preservative	q.s.
Water ad	100
C. Fragrance	q.s.

Preparation:

A is blended, heated to about 75C and homogenized. B is brought to the same temperature and emulsified into A. After that emulsion is cooled down to about 30C and C is added.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Sunscreen LotionConcept Statement:

Smooth, elegant and effective sunscreen using Pationic SCL for skin conditioning.

Ingredients/Function:

	<u>Wt%</u>
1. Distilled/Deionized Water	70.70
2. Acritamer 941 (Carbomer)/Thickener	0.15
3. NaOH (20% Soln.)/pH Adjustment	q. s.
4. Propylene Glycol/Humectant	2.00
5. Tetrasodium EDTA/Chelate	0.05
6. Methylparaben/Preservative	0.20
7. Pationic SCL (Sodium Cocoyl Lactylate)/Lactylate	0.50
8. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	1.60
9. Rita GMS (Glyceryl Stearate)/Emulsifier	4.00
10. Octyl Methoxycinnamate/Sunscreen	7.00
11. Benzophenone-3/Sunscreen	2.00
12. Octyl Salicylate/Sunscreen	3.50
13. C12-15 Alkyl Benzoate/Emollient	5.00
14. Rita IPP (Isopropyl Palmitate)/Emollient	2.00
15. Shebu Refined (Shea Butter)/Emollient	1.00
16. Propylparaben/Preservative	0.10
17. DMDM Hydantoin/Preservative	0.20

Compounding Procedure:

Slowly disperse item 2 into item 1. Add item 3 to neutralize pH to 6.5-7.0 and add items 4-6. Heat to 80C. Combine items 7 to 16 and heat to 80C. Add oil phase to water phase with agitation. Cool to 40C and add item 17.

LI Ref. No. 124-71

After Sun Rich Moisturizing LotionConcept Statement:

A glossy white lotion which adds rich moisture to the skin with Pationic SSL, Ritaloe, Ritamectant PCA and Rita HA C-1-C.

Ingredients/Function:

	<u>Wt%</u>
1. Distilled/Deionized Water	77.40
2. Propylene Glycol	4.00
3. Ritaloe 20X (Aloe Vera)/Moisturizer	1.00
4. Tetrasodium EDTA	0.10
5. Pationic SSL (Sodium Stearoyl Lactylate)/Lactylate	1.00
6. Rita Cetearyl Alcohol 50/50 (Cetearyl Alcohol)/ Emulsifier	2.00
7. Rita GMS (Glyceryl Stearate)/Emulsifier	2.00
8. Rita IPP (Isopropyl Palmitate)/Emollient	7.00
9. Shebu Refined (Shea Butter)/Emollient	1.00
10. Ritasil 190 (Dimethicone Copolyol)/Lubricant	0.50
11. Hydrogenated Coconut Oil/Emollient	2.00
12. Lanodent DM (DMDM Hydantoin)/Preservative	0.50
13. Ritamectant PCA (Sodium PCA)/Moisturizer	1.00
14. Rita HA C-1-C (Sodium Hyaluronate)/Moisturizer	0.50

Compounding Procedure:

Combine items 1 to 4 and heat to 80C. Combine items 5 to 11 and heat to 80C. Add oil phase to water phase with agitation. Cool to 40C and add items 12 to 14.

LI Ref. No. 124-76B

SOURCE: R.I.T.A. Corp.: Sun Care Formulations

Sunscreen Lotion
Soft lotion, water resistant

<u>Ingredients:</u>	<u>Wt%</u>
A Stearic Acid	6.00
Cetyl Alcohol	1.00
Isopropyl Myristate	1.00
Luviskol VA 64/PVP	2.00
Eusolex 8020/Isopropyl Dibenzoylmethane	5.00
Eusolex 4360/Benzophenone-3	2.50
Wacker-Belsil DM 350/Dimethicone	3.50
 B Water	 62.00
Tylose H 4000 P/Hydroxyethylcellulose	0.50
 C Triethanolamine	 2.50
Wacker-Belsil CM 040/Cyclomethicone	16.00
 Preservative, fragrances, pigments	 q.s.

Dissolve Tylose in water and heat to 80-85C. Heat A to 80C and stir into B, cool to 45C and add C, stir cold.
Formulation 723 AH

Suntan Cream
Creamy. Easy to distribute, good absorption.

<u>Ingredients:</u>	<u>Wt%</u>
A Wacker-Belsil DM 100/Dimethicone	2.50
Cetyl Alcohol	2.00
Stearic Acid	4.00
Eusolex 6300/Methylbenzylidene Camphor	3.00
Wacker-Belsil TMS 3069 VP/Dimethicone, Trimethylsiloxysilicate	5.00
 B Glycerine	 1.50
Triethanolamine	0.90
Water	80.10
 Preservative, fragrances, pigments	 q.s.

Heat A and B each to 80C. Stir A into B and stir cold.
Formulation 435/2 AH

SOURCE: Wacker-Chemie GmbH: Formulas for Beauty

Suntan Oil

This oil goes on smoothly and leaves the skin feeling soft and supple. Mineral oil adds moisturizing benefits to the skin while esters add dryness.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
Mineral Oil/Drakeol 7	64.65
Octyl Palmitate/Ceraphyl 368	18.00
Octyldodecyl Neopentanoate/Elefac I-205	7.80
Octyl Methoxycinnamate/Escalol 557	3.00
Octyl Salicylate/Escalol 587	3.00
Macadamia Nut Oil	1.00
Kukui Nut Oil	1.00
Sweet Almond Oil	1.00
Fragrance	0.40
Isopropylparaben (and) Isobutylparaben (and) Butylparaben/Liquapar Oil	0.15

Procedure:

Heat all ingredients except fragrance to 40C with stirring. Hold at this temperature until the mixture is homogeneous. Let cool to 35C. Add fragrance with stirring.
Formula 597-77

Sunscreen with TiO₂

This creamy lotion goes on smoothly and rubs in easily. Mineral oil and petrolatum add moisturization, and no white residue is left behind after application.

<u>Ingredient/Trade Name:</u>	<u>Wt%</u>
A: Mineral Oil/Drakeol 9	7.00
Petrolatum/Amber Petrolatum	6.00
Cetearyl Alcohol (and) Polysorbate 60/Lipowax P	4.00
Isostearyl Isostearate/Prisorine 2039	1.70
Cocoa Butter	0.10
Tocopheryl Acetate/Vitamin E Acetate	0.10
Propylparaben	0.10
B: Deionized Water	74.05
Water (and) Titanium Dioxide/Tioveil AQ-G	5.00
Magnesium Aluminum Silicate/Veegum Ultra	1.75
Methylparaben	0.10
C: Diazolidinyl Urea/Germall II	0.10
Fragrance	q.s.

Procedure:

Heat part A to 80-85C with gentle mixing until all the solids have dissolved. Heat Part B to 75-80C with stirring. Add part A to B with stirring and continue mixing while allowing the mixture to cool. At 40C, add part C. Continue stirring to 30C.
Formula 597-87

SOURCE: Penreco: Suggested Formulations

Waterproof SPF 30 Sunscreen

This sunscreen formula containing Croda's new conditioning and emulsifying system Crodafos CES was clinically tested by AMA Laboratories for its Sun Protection Factor (SPF) and shown to have a static SPF of 31.66 and a Waterproof SPF of 30.31. The ability of Crodafos CES to increase oil deposition and improve wash-off resistance appears to enhance the formula's sunscreen performance and contribute to the high SPF.

<u>Ingredients:</u>	<u>Weight%</u>
Deionized Water	63.23
Carbopol 981	0.13
Crodafos CES (Cetearyl Alcohol (and) Cetearyl Phosphate)	6.50
Benzophenone-3	5.00
Octyl Methoxycinnamate	7.50
Octyl Salicylate	5.00
Menthyl Anthranilate	5.00
Crodamol OS (Octyl Stearate)	5.00
NaOH-10% Soln.	1.54
BHT	0.10
Propylene Glycol (and) Diazolidinyl Urea (and) Methyl Paraben (and) Propyl Paraben	1.00

pH=5.8+-0.5

Viscosity=17,000 cps+-10% (RVT Spindle TB, 10 rpm @ 25C).

Static SPF=31.66 Waterproof SPF=30.31

Procedure:

Dust Carbopol into the deionized water while stirring rapidly. Mix well for good hydration. Begin heating to 75-80C. Add Crodafos CES and mix well until all is melted and homogeneous. Add Benzophenone-3, Octyl Methoxycinnamate, Octyl Salicylate, Menthyl Anthranilate and Crodamol OS individually and with good mixing. Continue mixing at 75-80C, until homogeneous. Begin slow cooling and at 60C add NaOH solution. Cool to 45C and add BHT and preservative.

N.A.T.C Approved

SOURCE: Croda Inc.: Formulation SC-260

**Water-Resistant Sunscreen Lotion Using Avalure AC 118,
Pemulen TR-2 & Carbopol Ultrez 10 Polymers
SPF 24/A0005**

This high SPF sunscreen lotion provides long-lasting UV protection and has excellent water-resistant properties provided by Avalure AC 118 film-forming polymer and Pemulen TR-2 polymeric emulsifier.

INCI-CTFA Name/Trade Name:**Wt%****Part A:**

1. Deionized Water	66.10
2. Carbopol Ultrez 10 Polymer/Carbomer	0.25
3. Methocel E4M/Hydroxypropyl Methylcellulose	0.10
4. Propylene Glycol	1.00
5. Nuosept C/Polymethoxy Bicyclic Oxazolidine	0.40
6. Disodium EDTA	0.05
7. Crovol A-40/PEG-20 Almond Glycerides	0.40

Part B:

8. Neo Heliopan, Type AV/Octyl Methoxycinnamate	7.50
9. Neo Heliopan, Type OS/Octyl Salicylate	5.00
10. Neo Heliopan, Type BB/Oxybenzone	6.00
11. Finsolv TN/C12-15 Alcohols Benzoate	5.00
12. Pemulen TR-2 Polymer	0.25

Part C:

13. AMP-95/Aminomethyl Propanol	0.30
14. Avalure AC 118 Polymer/Acrylates Copolymer	7.50
15. Fragrance #99189 "Twister"	0.15

Properties:

Appearance: Milky white emulsion

pH: 6.0-6.5

Viscosity (cP): 18,000-24,000

SPF: 24

Stability: Passed 45C, accelerated 1 month

Passed freeze/thaw-3 cycles

Preparation Procedure:

1. Part A: Disperse Carbopol Ultrez 10 polymer and Methocel E4M in warm deionized water (40-50C). Reduce mixing speed after polymers are dispersed.
2. When uniform, add other Part A ingredients and mix until uniform.
3. Part B: Combine first four ingredients in Part B in a separate vessel. Heat and mix until oxybenzone has dissolved.
4. Cool Part B to 45C. Disperse Pemulen TR-2 in Part B and mix until well dispersed.
5. With vigorous agitation, add Part B to Part A. Mix for 20 minutes or until a smooth, non-grainy dispersion is apparent.
6. Add AMP-95 to batch, mix until a smooth product is obtained.
7. Add Avalure AC 118 and fragrance to batch. Mix until uniform.

SOURCE: BFGoodrich Specialty Chemicals: Formulation A0005

Water Resistant Sunscreen with SPF 15

SC1318, silicone resin ester, is a substantive emollient, forming a durable, water resistant film which holds the active ingredient on the skin. This SPF 15 sunscreen stays with you while you are active.

Ingredient/Function:

	<u>Wt%</u>
Part A:	
Deionized Water/Diluent	74.13
Tetrasodium EDTA/Preservative	0.05
PEG-8/Humectant	4.00
Phenoxyethanol (and) Methylparaben (and) Butylparaben (and) Ethylparaben (and) Propylparaben (1)/Preservative	0.25
Magnesium Aluminum Silicate/Slip/Feel	0.25
Part B:	
Diisostearoyl Trimethylolpropane Siloxysilicate (SF1318) (2)/Film-former/Emollient	7.00
Octyl Methoxycinnamate/UV absorber	7.00
Octyl Salicylate/UV absorber	3.00
Benzophenone-3/UV absorber	3.00
Acrylates/C10-30 Alkyl Acrylate Crosspolymer (3)/Emulsifier/Thickener	0.30
Carbomer (4)/Thickener	0.15
Sorbitan Oleate/Emulsifier	0.20
Part C:	
Fragrance	0.12
Part D:	
Triethanolamine 99%/Neutralizer	0.55

Procedure:

1. Heat water of Part A to 75C. Add remaining ingredients in order with moderate propeller agitation, making sure that all parabens have dissolved. Mix for 15 minutes, while cooling to 50C.
2. Combine Part B with sweep agitation at ambient temperature. Mix until a smooth "paste" is obtained.
3. Add Part B at room temperature to Part A (at 50C) with rapid propeller agitation. Mix for 30 minutes, or longer to ensure that the polymers are completely dispersed.
4. Cool with agitation to 45C. Add Part C to batch with moderate propeller agitation. Mix 10 minutes.
5. Add Part D to batch at 40C. Mix with moderate agitation for 20 minutes. Cool to room temperature.
6. The pH should be 6-7.

Trade Names/Suppliers:

- (1) Phenonip, Nipa
- (2) GE Silicones
- (3) Pemulen TR-1, B.F. Goodrich
- (4) Carbopol 2984, B.F. Goodrich

SOURCE: GE Silicones: Personal Care Formulary: Formula SC 100

1* Protection (Organic) SPF 2

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Light Mineral Oil	5.000
2	Cetearyl Octanoate	2.000
3	AEC Dimethicone V100	1.000
4	Cocoa Butter, Refined	0.300
5	Beeswax; White Pellets	1.000
6	AEC Sorbitan Palmitate	3.000
7	Cetearyl Alcohol	1.500
8	Octyl Dimethyl PABA	2.000
9	AEC Benzophenone-3	0.000
Aqueous Phase:		
10	Water; Pure	75.400
11	Xanthan Gum	0.200
12	Veegum Regular	1.500
13	Glycerine BP	3.000
14	AEC Polysorbate 20	3.000
15	Sodium Lactate 60%	0.300
16	Add preservative(s) & color to suit	0.500
Cooling Cycle:		
17	Fragrance	0.300
Formula Ref.: 45*		

1* Protection (Organic) SPF 4

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Light Mineral Oil	5.000
2	Cetearyl Octanoate	2.000
3	AEC Dimethicone V100	1.000
4	Cocoa Butter, Refined	0.300
5	Beeswax; White Pellets	1.000
6	AEC Sorbitan Palmitate	3.000
7	Cetearyl Alcohol	1.500
8	Octyl Dimethyl PABA	4.000
9	AEC Benzophenone-3	0.000
Aqueous Phase:		
10	Water; Pure	73.500
11	Xanthan Gum	0.200
12	Veegum Regular	1.500
13	Glycerine BP	3.000
14	AEC Polysorbate 20	3.000
15	Sodium Lactate 60%	0.300
16	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
17	Fragrance	0.200

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool. pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 45* and 46*

1* Protection (Organic) SPF 6

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Light Mineral Oil	5.000
2	Cetearyl Octanoate	2.000
3	AEC Dimethicone V100	1.000
4	Cocoa Butter, Refined	0.300
5	Beeswax, White Pellets	1.000
6	AEC Sorbitan Palmitate	3.000
7	Cetearyl Alcohol	1.500
8	Octyl Dimethyl PABA	5.000
9	AEC Benzophenone-3	0.500
Aqueous Phase:		
10	Water; Pure	72.000
11	Xanthan Gum	0.200
12	Veegum Regular	1.500
13	Glycerine BP	3.000
14	AEC Polysorbate 20	3.000
15	Sodium Lactate 60%	0.300
16	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
17	Fragrance	0.200

1* Protection (Organic) SPF 8

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Light Mineral Oil	5.000
2	Cetearyl Octanoate	2.000
3	AEC Dimethicone V100	1.000
4	Cocoa Butter, Refined	0.300
5	Beeswax; White Pellets	1.000
6	AEC Sorbitan Palmitate	3.000
7	Cetearyl Alcohol	1.500
8	Octyl Dimethyl PABA	4.000
9	AEC Benzophenone-3	2.000
Aqueous Phase:		
10	Water; Pure	71.500
11	Xanthan Gum	0.200
12	Veegum Regular	1.500
13	Glycerine BP	3.000
14	AEC Polysorbate 20	3.000
15	Sodium Lactate 60%	0.300
16	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
17	Fragrance	0.200

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the Water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool. pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 47* and 48*

3 Star Sun Protection SPF 2

<u>Stage Materials:</u>	<u>Wt%</u>
Stage:	
Oil Phase:	
1 Octyl Palmitate	5.000
2 Cetearyl Octanoate	5.000
3 AEC Dimethicone V100	3.000
4 Tenox 2	0.010
5 Beeswax; White Pellets	3.500
6 AEC Sorbitan Palmitate	3.000
Aqueous Phase:	
7 Water; Pure	67.390
8 Xanthan Gum	0.200
9 Veegum Regular	2.000
10 Propylene Glycol USP	5.000
11 AEC Polysorbate 20	3.000
12 Tioveil AQ N	2.000
13 Add preservative(s) & colour to suit	0.500
14 Sodium Lactate 60%	0.300
Cooling Cycle:	
15 Fragrance	0.100

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool.

pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 35*

3 Star Sun Protection SPF4

<u>Stage Material:</u>	<u>Wt%</u>
Stage:	
Oil Phase:	
1 Octyl Palmitate	5.000
2 Cetearyl Octanoate	5.000
3 AEC Dimethicone V100	3.000
4 Tenox 2	0.010
5 Beeswax; White Pellets	3.500
6 AEC Sorbitan Palmitate	3.000
Aqueous Phase:	
7 Water; Pure	65.390
8 Xanthan Gum	0.200
9 Veegum Regular	2.000
10 Propylene Glycol USP	5.000
11 AEC Polysorbate 20	3.000
12 Tioveil AQ N	4.000
13 Add preservative(s) & colour to suit	0.500
14 Sodium Lactate 60%	0.300
Cooling Cycle:	
15 Fragrance	0.100

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the Water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool.

pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 36*

3 Star Sun Protection SPF 6

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Octyl Palmitate	5.000
2	Cetearyl Octanoate	5.000
3	AEC Dimethicone V100	3.000
4	Tenox 2	0.010
5	Beeswax; White Pellets	3.500
6	AEC Sorbitan Palmitate	3.000
Aqueous Phase:		
7	Water; Pure	63.390
8	Xanthan Gum	0.200
9	Veegum Regular	2.000
10	Propylene Glycol USP	5.000
11	AEC Polysorbate 20	3.000
12	Tioveil AQ N	6.000
13	Add preservative(s) & colour to suit	0.500
14	Sodium Lactate 60%	0.300
Cooling Cycle:		
15	Fragrance	0.100

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the Water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool.

pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 37*

3 Star Sun Protection SPF 8

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Octyl Palmitate	5.000
2	Cetearyl Octanoate	5.000
3	AEC Dimethicone V100	3.000
4	Tenox 2	0.010
5	Beeswax; White Pellets	3.500
6	AEC Sorbitan Palmitate	3.000
Aqueous Phase:		
7	Add preservative(s) & colour to suit	0.500
8	Water; Pure	61.390
9	Xanthan Gum	0.200
10	Veegum Regular	2.000
11	Propylene Glycol USP	5.000
12	AEC Polysorbate 20	3.000
13	Tioveil AQ N	8.000
14	Sodium Lactate 60%	0.300
Cooling Cycle:		
15	Fragrance	0.100

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the Water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool.

pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 38*

3 Star Sun Protection SPF 15

<u>Stage:</u>	<u>Material:</u>	<u>Wt%</u>
Oil Phase:		
1	Octyl Palmitate	5.000
2	Cetearyl Octanoate	5.000
3	AEC Dimethicone V100	3.000
4	Tenox 2	0.010
5	Beeswax; White Pellets	3.500
6	AEC Sorbitan Palmitate	3.000
Aqueous Phase:		
7	Water; Pure	54.390
8	Xanthan Gum	0.200
9	Veegum Regular	2.000
10	Propylene Glycol USP	5.000
11	AEC Polysorbate 20	3.000
12	Sodium Lactate 60%	0.300
13	Tioveil AQ N	15.000
14	Add preservative(s) & colour to suit	0.500
Cooling Cycle:		
15	Fragrance	0.100

Mixing Instructions:

Heat the Oil Phase to 70C.

Disperse the Xanthan Gum and Veegum in the Water and heat to 70C, adding the remaining Aqueous Phase ingredients while doing so and with continuous stirring.

When both phases are to temperature slowly add the Oils to the Water while mixing.

Cool to 35C with stirring and add perfume. Remix briefly with a Silverson type mixer when cool.

pH=5.5-6.5 approx.

SOURCE: A&E Connock Ltd.: Formula Ref.: 39*

Section XII

Miscellaneous

Anhydrous Basic Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 649	10
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Softigen 701 (Glyceryl Ricinoleate)	4
Imwitor 780K (Isostearyl Glyceryl Succinate)	3
Petrolatum	68
Permulgin 4101 (co-emulsifier)	10

Preparation:

All ingredients are melted, mixed and stirred cold.

Analgesic Suppositories

<u>Raw Materials:</u>	<u>Parts by Weight</u>
Trimethobenzamid-HCl	0.200g
Benzocain	0.030g
Witepsol H15 (Hard Fat, DAB 10)	1.800g
Softigen 710	0.200g

Heparin Gel

<u>Raw Materials:</u>	<u>Wt%</u>
Heparin sodium	50,000IE
Softigen 767	10
Carbopol 980 (Carbomer)	1.5
NaOH solution, 10%	4
Preservative	q.s.
Water ad	100

Preparation:

Dissolve the heparin sodium in the quantitative of water specified, add preservative. After weighing the quantity, add Carbopol and NaOH solution and stir well until a homogeneous gel is obtained. Gradually mix the gel with the Softigen.

Heparin Cream

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 601	18
Imwitor 960 flakes (Glyceryl Stearate SE)	5
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Cetyl Alcohol	3
B. Preservative	q.s.
Water ad	100
C. Heparin sodium	20000IE

Preparation:

A is heated to about 75C, B is brought to the same temperature and emulsified into A. At about 25C A+B is put into C portion by portion.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Emulsion O/W with Lactokine Fluid

<u>Ingredients:</u>	<u>Wt%</u>
a) Arlatone 985	4.00
G-4822	2.00
Arlamol M 812	5.00
Paraffinum, perliquidum	5.00
Phenonip	0.30
b) Water, distilled	75.40
Phenonip	0.30
1,2-Propylene glycol	3.00
c) Lactokine Fluid	5.00

Manufacture:

- a) melt and bring to about 70C;
- b) heat to about 70C and stir into a).
Continue stirring until the cream has cooled to about 30C;
- c) stir in.
Perfume, homogenize

Body Emulsion O/W with Glycoderm (P) and Cutavit Richter

<u>Ingredients:</u>	<u>Wt%</u>
a) Emulgade SE	8.00
Cetiol LC	5.00
Eutanol G	5.00
Cutavit Richter	2.00
Phenonip	0.30
b) Water, distilled	65.60
Phenonip	0.30
Glycerin	3.00
Ultrez 10	0.20
NaOH 10%	0.60
c) Glycoderm (P)	10.00

Manufacture:

- a) melt and bring to approx. 70C;
- b) bring to approx. 70C and add to a) with stirring.
Continue stirring until cooled to approx. 30C;
- c) add with stirring.
Perfume, homogenize.

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Emulsion O/W with 5% Epicutin-TT

<u>Ingredients:</u>	<u>Wt%</u>
a) Cutina FS 25	2.00
Cutina CBS	3.00
Cetiol V	13.00
Phenonip	0.30
b) Water, distilled	61.40
Phenonip	0.30
Glycerin	5.00
KOH 1%	10.00
c) Epicutin-TT	5.00

Manufacture:

- a) melt and bring to about 80C;
- b) heat to about 80C and stir into a).
Continue stirring until the emulsion has cooled to about 30C;
- c) stir in.
Perfume, homogenize.

Emulsion O/W with Epicutin-TT

<u>Ingredients:</u>	<u>Wt%</u>
a) Arlatone 985	4.00
G-4822	2.00
Arlamol M 812	5.00
Paraffinum, perliquidum	5.00
Phenonip	0.30
b) Water, distilled	75.40
Phenonip	0.30
1,2-Propylene glycol	3.00
c) Epicutin-TT	5.00

Manufacture:

- a) melt and bring to about 70C;
- b) heat to about 70C and stir into a).
Continue stirring until the cream has cooled to about 30C;
- c) stir in.
Perfume, homogenize

SOURCE: Chemisches Laboratorium Dr. Kurt Richter GmbH: Formulas

Fatty Ointment with Echinacea, W/O

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 780K (Isostearyl Diglyceryl Succinate)	6
Imwitor 928 (Glyceryl Cocoate)	3
Miglyol 812 (Caprylic/Capric Triglyceride)	7
Petrolatum	9
Elfacos ST9 (stabilizer)	4
Elfacos C26 (Hydroxyoctacosanyl Hydroxystearate)	4
B. D-Panthenol	5
Preservative	q.s.
Water ad	100
C. Echinacea-Liquidum	2

Microemulsion, Emulsified at Room Temperature

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	20
Softigen 767 (PEG-6 Caprylic/Capric Glycerides)	30
Imwitor 380 (Glyceryl Cocoate/Citrate Lactate)	30
Water	20

Preparation:

All components are stirred together.

Skin Milk of Low Viscosity, Perfume Free

<u>Raw Materials:</u>	<u>Wt%</u>
A. Imwitor 370 (Glyceryl Stearate Citrate)	6
Miglyol 812 (Caprylic/Capric Triglyceride)	15
B. Sorbic Acid	0.2
Water ad	100

Preparation:

A is heated to 70-80C and B of same temperature is added to A.

Wound and Healing Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan 601	25
Miglyol 812 (Caprylic/Capric Triglyceride)	5
Imwitor 960 flakes (Glyceryl Stearate SE)	5
Zinc Oxide	10
Cremophor EL (Hydrogenated Castor Oil)	2
B. Benzocain	2
Preservative	q.s.
Water ad	100

Preparation:

A is melted at about 75C and stirred homogeneously. B is brought to the same temperature and emulsified into A. Then stir cold.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Insect Repellent Cream (W/O)
with UV-Filter

<u>Raw Materials:</u>	<u>Wt%</u>
A Insect Repellent 3535 (Art.-No. 111887) (Ethyl Butyl-acetylaminopropionate)	20.00
B Eusolex 6300 (Art.-No. 105385) (4-Methylbenzylidene Camphor)	3.00
Dow Corning 3225C (Cyclomethicone (and) Dimethicone Copolyol)	12.00
Dow Corning 344 (Cyclomethicone)	2.50
Bentone paste SIL (Cyclomethicone (and) Stearalkonium Hectorite (and) SD Alcohol 40)	15.00
Solvent ID (Isododecane)	7.30
Witconol 14 (Polyglyceryl-4 Oleate)	2.50
Beeswax, white (Art.-No. 111544) (Beeswax)	2.00
Carnauba wax (Copernica Cerifera)	0.50
C Sodium chloride (Art.-No. 106400)	2.00
Propanediol-1,2 (Art.-No. 107478) (Propylene Glycol)	2.00
Preservatives	q.s.
Water, demineralized	ad 100.00

Procedure:

Mix phase C. Heat phase B to 80C, stir until clear and cool to 25C. Add phase A to phase B. Add phase C. Homogenize. As required add perfume.

Note:

Samples contain as preservatives

0.20% Euxyl K400

Formulation 14-04/F

Insect Repellent Lotion

<u>Raw Materials:</u>	<u>Wt%</u>
A Insect Repellent 3535 (Art. No. 111887) (Ethyl Butyl-acetylaminopropionate)	20.00
Polyethylene glycol 400 (Art. No. 817003) (PEG-8)	5.00
B Ethanol 96% (Art. No. 100971)	35.00
Water, demineralized	15.00
C Polyethylene glycol 1500 (Art. No. 817005) (PEG-30)	4.00
D Arlamol E (PPG-15 Stearyl Ether)	3.00
Perfume oil Bariton (10607)	0.30
E Water, demineralized	17.70

Procedure:

Blend phase D. Mix phase B and incorporate phases A, C, D and E while stirring.

Note:

pH22C=5.8

Formulation 10-01/F

SOURCE: Rona-Merck: Suggested Formulations

Peppermint Foot Balm

A cooling peppermint foot balm formulation containing Bentone Gel LOI rheological additive

<u>Ingredients:</u>	<u>Wt%</u>
Cetearyl Alcohol (and) Cetareth 20	5.00
Cetyl Alcohol	3.00
Caprylic/Capric Triglyceride	8.00
Aloe Vera Gel 10:1 decolorized	1.50
Methyl Pyrrolidone Carboxylate	0.80
Glycerine-Vegetable derived	5.00
Methyl Gluceth 10	2.00
Propylene Glycol and Lichen Extract	0.20
Perfume Peppermint	0.30
Methyldibromoglutaronitrile (and) Dipropylene Glycol	0.20
FDC Yellow 5 (0.1% solution)	0.40
FDC Green 3 (0.1% solution)	0.20
Bentone Gel LOI	2.00
DeminerIALIZED Water	
	Bal to 100%
	(pH approx. 6.0)

Method of Manufacture:

1. Thoroughly disperse the Bentone Gel LOI additive in the oil phase, add the Methyl, Pyrrolidone Carboxylate and heat to 75-80C.
2. Heat the aqueous phase (water, colors, Aloe Vera, Glycerine, and Methyl Gluceth 10) to 75-80C.
3. Using high shear mixing, add the two phases together and continue to homogenize.
4. At 45-50C transfer to a propeller stirrer and at 40C add the Propylene Glycol and Lichen Extract.
5. Add the perfume and preservative below 30C.

This is a rich, oil-in-water cream, containing Aloe Vera and a fungicide. The presence of the coolant (Methyl Pyrrolidone Carboxylate) gives a refreshing sensation. The stability, viscosity control, and in particular, the excellent skin feel during and after application are provided by Bentone Gel LOI additive.

SOURCE: Rheox, Inc.: Elementis Specialties: Suggested Formula

Rheumatic Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan Gel	25
Mineral Oil	15
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
B. Preservative	q.s.
Water ad	100
C. Miglyol 812 (Caprylic/Capric Triglyceride)	3
Camphor	0.5
D. Benzyl Nicotinate	1

Preparation:

A is stirred homogeneously and warmed up to approx. 75C. B is brought to the same temperature slowly emulsified into A. C is warmed until camphor is dissolved and then stirred into the hot emulsion. After cooling down D is emulsified into the cream.

Haemorrhoidal Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Softisan Gel	15
Petrolatum, white	15
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
B. Allantoin	1
Heparin-Na	10000IE
Lidocain-HCl x H2O	0.4
Preservative	q.s.
Water ad	100
C. Basic Bismuth Nitrate	5

Preparation:

At first A is stirred to a homogeneous mass and heated to approx. 75C. Solution B is brought to the same temperature and prepared together with A to an emulsion. After cooling down to room temperature C is dispersed homogeneously in A+B.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Rheumatism Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Benzyl Nicotinate	0.3
B. Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
Miglyol Gel B	25
Mineral Oil	15
C. Camphor	2
Miglyol 812 (Caprylic/Capric Triglyceride)	3
D. Heparin sodium	5000 I.E.
Aqua conservans ad	100

Preparation:

B is homogeneously stirred first and then melted at about 75C. The heparin is dissolved in a part of water. The water residue, after heating to about 75C, is compounded with B to an emulsion. Phase C is heated until camphor is dissolved and is then added to the hot ointment. After cooling down A and the heparin solution are emulsified into the cream.

Nasal Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Ephedrine-HCl	0.05
Camphor	0.15
Peppermint Oil	0.30
Eucalyptus Oil	0.90
Fennel Oil	0.60
B. Miglyol Gel B	10
Imwitor 780K (Isostearyl Diglyceryl Succinate)	5
Mineral Oil	17
Paraffin	3
C. Aqua conservans ad	100

Preparation:

Ephedrine-HCl is dissolved in a small amount of water. B is heated up to approx. 75C and then homogenized. C is brought to the same temperature and emulsified into B. After cooling down to below 40C the ephedrine solution and the mixture of the remaining components of A are admixed.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Wound- and Healing Ointment

<u>Raw Materials:</u>	<u>Wt%</u>
A. Zinc Oxide	10
D-Panthenol	3
Vitamin A	0.3
B. Imwitor 780K (Isostearyl Diglyceryl Succinate)	6
Miglyol 812 (Caprylic/Capric Triglyceride)	7
Paraffin	5
Petrolatum	13
Lunacera P (Microwax)	3
C. Aqua conservans ad	100

Preparation:

B and C are each heated up to approx. 75C and then admixed until an emulsion is obtained. The zinc oxide is manufactured homogeneously with the finished ointment. At last the vitamin A is added.

Urea Cream, W/O

<u>Raw Materials:</u>	<u>Wt%</u>
A. Miglyol 812 (Caprylic/Capric Triglyceride)	7
Imwitor 780K (Isostearyl Diglyceryl Succinate)	6
Imwitor 928 (Glyceryl Cocoate)	3
Petrolatum	9
Elfacos ST9 (stabilizer)	4
Elfacos C26 (Hydroxyoctacosanyl Hydroxystearate)	5
B. Urea	10
Preservative	q.s.
Citrate buffer solution ad	100

Preparation:

A is heated to 75C. B is brought to the same temperature and emulsified into A.

SOURCE: Huls Aktiengesellschaft: Suggested Formulations

Section XIII
Trade-Named
Raw Material

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
A-625	Sorbitol	ICI
Abil B 8863	Dimethicone copolyol	Goldsch
Abil Quat 3272	Quaternium-80	Goldsch
Abil Wax 2434	Stearoxy dimethicone	Goldsch
Abil WE-09	Polyglyceryl-4 isostearate & cetyl dimethicone copolyol & hexyl laurate	Goldsch
Abil 100	Dimethicone	Goldsch
Abil 350	Dimethicone	Goldsch
Acetulan	Cetyl acetate & acetylated lanolin alcohol	Amerch
Acritamer 941	Carbomer/thickener	Rita
Acrylates	C10-30 alkyl acrylate crosspolymer	
Actiphyte of Aloe Vera	Botanical extract	Active
Activera 104	Aloe vera gel	
Activera 106 Lipo M	Aloe extract	
Adol 66	Isostearyl alcohol	
Adriano 0/235970	Fragrance	Dragoco
Aerosil 200	Silica	Degussa
Aethoxal B	PPG-5 laureth-5	
Ajidew N-50	Sodium PCA	Ajinomo
Akogel	Hydrogenated vegetable oil	Jarchem
Akoice E	Hydrogenated vegetable oil	
Akoline MCM	Caprylic/capric glycerides	
Akomed R	Caprylic/capric triglycerides	
Akorex L	Hydrogenated canola oil	
Allantoin		Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Almond Oil	Sweet almond oil	
Aloe-Vera (1:1)		Madis
Aloe Vera 200:1	Aloe barbadensis gel	
Aloe Vera Lipo-Quinone Extract		Terry
Alugel DF30	Aluminum hydroxide	Giulini
Amber Petrolatum	Petrolatum	Penreco
Amerchol CAB		Amerch
Amerchol L-101	Mineral oil (and) lanolin alcohol	Amerch
Amerlate P		Amerch
Amerlate W	Isopropyl lanolate	Amerch
Amidex C/CE/CME/CO-1/WD/1248		
Aminogluten MG		Croda
Amphisol	Cetyl phosphate & DEA cetyl phosphate	Givau
Amphisol K		Givau
Ampholyt JB130/K	Cocamidopropyl betaine	Huls
Amphomer 4910		NatStar
Amphosol CG	Cocamidopropyl betaine (35%)	Stepan
AMP-95	Aminomethyl propanol	Angus
Antil 141	Propylene glycol, PEG-55 propylene glycol oleate	Goldsch
Apricot Extract	Herbasol extract apricot	
Aquamollin BC pdr.h.c.	Ethylenediamine tetracetic acid sodium salt	Hoechst
Aquarez HS	Polymer emulsion. 41% solids	Eastman
Aras 0/221807	Fragrance	Dragoco

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
Aristoflex A60	VA/Crotonates copolymer, isopropanol	Hoechs
Arlacel C	Surfactant	ICI
Arlacel 40	Surfactant	ICI
Arlacel 60	Sorbitan monostearate	ICI
Arlacel 83	Sorbitan sesquioleate	ICI
Arlacel 165	Glyceryl stearate & PEG 100 stearate	ICI
Arlacel 989	PEG-7 hydrogenated castor oil	ICI
Arlamol E	PPG-15 stearyl ether	ICI
Arlamol HD	Isohexadecane	ICI
Arlamol M812	Emollient	ICI
Arlamol 801	Emollient	ICI
Arlasolve 200	Isoceteth-20 solubilizer	ICI
Arlatone 980	PEG-35-hydrogenated castor oil	ICI
Arlatone 985	Polyoxyethylene stearyl stearate	ICI
Arlatone 2121	Sunscreen agent	ICI
Arlypon F & FT	Laureth-2	Henkel
ASC III	Lecithin & etc	RonaMer
Atlas G-2330	Sorbeth-30	ICI
Avalure AC 118	Acrylates copolymer	
Avalure UR 450 & 445	Polymer	
Avocado Prills	Persea gratissima (Avocado oil)	Connock

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
Balance CR		NatStar
Balance Extra		NatStar
Balance 0/55		NatStar
Balance-47 (28-4947)		NatStar
Baysilon M350	Dimethicone	
Beauty 0/239870	Fragrance	Dragoco
Belsil DMC 6032	Dimethicone copolyol acetate	Wacker-
Bentone Gel EUG & LOI & MIO & TN & TNV	Rheological additives & VS-5 & VS-5PCV & EW & LT	Rheox
Bentone Paste SIL	Cyclomethicone & stearalkonium hectorite & SD Alcohol 40	Rheox
Benzophenone-3		Connock
Bienenwachs 8100	Cera alba (beeswax)	Henkel
Biocare SA	Serum albumin & hyaluronic acid & dextran sulfate	Amerch
Black Dragon II 0/232511	Fragrance	Dragoco
Boron Nitride 6069		
Brij 52	Ethoxylates surfactant	ICI
Brij 72	Steareth-2	ICI
Brij 78	Isosteareth-20	ICI
Brij 721 & 721S	Steareth-21	ICI
Bumyr	Butyl myristate	
Butoxyethanol	Glycol ether B	
Butyl Cellosolve	Solvent	UnionCa

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
C33-7715	Cosmetic Brown Iron oxides	
C33-7738	Cosmetic Russet	
C33-7773	Cosmetic Yellow	
C33-7775	Cosmetic Red	
C33-7734	Cosmetic Black	
Cab-O-Sil M-5	Fumed silica	Cabot
Calcium thioglycolate	trihydrate	Merck
Carbopol ETD 2001	Carbomer gelling agent	BFGood
Carbomer ETD 2020	Acrylates/C10-30 alkyl acrylate crosspolymer	BFGood
Carbopol Ultrez 10	Polymer	BFGood
Carbopol 934 & 940 & 941 & 980 & 981 & 1342 & 1382 & 2020 & 2984	Thickening agents	BFGood
Carbowax 400	PEG 400 lubricant	UnionCa
Carnauba Wax SP63		Strahl&
Castor Oil Crystal O	Ricinis communis	
Cellose HEC QP-52,000-H	Hydroxyethylcellulose	UnionCa
Cellose Polymer PCG-10	Hydroxyethylcellulose	UnionCa
Celquat SC-240	Polyquaternium-10 diluent	NatStar
Ceraphyl GA-D	Maleated soybean oil	ISPVanD
Ceraphyl ICA	Isocetyl alcohol	ISPVanD
Ceraphyl 31	Lauryl lactate	ISPVanD
Ceraphyl 45	Diocetyl malate	ISPVanD
Ceraphyl 50	Myristyl lactate	ISPVanD
Ceraphyl 230	Diisopropyl adipate	ISPVanD
Ceraphyl 368	Octyl palmitate	ISPVanD
Ceraphyl 424	Myristyl myristate	ISPVanD
Ceraphyl 494	Isocetyl stearate	ISPVanD

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
Ceraphyl 847	Octyldodecyl stearyl stearate	ISPVanD
Cerasol V		Pentaph
Cerasynt GMS	Glyceryl stearate	ISPVanD
Cerasynt SD	Glyceryl stearate	ISPVanD
Cerasynt 840	PEG-20 stearate	ISPVanD
Cerasynt 945	Glyceryl stearate	ISPVanD
Cetanol		Robeco
Cetina	Stearyl esters & stearamide DEA	Robeco
Cetiol	Oleyl oleate	Henkel
Cetiol A	Hexyl laurate	Henkel
Cetiol HE	PEG-7 glyceryl cocoate	Henkel
Cetiol J600	Oleyl erucate	Henkel
Cetiol LC	Coco-caprylate/caprata	Henkel
Cetiol MM	Emollient	Henkel
Cetiol OE	Dicaprylyl ether	Henkel
Cetiol PGL	Hexyldecanol & hexyldecyl laurate	Henkel
Cetiol S	Dioctylcyclohexane	Henkel
Cetiol SB45	Shea butter	Henkel
Cetiol SN	Cetearyl isononanoate	Henkel
Cetiol V	Decyl oleate	Henkel
Cetiol 868	Octyl stearate emollient	Henkel
Cetyl Acetate (and)	Acetylated Lanolin Alcohol	Lanaet
CF1251	CF1251 Dimethicone	GESil
Chamomile Extract	Herbasol extract chamomile	
Chamomile Oil		Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Chembetaine BW & C & CAS & CL & OL & OL-30 & & S	Betaines	Chemron
Chemonic L-60		Chemron
Chemoxide CAW	Amine oxide	Chemron
Chemphos TC-227 & TC-310 & TX-625D	Phosphate esters	Chemron
Chemsperse EGDS	Ester & emulsifiers	Chemron
Cherry AG 6328	Fragrance	
Cherry Pit Oil		Connock
Citroflex-2	Plasticizer	Morflex
Cloisonne Super Gold	Cosmetic pearl powder in deep color	Mearl
CMC 7H3SF & CMC 7MXF & CMC 9M31F & CMC 12M31P	Carboxymethyl cellulose	Aqualon
Collagen CLR		Richter
Collagen KD		GFN
Colorona Imperial Red	Mica & titanium dioxide & D&CRed 30	Rona
Comperlan KD	Cocamide DEA	Henkel
Completech MBAC-EA & Completech VCB-SM-H		Lipo
Concentrate R		Cosmeto
Copherol F1250 & F1300	Tocopherols	Henkel
Corona PNL	Modified lanolin USP	Croda
Cosflor Awapuhi HGS & Cosflor Tea Tree HGS		
Cosmedia Guar C261	Guar hydroxypropyl trimonium chloride	Henkel
Cosmowax	Stearyl alcohol & steareth-20 & steareth-10	Croda
Cosmowax D	Cetearyl alcohol & ceteareth-20	Croda
Courage 0/243101	Fragrance	Dragoco

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
CreamJel		UnitedG
Cremophor A6	Ceteareth 6/stearyl alcohol	BASF
Cremophor A25	Ceteareth 25 surfactant	BASF
Cremophor EL	Hydrogenated castor oil	BASF
Cremophor GS 32	Polyglyceryl-3 distearate	BASF
Cremophor RH 40	PEG-40 Hydrogenated castor oil	BASF
Crodacol C-70 & C-90	Cetyl alcohols	Croda
Crodacol CS-50	Cetearyl alcohol	Croda
Crodafos CES	Cetearyl alcohol & dicetyl phosphate & ceteth-10 phosphate	Croda
Crodafos SG	PPG-5-ceteth-10 phosphate	Croda
Crodamol	Fatty acid ester	Croda
Crodamol DA	Diisopropyl adipate	Croda
Crodamol EHO	Oleyl oleate	Croda
Crodamol GTCC	Caprylic/capric triglyceride	Croda
Crodamol IPM	Isopropyl myristate	Croda
Crodamol MM	Myristyl myristate	Croda
Crodamol OPG	Octyl pelargonate	Croda
Crodamol OS	Octyl stearate	Croda
Crodasone W	Hydrolyzed wheat protein hydroxypropyl polysiloxane	Croda
Croderol GA 7000	Glycerin	Croda
Cromoist CM-Glucam	Sodium carboxymethyl B-glucam	Croda
Cromollient DP3A	Di-PPG-3 Myristyl ether adipate	Croda
Cropure Wheat Germ	Wheat germ oil	Croda
Crotein CAA SF	Proteins	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Crotein HKP SF & NDW	Proteins	Croda
Crothix	Penterythrityl tetrastearate	Croda
Crovol A-40	PEG-20 almond glycerides	Croda
Crovol PK-70	PEG-45 palm kernel glycerides	Croda
Cucumber Extract	Herbasol extract cucumber	Cosmeto
Cutavit Richter		Richter
Cutina CBS & FS25 & LM		Richter
Cutina GMS	Glyceryl stearate	Richter
Cyclomethicone DC 345		DowCorn
D&C Red #6 Barium Lake		Tricon
D&C Red #27 Aluminum Lake		Hilton
DC Surfactant 193	Dimethicone copolyol	DowCorn
DC 200 Fluid 2cSt	Dimethicone	DowCorn
DC 200 Fluid (350 cts)	Dimethicone	DowCorn
DC 344 Fluid	Cyclomethicone	DowCorn
Dehydrol LS3	Laureth-3	
Dehymuls E	W/O-emulsifier	Henkel
Dehymuls PGPH	Polyglyceryl-2 dipolyhydroxystearate	Henkel
Dehyquart L80	Dicocoylethyl hydroxyethylmonium methosulfate & propylene glycol	Henkel
Dehyton AB 30	Coco-betaine	Henkel
Dehyton K	Cocamidopropyl betaine	Henkel
Dehyton PK 45	Cocamidopropyl betaine	Henkel
Dermacide	Glycerin & lecithin & palmitoyl myristyl serinate	

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
Dermacryl LT	Acrylates/octylacrylamide copolymer	
Dermacryl-79	Film former	
Dermawhite HS		LabSer
Destressine 2000	Shea butter unsaponifiables &	
Diisostearyl Trimethylolpropane Siloxy Silicate		Connock
Dimethicone V100		Connock
Dipsal	Dipropylene glycol silicylate	Scher
Dow Corning Q2-1401		DowCorn
Dow Corning 193	Dimethicone copolyol	DowCorn
Dow Corning 200 Fluid 100 cst		DowCorn
Dow Corning 245 Fluid	Cyclomethicone	DowCorn
" " 344 Fluid	" "	
" " 435	" "	
Dow Corning 556 Fluid	Phenyl trimethicone	DowCorn
Dow Corning 1401	Cyclomethicone & dimethicol	DowCorn
Dow Corning 2501	Dimethicone copolyol	DowCorn
Dow Corning 3225C	Cyclomethicone & dimethiconol	DowCorn
Dowicil 200	Quaternium-15	Dow
D-Panthenol		Hoffman
Dragosantol	Bisabolol	Dragoco
Drakeol 7 & 9 & 21 & 35 & 500	Mineral oil	Penreco
DRN-20/232146	Fragrance	Dragoco
Duochrome RY	Iridescent color	Mearl
Dymel A & 152A	Dimethyl ethers	duPont
Dynacerin 660	Oleyl erucate	Huls
Dynasan 114	Trimyristin	Huls

RAW MATERIAL	CHEMICAL DESCRIPTION	SOURCE
Eashare		Pentap
Eastman AQ48 Ultra	Polymer	Eastman
Eastman AQ55S	Polymer	Eastman
Eastman Ethanol (SDA-40)		Eastman
Elfac I205	Octyldodecyl neo-pentanoate	Akzo
Elfacos C26	Hydroxyoctacosanyl hydroxystearate	Akzo
Elfacos E200	Methoxy PEG-22/Dodecyl glycol	Akzo
Elfacos GT282S	Hydrogenated talloweth-60 myristol glycol	Akzo
Elfacos ST9	PEG-45 dodecyl glycol copolymer	Akzo
Elhibin	Soy bean protein	
Emcol 4	Stearalkonium chloride	Witco
Emerest 2314 & 2316	Ester	Henkel
Emersol 132	Stearic acid	Henkel
Emersol 871	Isostearic acid	Henkel
Emery 916	Pure glycerine	Henkel
Emphos D70-30C	Sodium glyceryl oleate phosphate	Witco
Empical TL40T	TEA-lauryl sulfate	
Empigen BB	Lauryl betaine	
Emulgade F		Henkel
Emulgade PL68/50	Cetearyl glucoside, cetearyl alcohol	Henkel
Emulgade SE	O/W creambase SE	Henkel
Emulsifier E 2155	Stearyl alcohol & steareth-7 & steareth-10	
Emulsogen EL	PEG-36 castor oil	Hoechst
Epicutin-TT		Richter

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Epolene N-21	Polyethylene	Eastman
Escalol 507	Octyl dimethyl PABA	ISPVanD
Escalol 557	Octyl methoxycinnamate	ISPVanD
Escalol 567	Benzophenone-3	ISPVanD
Escalol 587	Octyl salicylate	ISPVanD
Estol 1514	Isopropyl myristate	Unichem
Estol 1526	Propylene glycol dicaprylate/ dicaprinate	Unichem
Estol 1527	Caprylic/capric triglyceride	Unichem
Ethylflo 362NF-Albermarle	Polydecene	
Eumulgin B2 Flakes	Cetareth-20	Henkel
Eumulgin VL25	Cosmetic emulsifier o/w	Henkel
Euperlan PK1200	Coco-glucoside & glycol distearate & glycerin	Henkel
Euperlan PK3000AM	Glycol distearate & laureth-4 & cocamidopropyl betaine	Henkel
Eusolex OCR	Octocrylene	Rona/EM
Eusolex T2000	Micron titanium dioxide	Rona/EM
Eusolex 232	Phenylbenzimidazole sulfonic acid	Rona/EM
Eusolex 4360	Benzophenone-3	Rona/EM
Eusolex 6300	4-methylbenzylidene camphor	Rona/EM
Eusolex 8020	Isopropyl dibenzoylmethane	Rona/EM
Eusolex 9020	Butyl methoxydibenzoylmethane	Rona/EM
Eutanol G	Octyldodecanol	Henkel
Eutanol G-16	Isocetyl alcohol	Henkel
Euxyl K400	Methyldibrome glutaronitrile & phenoxyethanol	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Extrapon Biopollin	Spezial plant extract	Dragoco
Extrapon Chamomile	Spezial	Dragoco
Extrapon Henna		Dragoco
Extrapon Kamille	Spezial	Dragoco
Extrapon Phytostimulin	Spezial	Dragoco
Extrapone Witch Hazel	plant extract	Dragoco
FancoI IPL		Fanning
FD&C Red #40	Aluminum Lake	Hilton
FD&C Yellow #5	Aluminum Lake	Tricon
FG-10 Antifoam Emulsion	Simethicone	
Finsolv TN	C12-15 Alcohols benzoate	Finetex
Fitobroside	Wheat germ extract	Pentap
Fitoderm	Squalane	Pentap
Flamenco Ultrasilk 2500	Pearl pigment	Mearl
Floral Gardenia Fragrance	169-724 perfume	Alpine
Fragrance HB-635	Perfume	ShawMu
Fragrance HJ-416	Perfume	ShawMu
Fragrance J6-712-A	Perfume	Bell
Fragrance J-6636	Perfume	Bell
Fragrance Pina Colada	Perfume	Robert
Fragrance Q-14662	Perfume	
Fragrance TC-726	Perfume	
Fragrance #830079	Perfume	ShawMu
Fragrance #99189 "Twister"	Perfume	Drom

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
G-2330 & G-4822		
Gafquat 755	Cationic copolymer	ISP
Ganex V-220	PVP/Eicosene copolymer	ISPSutt
Ganex WP-660	Tricontanyl PVP	ISPSutt
Genagen CA-050	PEG-5 Cocamide	Hoechst
Genagen CAB	Cocamidopropyl betaine	Hoechst
Genagen CAB 818	Cocamidopropyl betaine	Hoechst
Genamin CTAC	Cetrimonium chloride	Hoechst
Genamin DSAC	Distearyldimonium chloride	Hoechst
Genamin EQ	Distearoylethyl dimonium chloride	Hoechst
Genamin KDMP	Behentrimonium chloride	Hoechst
Genamin KSL	PEG-5 stearyl ammonium lactate	Hoechst
Genamin STACP	Steartrimonium chloride	Hoechst
Genamin AMS	TEA-PEG-3 cocamide sulfate	Hoechst
Genapol L-3	Laureth-3	Hoechst
Genapol LRO	Sodium laureth sulfate	Hoechst
Genapol PGL	Glycol distearate, cocamide MEA, PPG-4-deceth-4	Hoechst
Genapol PGM	Sodium laureth sulfate, glycol distearate, cocamide MEA	Hoechst
Genapol PNG	Behenic acid, sodium laureth sulfate, sodium cocoyl isethionate	Hoechst
Genapol SBE	Disodium laureth sulfosuccinate	Hoechst
Genapol TSM	PEG-3 distearate, sodium laureth sulfate	Hoechst
Genapol ZRO liquid	Sodium laureth sulfate	Hoechst
Germaben II & II-E	Cosmetic preservatives	ISPSutt

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Germall Plus & II	Diazolidinyl ureas	ISPSutt
Germall 115	Imidazolidinyl urea	ISPSutt
Geropon SBL-203	Disodium lauramide (MEA) sulfosuccinate	Rhodia
Ginseng Extract		Cosmet
Gludin Almond	Hydrolyzed sweet almond protein	Henkel
Gludin WP	Hydrolyzed wheat protein	Henkel
Gludin WQ	Laurdimonium hydroxypropyl hydrolyzed wheat protein	Henkel
Glucam E10	Methyl gluceth-10	Amerch
Glucam E20 Distearate	Methyl gluceth-20 distearate	Amerch
Glucam P-10	PPG-10 methyl glucose ether	Amerch
Glucamate DOE 120	PEG-120 Methyl glucose dioleate	Amerch
Glucamate SSE 20	PEG-20 Methyl glucose	Amerch
Glucate DO	Methyl glucose dioleate	Amerch
Glucate SS	Methyl glucose sesquistearate	Amerch
Glycerine BP		
Glycerox HE	PEG-7 glycerox cocoate	
Glycoderm (P)		Richter
Glydant Plus	DMDM hydantoin & iodopropynyl butylcarbamate	Lonza
GMS A/S	Glyceryl stearate & PEG-100	Croda
GMS N/E & GMS SE	Glyceryl stearates	Croda
Gorgonian Extract	Butylene glycol & seawhip extract *Patented	Lipo
Grapeseed Oil		Polyst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hampene Na2T	Disodium EDTA	Hampshi
Hampene Na3T	Tetrasodium EDTA	Hampshi
Hampene 220	Tetrasodium EDTA	Hampshi
Hamposyl C-30	Fatty acid sarcosinate	Hampshi
Herbasol Extract Apricot		Cosmet
Herbasol Extract Chamomile		Cosmet
Herbasol Extract Cucumber		Cosmet
Herbasol Extract Wheat Germ		Cosmet
Hombitec L5	Micronized titanium dioxide	FaSacht
Hostacerin DGI	Polyglyceryl-2 sesquiosostearate	Hoechst
Hostacerin DGL	Polyglyceryl-2 PEG-10 laurate	Hoechst
Hostacerin DGMS	Polyglyceryl-2 stearate	Hoechst
Hostacerin DGSB	Polyglyceryl-2 PEG-4 Stearate	Hoechst
Hostacerin T-3	Ceteareth-3	Hoechst
Hostacerin WO	Polyglyceryl-2 sesquiosostearate...	Hoechst
Hostaphat CG120	Isostearyl phosphate	Hoechst
Hostaphat KL 340N	Trilaureth-4 phosphate	Hoechst
Hostaphat KML	Laureth-4 phosphate, polyglyceryl-2 sesquiosostearate	Hoechst
Hostaphat KW 340N	Triceteareth-4 phosphate	Hoechst
Hostapon CT Paste	Sodium methyl cocoyl taurate	Hoechst
Hostapon KCG	Sodium cocoyl glutamate	Hoechst
Hostapon SCID	Sodium cocoyl isethionate	Hoechst
Hostapur SAS 60	Sodium C14-17 sec alkyl sulfonate	Hoechst
HTL MYP Hyaluronic Acid		
Hyasol-BT	Sodium hyaluronate	Pentaph

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Hydagen B	Bisabolol	Henkel
Hydagen CMF	Chitosan glycolate	Henkel
Hydrolupin AA	Lupin amino acids	
Hydrosesame AA	Sesame seed amino acids	Croda
Hydrotriticum QM	Cocodimonium hydroxypropyl hydrolyzed wheat protein	Croda
Hydrotriticum WAA	Wheat amino acids	Croda
Hydroxyoctacosanyl Hydroxystearate		Connock
Hygroplex HHG	Moisture factor	Richter
Hyladerm	Hyaluronic acid	Amerch
Hylucare	Hyaluronic acid	
Hypan SA100H	Acrylic acid/acrylonitrogens copolymer	
H2OLD EP-1		ISP
Imwitor 370	Glyceryl stearate citrate	Huls
Imwitor 375	Glyceryl citrate/lactate/linoleate/oleate	Huls
Imwitor 377	Glyceryl laurate/citrate/lactate	Huls
Imwitor 380	Glyceryl cocoate/citrate/lactate	Huls
Imwitor 780K	Isostearyl diglyceryl succinate	Huls
Imwitor 900	Glyceryl stearate	Huls
Imwitor 928	Glyceryl cocoate	Huls
Imwitor 960 flakes	Glyceryl stearate SE	Huls
Incromectant LAMEA	Acetamide MEA & lactamide MEA	Croda
Incromide LR	Lauramide DEA	Croda
Incromine Oxide C	Cocamidopropylamine oxide	Croda

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Incronam 30	Cocamidopropyl betaine	Croda
Incroquat Behenyl HE	Behenamidopropyl hydroxyethyl dimonium chloride	Croda
Incroquat Behenyl TMS	Behentrimonium methosulfate & cetearyl alcohol	Croda
Incroquat CTC-30	Cetrimonium chloride	Croda
Incroquat Erucyl HE	Hydroxyethyl erucamidopropyl dimonium chloride	Croda
Incroquat HO-80PG	Dioleoylamidoethyl hydroxyethylmonium methosulfate	Croda
Incroquat UV-283	Cinnamidopropyltrimonium chloride	Croda
Indinyl CA	Cassia augustifolia seed polysaccharides	LabSero
Indopol H100	Polybutene	Amoco
Insect Repellent 3535	Ethyl butylacetylaminopropionate	MGK
Irgasan D9300	Triclosan	Ciba
Irgasan DP300	Triclosan	Ciba
Iricalmin	Water, wheat germ extract,.....	
Iron Oxide Black #C-UR2500		
Iron Oxide Red #C-UR1800		
Iron Oxide Yellow #C-UR0200		
Iron Oxide, Red C33-8075		
Iron Oxide, Yellow C33-8073		
Iron Oxide, Black C33-134		
Iron Oxide Brown 7061		Whittak
Iron Oxide Red 7054		Whittak
Iron Oxide Yellow 7055		Whittak
Iso-Adipate	Diisopropyl adipate	Dragoco
Isobeeswax SP154	Beeswax & candelilla wax &.....	Strahl
Isopar H	Isoparaffin solvent	Exxon
Ivarlan 3100	Lanolin oil	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Jaguar C-13S & C-162	Guar hydroxypropyltrimonium chloride	RhoneP
Jarcol I-20	Octyldodecanol	Jarchem
Jojoba Wax Prills		Connock
Kaolin 2457		
Karion F	Sorbitol	EMerck
Katemul IGU-70	Isostearamidopropyl dimethylamine gluconate	Scher
Kathon & Kathon CG	Methylchloroisothiazolinone & methylisothiazolinone	Rohm&
Kaya EV 2940	Fragrance	Essenci
Kelco BT	Xanthan gum	Nutrasw
Kelcoloid S	Propylene glycol alginate	Nutrasw
Keltrol & Keltrol F	Xanthan gum	Nutrasw
Keltrol Gel	Hydrogel based on xanthan	Nutrasw
Kelzan S	Xanthan gum	Nutrasw
Kessco Glyceryl Monostearate		Stepan
Klearol	Mineral oil	Witco
Kytamer PC	Chitosan PCA	Amerch
Lactil	Sodium lactate & sodium PCA &	Goldsch
Lactokine Fluid		Richter
Lameform TGI	Polyglyceryl-3 diisostearate	Henkel
Lamepon S	Potassium cocoyl hydrolyzed collagen	Henkel
Lamesoft PO65	Coco-glucoside & glyceryl oleate	Henkel
Lamesoft PW45	Lipid layer enhancer	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lanapene		Lanaete
Lan-Aqua-Sol 50 & 75		
Lanette O	Cetearyl alcohol	Henkel
Lanette 16	Cetyl alcohol	Henkel
Lanfrax	Lanolin wax	Henkel
Lanodent DM	DMDM hydantoin preservative	
Lanogene		
Lanolin USP X-Tra Deo	Emollient	Rita
Lily White Petrolatum	Moisturizer	
Lipamide LMEA	Lactamide MEA	Lipo
Lipamide MEAA	Acetamide MEA	Lipo
Lipex Canola-U	Canola oil unsaponfiables	Jarchem
Lipex Shea-U	Shea butter unsaponfiables	Jarchem
Lipex 106 E75-50%	PEG-75 Illipe butter glycerides	Jarchem
Lipex 120	Canola oil	Jarchem
Lipex 203	Mango seed oil	Jarchem
Lipex 203 E70-50%	PEG-70 mango seed glycerides	Jarchem
Lipex 403	Hydrogenated palm kernel oil	Jarchem
Lipex 408	Hydrogenated vegetable oil	Jarchem
Lipex 512	Shea butter	Jarchem
Lipo CD-SA		Lipo
Lipocol C	Cetyl alcohol	Lipo
Lipo GMS-450	Glyceryl stearate	Lipo
Lipo GMS-470	Glyceryl stearate SE	Lipo
Lipolan Distilled	Lanolin derivative	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipo Lecithin		Lipo
Liponic 601 BN	Mica & boron nitride	Lipo
Lipomulse 165	Glyceryl stearate & PEG-100 stearate	Lipo
Liponate IPP	Isopropyl palmitate	Lipo
Liponate NPGC-2	Neopentyl glycol dicaprylate/ dicaprinate	Lipo
Liponate PS-4	Pentaerythrityl tetrastearate	Lipo
Liponate TDTM	Tridecyl trimellitate	Lipo
Liponate 2DH	PEG-4 diheptanoate	Lipo
Liponic EG-1	Glycereth-26	Lipo
Lipopeg 100-S	Polyoxyethylene fatty acid esters	Lipo
Lipopeg 6000 DS	PEG-150 distearate	Lipo
Lipoquat R	Ricinoleamidopropyl ethyldimonium ethosulfate	Lipo
Liposilt Black	Silt	Lipo
Liposilt Green	Silt	Lipo
Liposorb O-20	Polysorbate 80	Lipo
Liposorb S	Sorbitan ester	Lipo
Lipo Stearic Acid		Lipo
Lipovol A	Avocado oil	Lipo
Lipovol CO	Castor oil	Lipo
Lipovol G	Grape seed oil	Lipo
Lipovol J	Jojoba oil	Lipo
Lipovol MAC	Macademia ternifolia nut oil	Lipo
Lipovol SAF	Safflower oil	Lipo
Lipovol SES	Sesame oil	Lipo

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Lipovol WGO	Wheat germ oil	Lipo
Lipowax D	Cetearyl alcohol & ceteareth-20	Lipo
Lipowax G	Stearyl alcohol & ceteareth-20	Lipo
Lipowax P	Cetearyl alcohol & polysorbate 60	Lipo
Liquapar Oil	Paraben preservative	ISPSut
Liquid Crystal CN/G9		Presper
Locron L	Al-hydroxide chloride	Hoechst
Locron P	Aluminum chlorhydrate	Hoechst
Lonza G-100	Glycerin	Lonza
Lovocryl 47		NatStar
Lubrajel CG & DV & MS & Oil & TW	Lubricating jelly	UnitedG
Lunacera M & P	Microwaxes	Fuller
Luviskol VA64	PVA-VA copolymer	BASF
Luviskol VA64I	PVA-VA copolymer, Isopropyl alcohol	BASF
Luvitol EHO	Cetearyl octanoate	BASF
Mackadet BBC	Disodium laureth sulfosuccinate & sodium laureth sulfate	McIntyr
Mackadet BSC	Baby shampoo concentrate	McIntyr
Mackadet BW-173	Sodium lauryl sulfate & cocamide DEA & cocamidopropyl betaine	McIntyr
Mackadet CA	Sodium laureth sulfate & sodium ...	McIntyr
Mackadet CBC	Conditioner concentrate	McIntyr
Mackadet INC	Conditioner concentrate	McIntyr
Mackadet LCB	Liquid conditioner concentrate for cold blending	McIntyr

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackadet SBC-8	Mild shampoo blend	McIntyr
Mackadet WGS	"Animal-free" shampoo blend	McIntyr
Mackadet 40-K	Potassium cocoate	McIntyr
Mackalene NLC	Oleamidopropyl dimethylamine lactate &	McIntyr
Mackalene 116	Cocamidopropyl dimethylamine lactate	McIntyr
Mackalene 316	Stearamidopropyl dimethylamine lactate	McIntyr
Mackalene 326	Stearamidopropyl morpholine lactate	McIntyr
Mackalene 426	Isostearamidopropyl morpholine lactate	McIntyr
Mackalene 716	Wheatgermamidopropyl dimethylamine lactate	McIntyr
Mackam CB	Coco betaine	McIntyr
Mackam CET	Cetyl betaine	McIntyr
Mackam HPC-32	Sodium cocoamphoacetate	McIntyr
Mackam WGB	Wheatgermamidopropyl betaine	McIntyr
Mackam 2C	Cocoamphodiacetate	McIntyr
Mackam 2CY-75	Disodium capryloamphodiacetate	McIntyr
Mackam 2S	Disodium soyamphodiacetate	McIntyr
Mackam 35&35HP&35UL	Cocamidopropyl betaine	McIntyr
Mackamide AME-100 & AME-75	Acetamide MEA	McIntyr
Mackamide C & CMA & CS	Cocamide DEA	McIntyr
Mackamide L-10 & LLM & LMD	Lauramide DEA	McIntyr
Mackamide PKM	Palmkernelamide MEA	McIntyr
Mackamide S	Soyamide DEA	McIntyr

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackamine CAO	Cocamidopropylamine oxide	McIntyr
Mackamine WGO	Wheatgermamidopropylamine oxide	McIntyr
Mackanate CP	Disodium cocamide MIPA sulfosuccinate	McIntyr
Mackanate DC-30	Disodium dimethicone copolyol sulfosuccinate (30%)	McIntyr
Mackanate EL	Disodium laureth sulfosuccinate	McIntyr
Mackanate LA	Diammonium lauryl sulfosuccinate	McIntyr
Mackanate LO & LO-Special	Disodium lauryl sulfosuccinate	McIntyr
Mackanate NLP	Disodium cocamide MIPA sulfosuccinate	McIntyr
Mackanate OM	Disodium oleamido MEA sulfosuccinate	McIntyr
Mackanate OP & OPS	Disodium oleamido MIPA sulfosuccinate	McIntyr
Mackanate WGD	Wheatgermamido PEG-2 sulfocuccinate	McIntyr
Mackernium SDC-25 & SDC-85	Stearalkonium chloride	McIntyr
Mackernium 007	Polyquaternium-7	McIntyr
Mackester EGDS	Glycol distearate	McIntyr
Mackester EGMS	Glycol stearate	McIntyr
Mackester SP	Glycol stearate & stearamide MEA	McIntyr
Mackine 301	Stearamidopropyl dimethylamine	McIntyr
Mackol 70NS	Sodium laureth sulfate-70%	McIntyr
Mackpearl 202	Pearling agent	McIntyr
Mackpro NLP	Quaternium-79 hydrolyzed collagen	McIntyr
Mackpro NSP	Oleyl/palmityl/palmitoleamido-propyl/silkhydroxypropyl dimonium chloride	McIntyr

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Mackpro WLW	Wheatgermamidopropyl hydroxypropyl dimonium hydrolyzed wheat protein	McIntyr
Mackpro WWP	Wheatgermamidopropyl dimethylamine hydrolyzed wheat protein	McIntyr
Mackstat DM	DMDM hydantoin	McIntyr
Mackstat SBC-8	Mild shampoo blend	McIntyr
Magnesium Aluminum Silicate		Vander
Mag Sulphate BP Super Pearl		
Maltrin MO40	Maltodextrin	GrainPr
Mariscan	Glycoamionglycans	
Marlamid DF1218	Cocamide DEA	Huls
Marlinat CM100	Laureth-11 carboxylic acid	Huls
Marlinat CM105	Sodium laureth-11 carboxylate	Huls
Marlinat 242/28	Sodium laureth sulphate	Huls
Marlipal 1618/25	Ceteareth-25	Huls
Mazon EE-1	Benzyl laurate	PPG
Mearlite GBU	Synthetic pearl pigment	Engelha
Mearl Mica SVA	Cosmetic mica powder	Engelha
Mearl Talc TCA	Treated cosmetic talc	Engelha
Medialan LD	Sodium lauroyl sarcosinate	Hoechst
Merquat 550	Polyquaternium-7	Calgon
Merquat Plus 3330	Polyquaternium-39	Calgon
Methocel E4M & FYM & 40-202	Hydroxypropyl methyl cellulose	Dow
Methoxy PEG 22 Dodecylglycol Copolymer		Connock
Micro LA20	Titanium dioxide	Grant

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Micro Titanium Dioxide	MT-100T & MT-150W	
Miglyol Gel B	Caprylic/capric triglyceride & ...	Huls
Miglyol 810 & 812	Caprylic/capric triglyceride	Huls
Miglyol 818	Caprylic/capric/linoleic triglyceride	Huls
Miglyol 829	Caprylic/capric/succinic triglyceride	Huls
Miglyol 840	Propylene glycol dicaprylate/dicaprate	Huls
Miglyol 840-Gel B	Propylene glycol dicaprylate/dicaprate & stearalkonium....	Huls
Milfoil Extract		Kelisem
Mineral Colloid BP	Montmorillonite	ECCAmer
Mineral Oil #35		Penreco
Mirasil SM	Simethicone	RhonePo
Modulan	Acetylated lanolin	Amerch
Monamid 150 ADD	Super fatty alkanolamide	Mona
Monomuls 60-35C Pdr	Hydrogenated palm glycerides	Henkel
Monawet MO-70R	Wetting agent	Mona
Monawet MO85P	Sodium dioctylsulfosuccinate	Mona
Mowiol 10-98	Polyvinyl alcohol copolymer	Hochst
Multiwax W445	Microcrystalline wax	Witco
Myracet 9-45	Distilled acetylated monoglyceride	
Myratex Texture Lite	Emulsifier	Henkel
Myritol PC	Propylene glycol dicaprylate/dicaprate	Henkel
Myritol 318	Caprylic/capric triglyceride	Henkel

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Myritol 331	Cocoglycerides	Henkel
Myrj 52S	PEG-40 stearate	ICI
Myverol 18-06	Monoglyceride	
Nalidene 50	Sodium PCA	
Nanox	Zinc oxide	Rheox
Natrosol 250 HHR	Hydroxyethylcellulose thickener	Aqualon
Neo Heliopan AV	Octyl methoxycinnamate	Haarman
Neo Heliopan BB	Benzophenone-3	Haarman
Neo Heliopan Type DS	Octyl salicylate	Haarman
Neo Heliopan E 1000	Isoamyl p-methoxycinnamate	Haarman
Nimlesterol D	Mineral oil	Malmstr
Ninol 2012 Extra	Alkylolamide	Stepan
Non-Fat Dry Milk		Carnati
Novarome NC-46/NC-48	Fragrance	
Number One 908 CK	Fragrance	
Nuosept C	Polymethoxy bicyclic oxazolidine	Huls
Nutrilan I	Collagen	Henkel
Octopirox	Piroctone olamine	Hoechst
Ohlan		
Oil of Orchids (OS) (WS)		UnitedG
Orgasol 2002D Nat Cos	Nylon-12	Lipo
Oxynex K Liquid	PEG-8 & Tocopherol & Ascorbyl...	Zschimm
Ozokerite FFW	Ozokerite	Ross
Ozokerite Wax White	SP 1020	Strahl

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Panacete 810	Vegetable oil	
Panalane L14E	Hydrogenated polyisobutene	Amoco
Panthenol 50P	D-Panthenol	BASF
Paraffin Oil Liquid	Mineral oil	
Paragon	Propylene glycol & DMDM hydantoin & Methylparaben	McIntyr
Paragon II	Propylene glycol & DMDM hydantoin & methylparaben & propylparaben	McIntyr
Paragon III	Phenoxyethanol & DMDM hydantoin & methylparaben & propylparaben	McIntyr
Parfex 52255	Fragrance	Givaud
Parsol		Givaud
Parsol MCX	Octyl methoxycinnamate	Givaud
Parsol 1789	Butyl methoxydibenzoylmethane	Givaud
Pationic SBL	Sodium behenoyl lactylate	Rita
Pationic SCL	Sodium cocoyl lactylate	Rita
Pationic SSL	Sodium stearoyl lactylate	Rita
PCL-Liquid	Synthetic rump fat	Dragoco
PCL-Solid	Stearyl heptanoate, stearyl caprylate	Dragoco
Pearl Pigments	Timirona starlight colors, Colorona bronze sparkle, Timiron MP-149	Rona
PEG-20 Almond Glycerides	Emollient/solubilizer	Croda
PEG 45 Dodecylglycol Copolymer		Connock
PEG-120 Jojoba Acid & PEG-120 Jojoba Alcohol		IntFlor
PEG-150 Pentaerythrityl Tetrastearate		Croda
PEG-400	PEG-8	Hoechst

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
PEG 600		UnionCa
PEG-800	Polyethylene glycol-16	ICI
Pelemol CA	Cetyl acetate	
Pemulen TR-1 & TR-2	Acrylates/C10-30 alkyl acrylate crosspolymer	BFGood
Pentacare HP	Water, locust bean gum, hydrolyzed casein	
Pentavitin	Saccharide isomerate	Pentap
Peppermint Oil RM-116		
Perluoromethylisopropyl Ether film former		Ausimon
Perf. Rainforest	Perf. compound	AustAr
Perfume 72979		
Permulgin 4101	Co-emulsifier	Keunen
Permulgin 4200	Microcrystalline wax	Keunen
Phenonip	Esters of p-hydroxybenzoic acid	NipaHar
Phytaluronate	Locust bean gum	
Phytoderm Complex G	Propylene glycol & Licorice extract	Cosmeto
Pineapple Flavor 4-430	flavoring	Glidco
Pionier WWH salt	Ointment base	Hansen&
Placentaliquid, aqueous		Richter
Plantacare PS10	Sodium laureth sulfate & lauryl glucoside	Henkel
Plantacare 818 & 818 UP	Coco glucoside	Henkel
Plantacare 1200 UP	Lauryl glucoside	Henkel
Plurol Stearique	Polyglyceryl-6 distearate	Gattef
PNC 400	Sodium carbomer	3VGmbH

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Polawax	Emulsifying wax	Croda
Polawax GP200	Nonionic emulsifying wax	Croda
Polychol 5	Ethoxylated lanolin alcohol	Croda
Polyethylene Glycol 400/PEG-8		
Polyethylene Glycol 1500/PEG-30		
Polajel		UnitedG
Polymer JR400	Polyquaternium-10	Amercho
Polysorbate 20		Connock
Polysorbate 80		Protame
Polysynlane	Hydrogenated polyisobutene	Polyest
Poviderm SK3	Polyvinylpyrrolidone	ISP
Preregen	Soybean (glycine soya) protein, oxide reductases	Pentaph
Prisorine 2021	Isopropyl isostearate	Unichem
Prisorine 2039	Isostearyl isostearate	Unichem
Prisorine 3630	Trimethylolpropane triisostearate	Unichem
Prisorine 3631	Pentaerythritol tetraisostearate	Unichem
Promulgen D	Cetearyl alcohol, cetareth-20	Amercho
Promulgen G	Stearyl alcohol, cetareth-20	Amercho
Propal	Isopropyl palmitate	Amercho
Propanediol-1,2	Propylene glycol	
Protachem GL-26	Glycereth-26	
Protachem GMS-450	Glyceryl stearate	
Protachem IPP	Isopropyl palmitate	
Provitamin B	Panthenol	

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Purac HiPure 88	Lactic acid	Purac
Purac PF P/41 & PH90	Lactic acid	Purac
Purasal S HiPure 60	Lactate-sodium	Purac
Purasal S/HQ 60	Lactate-sodium	Purac
Purasal S/PF 60	Sodium lactate (60%)	Purac
Purasal S/PF 90	Sodium lactate	Purac
VVP-K30		
VVP/VA E335		
Quatrex S	Quaternary ammonium compound	Chemron
Quickpearl II		
Raffermin	Hydrolyzed soy flour	
Refined Jojoba Oil	Jojoba oil	
Regent Petrolatum	Petrolatum	
Resyn 26-1314	Polyvinyl acetate	NatStar
Resyn 28-2930	Polyvinyl acetate	NatStar
Retinyl Palmitate		Hoffman
Revitalin-BT	Glyco proteins	
Rezal 36 GP	Aluminum zirconium tetrachloro-hydrax GLY	Reheis
Rhodacal A246/L	Sodium C14-16 olefin sulfonate	Rhone-
Rita Cetearyl Alcohol		Rita
Rita Cetearyl Alcohol	50/50 emulsifier	Rita
Ritachol	Mineral oil & lanolin alcohol	Rita
Ritachol SS	Stearyl stearate	Rita

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Rita EGMS	Glycol stearate/emulsifier	Rita
Rita Glycerine	Humectant	Rita
Rita GMS	Glyceryl stearate/emulsifier	Rita
Rita HA C-I-C	Sodium hyaluronate	Rita
Rita IPP	Isopropyl palmitate/emollient	Rita
Ritalan	Lanolin oil/emollient	Rita
Ritaloe 20X	Aloe vera/moisturizer	Rita
Ritaloe 200M	Aloe vera gel/moisturizer	Rita
Ritamectant PCA	Sodium PCA/moisturizer	Rita
Rita Methylparaben	Preservative	Rita
Rita Propylparaben	Preservative	Rita
Ritasil 190	Dimethicone copolyol lubricant	Rita
Ritasol	Isopropanol lanolate/emollient	Rita
Rita SSO	Sunflower seed oil/emollient	Rita
Ritoleth-10	Oleth-10	
Rivalia 0/221212	Fragrance	
Robane	Squalane NF	Robeco
Rose Extract		Cosmet
Rose Fragrance 34844		Alpine
Ross Microcrystalline Wax 1275W & 1275WH & 1329/1		Ross
Ross Ozokerite Wax 77W		Ross
Ross Refined Candelilla Wax		Ross
Ross Refined #1 Yellow Carnauba Wax		Ross
Ross Spermaceti Wax Substitute		Ross

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Ross Spermaceti Wax Sub. 573		Ross
Rosswax 63-0412		Ross
Rosswax 2540		Ross
Ross White Bleached Beeswax		Ross
Rovisome-AHA	Sodium lactate & alcohol & lecithin/ liposome	
Safester A-75		Induche
Sandhill 4028	Fragrance	Essenci
Schercamox CAA-G(35%)	Disodium oleamido PEG-2 sulfo- succinate	Scher
Schercemol BE	Behenyl erucate	Scher
Schercemol CO	Cetyl octanoate	Scher
Schercemol DIA	Diisopropyl adipate	Scher
Schercemol DID	Diisopropyl dimer dilinoleate	Scher
Schercemol DIS	Diisopropyl sebacate	Scher
Schercemol DISD	Diisostearyl dimer dilinoleate	Scher
Schercemol GMIS	Glyceryl monoisostearate	Scher
Schercemol IDO	Isodecyl oleate	Scher
Schercemol Mel-3	Myreth-3 laurate	Scher
Schercemol Mel-9	Myreth-9 laurate	Scher
Schercemol MM	Myristyl myristate	Scher
Schercemol NGDC	Neopentyl glycol dicaprato	Scher
Schercemol NGDO	Neopentyl glycol dioctanoate	Scher
Schercemol PEG 400DS	PEG 8 distearate	Scher
Schercemol PGMS	Propylene glycol stearate	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Schercemol TISC	Triisostearyl citrate	Scher
Schercemol TIST	Triisostearyl trimerate	Scher
Schercemol 185	Isostearyl neopentanoate	Scher
Schercemol 318	Isopropyl isostearate	Scher
Schercomid AME-70	Acetamide MEA	Scher
Schercomid AME-100	Acetamide MEA	Scher
Schercomid LME-75	Lactamide MEA	Scher
Schercomid SAP	Apricot kernel DEA	Scher
Schercomid SCO-EX	Cocamide DEA	Scher
Schercomid SLM-LC	Lauramide DEA	Scher
Schercomid SL-ML	Lauramide DEA	Scher
Schercomid SWG	Wheat germ diethanolamide	Scher
Schercopol DOS-70	Dioctyl sodium sulfosuccinate	Scher
Schercopol OMES-Na (35%)	Disodium oleamido PEG-2 sulfosuccinate	Scher
Schercopol OMS-Na(35%)	Disodium oleamido MEA sulfosuccinate	Scher
Schercoquat ALA	Di-lauryl acetyl dimonium chloride	Scher
Schercoquat APAS(90%)	Apricotamidopropyl ethyldimonium ethosulfate	Scher
Schercoquat DAS	Quaternium-61	Scher
Schercoquat IALA	Isostearamidopropyl laurylaceto- dimonium chloride	Scher
Schercoquat IAS & IAS-LC	Isostearamidopropyl ethyl dimonium ethosulfate	Scher
Schercoquat SOAS	Soyamidopropyl ethyldimonium	Scher
Schercoquat WOAS	Wheat germ amidopropyl ethyldi- monium ethosulfate	Scher

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Schercoquat IIS-LC	Isostearyl ethyl imidonium etho-sulfate	Scher
Schercotaine APAB	Apricotamidopropyl betaine	Scher
Schercotaine CAB-G	Cocamidopropyl betaine	Scher
Schercotaine CAB-Z	Cocamidopropyl betaine-zinc	Scher
Schercotaine SCAB-G	Cocamidopropyl hydroxy sultaine	Scher
Schercotaine UAB	Bis(Undecylenic amidopropyl di-methyl glycine)	Scher
Schercotaine WOAB	Wheat germ amidopropyl betaine	Scher
Sepiegel 305	Thickener	Seppic
Sericin		Pentaph
Sericite GMS-4C	Mica	
Sesame Oil		Polyest
SF-96	Dimethicone emollient	GESil
SF1173 Silicone	Cyclotetrasiloxane	GESil
SF1188A Silicone	Dimethicone copolyol	GESil
SF1202 Silicone	Cyclopentasiloxane	GESil
SF1204 Silicone	Cyclomethicone	GESil
SF1214 Silicone	Cyclopentasiloxane & dimethicone	GESil
SF1236 Silicone	SF1236 dimethicone	GESil
SF1276 Silicone	SF1276 dimethicone	GESil
SF1288 Silicone	Dimethicone copolyol	GESil
SF1318 Silicone	Diisostearyl trimethylolpropane siloxy silicate	GESil
SF1328 Silicone	Cyclomethicone & dimethicone copolyol	GESil
SF1528 Silicone	Cyclopentasiloxane & dimethicone copolyol	GESil

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
SF1550 Silicone	Phenyl trimethicone	GESil
SF1555 Silicone	Bis-phenylpropyl dimethicone	GESil
SF1632 Silicone	Cetearyl methicone	GESil
SF1642 Silicone	C30-45 alkyl dimethicone	GESil
SF1708 Amine Silicone	Trimethylsilylamodimenthicone	GESil
SFE839 Elastomer Disp	Cyclopentasiloxane & dimethicone/ vinyl dimethicone crosspolymer	GESil
Shebu Refined	Shea butter/emollient	
Shinju 100T White	Synthetic pearl pigment	Mearl
Sicovit Patentblau 85	E131: C.I. 42051/Acid Blue 3	
Silikonol AK350		Wacker
Silicon Oil AK500	Dimethicone	Wacker
Silicon Oil AR200		Wacker
Silicone 200/100	Dimethicone	DowCorn
Silkall 100	Silk powder	Polyest
Silkpro	Hydrolyzed silk	Polyest
Silsoft A-843		NatStar
Silwet L-7657	Dimethicone copolyol	Witco
Sipon ES-2	Sodium lauryl ether sulfate	
SM2101 Silicone	35% emulsion of a non-reactive aminofunctional silicone fluid	GESil
SM2115 Silicone	Amine functional silicone micro- emulsion	GESil
SM2169 Silicone	60% emulsion of a 60,000 cst dimethicone fluid	GESil
SM2658 Silicone Emulsion	Cationic emulsion of an amine functional polymer	GESil

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
SM2725 Silicone Emulsion	Dimethiconol & sodium dodecylbenzenesulfonate	GESil
SM2765 Silicone Emulsion	Dimethiconol & sodium dodecylbenzenesulfonate	GESil
Snow Petrolatum		Penreco
Sodium Bicarbonate, Grade 3		Church&
Sodium Carboxymethylcellulose, Type 7H4F		Aqualon
Softigen 701	Glyceryl ricinoleate	Huls
Softigen 710		Huls
Softigen 767	PEG-6 caprylic/capric triglycerides	Huls
Softisan Gel	Complex of chemicals	Huls
Softisan 100	Hydrogenated cocoglycerides	Huls
Softisan 378	Caprylic/capric/stearic triglyceride	Huls
Softisan 601	Glyceryl cocoate & hydrogenated coconut oil & cetareth-25	Huls
Softisan 645 & 649	Bis-diglyceryl polyacyladipate-2	Huls
Solan 50	PEG-60 lanolin	Croda
Solimate "E"		UnitedG
Solubilizer S12	Nonoxynol-14	Givauda
Solulan C-24		Amercho
Solulan 16		Amercho
Solulan 75		Amercho
Solulan 98	Polysorbate 80, cetyl acetate, acetylated lanolin alcohol	Amercho
Solvent ID	Isododecane	
Sorbitan Palmitate		Connock

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sorbitol F Liquid		
Span 60	Surfactants	ICI
Span 80	Surfactants	ICI
Spearmint Oil RM-110		
Spectraveil IPM	Zinc oxide & isopropyl myristate	Dempsey
Spectraveil TG 40% Dispersion		Dempsey
Spermaceti Substitute #573 Cetyl Esters		
SPM Wax	Cetyl esters	Robeco
Squalane		Robeco
SR1000 Silicone Resin	Trimethylsiloxysilicate	GESil
SR4230 Silicone Resin	Cyclopentasiloxane & Trimethylsiloxysilicate	GESil
SS4267 Silicone Resin	Dimethicone & trimethylsiloxysilicate	GESil
Stabileze 06/QM		ISP
Standamox	Amine oxide	Henkel
Standapol A & EA-1	Alkyl ether sulfate/alkyl sulfate	Henkel
Stearic Acid No. 63-0412		Ross
Stearyl alcohol & cetareth-20		Lanaete
Stepanol AEG	Ammonium lauryl sulfate &.....	Stepan
Stepanol AM-V	Ammonium lauryl sulfate (30%)	Stepan
Stepanol WA Paste	Sodium lauryl sulfate	Stepan
Stepanol WA-100	Sodium lauryl sulfate	Stepan
Sucrose Distearate		Croda
Sulfochem ALS & AOS & B-209 & B-2090P & DLS & EA-2 & ES-2 & ES-3 & MG & MG-LC & SBS & SLS & SLX & TD-3 & TLS	Alkyl sulfate/alkyl ether sulfate	Chemron

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Sunflower Seed Oil		Polyest
Super Hartolan	Lanolin alcohol	Croda
Super Refined Wheat Germ Oil		Croda
Super Sterol Ester		Croda
Suttocide A	Neutralizer/preservative	ISPSutt
Sylodent D767 & 15 & 15X & 750 & 753 & 756		Davison
Talc 141 BC		Whittak
Talc 1629		Whittak
Teginacid	Glyceryl stearate & cetareth-20	Golds
Teginacid H	Glyceryl stearate & ceteth-20	Golds
Tegin M	Glyceryl stearate	Golds
Tegin P		Golds
Tego-Betaine F	Cocamidopropyl betaine	Golds
Tego Care 450	Polyglyceryl-3 methylglucose distearate	Golds
Tego-Glucoside L55	Lauryl glucoside, steareth-25, ceteth-20	Golds
Tego-Pearl N100	Glycol distearate, steareth-4	Golds
Tenox 2 & 6	Antioxidants	Eastman
Tensine	Wheat protein/Film former	
Texapon K14S70 Spec & K14S Spec	Sodium myreth sulfate	Henkel
Texapon NSO & N40 & N70	Sodium laureth sulfate	Henkel
Texapon SB3F & SB3KC	Disodium laureth sulfosuccinate	Henkel
Thixotrate		UnitedG

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Timica Golden Bronze	Mica & iron oxides & titanium dioxide	Mearl
Timica Gold Sparkle	Mica & titanium dioxide & iron oxides	Mearl
Timiron MP-1001	Mica & titanium dioxide	Rona
Tioveil AQN		Dempsey
Tioveil AQ-G	Water & titanium dioxide	Dempsey
Tioveil FIN		Dempsey
Tioveil IPM	Titanium dioxide & isopropyl myristate	Dempsey
Tioveil MOTG	Titanium dioxide & mineral oil & caprylic/capric triglyceride	Dempsey
Tioveil OP	Titanium dioxide & octyl palmitate	Dempsey
Tioveil TG	Titanium dioxide & caprylic capric triglyceride	Dempsey
Titanium Dioxide UH 0082		
Titanium Dioxide 328 & 3328		Whittak
TiO2 Sperse BG		Collab
T-Maz 20	Polysorbate 20	PPG
Tocopherol Acetate		Hoffman
Tospearl 120A, 130A, 145A, 2000 Fine Particle	Polymethylsilsesquioxane	GESil
	Silicone Resins	
Transcutol		
Trimarin 61636	Perfume	
Tris(hydroxymethyl)-aminomethane:	Tromethamine	Merck
Tritiplex III	Disodium EDTA	
Tween 60	Polysorbate 60	ICI
Tween 80	Polysorbate 80	ICI

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Tween 85	Polysorbate 85	ICI
Tylose H4000P & H1000 & H100000yp	Hydroxyethylcellulose	Hoechst
Ucare Polymer JR-30M & JR-400 & LR-30M & LR-400	Polyquaternium-10	UnionCa
Ultima Petrolatum	Petrolatum	
Ultrapure L	Petrolatum White USP	Ultra
Ultra Talc #4006		Ultra
Ultrez 10		
Unicerin C-30		Induc
Unicide U-13	Imidazolidinyl urea	Induc
Unimoist U-125		Induch
Uninontan U-34		
Unipabol U-17	PEG-25 PABA	
Uniphen P-23	Preservative	Induc
Unipherol U-14		Induc
Unispheres YE-501 Yellow		Induc
Unistab S-69	Farnesol & linalool	UnCarb
Unitrienol T-27	Farnesyl acetate & farnesol & panthenyl triacetate	Induc
Unitwix		UnitedG
Uvinul O-18	Octyl salicylate	BASF
Varisoft CRC	Cetearyl alcohol & dicetyldim- onium chloride & stearamido- propyl dimethylamine	Witco
Veegum & HR & HV & Regular & Ultra	Magnesium aluminum silicate	Vander

RAW MATERIALS	CHEMICAL DESCRIPTION	SOURCE
Viscarin SD389 & TP389	Carrageenan	FMC
Viscasil 60M	Dimethicone	GESil
Vitamin A Palmitate	Retinyl palmitate	
Vitamin A Palmitate Type PIMO/BH	Corn oil & retinyl palmitate	
Vitamin E Acetate	Tocopheryl acetate	
Vitamin E Linoleate	DL-alpha-tocopherol linoleate	Bleakle
Volatile Silicone VS-7158 or VS-1758		Witco
Volpo 20	Oleth-20	Croda
Wacker-Belsil CM040	Cyclomethicone	Wacker
Wacker-Belsil DM100	Dimethicone	Wacker
Wacker-Belsil DM350	Dimethicone	Wacker
Wacker-Belsil DMC6038	Dimethicone copolyol	Wacker
Wacker-Belsil SDM6022	Stearoxy dimethicone, dimethicone	Wacker
Wacker-Belsil TMS 3069 VP	Dimethicone, trimethylsiloxysilicate	Wacker
Wacker Emulsion E32	Stearoxy methicone, trideceth-10	Wacker
Wacker HDK H15	Silica dimethyl silylate	Wacker
Walnut Shell Powder		Connock
White Beeswax	Beeswax	
White Ozokerite 77W	Ozokerite	
Witcamide 511	Alkanolamide surfactant	Witco
Witconol 14	Polyglyceryl-4 oleate	Witco
Witco White Petrolatum		Witco
Witepsol H15	Hard fat, DAB10	Huls

Section XIV

Suppliers' Addresses

Active Organics Inc.
11230 Grader St.
Dallas, TX 75238
(214)-348-2015/(800)-541-1478

Ajinomoto USA, Inc.
500 Frank W. Burr Blvd.
Glenpointe Centre West
Teaneck, NJ 07666
(201)-488-1212

Akzo Chemicals/Akzo Nobel
300 South Riverside Plaza
Chicago, IL 60606
(312)-906-7500

Alpine Aromatics International
51 Ethel Rd West
Piscataway, NJ 08854
(732)-572-5600/(800)-631-5389

Amerchol Corp.
P.O. Box 4051
136 Talmadge Rd.
Edison, NJ 08818
(908)-248-6000

Amoco Chemicals
200 E. Randolph Dr
Chicago, IL 60601
(630)-434-6200/(800)-621-4567

Angus Chemical Co.
1500 E. Lake Cook Rd.
Buffalo Grove, IL 60089
(847)-215-8600/(800)-362-2580

Aqualon Division
Hercules Inc.
1313 N. Market St.
Wilmington, DE 19894
(302)-594-5000

Ausimont USA, Inc.
10 Leonards Lane
Thorofare, NJ 08086
(609)-853-8119/(800)-323-AUSI

BASF Corp.
3000 Continental Drive North
Mount Olive, NJ 07828
(201)-426-2800/(800)-669-2273

Bell Flavors & Fragrances Inc.
500 Academy Dr.
Northbrook, IL 60062
(847)-291-8300

Cabot Corp.
700 E. US Hwy 36
Tuscola, IL 61953
(217)-253-3370/(800)-222-6745

Calgon Corp.
P.O. Box 1346
Pittsburgh, PA 15230
(412)-777-8000

Chemron Corp.
P.O. Box 2299
Paso Robles, CA 93447
(805)-239-1550

Church & Dwight Co., Inc.
469 N. Harrison St.
Princeton, NJ 08543
(609)-497-7113/(800)-221-0453

Ciba Specialty Chemicals Corp.
4000 Premier Drive
High Point, NC 27265
(910)-801-2000/(888)-396-2422

Condea Vista Co.
112 Third Ave.
Westwood, NJ 07675
(732)-560-6800

A&E Connock Ltd
Fordingsbridge,
Hunts, UK

Croda Inc.
7 Century Drive
Parsippany, NJ 07054
(201)-644-4900

Degussa Corp.
65 Challenger Rd.
Ridgefield Park, NJ 07660
(201)-641-6100

Frank E. Dempsey & Sons Ltd.
47 Davies Ave.
Toronto, Ontario M4M 2A9
(416)-461-0844

Dow Chemical Co.
Midland, MI 49674
(800)-447-4369

Dow Corning Corp.
Box 0994
Midland, MI 48686
(517)-496-6000

Dragoco Inc.
10 Gordon Drive
Totowa, NJ 07512
(201)-256-3850

Drom International Inc.
5 Jacksonville Rd.
P.O. Box 5
Towaco, NJ 07082
(201)-316-8400

duPont Co.
1007 Market St.
Wilmington, DE 19898
(800)-441-7515

Eastman Chemical Co.
P.O. Box 431
Kingsport, TN 37662
(423)-229-2000/(800)-EASTMAN

ECC International
5775 Peachtree-Dunwoody Rd.
Atlanta, GA 30342
(404)-843-1551/(800)-843-3222

Exxon Chemical Co.
13501 Katy Freeway
Houston, TX 77079
(281)-870-6000/(800)-231-6633

Fanning Corp.
2450 W. Hubbard St.
Chicago, IL 60612
(312)-563-1234

Finetex Inc.
418 Falmouth Ave.
Elmwood Park, NJ 07407
(201)-797-4686

FMC Corp.
Chemical Products Group
1735 Market St.
Philadelphia, PA 19103
(215)-299-6000

H.B. Fuller Co.
3530 N. Lexington Ave. North
St. Paul, MN 55126
(612)-481-1588/(800)-468-6358

GE Silicones
260 Hudson River Rd.
Waterford, NY 12188
(518)-237-3330/(800)-255-8886

Gattefosse Corp.
189 Kinderkamack Rd.
Westwood, NJ 07675
(201)-573-1700

Giulini Corp.
30 Highridge Rd.
New Rochelle, NY 10804
(914)-636-0096

Givaudan-Roure Corp.
100 Delawanna Ave.
Clifton, NJ 07015
(201)-365-8000

Goldschmidt Chemical Corp.
P.O. Box 1299
914 E. Randolph Rd.
Hopewell, VA 23860
(804)-541-8658/(800)-446-1809

- BF Goodrich Specialty Chemicals International Specialty Products**
 9911 Brecksville Rd. 1361 Alps Rd.
 Brecksville, OH 44141 Wayne, NJ 07470
 (216)-447-5000/(800)-331-1144 (201)-628-4000
- Grain Processing Corp. Jarchem Industries, Inc.**
 1600 Oregon St. 414 Wilson Ave.
 Muscatine, IA 52761 Newark, NJ 07105
 (319)-264-4265 (973)-344-0600
- Haarman & Reimer Corp. Koster Keunen Inc.**
 60 Diamond Rd. P.O. Box 447
 Springfield, NJ 07091 90 Bourne Blvd.
 (201)-912-5707/(800)-432-1559 Sayville, NY 11782
 (516)-589-0456
- Hampshire Chemical Corp. Lanaetex Products Inc.**
 55 Hayden Ave. 151 3 Ave.
 Lexington, MA 02173 Elizabeth, NJ 07206
 (617)-861-9700 (908)-351-9700
- Henkel Corp. Lipo Chemicals Inc.**
 2400 Renaissance Blvd. 207 19th Ave.
 Gulph Mills, PA 19406 Paterson, NJ 07504
 (610)-270-8100 (201)-345-8600
- Hoechst Celanese Corp. Lonza Inc.**
 5200 77 Center Drive 1717 Rte 208
 P.O. Box 1026 Fair Lawn, NJ 07410
 Charlotte, NC 28201 (201)-794-2400/(800)-777-1875
 (704)-559-6136/(800)-365-2436
- Hoffman-LaRoche Inc. Madis Botanicals Inc.**
 340 Kingsland St. 375 Huyler St.
 Nutley, NJ 07110 South Hackensack, NJ 07606
 (201)-235-8080/(800)-526-0189 (201)-440-5000
- Huls AG McIntyre Group Ltd**
 D-45764 Marl, Germany 1000 Governors Hwy
 010-49-2365-490 University Park, IL 60466
 (708)-534-6200/(800)-645-6457
- ICI Surfactants Mearl Corp.**
 3411 Silverside Rd. P.O. Box 3030
 P.O. Box 15391 320 Old Briarcliff Rd.
 Wilmington, DE 19850 Briarcliff Manor, NY 10510
 (302)-887-3000/(800)-822-8215 (914)-923-8500
- Induchem AG E. Merck**
 Industriestraße 26, Darmstadt, Germany
 CH-8604 Volketswirl, Switzerland

Mona Industries Inc.
76 E 24 St.
P.O. Box 425
Paterson, NJ 07544
(201)-345-8220/(800)-553-6662

Morflex Inc.
2110 High Point Rd
Greensboro, NC 27403
(910)-292-1781

National Starch & Chemical Co.
10 Finderne Ave.
Bridgewater, NJ 08807
(908)-685-5000/(800)-797-4992

Nipa Hardwicke Inc.
3411 Silverside Rd
Wilmington, DE 19810
(302)-478-1522

NutraSweet Kelco Co.
Unit of Monsanto Co.
8355 Aero Drive
San Diego, CA 92123
(619)-292-4900/(800)-535-2656

Penreco
138 Petrolia St.
Karns City, PA 16041
(412)-756-0110/(800)-245-3952

Pentapharm Ltd.
Engelgasse 109, P.O. Box
Basel, Switzerland

Polyester Corp.
61 Hill St.
P.O. Drawer 5076
Southampton, NY 11969
(516)-283-4400

PPG Industries
3938 Porett Drive
Gurnee, IL 60031
(847)-244-3410/(800)-323-0856

Presperse Inc.
601 Hadley Rd.
P.O. Box 735
South Plainfield, NJ 07080
(908)-756-2023

Protameen Chemicals Inc.
375 Minnisink Rd.
Totowa, NJ 07511
(201)-256-4374

Purac America Inc.
111 Barclay Blvd.
Lincolnshire, IL 60069
(847)-634-6330

Rheox Inc.
P.O. Box 700
Hightstown, NJ 08520
(609)-443-2500

Rhone-Poulenc Inc.
Cranbury, NJ 08512
(609)-860-4000

Dr. K. Richter GmbH
Chemisches Laboratorium
Bennigonstrabe 25,
D-1000 Berlin

R.I.T.A. Corp.
1725 Kilkenny
Woodstock, IL 60098
(815)-337-2500/(800)-426-7759

Robeco Inc.
99 Park Ave.
New York, NY 10016
(212)-986-6410

Robertet-Novarome Inc.
30 Stewart Place
Fairfield, NJ 07004
(201)-575-4550

Rohm & Haas Co.
Independence Mall West
Philadelphia, PA 19106
(800)-922-8596

Rona/EM Industries
5 Skyline Drive
Hawthorne, NY 10532
(914)-592-4660

Frank B. Ross Co. Inc.
P.O. Box 4085
Jersey City, NJ 07304
(201)-433-4512

Scher Chemicals Inc.
Industrial W cor Styretowne Rd
P.O. Box 4317
Clifton, NJ 07012
(201)-471-1300

Seppic, Inc.
Atrium at Fairfield
Fairfield, NJ 07004
(201)-882-5597

Shaw Mudge Co.
P.O. Box 2279
Shelton, CT 06484
(203)-925-5000

Stepan Co.
22 W. Frontage Rd
Northfield, IL 60093
(847)-446-7500/(800)-745-7837

Strahl & Pitsch, Inc.
230 Great E Neck Rd
W. Babylon, NY 11704
(516)-587-9000

Terry Laboratories Inc.
390 N. Wickham Rd
Melbourne, FL 32935
(407)-259-1630/(800)-367-2563

3V Inc.
1500 Harbor Blvd.
Weehawken, NJ 07087
(201)-865-3600/(800)-441-5156

Tioxide Specialties Ltd.
Billingham, Cleveland TS23 1PS,
United Kingdom
0642-370300

Ultra Chemical Inc.
130 Maple Ave.
Red Bank, NJ 07701
(908)-224-0200

Unichema North America
4650 S Racine Ave
Chicago, IL 60609
(312)-376-9000/(800)-833-2864

Union Carbide Corp.
39 Old Ridgebury Rd
Danbury, CT 06817
(203)-794-2000/(800)-335-8550

United-Guardian
230 Marcus Blvd
P.O. Box 18050
Hauppauge, NY 11788

R.T. Vanderbilt Co. Inc.
30 Winfield St.
P.O. Box 5150
Norwalk, CT 06856
(203)-853-1400/(800)-243-6064

Wacker-Chemie GmbH
Hanns-Seidel-Platz 4
81737 Mumchen, Germany
089-6279-01

Wacker Silicones Corp.
3301 Sutton Rd.
Adrian, MI 49221
(517)-264-8500/(800)-248-0063

Whittaker, Clark & Daniels Inc.
1000 Coolidge St.
South Plainfield, NJ 07080
(908)-561-6100/(800)-732-0562

Witco Corp. (All Groups)
One American Lane
Greenwich, CT 06831
(800)-494-8287

Witco Corp.
5777 Frantz Rd. - P.O. Box 646
Dublin, OH 43017
(614)-765-6500/(800)-366-6500

Zschimmer & Schwarz
P.O. Box 2179
D-5420 Lahnstein,
West Germany